UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,	)	
Plaintiff,	)	
v.	)	Civil Action No. 99-CV-02496 (GK)
PHILIP MORRIS INCORPORATED, et al.	)	Next scheduled court appearance: July 15, 2004
Defendants.	)	**REDACTED FOR PUBLIC FILING**[1]

UNITED STATES' FINAL PROPOSED FINDINGS OF FACT

[1]Information designated by Defendants as "Confidential" pursuant to Order #7 and Order #36 in the above-captioned action has been redacted. Order #7 allows each Defendant to designate as "Confidential" such information, document or material that it in good faith believes "derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure and use; and is the subject of efforts that are reasonable under the circumstances to maintain its secrecy;" or information otherwise entitled to protection under Rule 26(c) of the Federal Rules of Civil Procedure. Order #36 allows each Defendant to designate as "Confidential" information that is entitled to protection pursuant to Order #7 and meets the further requirement that it is "so proprietary or competitively sensitive that its disclosure to a competitor would cause irreparable competitive injury."

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EXECUTIVE SUMMARY

The Final Proposed Findings of Fact submitted by the United States establish facts that support the allegations set forth in Counts 3 and 4 of the United States' First Amended Complaint. Both counts are brought under the Racketeer Influenced and Corrupt Organizations Act ("RICO"), 18 U.S.C. § 1961-1968. These facts establish entitlement to equitable relief, including the disgorgement of Defendants' ill-gotten gains and non-monetary injunctive measures. As set forth in these Final Proposed Findings of Fact, substantial evidence establishes that Defendants have engaged in and executed – and continue to engage in and execute – a massive 50-year scheme to defraud the public, including consumers of cigarettes, in violation of RICO. Moreover, Defendants' past and ongoing conduct indicates a reasonable likelihood of future violations.

Cigarette Smoking, Disease and Death

Cigarette smoking and exposure to secondhand smoke kills nearly 440,000 Americans every year. The annual number of deaths due to cigarette smoking is substantially greater than the annual number of deaths due to illegal drug use, alcohol consumption, automobile accidents, fires, homicides, suicides and AIDS combined. Approximately one out of every five deaths that occur in the United States is caused by cigarette smoking. Smoking causes lung cancer, atherosclerosis, bladder cancer, cerebrovascular disease, chronic obstructive pulmonary disease, cardiovascular disease, including myocardial infarction and coronary heart disease, esophageal cancer, kidney cancer, laryngeal cancer, oral cancer, peptic ulcer disease, and respiratory morbidity. Smoking also causes cancers of the stomach, uterine cervix, pancreas, and kidney;

acute myeloid leukemia; pneumonia; abdominal aortic aneurysm; cataract; and periodontitis. On May 27, 2004, the U.S. Surgeon General announced causal conclusions in connection with a substantial number of additional diseases and further acknowledges that smoking generally diminishes the health of smokers.

By the middle of the twentieth century, physicians and public health officials in the United States had widely noted an alarming increase in numbers of cases of lung cancer. Virtually unknown as a cause of death in 1900, by 1935 there were an estimated 4,000 deaths annually. A decade later, the annual death toll from lung cancer had nearly tripled. The meteoric rise in lung cancers followed the dramatic increase in cigarette consumption that had begun early in the twentieth century. Annual per capita consumption of cigarettes in 1900 stood at approximately forty-nine cigarettes; by 1930, annual per capita consumption was over 1,300; by 1950, it was over 3,000. Population studies showed that the increases in lung cancer cases and deaths, though they lagged in time behind this increase in cigarette use, closely tracked the spike in cigarette smoking. This apparent association led to considerable speculation about the relationship between cigarette smoking and ill health. The initial speculation was confirmed by scientific study.

By late 1953, there had been at least five published epidemiologic investigations, as well as others identifying and examining carcinogenic components in tobacco smoke and their effects. The researchers conducting these studies had come to a categorical understanding of the link between smoking and lung cancer. This understanding was both broader and deeper than that obtained from the case studies and preliminary statistical findings earlier in the century. While

some of the epidemiological methods were innovative, the scientists using them were careful to approach them in a thorough manner; these methods were completely consistent with established scientific procedure and process. Epidemiology was not just based on statistics, but also was an interdisciplinary, applied field. The studies substantially transformed the scientific knowledge base concerning the harms of cigarette use. Unlike earlier anecdotal and clinical assessments, these studies offered new and pathbreaking approaches to investigating and resolving causal relationships.

The Formation of the Enterprise

In response to this growing body of evidence that smoking caused lung cancer, Defendants and their agents joined together and launched their coordinated scheme in the early 1950s. Defendants developed and implemented a unified strategy that sought to reassure the public that there was no evidence that smoking causes disease. At the end of 1953, the chief executives of the five major cigarette manufacturers in the United States at the time – Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American – met at the Plaza Hotel in New York City with representatives of the public relations firm Hill & Knowlton and agreed to jointly conduct a long term public relations campaign to counter the growing evidence linking smoking as a cause of serious diseases. The meeting spawned an association-in-fact enterprise ("Enterprise") to execute a fraudulent scheme in furtherance of their overriding common objective – to preserve and enhance the tobacco industry's profits by maximizing the numbers of smokers and number of cigarettes smoked and to avoid adverse liability judgments and adverse publicity. The fraudulent scheme would continue for the next five decades.

As a result of the Plaza Hotel meetings, the companies launched their long term public relations campaign by issuing the "Frank Statement to Cigarette Smokers," a full page announcement published in 448 newspapers across the United States. The Frank Statement included two representations that would lie at the heart of Defendants' fraudulent scheme – first, that there was insufficient scientific and medical evidence that smoking was a cause of any disease; and second, that the industry would jointly sponsor and disclose the results of "independent" research designed to uncover the health effects of smoking through the new industry-funded Tobacco Industry Research Committee ("TIRC"), later renamed the Council for Tobacco Research ("CTR"). At the same time that Defendants announced in their 1954 "Frank Statement to Cigarette Smokers" that "we accept an interest in people's health as a basic responsibility, paramount to every other consideration in our business," they established a sophisticated public relations apparatus in the form of TIRC – based on the "cover" of conducting research – to deny the harms of smoking and to reassure the public. Once they had organized and set in motion the essential strategy of generating "controversy" surrounding the scientific findings linking smoking to disease, Defendants stuck to this approach, without wavering, for the next half-century.

Over time, other entities joined and actively participated in the affairs of the ongoing Enterprise and conspiracy, including Defendants Liggett and BATCo, Brown & Williamson's affiliate. In 1958, the members of TIRC formed Defendant The Tobacco Institute, Inc., to assume many of TIRC's public relations functions. In 1985, Philip Morris Companies joined the Enterprise, becoming a direct parent to Philip Morris as well as Philip Morris International,

which had previously been a division of Philip Morris.[1] The Enterprise operated through both formal structures, including jointly funded and directed entities such as TIRC/CTR and the Tobacco Institute, and other less formal means, including scientific and legal committees, to communicate, advance, and maintain a united front, and to ensure lockstep adherence to achieve their shared aims. Defendants developed and used this extensive and interlocking web because they recognized that any departure from the industry-wide approach to the content of public statements made anywhere in the world, or the nature of research would have severe adverse consequences for the entire industry. To coordinate and further their fraudulent scheme, Defendants made and caused to be made and received innumerable mail and electronic transmissions from the 1950s through present.

The Role of TIRC/CTR and the Tobacco Institute in Defendants' Decades-Long Campaign to Deny and Distort the Health Effects of Smoking

From the outset, the dual functions of TIRC/CTR, public relations and scientific research, were intertwined. Rather than carefully and critically assessing the emerging scientific data concerning the harms of smoking, TIRC/CTR focused its energies and resources in two areas. First, in its public relations capacity, it repeatedly attacked scientific studies that demonstrated the harms of cigarette smoke and worked to reassure smokers about cigarettes. Second, it developed and funded a research program that concentrated on basic processes of disease and

[1] In January 2003, Defendant Philip Morris Inc. changed its name to Philip Morris USA Inc., and Defendant Philip Morris Companies Inc. changed its name to Altria Group, Inc. These Final Proposed Findings of Fact refer to Philip Morris USA as “Philip Morris” and “Philip Morris USA” interchangeably, and refer to Altria as “Philip Morris Companies” and “Altria” interchangeably.

that was distant from, if not completely irrelevant to, evaluating the immediate and fundamental questions of the risks and harms associated with smoking.

Similarly, the Tobacco Institute actively designed and wrote issue statements, advertisements, pamphlets, and testimony that advanced Defendants' jointly formulated positions on smoking and health issues, including denying that smoking cigarettes was addictive and caused diseases, and supporting the false claim that the link between smoking cigarettes (and exposure to secondhand smoke) and adverse health effects remained a legitimate "open question." In this way, the functions (public relations and research) of these two entities were integrally related; both were fully committed to Defendants' goals of denying and discrediting the substantial scientific evidence of smoking's harms and convincing the public (especially smokers and potential smokers) that smoking was not harmful to health.

Defendants repeatedly represented to the public that they sponsored independent research aimed at discovering the health effects of smoking. Indeed, Defendants claimed that they created TIRC/CTR to administer this effort. These statements were misleading and deceptive half-truths, because the Cigarette Company Defendants[2] used TIRC/CTR to serve as a "front" organization to advance their public relations and litigation defense objectives. Through CTR, the Cigarette Company Defendants funded "Special Projects" – research projects conceived and directed by committees of industry representatives, including lawyers, to support scientists who had shown a

[2]As used here and throughout these Final Proposed Findings of Fact and Conclusions of Law, "Cigarette Company Defendants" refers to Defendants American Tobacco, British American Tobacco (Investments) Limited, Brown & Williamson, Liggett, Lorillard, Philip Morris, and R.J. Reynolds.

willingness and ability to generate information and provide testimony that could bolster the industry's litigation defenses before courts and governmental bodies and cast doubt on the scientific evidence that smoking caused cancer and other diseases. Similarly, Defendants also sponsored jointly funded research through lawyer-administered "Special Accounts" – to recruit and support industry-friendly researchers to serve as expert witnesses in litigation and to represent the industry's scientific position in legislative and regulatory proceedings.

Within the individual Cigarette Company Defendants, high-ranking corporate employees and lawyers, as well as outside lawyers representing the companies, acknowledged that if they conducted research internally that confirmed that cigarettes cause disease and are addictive, such research, if disclosed, would jeopardize their unified public relations and legal positions, would threaten industry profits, and would expose not just individual companies, but the entire industry, to legal liability and product regulation. Of course, the Cigarette Company Defendants did, in fact, acknowledge internally that cigarettes caused lung cancer and other diseases: they recognized the legitimacy of the scientific consensus, and the limited amount of internal research that their scientists did perform was wholly consistent with the results of mainstream scientific study.

The public statements issued through organizations like TIRC/CTR, the Tobacco Institute, and by Cigarette Company Defendants themselves, were flatly inconsistent with Defendants' actual understanding of the causal link between smoking and disease. At the same time that Defendants assured the public through their “Frank Statement” that “there is no proof that cigarette smoking is one of the causes [of cancer],” internally they documented a large

number of known human carcinogens in their products and replicated mainstream scientific research showing the health effects of smoking. Defendants' internal documents acknowledge that their public denial that smoking cigarettes causes disease both was contrary to the overwhelming medical and scientific consensus – established through extensive epidemiological and other scientific investigation by the early 1950s – and was intended to convince smokers and potential smokers that there remained genuine scientific "controversy" about whether smoking caused disease.

The Agreement Not to Compete on Health Claims or to Perform Certain Biological Research

Defendants' joint commitment to publicly denying that cigarettes were a proven cause of disease had profound effects on all aspects of their business, including their marketing and research activities. For example, extensive documentary evidence proves that Defendants recognized that there was a substantial market for a cigarette that could be marketed as potentially less hazardous, but that they collectively agreed not to do anything in the marketing and development of cigarettes that would jeopardize the public relations position at the core of the scheme to defraud: the denial that any commercially sold cigarettes were a proven cause of disease.

Defendants made public statements proclaiming their commitment – and ability – to develop potentially less hazardous cigarettes, but indicated that such actions were unnecessary unless and until cigarettes were proven to cause disease:

- In March 1954, George Weissman, a Philip Morris Vice President, publicly reaffirmed the industry's commitment to protect the health of its customers, claiming that the cigarette industry would "stop business tomorrow" if it "had any

thought or knowledge that in any way we were selling a product harmful to consumers."

- In 1964, Bowman Gray, Chairman of the Board of R.J. Reynolds, stated publicly on behalf of R.J. Reynolds, Philip Morris, Brown & Williamson, Lorillard, Liggett, and American, that "[i]f it is proven that cigarettes are harmful, we want to do something about it regardless of what somebody else tells us to do. And we would do our level best. This is just being human."

- In 1971, Philip Morris chief executive officer Joseph Cullman III explained in a "Face the Nation" TV interview that "this industry can face the future with confidence because when, as, and if any ingredient in cigarette smoke is identified as being injurious to human health, we are confident that we can eliminate that ingredient."

- In the January 24, 1972 issue of the *Wall Street Journal*, Philip Morris Senior Vice President James Bowling declared that "[i]f our product is harmful . . . we'll stop making it. We now know enough that we can take anything out of our product, but we don't know what ingredients to take out." Bowling further stated that "[w]e don't know if smoking is harmful to health, and we think somebody ought to find out."

Moreover, Defendants repeatedly recognized the potential economic boon to selling a cigarette that could be truthfully marketed as potentially less hazardous. For example, in a June 1966 report, a key Philip Morris researcher told research executives that "If we could develop a . . . 'healthy' cigarette that tasted exactly like a Marlboro, delivered the nicotine of a Marlboro, and was called Marlboro, it would probably become the best selling brand." However, Defendants agreed not to compete on smoking and health issues in the marketing of cigarettes. Accordingly, when a Defendant designed a cigarette – or developed a cigarette component – intended to potentially reduce the delivery of harmful smoke constituents to the smoker, the Defendant limited the types of information that it provided to consumers in marketing such products.

Evidence shows that Defendants failed to provide information – even if they believed it to be truthful scientific information – that certain brands or types of cigarettes were likely to be less harmful than others, because such information carried the obvious implication that cigarettes were harmful. In one of the most notable of such instances, after Defendant Liggett spent twelve years and $15 million developing a cigarette – the XA – that its research showed to be significantly less carcinogenic than its conventional cigarettes, it killed the entire project before marketing the cigarette to consumers after Defendant Brown & Williamson threatened Liggett's "very existence" if it marketed the cigarette. Brown & Williamson also threatened to freeze Liggett out of joint defense agreements and exclude Liggett from the Tobacco Institute. Delivered through Brown & Williamson's representative on the Tobacco Institute's Committee of Counsel, the threat was based on Brown & Williamson's fear that selling XA would be an admission against the interest of all Cigarette Company Defendants. Later, in the late 1980s, R.J. Reynolds told the FDA that it would not make health-related marketing claims about its Premier cigarette because the tobacco industry maintained that "conventional cigarettes are not unsafe, and that it would never reverse this position." Promoting one cigarette as "safer" than others "would be an indictment of the tobacco industry and its long standing position that conventional cigarettes are not unsafe."

Similarly, documents show that Defendants limited the types of research they conducted, because they did not want to generate internal evidence to suggest that the companies believed there was any need to examine whether a causative link existed between smoking and disease, let alone create scientific information that demonstrated such a link. Accordingly, Defendants

jointly agreed not to perform certain types of biological tests using commercially sold cigarette brands in their domestic research facilities. Further, there is substantial evidence that during the past five decades Defendants have decided not to incorporate design features or processes that Defendants' own research concluded were likely to reduce the hazards of smoking, were technically feasible, and were acceptable to smokers. In short, Defendants' conduct in this area is powerful evidence of Defendants' well documented agreement not to compete on smoking and health issues.

Environmental Tobacco Smoke

In their efforts to prevent restrictions on where and when people could smoke, in the face of growing evidence since the 1970s of the adverse health effects of secondhand smoke, Defendants engaged in similar conduct and misleading public statements concerning the health effects of secondhand smoke. Environmental tobacco smoke ("ETS"), also called secondhand smoke, is a mixture of mostly sidestream smoke given off by the smoldering cigarette and some exhaled mainstream smoke, which is the smoke an active smoker exhales. Conclusions about the causal relationship between ETS exposure and health outcomes are based not only on epidemiological evidence, but also on the extensive evidence derived from epidemiological and toxicological investigation of active smoking. Additionally, studies using biomarkers of exposure and dose, including the nicotine metabolite cotinine and white cell adducts, document the absorption of ETS by exposed nonsmokers, adding confirmatory evidence to the observed associations of ETS with adverse effects.

In adults, ETS exposure causes lung cancer and ischemic heart disease. In 1986, the Surgeon General and the National Research Council of the National Academy of Sciences concluded that passive smoking causally increases the risk of lung cancer in nonsmokers, accounting for two to three percent of all lung cancer cases. ETS exposure of infants and children has adverse effects on respiratory health, including increased risk for severe lower respiratory infections, middle ear disease (otitis media), chronic respiratory symptoms and asthma, as well as a reduction in the rate of lung function growth during childhood, and is associated with sudden infant death syndrome and cognitive and behavioral disorders.

Defendants approached the issue of the health effects of exposure to secondhand smoke with a sense of urgency, based on their concern as expressed in internal documents, that in the United States, the ETS issue would have a devastating effect on sales. Defendants specifically saw concerns about the health effects of ETS as a threat to the "number of smokers & number of cigarettes they smoke." Publicly, Defendants promised to " seek answers," assuring the public that they would fund and support "independent" and "arms length" research into the health effects of exposure to secondhand smoke. These public promises, however, were false and fraudulent and were intended to deceive the public. Defendants' true goal with respect to passive smoking was not to support independent and valid research in order to answer questions about the link between ETS and disease, but rather the goal was simply "to keep the controversy alive," just as they had done with active smoking. Defendants designed a sophisticated public relations and research strategy to attempt to "alter public perception that ETS is damaging," but did so despite their specific, internal acknowledgment that there was a "[l]ack of objective science" to support

their public relations campaign. This lack of objective science did not stand in Defendants' way. They asked: "Is $100 million campaign worth an x increase in sales?" The answer: "Yes."

Pursuant to Defendants' carefully designed and coordinated strategy, the Center for Indoor Air Research (CIAR) was officially created in 1988 to take over the research responsibilities of the a committee that had previously operated under the direction of Defendants' law firms Shook, Hardy & Bacon and Covington & Burling – that is, to act as a coordinating organization for Defendants' efforts to fraudulently mislead the American public about the health effects of ETS exposure. CIAR was created by Philip Morris, Lorillard, and R.J. Reynolds. Brown & Williamson joined CIAR as a voting board member in 1995. While Liggett was never officially a member of CIAR, it attended meetings of the organization and participated in ETS seminars and meetings organized by Covington & Burling and was fully cognizant of, and in fact assented to, the activities of the organization. BATCo, while not a member of CIAR, provided funding to CIAR to hide BATCo and Philip Morris's involvement in at least one CIAR "sponsored" study.

CIAR's stated mission was to serve as a hub that would sponsor and foster quality, objective research in indoor air issues with emphasis on ETS and effectively communicate pertinent research findings to the broad scientific community. But while Philip Morris, Lorillard, and R.J. Reynolds publicly represented that CIAR was independent, its by-laws revealed otherwise. The by-laws required that charter members be tobacco companies; dictated that only charter members have the power to choose CIAR's officers; and, significantly, gave charter members the exclusive power to decide what research the organization would fund. CIAR was intended to allow Defendants to perpetuate a "scientific controversy" surrounding the health

effects of ETS exposure. As Covington & Burling attorney John Rupp explained in March 1993: "In sum, while one might wish it otherwise, the value of CIAR depends on the industry's playing an active role (1) in identifying research projects likely to be of value and (2) working to make sure that the findings of funded research are brought to the attention of decision makers in an appropriate and timely manner." According to a former CIAR board member, "ETS was a litigation issue and a PR issue."

Defendants engaged in a global effort to fraudulently deny and distort the harms associated with exposure to secondhand smoke. The international ETS Consultancy Program was an extension and amplification of multifaceted domestic initiatives by industry counsel to counter ever-mounting evidence implicating secondhand smoke as a cause of disease and other health problems; however, Defendants acted on a global scale. Through this program, Defendants worked to identify, "educate," and financially reward scientists in every world market to generate research results, present papers, pen letters to scientific journals, plan and attend conferences, and publicly speak on behalf of the cigarette companies. The overarching goal was to "keep the controversy alive" and forestall legislation and any restrictions on public or workplace smoking. Defendants issued numerous false and deceptive statements denying and distorting the health risks of involuntary exposure in connection with this massive, coordinated effort to maintain cigarette sales efforts in the fact of what they recognized internally as legitimate scientific evidence of the dangers associated with secondhand smoke.

Addiction and the Manipulation of Nicotine Levels in Cigarettes

Cigarette smoking is an addictive behavior, a dependency characterized by drug craving, compulsive use, tolerance, withdrawal symptoms, and relapse after withdrawal. Underlying the smoking behavior and its remarkable intractability to cessation is the drug nicotine. Nicotine is the primary component of cigarettes that creates and sustains addiction to cigarettes.

Defendants have studied nicotine and its effects since the 1950s, and the documents describing their examination and knowledge of nicotine's pharmacological effects on smokers – whether they characterized that effect as "addictive," "dependence" producing or "habituating," – demonstrate unequivocally that defendants understood the central role nicotine plays in keeping smokers smoking, and thus its critical importance to the success of their industry. Additional internal records demonstrate that Defendants knew that cigarette smoking was the vehicle for delivering nicotine, which was the critical component in maintaining the addiction necessary to sustain and enhance their profits. Indeed, Defendants purposefully designed and sold products that delivered a pharmacologically effective dose of nicotine in order to create and sustain nicotine addiction in smokers. Indeed, an internal document drafted by Philip Morris scientist Helmut Wakeham in 1969, for example, recognized:

> We share the conviction with others that it is the pharmacological effect of inhaled smoke which mediates the smoking habit. . . .
>
> We have then as our first premise, that the primary motivation for smoking is to obtain the pharmacological effect of nicotine.
>
> In the past we at R & D have said that we're not in the cigarette business, we're in the smoke business. It might be more pointed to observe that the cigarette is the vehicle of smoke, smoke is the vehicle of nicotine, and nicotine is the agent of a pleasurable body response.

> This primary incentive to smoking gets obscured by the overlay secondary incentives, which have been superimposed upon the habit. Psychoanalysts have speculated about the importance of the sucking behavior, describing it as oral regression. Psychologists have proposed that the smoker is projecting and ego-image with puffing and his halo of smoke. One frequently hears "I have to have something to do with my hands" as a reason. All are perhaps operative motives, but we hold that none are adequate to sustain the habit in the absence of nicotine.
>
> We are not suggesting that the effect of nicotine is responsible for the initiation of the habit. To the contrary. The first cigarette is a noxious experience to the noviate. To account for the fact that the beginning smoker will tolerate the unpleasantness, we must invoke a psychosocial motive. Smoking for the beginner is a symbolic act. The smoker is telling the world, "This is the kind of person I am. . . ."
>
> As the force from the psychosocial symbolism subsides, the pharmacological effect takes over to sustain the habit . . . .

Similarly, R. J. Reynolds researcher Claude Teague acknowledged in an internal 1972 report, "Thus a tobacco product is, in essence, a vehicle for delivery of nicotine, designed to deliver the nicotine in a generally acceptable and attractive form. Our industry is then based upon design, manufacture and sale of attractive dosage forms of nicotine."

Nevertheless, just as Defendants long denied, contrary to fact, that smoking causes disease, Defendants consistently and publicly denied that smoking is addictive. Defendants intentionally maintained and coordinated their fraudulent position on addiction and nicotine as an important part of their overall efforts to influence public opinion and persuade people that smoking was not dangerous. In this way, Defendants' have kept more smokers smoking, recruited more new smokers, and maintained or increased profits. Additionally, defendants have sought to discredit proof of addiction in order to preserve their "smoking is a free choice"

arguments in smoking and health litigation. As with Defendants' statements designed to undermine the scientific evidence of smoking's harms, the statements denying addiction were knowingly false and misleading when made, and intended to avoid product regulation, to bolster the industry's defenses in smoking and health litigation, and to minimize consumers' concerns about smoking.

Defendants' awareness of the critical importance of nicotine to the cigarette smoker, and thus to the continued profits of the industry, was such that the Defendants dedicated extraordinary resources to the study of nicotine and its effects on the smoker. The evidence shows that Defendants have long had the ability to modify and manipulate the amount of nicotine that their products deliver, and have studied extensively how every characteristic of every component of cigarettes – including the tobacco blend, the paper, the filter, and the manufacturing process – impacts nicotine delivery. Indeed, Defendants' internal documents indicate that, in light of Defendants' recognition that "no one has ever become a cigarette smoker by smoking cigarettes without nicotine," Cigarette Company Defendants have designed their cigarettes with a central overriding objective – to ensure that smokers can obtain enough nicotine to create and sustain addiction. Notwithstanding the substantial evidence that Defendants designed their products to deliver doses of nicotine sufficient to create and sustain addiction, Defendants have publicly and fraudulently denied that they manipulate nicotine. Defendants have sought to mislead the public about their manipulation of nicotine by publicly and fraudulently maintaining that the level of nicotine in a cigarette is inextricably linked to the cigarette's tar level and that nicotine delivery levels follow tar delivery levels in cigarette smoke.

Through these and other false statements, Defendants have furthered their common efforts to deceive the public regarding their use and manipulation of nicotine.

Light and Low Tar Cigarettes

The understanding of nicotine's primary role in keeping people smoking and Cigarette Company Defendants' desire to capitalize on smokers' growing desire for a less hazardous cigarette in the face of growing evidence of the health effects of smoking, underlie another central component of the scheme to defraud – the design and marketing of so-called "low tar/low nicotine" cigarettes. As awareness and concern about the adverse health risks associated with smoking began to grow in the early 1950s, Defendants began developing cigarettes they internally referred to as "health reassurance" brands in an effort to keep smokers in the market. Initially, Defendants explicitly marketed and promoted these brands as safer as the result of an added filter which purportedly protected smokers from the harmful tar in cigarette smoke. Having established the link in the minds of consumers between low tar/filtration and reduced harm through use of explicit health claims, Defendants' later advertisements contained implied health claims that built on their earlier advertisements in an effort to avoid suggesting to consumers that any cigarettes were harmful. For several decades, Defendants have marketed and promoted their so-called "low tar/nicotine" cigarettes using brand descriptors like "Light," "Ultralight," "Mild" and "Medium" and claims of "low tar and nicotine" to suggest to consumers that these products are safer than regular, full flavor cigarettes.

Defendants made, and continue to make, health benefit claims regarding filtered and low tar cigarettes when they either lacked evidence to substantiate the claims or knew that they were false. Internal industry research documents show that Defendants never had adequate support for their claims of reduced health risk from low tar cigarettes, but rather confirm Defendants' awareness by the late 1960s – early 1970s that low tar cigarettes were unlikely to provide any health benefit to smokers compared to full flavor cigarettes. In fact, the public health and scientific communities now recognize what Defendants have long known internally: there is no meaningful reduction in disease risk in smoking low tar cigarettes as opposed to smoking regular cigarettes.

In addition, Defendants have known for decades that their low tar cigarettes, as designed, do not actually deliver the low reported and advertised levels of tar and nicotine – which are derived from a standardized machine test originally developed by Defendants and adopted by the Federal Trade Commission in 1967 ("FTC Method") – to human smokers. Defendants have long known that to obtain an amount of nicotine sufficient to satisfy their addiction, smokers of low tar cigarettes modify their smoking behavior, or "compensate," for the reduced yields by inhaling smoke more deeply, holding smoke in their lungs longer, covering cigarette ventilation holes with fingers or lips, and/or smoking more cigarettes. As a result of this nicotine-driven smoker behavior, smokers of light cigarettes concurrently boost their intake of tar, thus negating what Defendants have long promoted as a primary health-related benefit of light cigarettes: lower tar intake.

For decades, Defendants have affirmatively exploited their understanding of compensation by deliberately designing low tar cigarettes that register low tar yields on the standardized FTC Method, but that also facilitate a smoker's ability to compensate to ensure adequate delivery of nicotine to create and sustain addiction. Even as they designed low tar cigarettes to facilitate compensation, and despite having evidence that low tar cigarettes provide no health benefits and may in fact deter people from quitting, Defendants have withheld and suppressed such evidence from public dissemination. Extensive evidence shows that Defendants used terms such as "Light" and "Low Tar" intentionally to convey their false “health reassurance” message rather than just a “taste” message, because their research showed that people smoked low tar products despite, not because of, the taste. Accordingly, Defendants’ marketing themes repeatedly tried to convince smokers that their brands could provide the main claimed benefit of light cigarettes – increased safety – without sacrificing “taste.” Further, Defendants used both verbal and non-verbal communications to convey their health reassurance message, employing colors and imagery that their research indicated people associated with healthier products.

Defendants' campaign of deception has impacted Americans' decisions to smoke. The availability of low yield cigarettes and the messages conveyed by Defendants' advertising, marketing, and public statements regarding low tar cigarettes, has caused many smokers to perceive them as an acceptable alternative to quitting smoking. As a result of Defendants' conduct, health concerned smokers have switched from regular cigarettes to those with lower reported tar yields rather than quitting smoking altogether. Smokers of "light" and "ultra light" cigarettes are less likely to quit smoking than are smokers of regular cigarettes. Additionally, as

a result of Defendants' fraudulent marketing and deceptive design of "light" and "ultra light" cigarettes, many smokers of these cigarettes consume more cigarettes than do smokers of regular cigarettes. Defendants' conduct relating to low tar cigarettes furthers the aims of the Enterprise and the scheme to defraud by providing a false sense of reassurance to smokers that weakens their resolve to quit smoking, and serves to draw ex-smokers back into the market. In short, Defendants' concerted campaign of deception regarding low tar cigarettes has been a calculated – and extremely successful – scheme to increase their profits at the expense of the health of the American public.

Youth Marketing

Cigarette smoking, particularly that begun by young people, continues to be the leading cause of preventable disease and premature mortality in the United States. Of children and adolescents who are regular smokers, one out of three will die of smoking-related disease. As part of the scheme to defraud, Defendants have intentionally marketed cigarettes to youth under the legal smoking age while falsely denying that they have done and continue to do so. As is evident from Defendants' own documents, Defendants have long recognized that the continued profitability of the industry depends upon new smokers entering the "franchise" as current smokers die from smoking-related diseases or quit. Defendants have similarly known that an overwhelming majority of regular smokers begin smoking before age eighteen. In 1966, Defendants, in the face of threatened federal advertising restrictions, adopted a voluntary advertising code in which they pledged to refrain from marketing activity likely to attract youth. Thereafter, Defendants continued unabated their efforts to capture as much of the youth market

as possible, effectively ignoring the voluntary advertising code and designing advertising themes, marketing campaigns, and promotional activities known to resonate with adolescents.

Defendants' internal documents indicate their awareness that the majority of smokers began smoking as youths and develop brand loyalty as youths, that youths were highly susceptible to advertising, and that persons who began smoking when they were teenagers were very likely to remain lifetime smokers. For example:

> A March 31, 1981 report conducted by the Philip Morris Research Center entitled "Young Smokers Prevalence, Trends, Implications, and Related Demographic Trends" stated that "Today's teenager is tomorrow's potential regular customer, and the overwhelming majority of smokers first begin to smoke while still in their teens . . . it is during the teenage years that the initial brand choice is made."
>
> A September 22, 1989 report prepared for Philip Morris by its main advertising agency, Leo Burnett U.S.A., described Philip Morris's marketing's target audience as a "moving target in transition from adolescence to young adulthood."
>
> An August 30, 1978 Lorillard memorandum stated: "The success of NEWPORT has been fantastic during the past few years. . . . [T]he base of our business is the high school student. Newport in the 1970s is turning into the Marlboro of the 1960s and 1970s."
>
> A July 9, 1984 report circulated to the heads of B&W's Marketing and Research Development departments stated "[o]ur future business depends on the size of [the] starter population."
>
> In a November 26, 1974 memorandum entitled "R.J. Reynolds Tobacco Company Domestic Operating Goals, R.J. Reynolds stated its "[p]rimary goal in 1975 and ensuing years is to reestablish R.J. Reynolds's share of growth in the domestic cigarette industry," by targeting the "14-24 age group" who, "[a]s they mature, will account for key share of cigarette volume for next 25 years. Winston has 14% of this franchise, while Marlboro has 33%. - SALEM has 9%--Kool has 17%." The memorandum indicated that R.J. Reynolds "will direct advertising appeal to this young adult group without alienating the brand's current franchise."
>
> A September 27, 1982 memorandum written by Diane Burrows, R.J. Reynolds Market Research Department, and circulated to L.W. Hall, Jr. Vice President of

> R.J. Reynolds Marketing Department, stated: "The loss of younger adult males and teenagers is more important to the long term, drying up the supply of new smokers to replace the old. This is not a fixed loss to the industry: its importance increases with time. In ten years, increased rate per day would have been expected to raise this group's consumption by more than 50%."

Defendants targeted young people with their marketing efforts, their selection of which marketing activities to pursue and to shape the themes and images of those activities, and allocated substantial resources researching the habits and preferences of the youth market, including these research efforts. For instance:

> An October 7, 1953 letter from George Weissman, Vice President of Philip Morris, discussed an August 1953 Elmo Roper report on a study of young smokers commissioned by Philip Morris, stating that "industry figures indicate that 47% of the population, 15 years and older, smokes cigarettes" and that "we have our greatest strength in the 15-24 age group."
>
> The "1969 Survey of Cigarette Smoking Behavior and Attitudes" performed by Eastman Chemical Products for Philip Morris contained detailed analysis of beginning smokers, including interviews with 12-14 year olds.
>
> A 1976 Brown & Williamson document containing information drawn from a study of smokers stated that "[t]he 16-25 age group has consistently accounted for the highest level of starters."
>
> In 1958 and 1959, R.J. Reynolds commissioned a series of studies of high school and college students, interviewing in sum almost 20,000 students as young as high school freshmen regarding their smoking habits and brand preferences.
>
> In 1980, the R.J. Reynolds Marketing Development Department issued a series of internal reports entitled "Teenage Smokers (14-17) and New Adult Smokers and Quitters" which surveyed the smoking habits of fourteen to seventeen year olds.

Knowing that advertising and promotion stimulated the demand for cigarettes, the Cigarette Company Defendants used their knowledge of young people's vulnerabilities gained in this research in order to create marketing campaigns (including advertising, promotion, and

couponing) that would and did appeal to youth, in order to foster youth smoking initiation and ensure that young smokers would choose their brands. These campaigns have intentionally exploited adolescents' vulnerability to imagery utilizing themes that are, to this day, the same as they have been for decades: independence, liberation, attractiveness, adventurousness, sophistication, glamour, athleticism, social inclusion, sexual attractiveness, thinness, popularity, rebelliousness and being "cool."

The Cigarette Company Defendants continue to advertise in youth-oriented publications; employ imagery and messages that they know are appealing to teenagers; increasingly concentrate their marketing in places where they know youths will frequent such as convenience stores; engage in strategic pricing to attract youths; increase their marketing at point-of-sale locations with promotions, self-service displays, and other materials; sponsor sporting and entertainment events, many of which are televised or otherwise broadcast and draw large youth audiences; and engage in a host of other activities which are designed to attract youths to begin and continue smoking. And yet, to this day, in the face of evidence of their explicit recognition of the importance of the youth market, research into the best ways to obtain the youth market, and development of advertising campaigns designed to capture it that have remained largely unchanged for more than thirty years, the Defendants publicly deny their efforts to appeal to the youth.

Independent scientific studies published in reputable scientific journals and in official government reports, have confirmed Defendants' knowledge, as set out in their internal documents, that their marketing contributes to the primary demand for and continuing use of

cigarettes. Over the past ten years, there have been a number of comprehensive reviews of the scientific evidence concerning the effects of cigarette marketing, including advertising and promotion, on smoking decisions by young people. From these reviews it is clear that the weight of all available evidence, including survey data, scientific studies and experiments, behavioral studies and econometric studies, supports the conclusion that cigarette marketing is a substantial contributing factor in the smoking behavior of young people, including the decision to begin smoking and the decision to continue smoking.

Concealment and Suppression of Information

From at least 1954 to the present, Defendants engaged in parallel efforts to destroy and conceal documents and information in furtherance of the Enterprise's goals of (1) preventing the public from learning the truth about smoking's adverse impact on health; (2) preventing the public from learning the truth about the addictiveness of nicotine; (3) avoiding or, at a minimum, limiting liability for smoking and health related claims in litigation; and (4) avoiding statutory and regulatory limitations on the cigarette industry, including limitations on advertising. These activities occurred despite the promises of Defendants that (a) they did not conceal, suppress or destroy evidence, and that (b) they shared with the American people all pertinent information regarding the true health effects of smoking, including research findings related to smoking and health. Indeed, as recently as 1996, Martin Broughton, Chief Executive of BAT Industries, the then ultimate parent company of BATCo and Brown & Williamson, made a statement to the *Wall Street Journal* denying that BAT Industries and its subsidiaries had concealed research linking smoking and disease. Broughton stated: "We haven't concealed, we do not conceal and

we will never conceal. We have no internal research which proves that smoking causes lung cancer or other diseases or, indeed, that smoking is addictive."

* * * * *

In short, Defendants' scheme to defraud permeated and influenced all facets of Defendants' conduct – research, product development, advertising, marketing, legal, public relations, and communications – in a manner that has resulted in extraordinary profits for the past half-century, but has had devastating consequences for the public's health. The purpose of Defendants' overarching scheme was to defraud consumers of the purchase price of cigarettes to sustain and expand the market for cigarettes and to maximize their individual profits. Defendants executed this scheme in different but interrelated ways, including by enticing consumers to begin and to continue smoking, falsely denying the addictiveness and adverse health effects of smoking, and misrepresenting that such matters were "an open question." Thus, Defendants undertook activities specifically intended to obfuscate the public's understanding of the actual dangers posed by smoking at the same time that they were engaging in marketing efforts designed to attract them, all with the intention to sell more cigarettes and make more money.

As the Final Proposed Findings of Fact demonstrate, the United States is entitled to the equitable relief sought under RICO, including disgorgement of proceeds at least in the amount of $280 billion. The United States has produced substantial evidence that the Defendants' scheme to defraud had damaging and wide-ranging implications, including influence on initiation and continued smoking for people of all ages. All of Defendants' sales of cigarettes to all consumers

from 1954 to 2001 were inextricably intertwined with this massive scheme to defraud the public. As a result, the United States would be justified in seeking disgorgement of the proceeds from all sales to people of all ages from 1954 into the future. The United States has, however, limited its request for disgorgement to proceeds from the sale of cigarettes only to the Youth Addicted Population (those youth who smoked daily when under the age of 21 and those adults who were smoking more than five cigarettes a day when they turned 21 years old), and only from the date of passage of the RICO statute in 1971.

I

DEFENDANTS ESTABLISHED AN ENTERPRISE

A. Introduction

1. The United States has established by a preponderance of the evidence the existence of an "enterprise" as defined in 18 U.S.C. § 1961(4) and as alleged in the First Amended Complaint, that is: Philip Morris USA Inc. ("Philip Morris"), R.J. Reynolds Tobacco Company ("R.J. Reynolds"), Brown & Williamson Tobacco Corporation ("Brown & Williamson" or "B&W"), Lorillard Tobacco Company, Inc. ("Lorillard"), Liggett Group, Inc. ("Liggett"), American Tobacco Company ("American"), Altria Group, Inc. f/k/a Philip Morris Companies Inc. ("Philip Morris Companies"), British American Tobacco (Investments) Ltd. ("BATCo"), Council for Tobacco Research -- U.S.A., Inc. ("CTR"), the Tobacco Institute, Inc., and their agents and employees along with other entities and individuals constitute a group of entities and individuals associated in fact that functioned as a continuing unit for almost fifty years to achieve shared goals, including to preserve and enhance the Cigarette Company Defendants' profits and to avoid adverse liability verdicts in litigation in the face of the growing body of scientific and medical evidence about the health effects and addictiveness of smoking.

2. In furtherance of this primary objective, the Enterprise has developed and executed a scheme to defraud the public in the following manner, among other means: (1) to conceal the adverse health effects caused by smoking cigarettes and exposure to cigarette smoke, by maintaining that there was an "open question" as to whether smoking cigarettes causes disease and other adverse effects, despite the fact that Defendants knew otherwise, and by ensuring that

their research, development, and marketing of cigarettes (including potentially less hazardous products) remained consistent with these core public relations positions; (2) to deceive consumers into starting and continuing to smoke cigarettes by undertaking an obligation to take actions, including funding independent research, in order to determine if smoking cigarettes causes cancer or other diseases, while pre-selecting researchers and directing funds to irrelevant research and research that supported Defendants' positions on smoking and health issues; (3) to deceive consumers into becoming or staying addicted to cigarettes by maintaining that nicotine is not addictive, despite the fact that Defendants knew that nicotine is addictive; (4) to deceive consumers into becoming or staying addicted to cigarettes by manipulating nicotine levels in cigarettes, the design of cigarettes, and the delivery of nicotine to smokers, while at the same time denying that they engaged in such manipulation; and (5) to deceive consumers, including youth, by claiming that they did not market to youth, while engaging in marketing with the intent of addicting youth into becoming lifetime smokers; and (6) to deceive consumers through deceptive marketing to exploit smokers' desire for less hazardous and "low tar" cigarettes.

3. At all relevant times, as set forth more fully infra, the Enterprise has existed separate and apart from Defendants' racketeering acts and their conspiracy to commit such acts. The Enterprise has an ascertainable structure and purposes beyond the scope and commission of Defendants' predicate racketeering acts. The Enterprise has a consensual decision making structure that, among other things, is used to coordinate strategy, manipulate scientific data, suppress the truth about the consequences of smoking, and otherwise further the goals of the Enterprise and Defendants' scheme to defraud which is described more fully in U.S. FPFF § IV,

infra.

B. The Tobacco Industry Research Committee/Council for Tobacco Research

(1) The Link Between Smoking and Lung Cancer Was Scientifically Established By the Early 1950s

4. By the middle of the twentieth century, physicians and public health officials in the United States had widely noted an alarming increase in numbers of cases of lung cancer. Virtually unknown as a cause of death in 1900, by 1935 there were an estimated 4,000 deaths annually. A decade later, the estimate of deaths had nearly tripled. Surgeon General's Advisory Committee on Smoking and Health, "Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service," Washington, D.C.: U.S. Department of Health, Education, and Welfare, Public Health Service, p. 135 (1964) (U.S. Ex. 66,239); E. Cuyler Hammond, "The Effects of Smoking," *Scientific American*, July, 1962, at 40-41 (U.S. Ex. 63,591); Expert Report of Allan M. Brandt, United States v. Philip Morris, et al. (R. 1147; filed May 10, 2002).

5. The rise in lung cancers had followed the dramatic increase in cigarette consumption beginning early in the twentieth century. Annual per capita consumption of cigarettes in 1900 stood at approximately forty-nine cigarettes; by 1930, annual per capita consumption was over 1,300; by 1950, it was over 3,000. Even though the increases in lung cancer cases and deaths substantially lagged this increase in cigarette use, the apparent association led to considerable speculation about this relationship. Surgeon General's Advisory Committee on Smoking and Health, "Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service," Washington, D.C.: U.S. Department of

Health, Education, and Welfare, Public Health Service, p. 45 (1964) (U.S. Ex. 66,239).

6. The dangers of smoking, including its connection to lung cancer, began to attract more concerted attention of scientists in the 1920s, when researchers began to focus on the specific health consequences of smoking. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al. (R. 1147; filed May 10, 2002).

7. As early as 1928, researchers conducting a large field study associated heavy smoking with cancer. Lombard, Herbert L. and Carl R. Doering, "Cancer Studies in Massachusetts: Habits, Characteristics and Environment of Individuals With and Without Cancer," *New England Journal of Medicine* 196.10: 481-487 (1928) (U.S. Ex. 21,086).

8. Thereafter, in 1931, Frederick L. Hoffman, a well-known statistician for the Prudential Insurance Company, tied smoking to cancer. Hoffman assessed the basic methodological questions of such research: issues of representativeness, sample size, and the construction of control groups. These questions presented researchers with a series of complex problems, of which they were aware and then began to find ways to resolve them. Hoffman, Frederick L., "Cancer and Smoking Habits," *Annals of Surgery* 93: 50-67 (1931) (U.S. Ex. 20,661).

9. In peer reviewed scientific and medical publications in the 1930s, investigators were already concerned enough to warn of the potential dangers of smoking. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al. (R. 1147; filed May 10, 2002).

10. Early research efforts led to publication of the first case control study that showed the connection between smoking and lung cancer in Germany in 1939. Hoffman, Frederick L.,

"Cancer and Smoking Habits," *Annals of Surgery* 93:67 (1931) (U.S. Ex. 20,661); Pearl, Raymond, "Tobacco Smoking and Longevity," *Science*, March 4, 1938, at 216-217 (U.S. Ex. 20,714); F. H. Muller, "Abuse of Tobacco and Carcinoma of the Lungs," *Journal of the American Medical Association* (translation of the original from Zeitschrift fur Krebsforschung, Berlin), September 30, 1939, at 1372 (U.S. Ex. 63,595).

11. Beginning in the 1940s, researchers began to devise studies that would directly address and resolve the persistent and increasingly important questions concerning the harms of cigarette smoking. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al. (R. 1147; filed May 10, 2002).

12. At the end of 1940s, more evidence linking smoking to disease began to appear. Beginning in 1948, under the auspices of the Medical Research Council, a unit of the recently created National Health Service in the United Kingdom, Bradford Hill and Sir Richard Doll conducted a study to investigate the rising incidence of lung cancer. They realized that questions concerning the causality of systemic chronic diseases would not readily succumb to experimental laboratory investigation. Nonetheless, the timeliness and public health significance of these questions demanded immediate attention and the development of new knowledge. Doll, Richard, and A. Bradford Hill, "Smoking and Carcinoma of the Lung: Preliminary Report," *British Medical Journal* (September 1950) at 739, 747 (U.S. Ex. 76,102) (U.S. Ex.77,054) (U.S. Ex. 62,855).

13. Following World War I, Hill had become one of the most distinguished medical statisticians in Great Britain. Doll, a physician, also possessed sophisticated training in statistics

and epidemiologic methods. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al. (R. 1147; filed May 10, 2002).

14. From their data from lung cancer patients and a control group in late 1948 and early 1949, it became clear to Doll and Hill that cigarettes were the crucial factor in the rise of lung cancer. With data on almost 650 lung cancer patients, they concluded that they had in fact found cause and effect. The findings were impressive: among the 647 lung cancer patients entered into Doll and Hill's study, all 647 were smokers. They waited to publicize their results, however, until they had data on 1400 lung cancer patients, further strengthening their conclusions. Doll, Richard, and A. Bradford Hill, "Smoking and Carcinoma of the Lung: Preliminary Report," *British Medical Journal* (September 1950) at 739, 747 (U.S. Ex. 76,102) (U.S. Ex. 77,054) (U.S. Ex. 62,855).

15. In the early 1950s, Doll and Hill understood that some critics might dismiss findings linking smoking to disease (as Defendants did) as "merely" statistical. As a result, they meticulously described the specific criteria that they required before an "association" could be identified as a genuine causal relationship. First, they worked to eliminate the possibility of bias in the selection of patients and controls, as well as in reporting and recording their histories. Second, they emphasized the significance of a clear temporal relationship between exposure and subsequent development of disease. Finally, they sought to rule out any other factors that might distinguish controls from patients with disease. This explicit search for possible "confounders" and their elimination marked a critical aspect of their arrival at a causal conclusion. They insisted on carefully addressing all possible criticisms and all alternative explanations for their

findings. In this respect, Doll and Hill and the other epidemiologic investigators expressed a strong commitment to inductive science, hypothesis-testing, and scientific method:

> Consideration has been given to the possibility that the results could have been produced by the selection of an unsuitable group of control patients, by patients with respiratory disease exaggerating their smoking habits, or by bias on the part of the interviewers. Reasons are given for excluding all these possibilities, and it is concluded that smoking is an important factor in the cause of carcinoma of the lung.

Doll, Richard, and A. Bradford Hill, "Smoking and Carcinoma of the Lung: Preliminary Report," *British Medical Journal* (September 1950) at 739, 747 (U.S. Ex. 76,102) (U.S. Ex. 77,054) (U.S. Ex. 62,855).

16. Noted historian Charles Webster observed of the first Doll and Hill paper, published in 1950: "This modest paper is now regarded as a classic. From these findings emerged the realization that smoking has been responsible for as many deaths per annum as were claimed by the great cholera epidemics of the nineteenth century. Smoking was thus established as a major cause of preventable disease." Webster, Charles, "Tobacco Smoking Addiction: A Challenge to the National Health Service," *British Journal of Addiction* 79:7 (1984) (U.S. Ex. 63,589).

17. Two years later, in a 1952 follow-up report, Doll and Hill offered additional evidence for sustaining their conclusion, again fully considering alternative explanations:

> We have now extended the investigation to other parts of the country and have made more detailed inquiries into smoking habits. The present analysis of nearly 1,500 cases, or more than double the number dealt with in our preliminary report, supports the conclusion then reached and has revealed no alternative explanation – for example, in the use of petrol lighters. It has been

> suggested that subjects with a particular physical constitution may be prone to develop (a) the habit of smoking and (b) carcinoma of the lung, and that the association might therefore be indirect rather than causal (Parnell, 1951). We know of no evidence of such a physical constitution characteristic of patients with lung carcinoma. If it does exist we should still have to find some environmental factor to account for the increased incidence of the disease in recent years.

Doll, Richard, and A. Bradford Hill, "A study of the aetiology of carcinoma of the lung," *British Medical Journal* 2: 1271, 1283 (1952) (U.S. Ex. 20,185) (U.S. Ex. 76,115).

18. Other researchers studied the connection between smoking and lung cancer during the same time period. In 1949, Evarts Graham, a leading surgeon at Barnes Hospital in St. Louis, and Ernst Wynder, a medical student at Washington University, designed and implemented a study to address and resolve directly the persistent and increasingly important questions concerning the possible harms of cigarette smoking. Graham, a nationally known surgeon who had performed the first pneumonectomy, was a heavy smoker himself and skeptical of the cigarette-lung cancer hypothesis. He initially had speculated that, if smoking was a cause of lung cancer, it would occur more bilaterally (rather than in a single lobe). Wynder and Graham collected extensive data on a group of 684 patients with lung cancer located in hospitals throughout the United States These patients were extensively interviewed about their smoking levels and histories. Histological exams confirmed the diagnosis in all cases. This group was then compared to a "control group" of non-smokers, similar in age and other demographic characteristics. Wynder and Graham explained, "The temptation is strong to incriminate excessive smoking, and in particular cigarette smoking over a long period as at least one important factor in the striking increase of bronchogenic carcinoma." They offered four reasons

to support this conclusion. First, it was very unusual to find lung cancers among non-smokers. Second, among patients with lung cancer, cigarette use tended to be high. Third, the distribution of lung cancer among men and women matched the ratio of smoking patterns by gender. And finally, "the enormous increase in the sale of cigarettes in this country approximately parallels the increase in bronchogenic carcinoma." These results were reported in the *Journal of the American Medical Association ("JAMA")*, a prestigious, peer reviewed journal, on May 27, 1950. Wynder, Ernst L., and Evarts A. Graham, "Tobacco smoking as a possible etiologic factor in bronchiogenic carcinoma: a study of 684 proved cases," *JAMA* 143.4:336 (1950) (U.S. Ex. 76,103).

19. Also included in that 1950 issue of the *Journal of the American Medical Association* was another investigation reaching similar conclusions by Morton Levin and others. In his commentary on research into the connection between cigarettes and lung cancer, Levin compared the current epidemiological research on cigarette smoking to research on the smoking/lung cancer connection done in the preceding twenty years, arguing that the past work was "inconclusive because of lack of adequate samples, lack of random selection, lack of proper controls or failure to age-standardize the data." In the case of the data gathered for his study, careful attention to "excluding bias" had been central: "[I]n a hospital population, cancer of the lung occurs more than twice as frequently among those who have smoked cigarets for twenty-five years than among other smokers or nonsmokers of comparable age." Levin, Morton L., Hyman Goldstein, and Paul R. Gerhardt, "Cancer and Tobacco Smoking; A Preliminary Report," *JAMA* 143.4:336, 337 (1950) (U.S. Ex. 63,606).

20. By the 1950s, animal research was also pointing to the carcinogeneity of cigarettes. Wynder and Graham turned their attention to the question of the "biological plausibility" of their epidemiological findings. In conducting animal investigations, Wynder reasoned that if tumors could be produced in animals, it would be an important step in confirming the early epidemiologic findings. Noting that smoke condensates, also known as tars, contained benzopyrenes, arsenic and other known carcinogens, he painted the backs of mice to evaluate their effects. Fifty-eight percent of the mice developed cancerous tumors. Wynder concluded that "the suspected human carcinogen has thus been proven to be a carcinogen for a laboratory animal." These findings were reported in *Cancer Research* in December 1953. Wynder, Ernst L., Evarts A. Graham, and Adele B. Croninger, "Experimental Production of Carcinoma with Cigarette Tar," *Cancer Research* 13.12: 855-864 (1953) (U.S. Ex. 50,567).

21. By late 1953, there had been at least five published epidemiologic investigations, as well as others pursuing carcinogenic components in tobacco smoke and its impacts. These researchers had come to a categorical understanding of the link between smoking and lung cancer. This understanding was markedly more certain than the case studies and preliminary statistical findings earlier in the century. While some of the epidemiological methods were innovative, the scientists using them were careful to approach them in a thorough manner; these methods were completely consistent with established scientific procedure and process. Epidemiology was not just based on statistics, but also was an interdisciplinary, applied field. The studies had substantially transformed the scientific knowledge base concerning the harms of cigarette use. Unlike earlier anecdotal and clinical assessments, these studies offered new and

pathbreaking approaches to investigating and resolving causal relationships. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al. (R. 1147; filed May 10, 2002).

22. Medical historians would come to view these studies as among the most important contributions to public health and medicine in the twentieth century. They offered a sophisticated scientific methodology for resolving central questions of causality. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al. (R. 1147; filed May 10, 2002).

23. In addition, surgeons and pathologists published clinical reports associating cancer in their patients with their smoking habits. In 1957, Oscar Auerbach and colleagues first reported in the *New England Journal of Medicine* on "Changes in the Bronchial Epithelium in Relation to Smoking and Cancer of the Lung." Auerbach's study evaluated patients with confirmed smoking histories who died and were autopsied. Microscopists were kept ignorant of the smoking histories in the 30,000 examinations that they made to assure against potential bias. Auerbach and his co-authors concluded: "These findings are fully consistent with the hypothesis that inhalants of one sort or another are important factors in the causation of bronchogenic carcinoma. The findings are also consistent with the theory that cigarette smoking is an important factor in the causation of bronchogenic carcinoma." Auerbach presented additional confirmatory findings in 1961 and 1979. Auerbach, Oscar, et al., "Changes in the Bronchial Epithelium in Relation to Smoking and Cancer of the Lung: A Report of Progress," *New England Journal of Medicine* 256.3:104 (1957) (U.S. Ex. 54,185); Auerbach, Oscar, et al., "Changes in the Bronchial Epithelium in Relation to Cigarette Smoking and in Relation to Lung Cancer," *New England Journal of Medicine* 265.6: 253-267 (1961) (U.S. Ex. 63,539); Ochsner, Alton,

"My first recognition of the relationship of smoking and lung cancer," *Preventive Medicine* 2:611-14 (1973) (U.S. Ex. 63,590); Auerbach, Oscar, E. Cuyler Hammond, and Lawrence Garfinkel, "Changes in the Bronchial Epithelium in Relation to Cigarette Smoking, 1955-1960 vs. 1970-1977," *New England Journal of Medicine* 300.8:381-386 (1979) (U.S. Ex. 63,538).

24. Such studies underscored and strengthened the epidemiological findings. To say that the evidence demonstrating a causal relationship between smoking and lung cancer was based exclusively on statistical data – as Defendants claimed for over forty years – was to fundamentally misrepresent the emerging scientific knowledge. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al. (R. 1147; filed May 10, 2002).

(2) The Enterprise Begins

25. The Enterprise came into being not later than December 1953 when, to respond to this growing body of evidence that smoking caused lung cancer, Defendants and their agents developed and implemented a unified strategy that sought to reassure the public that there was no evidence that smoking causes disease.

26. In December 1953, Paul M. Hahn, President of the American Tobacco Company, sent telegrams to the presidents of the seven other major tobacco companies and one tobacco growers organization, inviting them to meet and develop an industry response to counter the negative publicity generated by the studies linking cigarette smoking and lung cancer. The telegrams were sent to: Edward A. Darr, President of Defendant R.J. Reynolds; Benjamin F. Few, President of Defendant Liggett; William J. Halley, President of Defendant Lorillard; Timothy V. Hartnett, President of Defendant Brown & Williamson; O. Parker McComas,

President of Defendant Philip Morris; Joseph F. Cullman, Jr., President of Benson & Hedges; J.B. Hutson, President of Tobacco Associates, Inc.; and J. Whitney Peterson, President of United States Tobacco Co. 508775416-5416 (U.S. Ex. 20,817); HT0072119-2125 (U.S. Ex. 21,175) (U.S. Ex. 54,357); CTRBYL000001-0014 (U.S. Ex. 21,138).

27. Executives from every tobacco company listed above, with the exception of Liggett, met in New York City at the Plaza Hotel on December 14, 1953. The meetings were also attended by representatives from Hill & Knowlton, the public relations advisors retained by the Enterprise. HT0072119-2125 (U.S. Ex. 21,175) (U.S. Ex. 54,357); CTRBYL000001-0014 (U.S. Ex. 21,138); 680262226-2228 (U.S. Ex. 88,165).

28. At another meeting the following day, the participants, Paul Hahn of Defendant American, O. Parker McComas of Defendant Philip Morris, Joseph Cullman, Jr. of Benson & Hedges, and J. Whitney Peterson of United States Tobacco, viewed the "problem [posed by the scientific studies] as being extremely serious and worthy of drastic action." The industry executives agreed to go along with the public relations program on the health issue developed by Hill & Knowlton. JH000502-0506 (U.S. Ex. 20,191); TLT0901541-1545 (U.S. Ex. 87,225); TLT0902283-2291 (U.S. Ex. 88,199).

29. In an early internal planning memoranda, Hill & Knowlton assessed their tobacco clients' problems in the following manner:

> There is only one problem -- confidence, and how to establish it; public assurance, and how to create it -- in a perhaps long interim when scientific doubts must remain. And, most important, how to free millions of Americans from the guilty fear that is going to arise deep in their biological depths -- regardless of any pooh-poohing logic -- every time they light a cigarette. No resort

> to mere logic ever cured panic yet, whether on Madison Avenue, Main Street, or in a psychologist's office. And no mere recitation of arguments pro, or ignoring of arguments con, or careful balancing of the two together, is going to deal with such fear now. That, gentlemen, is the nature of the unexampled challenge to this office.

JH000493-0501 (U.S. Ex. 21,179) (U.S. Ex. 21,408); TLT0901532-1540 at 1534 (U.S. Ex. 87,224).

30. At these December 1953 meetings, Hill & Knowlton also expressed their concern about the "health" claims being made in the Defendants' advertising: "[I]t is impossible to overlook the fact that some of the industry's advertising has come in for serious public criticism because of emphasis on health aspects of smoking . . . it must be recognized that some of the advertising may have created a degree of skepticism in the public mind which at the start at least could affect the believability of any public relations effort." In fact, one of the questions posed by Hill & Knowlton to the Defendants was "whether the companies considere[d] that their own advertising and competitive practices have been a principal factor in creating a health problem? The companies voluntarily admitted this to be the case even before the question was asked. They have informally talked over the problem and will try to do something about it." TLT0900422-0430 at 0423 (U.S. Ex. 88,169); TLT0901564-1572 at 1565 (U.S. Ex. 88,194); TLT0901541-1545 at 1543 (U.S. Ex. 87,225); TLT0901553-1557 at 1555 (U.S. Ex. 88,193); 680262226-2228, (U.S. Ex. 88,165).

31. At the December 14, 1953 meeting of the executives, Paul Hahn of American and Timothy Hartnett of Brown & Williamson told the other company presidents that "they had taken definite steps to remove the health themes from the advertising programs on Pall Mall and

Viceroy. Darr [of R.J. Reynolds] made the point that he could not concur in sponsoring an industry paid advertising campaign (if this is the course recommended by the Public Relations Counsel) as long as the health theme continued to be featured by any one of the companies represented on the committee." J. Whitney Peterson of United States Tobacco and Hartnett "expressed their agreement with Mr. Darr's views in this matter." Hill & Knowlton wanted to develop some understanding with the Defendants that "none is going to seek a competitive advantage by inferring to its public that its product is less risky than others. No claims that special filters or toasting, or expert selection of tobacco, or extra length in the butt, of anything else, makes a given brand less likely to cause you-know-what. No 'Play-Safe-with-Luckies'" or "more doctors use Camels than any other cigarette." TLT0900422-0430 at 0423 (U.S. Ex. 88,169); TLT0901564-1572 at 1565 (U.S. Ex. 88,194); TLT0901541-1545 at 1543 (U.S. Ex. 87,225); TLT0901553-1557 at 1555 (U.S. Ex. 88,193); 680262226-2228, (U.S. Ex. 88,165); TLT0901532-1540 at 1539-1540 (U.S. Ex. 87,224); JH000493-0501 at 0500-0501 (U.S. Ex. 21,179); TLT0902281-2282 (U.S. Ex. 88,198).

32. Ten days later, on December 24, 1953, Hill & Knowlton submitted a proposal regarding the tobacco industry's public relations campaign, recommending that the companies form a joint industry research committee that would sponsor independent scientific research on the health effects of smoking and announce the formation of the research committee nationwide as news and in advertisements.01138856-8864 (U.S. Ex. 20,036); TLT0900422-0430 (U.S. Ex. 88,169); TLT0901564-1572 (U.S. Ex. 88,194); see also TLT0901546-1549 (U.S. Ex. 65,587); TLT0901552 (U.S. Ex. 88,192); TLT0902256-2256 (U.S. Ex. 88,197).

33. Four days later, on December 28, 1953, another meeting was held at the Plaza Hotel and was attended by Paul Hahn of American; Edward Darr of R.J. Reynolds; Herbert A. Kent, Chairman of Lorillard; Timothy Hartnett of Brown & Williamson; O. Parker McComas of Philip Morris; Joseph Cullman of Benson & Hedges; J.B. Hutson, President of Tobacco Associates, Inc.; J. Whitney Peterson of United States Tobacco; and three people from the public relations firm of Hill & Knowlton, John Hill, Bert Goss, and Richard Darrow. The attendees agreed on Tobacco Industry Research Committee ("TIRC") as the official name of the research committee; chose Paul Hahn as temporary chairman of the committee; agreed that the search should begin immediately for a qualified director who, together with the companies' research directors, would recommend members for the research advisory board; and reviewed and accepted the Hill & Knowlton proposal regarding the tobacco industry's public relations campaign. SHSW001300-1303 (U.S. Ex. 21,236); 01138856-8864 (U.S. Ex.20,036).

34. Defendant Liggett did not participate in the December meetings because the company felt that "the proper procedure is to ignore the whole controversy." JH000502-0506 at 0502 (U.S. Ex. 20,191); TLT0901541-1545 at 1541 (U.S. Ex. 87,225).

35. Following Hill & Knowlton's advice, the formation and purpose of TIRC was announced on January 4, 1954, in a full-page advertisement called "A Frank Statement to Cigarette Smokers" published in 448 newspapers throughout the United States. Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 23, 2002, 112:14-114:13; 11309817-9817 (U.S. Ex. 20,277); Response of Defendant The Council For Tobacco Research - U.S.A., Inc. to Plaintiff's First Set of Requests for Admission to All Defendants, United States v.

Philip Morris, et al. (served April 18, 2002), at Request/Response No. 88 (U.S. Ex. 87,507); TLT0900463-0463 (U.S. Ex. 88,170); TLT0900465-0465 (U.S. Ex. 88,171); TLT0900466-0466 (U.S. Ex. 88,172); TLT0900468-0468 (U.S. Ex. 88,173); TLT0900469-0469 (U.S. Ex. 88,174); TLT0900470-0470 (U.S. Ex. 88,175); TLT0900472-0473 (U.S. Ex. 88,176); TLT0900041-0041 (U.S. Ex. 88,439); see also TLT0900478-0480 (U.S. Ex. 88,440); TLT0900481-0483 (U.S. Ex. 88,441).

36. The Frank Statement was subscribed to by the following domestic cigarette and tobacco product manufacturers, organizations of leaf tobacco growers, and tobacco warehouse associations that made up TIRC: Defendant American by Paul Hahn, President; Defendant Brown & Williamson by Timothy Hartnett, President; Defendant Lorillard by Herbert Kent, Chairman; Defendant Philip Morris by O. Parker McComas, President; Defendant R.J. Reynolds by Edward A. Darr, President; Benson & Hedges by Joseph Cullman, Jr., President; Bright Belt Warehouse Association by F.S. Royster, President; Burley Auction Warehouse Association by Albert Clay, President; Burley Tobacco Growers Cooperative Association by John Jones, President; Larus & Brother Company, Inc. by W.T. Reed, Jr., President; Maryland Tobacco Growers Association by Samuel Linton, General Manager; Stephano Brothers, Inc. by C.S. Stephano, Director of Research; Tobacco Associates, Inc. by J.B. Hutson, President; and United States Tobacco by J. Whitney Peterson, President. HT0072119-2125 (U.S. Ex. 21,175) (U.S. Ex.54,357); CTRBYL000001-0014 (U.S. Ex. 21,138).

37. The Frank Statement set forth the industry's "open question" position that it would maintain for more than forty years: that cigarette smoking was not a proven cause of lung cancer;

that cigarettes were not injurious to health; and that more research on smoking and health issues was needed. In the Frank Statement, the participating companies accepted "an interest in people's health as a basic responsibility, paramount to every other consideration in our business" and pledged "aid and assistance to the research effort into all phases of tobacco use and health." The companies promised that they would fulfill the obligations they had undertaken in the Frank Statement by funding independent research through TIRC, free from any industry influence. 11309817-9817 (U.S. Ex. 20,277).

38. The "Frank Statement" in its entirety stated as follows:

> RECENT REPORTS on experiments with mice have given wide publicity to a theory that cigarette smoking is in some way linked with lung cancer in human beings.
>
> Although conducted by doctors of professional standing, these experiments are not regarded as conclusive in the field of cancer research. However, we do not believe that any serious medical research, even though its results are inconclusive should be disregarded or lightly dismissed.
>
> At the same time, we feel it is in the public interest to call attention to the fact that eminent doctors and research scientists have publicly questioned the claimed significance of these experiments.
>
> Distinguished authorities point out:
>
> 1. That medical research of recent years indicates many possible causes of lung cancer.
>
> 2. That there is no agreement among the authorities regarding what the cause is.
>
> 3. That there is no proof that cigarette smoking is one of the causes.

4. That statistics purporting to link cigarette smoking with the disease could apply with equal force to any one of many other aspects of modern life. Indeed the validity of the statistics themselves is questioned by numerous scientists.

We accept an interest in people's health as a basic responsibility, paramount to every other consideration in our business.

We believe the products we make are not injurious to health.

We always have and always will cooperate closely with those whose task it is to safeguard the public health.

For more than 300 years tobacco has given solace, relaxation, and enjoyment to mankind. At one time or another during these years critics have held it responsible for practically every disease of the human body. One by one these charges have been abandoned for lack of evidence.

Regardless of the record of the past, the fact that cigarette smoking today should even be suspected as a cause of disease is a matter of deep concern to us.

Many people have asked us what are we going to do to meet the public's concern aroused by the recent reports. Here is the answer:

1. We are pledging aid and assistance to the research effort into all phases of tobacco use and health. This joint financial aid will of course be in addition to what is already being contributed by individual companies.

2. For this purpose we are establishing a joint industry group consisting initially of the undersigned. This group will be known as TOBACCO INDUSTRY RESEARCH COMMITTEE.

3. In charge of the research activities of the Committee will be a scientist of unimpeachable integrity and national repute. In addition there will be an Advisory Board of scientists disinterested in the cigarette industry. A group of distinguished men from

> medicine, science, and education will be invited to serve on this Board. These scientists will advise the Committee on its research activities.
>
> This statement is being issued because we believe the people are entitled to know where we stand on this matter and what we intend to do about it.

11309817-9817 (U.S. Ex. 20,277); TLT0901611-1611 (U.S. Ex. 88,196).

39. The issuance of the "Frank Statement to Cigarette Smokers" was an effective preemptive strategy that was intended to allay concerns about smoking and health and provided an effective rationale for continuing to smoke. JH000493-0501 (U.S. Ex. 21,179) (U.S. Ex. 21,408); TLT0901532-1540 at 1534 (U.S. Ex. 87,224); Expert Report of Paul Slovic, United States v. Philip Morris, et al. (R. 661; filed November 15, 2001).

40. Stanley Barnes, Assistant Attorney General, United States Department of Justice, "read with interest the statement of the Tobacco Industry Research Committee which appeared in the newspapers on January 4, 1954, regarding the Committee's pledge of aid and assistance to the research effort into all phases use and health" and sent a letter to TIRC on January 21, 1954, requesting "as many details on the Committee's plans as you may care to disclose at this time." In response, TIRC Chairman Paul Hahn sent a letter to Barnes dated January 26, 1954, enclosing a statement of the origin, purpose, and proposed functions of TIRC. MD000289-0296 (U.S. Ex. 21,218); HT0072119-2125 (U.S. Ex. 21,175) (U.S. Ex. 54,357); CTRBYL000001-0014 (U.S. Ex. 21,138); 508775393-5396 (U.S. Ex. 85,985); TLT0900082-0082 (U.S. Ex. 88,168).

41. The statement of origin and purpose was signed in the name of TIRC by Chairman Paul Hahn, was ratified and adopted by TIRC, and attached as Exhibit A to the Bylaws of the

Tobacco Industry Research Committee. CTRBYL000001-0014 (U.S. Ex. 21,138); HT0072119-2125 (U.S. Ex. 21,175) (U.S. Ex. 54,357); TLT0901026-1035 (U.S. Ex. 88,181).

42. The TIRC bylaws (subscribed and adopted by the signatory members effective January 1, 1954) stated that the "purposes and objectives of the Committee are to aid and assist research into tobacco use and health, and particularly into the alleged relationship between the use of tobacco and lung cancer and to make available to the public factual information on this subject." All of the bylaws could be altered and repealed by a majority vote of TIRC's corporate members, except "Article I. Purposes and Objectives" that could only be altered with the unanimous consent of all the corporate members. CTRBYL000001-0014 (U.S. Ex. 21,138); HT0072119-2125 (U.S. Ex. 21,175) (U.S. Ex. 54,357); TLT0901573-1580 (U.S. Ex. 88,195).

43. The statement of origin and purpose stated that TIRC had engaged the public relations firm of Hill & Knowlton to assist TIRC in effectuating its purpose. CTRBYL000001-0014 (U.S. Ex. 21,138); HT0072119-2125 (U.S. Ex. 21,175) (U.S. Ex. 54,357); TLT0901026-1035 (U.S. Ex. 88,181); see also TLT0900723-0728 (U.S. Ex. 88,179).

44. The TIRC bylaws stated that each corporate member of the TIRC "shall from time to time appoint an individual to serve as the personal member of the Committee representing such corporate member" and that a majority of the personal members of TIRC would select such officers, agents, and employees as they deemed necessary, including a Chairman to serve for a term of one year and until his successor is elected and qualified. CTRBYL000001-0014 (U.S. Ex. 21,138); HT0072119-2125 (U.S. Ex. 21,175) (U.S. Ex. 54,357).

45. The first officers selected by TIRC members were: Paul Hahn of Defendant

American as temporary Chairman; J. Whitney Peterson of United States Tobacco as Vice Chairman; Joseph Cullman of Benson & Hedges as Treasurer; and Wilson Thomas ("W.T.") Hoyt of Hill & Knowlton as Secretary. SHSW001300-1303 (U.S. Ex. 21,236); CTRBYL000001-0014 (U.S. Ex. 21,138); HT0072119-2125 (U.S. Ex. 21,175) (U.S. Ex. 54,357).

46. TIRC bylaws described the method of funding TIRC as follows: "Each of the cigarette manufacturing corporate members has pledged to the Committee for payment before or during 1954 an amount equal to 1/4 of a cent for each one thousand of tax-paid cigarettes produced by such company in 1953 as estimated by Harry M. Wootten and published under the date of January 15, 1954, and has pledged to the Committee for payment during 1954 an additional amount equal to one-half of the amount originally pledged." CTRBYL000001-0014 (U.S. Ex. 21,138); HT0072119-2125 (U.S. Ex. 21,175) (U.S. Ex. 54,357).

47. At their January 29, 1964 meeting, the TIRC Executive Committee agreed to change the name of the organization to the Council for Tobacco Research-U.S.A. ("CTR"). The organization bylaws were amended February 1, 1964, to reflect the name change. In the amended bylaws, the purposes and objectives of CTR continued to be "to aid and assist research into tobacco use and health, and particularly into the alleged relationship between the use of tobacco and lung cancer and to make available to the public factual information on this subject." Timothy Hartnett announced the organization name change in a March 1964 press release. 93218985-8986 (U.S. Ex. 21,116); 682631364-1368 (U.S. Ex. 21,024); 1003041486-1488 (U.S. Ex. 20,146).

48. Robert Heimann, Chairman and Chief Executive Officer of Defendant American, commented upon the TIRC's name change in a December 6, 1977 letter to Addison Yeaman, CTR's Chairman and President and formerly the General Counsel of Brown & Williamson: "[W]e decided some years ago to rename T.I.R.C. 'The Council for Tobacco Research' because 'Tobacco Industry Research Committee' sounded too much like industry-directed, as distinct from independent, research." 2022200158-0160 at 0160 (U.S. Ex. 87,532).

49. In 1971, CTR changed from an unincorporated association to a corporation pursuant to the laws of the State of New York. CTR's Certificate of Incorporation was filed with the Department of State of the State of New York on January 8, 1971. The bylaws of the newly-formed corporation were adopted at the first meeting of CTR's Board of Directors on January 13, 1971. CTRMIN-BD000001-0009 (U.S. Ex. 21,141); CTRINC000015-0019 (U.S. Ex. 32,562).

50. Following incorporation, CTR was divided into two classes of members, Class A and Class B. Class A members were: (i) designated by the Board of Directors; (ii) domestic persons who sold cigarettes in the United States; and (iii) manufacturers of their own brand of cigarettes. Class A members included American Tobacco, Brown & Williamson, Lorillard, Philip Morris, R.J. Reynolds, and United States Tobacco. Class B members were: (i) designated by the Board of Directors; and (ii) a person, corporation, association, or partnership not eligible for Class A membership but involved in the production, manufacturing, and distribution of cigarettes. Class B members included Bright Belt Warehouse Association, Burley Auction Warehouse Association, Burley Tobacco Growers, Imperial Tobacco, Tobacco Associates, and United States Tobacco. CTRBYL000070-0090 (U.S. Ex. 32,552); HT0020153-0155 (U.S. Ex.

33,052) (U.S. Ex. 33,053) (U.S. Ex. 33,054); HT0020034-0034 (U.S. Ex. 33,051); 512678857-8863 (U.S. Ex. 30,046).

51. Liggett was a member of CTR from 1964 to 1969, and even when it was not a member, Liggett made contributions to CTR's Special Projects fund from 1966 through 1975 and to CTR's Literature Retrieval Division from 1971 through 1983.

Response of Defendant The Council for Tobacco Research - U.S.A., Inc. to Plaintiff's First Set of Interrogatories, United States v. Philip Morris, et al. (served February 6, 2001), at Schedule C (U.S. Ex. 75,927); 044227839-7842 (U.S. Ex. 20,066); LWDOJ9055586-5587 (U.S. Ex. 26,007) (Confidential).

52. In 1963, Clarence Cook Little and W.T. Hoyt invited Liggett to join TIRC in order to secure complete industry cooperation in dealing with the 1963 Surgeon General's Advisory Committee. Liggett declined the invitation but, in its response, assured its cooperation: "[T]he aims of all of us are the same and the path that we [Liggett] have followed has been similar to that of the Committee in may respects." LIMN000001325-1536 at 1470-1471 (U.S. Ex. 85,987).

53. Representatives of Liggett attended CTR meetings at which CTR Class A members, CTR Class B members, CTR officers, CTR public relations counsel, tobacco industry attorneys, and other representatives of cigarette manufacturers and the Tobacco Institute were present. CTRMIN-MOM000001-0015 (U.S. Ex. 21,145); CTRMIN-MOM000053-0069 (U.S. Ex. 32,617).

54. Defendants met frequently to discuss issues facing the Enterprise. Beginning in 1954 and until 1970, representatives of member companies met regularly with CTR staff. After

CTR's incorporation, in 1971and until 1999, the Enterprise met annually at the CTR's Meeting of Members. At these meetings, representatives of the Enterprise discussed activities of CTR which furthered their goals such as Special Projects, the Literature Retrieval Division, contract research, public relations, the TIRC/CTR Scientific Advisory Board, and scientific conferences. CTR-TIRC-MIN000001-0004 (U.S. Ex. 33,001); TIRC-MIN000005-0010 (U.S. Ex. 33,002); TIRC-MIN000011-0014 (U.S. Ex. 33,003); TIRC-MIN000015-0017 (U.S. Ex. 33,004); TIRC-MIN000018-0032 (U.S. Ex. 33,005); TIRC-MIN000033-0052 (U.S. Ex. 33,006); TIRC-MIN000053-0069 (U.S. Ex. 33,007); TIRC-MIN000070-0086 (U.S. Ex. 33,008); TIRC-MIN000087-0112 (U.S. Ex. 33,009); TIRC-MIN000113-0124 (U.S. Ex. 33,010); TIRC-MIN000125-0140 (U.S. Ex. 33,011); TIRC-MIN000141-0148 (U.S. Ex. 33,012); TIRC-MIN000149-0156 (U.S. Ex. 33,013); TIRC-MIN000157-0162 (U.S. Ex. 33,014); TIRC-MIN000163-0173 (U.S. Ex. 33,015); TIRC-MIN000174-0186 (U.S. Ex. 33,016); TIRC-MIN000187-0199 (U.S. Ex. 33,017); TIRC-MIN000200-0208 (U.S. Ex. 33,018); TIRC-MIN000209-0219 (U.S. Ex. 33,019); TIRC-MIN000220-0223 (U.S. Ex. 33,020); TIRC-MIN000224-0231 (U.S. Ex. 33,021); TIRC-MIN00023-0244 (U.S. Ex. 33,023); TIRC-MIN000245-0255 (U.S. Ex. 33,024); 1002608385-8390 (U.S. Ex. 85,988); 1002608337-8339 (U.S. Ex. 85,989); MM0010053-0056 (U.S. Ex. 85,990); CTRMIN-MOM000001-000015 (U.S. Ex. 21,145); CTRMIN-MOM000016-0034 (U.S. Ex. 21,170); CTRMIN-MOM000035-0052 (U.S. Ex. 32,616); CTRMIN-MOM000053-0069 (U.S. Ex. 32,617); CTRMIN-MOM000070-0087 (U.S. Ex. 32,618); CTRMIN-MOM000088-0089 (U.S. Ex. 32,619); CTRMIN-MOM000090-0104 (U.S. Ex. 32,620); CTRMIN-MOM000105-0117 (U.S. Ex. 32,621);

CTRMIN-MOM000118-0128 (U.S. Ex. 32,622); CTRMIN-MOM000129-0142 (U.S. Ex. 32,623); CTRMIN-MOM000143-0154 (U.S. Ex. 32,624); CTRMIN-MOM000155-0167 (U.S. Ex. 32,625); CTRMIN-MOM000168-0181 (U.S. Ex. 32,626); CTRMIN-MOM000182-0195 (U.S. Ex. 32,627); CTRMIN-MOM000210-0221 (U.S. Ex. 32,629) (U.S. Ex. 77,859); CTRMIN-MOM000222-0233 (U.S. Ex. 32,630); CTRMIN-MOM000234-0244 (U.S. Ex. 32,631); CTRMIN-MOM000245-0255 (U.S. Ex. 32,632); CTRMIN-MOM000256-0268 (U.S. Ex. 32,633); CTRMIN-MOM000269-0280 (U.S. Ex. 32,634); CTRMIN-MOM000281-0294 (U.S. Ex. 32,635); CTRMIN-MOM000295-0306 (U.S. Ex. 32,636); CTRMIN-MOM000307-0318 (U.S. Ex. 32,637); CTRMIN-MOM000319-0331 (U.S. Ex. 32,638); CTRMIN-MOM000332-0334 (Ex. 32,639); 501941564-1568 (U.S. Ex. 29,540); 501941569-1572 (U.S. Ex. 49,007) 501941594-1596 (U.S. Ex. 29,542); 501941597-1599 (U.S. Ex. 29,543); 70000261–0274 (U.S. Ex. 31,078) (U.S. Ex. 31,079); 70005388-5408 (U.S. Ex. 31,104) (U.S. Ex. 31,105); 70055467-6064 (U.S. Ex. 85,992); TLT0903136-3138 (U.S. Ex. 88,201); TLT0901374-1389 (U.S. Ex. 88,185); TLT0901390-1393 (U.S. Ex. 88,186); TLT0901400-1410 (U.S. Ex. 88,187); JH000395-0400 (U.S. Ex. 21,178); 514804083-4086 (U.S. Ex. 20,859); TLT0901411-1414 (U.S. Ex. 88,188); TLT0901445-1460 (U.S. Ex. 88,189) TLT0901462-1478 (U.S. Ex. 88,190); TLT0901363-1372 (U.S. Ex. 88,184).

55. Members of the Enterprise also convened regularly between 1971 and 1998 at CTR's Board of Directors meetings. CTR's Board of Directors was made up of representatives from the member companies. At these meetings the CTR Board of Directors discussed and passed resolutions regarding issues such as CTR's budget, the status of grants and contract

research, the election of officers, payment of dues, and amendments to the bylaws. Starting in 1985, executives of Defendant Philip Morris Companies represented Philip Morris on CTR's Board of Directors. CTRMIN-BD000001-0009 (U.S. Ex. 21,141); CTRMIN-BD000010-0016 (U.S. Ex. 32,571); CTRMIN-BD000017-0020 (U.S. Ex. 32,572); CTRMIN-BD000021-0025 (U.S. Ex. 32,573); CTRMIN-BD000026-0029 (U.S. Ex. 32,574); CTRMIN-BD000030-0034 (U.S. Ex. 32,575); CTRMIN-BD000035-0038 (U.S. Ex. 32,576); CTRMIN-BD000039-0044 (U.S. Ex. 32,577); CTRMIN-BD000045-0049 (U.S. Ex. 32,578); CTRMIN-BD000050-0054 (U.S. Ex. 32,579); CTRMIN-BD000055-0059 (U.S. Ex. 32,580); CTRMIN-BD000060-0109 (U.S. Ex. 32,581); CTRMIN-BD000110-0115 (U.S. Ex. 32,582); CTRMIN-BD000116-0121 (U.S. Ex. 32,583); CTRMIN-BD000122-0125 (U.S. Ex. 32,584); CTRMIN-BD000126-0129 (U.S. Ex. 32,585); CTRMIN-BD000135-0135 (U.S. Ex. 32,586); CTRMIN-BD000136-0140 (U.S. Ex. 32,587); CTRMIN-BD000141-0144 (U.S. Ex. 32,588); CTRMIN-BD000145-0146 (U.S. Ex. 32,589); CTRMIN-BD000147-0152 (U.S. Ex. 32,590); CTRMIN-BD000153-0157 (U.S. Ex. 32,591); CTRMIN-BD000158-0162 (U.S. Ex. 32,592); CTRMIN-BD000163-0165 (U.S. Ex. 32,593); CTRMIN-BD000166-0171 (U.S. Ex. 32,594); CTRMIN-BD000172-0178 (U.S. Ex. 32,595); CTRMIN-BD000179-0182 (U.S. Ex. 32,596); CTRMIN-BD000187-0191 (U.S. Ex. 32,597); CTRMIN-BD000192-0194 (U.S. Ex. 32,598); CTRMIN-BD000195-0199 (U.S. Ex. 32,599); CTRMIN-BD000200-0229 (U.S. Ex. 32,600); CTRMIN-BD000230-0235 (U.S. Ex. 32,601); CTRMIN-BD000236-0237 (U.S. Ex. 32,602); CTRMIN-BD000238-0245 (U.S. Ex. 32,603); CTRMIN-BD000246-0247 (U.S. Ex. 32,604); CTRMIN-BD000248-0251 (U.S. Ex. 32,605); CTRMIN-BD000252-0255 (U.S. Ex. 32,606); CTRMIN-BD000256-0260

(U.S. Ex. 32,607); CTRMIN-BD000261-0262 (U.S. Ex. 32,608); CTRMIN-BD000263-0267 (U.S. Ex. 32,609); CTRMIN-BD000268-0270 (U.S. Ex. 32,610); CTRMIN-BD000271-0275 (U.S. Ex. 32,611); CTRMIN-BD000276-0277 (U.S. Ex. 32,612); CTRMIN-BD000278-0283 (U.S. Ex. 32,613); CTRMIN-BD000284-0285 (U.S. Ex. 32,614); CTRMIN-BD000286-0291 (U.S. Ex. 32,615); 70000636–0638 (U.S. Ex. 31084); 70000275-0279 (U.S. Ex. 31,080); 70001297-1298 (U.S. Ex. 31,095); 70005382-5387 (U.S. Ex. 31,103); 70005409-5416 (U.S. Ex. 31,106); Third Amended Response of Defendant The Council For Tobacco Research - U.S.A., Inc. to Plaintiff's Second Set of Individual Interrogatories, United States v. Philip Morris, et al. (served March 29, 2004), at Interrogatory/Response No. 5 (U.S. Ex. 87,695).

56. From 1954 through October 31, 1999, payments to CTR's General Fund from Defendants totaled $473,369,512.22: $31,928,239.26 from American; $67,666,080.25 from Brown & Williamson; $40,747,457.89 from Lorillard; $189,506,678.86 from Philip Morris; $141,890,169.04 from R.J. Reynolds; and $721,868.85 from Liggett. Response of Defendant The Council for Tobacco Research - U.S.A., Inc. to Plaintiff's First Set of Interrogatories, United States v. Philip Morris, et al. (served February 6, 2001), at Schedule C (U.S. Ex. 75,927). From 1985, Philip Morris Companies controlled Philip Morris's payments to CTR. 2015001979-1981 (U.S. Ex. 87,508); 2015001982-1982 (U.S. Ex. 88,412); 2015001989-1990 (U.S. Ex. 87,509); Response of Defendant The Council For Tobacco Research - U.S.A., Inc. to Plaintiff's First Set of Requests for Admission to All Defendants, United States v. Philip Morris, et al. (served April 18, 2002), at Request/Response No. 94 (U.S. Ex. 87,510).

57. From 1966 through October 31, 1990, payments to CTR's Special Projects fund

from the Cigarette Company Defendants totaled $18,270,623.65, which included: $29,665.00 from American; $2,571,345.40 from Brown & Williamson; $144,254.75 from Liggett; $1,638,490.68 from Lorillard; $5,837,923.49 from Philip Morris; and $6,029,255.33 from R.J. Reynolds. Response of Defendant The Council for Tobacco Research - U.S.A., Inc. to Plaintiff's First Set of Interrogatories, United States v. Philip Morris, et al. (served February 6, 2001), at Schedule C (U.S. Ex. 75,927). Starting in 1985, Philip Morris Companies controlled Philip Morris's payments to CTR. 2015002092-2094 (U.S. Ex. 87,511).

58. From 1971 through April 15, 1983, payments to CTR's Literature Retrieval Division from the Cigarette Company Defendants totaled $16,870,480.00, which included: $2,214,135.00 from American; $2,681,358.00 from Brown & Williamson; $606,043.50 from Liggett; $811,840.50 from Lorillard; $4,813,415.50 from Philip Morris; and $5,743,687.50 from R.J. Reynolds. Response of Defendant The Council for Tobacco Research - U.S.A., Inc. to Plaintiff's First Set of Interrogatories, United States v. Philip Morris, et al. (served February 6, 2001), at Schedule C (U.S. Ex. 75,927).

(3) Defendants' Selection and Approval of TIRC Scientific Advisory Board Members and the Scientific Director

59. The first formal meeting of TIRC was held on January 18, 1954. At this first formal meeting, a budget of $1,200,000 was approved; an agreement between TIRC and Hill & Knowlton was approved; the research program, calling for a Scientific Director and a Scientific Advisory Board ("SAB") was approved; a Law Committee was appointed; and the research

directors of member companies were designated as the Industry Technical Committee. TM0020071-0101 (U.S. Ex. 21,373); 514804083-4086 (U.S. Ex. 20,859); TLT0901400-1410 (U.S. Ex. 88,187); JH000395-0400 (U.S. Ex. 21,178); TLT0900107-0108 (U.S. Ex. 87,512).

60. The Law Committee was composed of George Whiteside of Chadbourne, Parke, Whiteside, Wolf & Brophy (Law Committee Chairman); John Vance Hewitt of Conboy, Hewitt, O'Brien & Boardman; Leighton Coleman of Davis, Polk, Wardwell, Sunderland & Kiendl; F.R. Wadlinger of Foulk, Porter & Wadlinger; and Freeman Daniels of Perkins, Daniels & Perkins. This committee drafted the TIRC bylaws. 514804083-4086 (U.S. Ex. 20,859); TLT0901056-1056 (U.S. Ex. 88,183); TLT0901008-1008 (U.S. Ex. 88,180).

61. The research directors of TIRC's tobacco company members, also known as the Industry Technical Committee ("ITC") (discussed further at U.S. FPFF § I.E(2), infra), had held an informal meeting on January 7, 1954, at which they discussed qualifications for a Scientific Research Director for TIRC and their efforts to find and retain a suitable scientist. The research directors were H.R. Hanmer of Defendant American; Irwin W. Tucker of Defendant Brown & Williamson; H.B. Parmele of Defendant Lorillard; Robert N. DuPuis of Defendant Philip Morris; Grant Clarke of Defendant R.J. Reynolds; Hugh Cullman of Benson & Hedges; Clinton Baber of Larus & Brother; C.S. Stephano of Stephano Brothers; and Ward B. Bennett of United States Tobacco. TM0020071-0101 (U.S. Ex. 21, 373); JH000395-0400 (U.S. Ex. 21,178); TLT0901400-1410 (U.S. Ex. 88,187); 514804083-4086 (U.S. Ex. 20,859); CTRMIN-ITC 000003-0004 (U.S. Ex. 21,142); TLT0901037-1038 (U.S. Ex. 88,182).

62. A subcommittee of the ITC, headed by Grant Clarke, Research Director for

Defendant R.J. Reynolds, felt that the SAB "should be composed only of scientific people actively engaged in specific fields having a bearing on the problem at hand" and that the appointments to the SAB "should be based upon recommendations from the Scientific Research Director and subject to the approval of the ITC, with final approval of the TIRC." The subcommittee sought out a scientist who would fill the job, but encountered reluctance on the part of scientists to become affiliated with TIRC. TM0020071-0101 (U.S. Ex. 21,373); 689103383-3437 (U.S. Ex. 54,275); CTRMIN-ITC000005-0006 (U.S. Ex. 21,143); CTRMIN-ITC000003-0004 (U.S. Ex. 21,142); JH000395-0400 (U.S. Ex. 21,178); TLT0901400-1410 (U.S. Ex. 88,187) ; TLT0900155-0155 (U.S. Ex. 87,513); TLT0902330-2330 (U.S. Ex. 87,514); TLT0900037-0037 (U.S. Ex. 88,166); TLT0900133-0134 (U.S. Ex. 87,515); TLT0900163-0163 (U.S. Ex. 87,516); TLT0903092-3092 (U.S. Ex. 88,454).

63. As time passed, TIRC decided to reverse the order and proceed, first, with enlisting members for its SAB first – hoping that the scientists would feel more comfortable as members of a group – and, second, having the SAB select the Scientific Research Director. 689103383-3437 (U.S. Ex. 54,275); TM0020071-0101 (U.S. Ex. 21,373); TLT0902041-2064 (U.S. Ex. 88,360).

64. The ITC, public relations counsel Hill & Knowlton, and TIRC's Law Committee played active roles in the selection of the scientists appointed to TIRC's SAB. John Hill of Hill & Knowlton was actively involved in searching for, interviewing, and selecting the first SAB members. Hill told prospective candidates that "the Scientific Director would have a complete freedom of decision in respect of publication of scientific results, with the single provision that

the publication of results which were not in and of themselves scientifically conclusive should not be permitted by the Director." The ITC screened those candidates being considered for membership on the SAB. The TIRC Law Committee was involved in clearing prospective members for the SAB. 689103383-3437 (U.S. Ex. 54,275); 681879254-9715 (U.S. Ex. 21,020); 689103383-3437 (U.S. Ex. 54,275); TLT0900089-0091 (U.S. Ex. 88,361); TLT0900165-0165 (U.S. Ex. 87,517); TLT0900168-0169 (U.S. Ex. 87,518); TLT0900175-0175 (U.S. Ex. 87,519); TLT0902041-2064 (U.S. Ex. 88,362); TLT0903093-3094 (U.S. Ex. 88,363).

65. On March 26, 1954, O. Parker McComas, chairman elect of TIRC, sent a letter to Clarence Cook Little inviting him to join the TIRC SAB. The letter promised that the SAB and Scientific Director would have "complete scientific freedom" in their work and that "no industry restrictions of any description will be attached to money grants made for research project." 10022895-2896 at 2896 (U.S. Ex. 26,127).

66. However, in a November 27, 1963 memorandum, Clarence Cook Little, the first Chairman of the SAB, described the Enterprise's strategy in selecting the SAB members. Little wrote:

> In the selection of a Scientific Advisory Board and in the acceptance of the nomination by that Board of a Scientific Director, it was clearly shown that the attitude of the TIRC was to pick scientists interested broadly in the origin and nature of <u>disease</u> implicated and in the evaluation of smoking as a <u>possible</u> factor, not as a <u>proven</u> one.

70003601-3602 at 2601 (U.S. Ex. 85,993).

67. Letters were sent to nine scientists inviting them to be members of the SAB and acceptances were obtained from seven; the two who did not accept were scientists connected

with the National Cancer Institute. 86017433-7454 (U.S. Ex. 21,088); HT0128002-8023 (U.S. Ex. 21,176); TLT0903076 (U.S. Ex. 87,520).

68. The first meeting of the SAB was held on April 26, 1954. Clarence Cook Little was chosen by the SAB members as their Chairman. At the second meeting of the SAB, Little was selected as Scientific Director on a part-time basis with an assistant who would serve on a full-time basis. In November 1954, Robert Hockett filled the assistant post as Associate Scientific Director. Following Little, the Scientific Directors were William Gardner (1973-1981), Sheldon Sommers (1981-1987), James Glenn (1988-1990), and Harmon McAllister (1991-1999). 86017433-7454 (U.S. Ex. 21,088); TLT0902041-2064 (U.S. Ex. 88,364); 11310050-0053 (U.S. Ex. 23,330); 10022899-2899 (U.S. Ex. 85,994); TLT0903099-3099 (U.S. Ex. 88,564); TLT0903100-3103 (U.S. Ex. 88,365); TLT0903105-3108 at 3105 (U.S. Ex. 88,366); Third Amended Response of Defendant The Council For Tobacco Research - U.S.A., Inc. to Plaintiff's Second Set of Individual Interrogatories, United States v. Philip Morris, et al. (served March 29, 2004), at Interrogatory/Response No. 12 (U.S. Ex. 87,695).

69. In addition to Little, the first members of the SAB were McKeen Cattell, Professor and Head of the Department of Pharmacology, Cornell University Medical College; Leon Jacobson, Professor of Medicine, University of Chicago, and Director of the Argonne Cancer Research Hospital; Paul Kotin, Assistant Professor of Pathology, University of Southern California Medical School; Kenneth Merrill Lynch, President, Dean of Faculty and Professor of Pathology, Medical College of South Carolina; Stanley Reimann, Scientific Director of the Institute for Cancer Research and Director of Lankenau Hospital Research Institute; and William

F. Reinhoff, Associate Professor of Surgery, Johns Hopkins School of Medicine. CTRMN004928-4929 (U.S. Ex. 85,995).

70. The Scientific Advisory Board met regularly from 1954 until at least 1997 to review, approve, and renew grant applications and contracts. In addition to SAB members, the Chairman of the Industry Technical Committee, members of CTR/TIRC staff, CTR/TIRC's public relations counsel, and (at times) Defendants' attorneys and scientific guests attended the SAB meetings. CTRMN004320-4323 (U.S. Ex. 21,148); CTRMN004539-4544 (U.S. Ex. 21,151); CTRMIN048368-8369 (U.S. Ex. 85,996); ZN7912-7921 (U.S. Ex. 64,789); SM0120005-0009 (U.S. Ex. 65,442); 955011516-1520 (U.S. Ex. 32,362); CTMNSAB000001-1061 (U.S. Ex. 21,146); TLT0903247-3251 (U.S. Ex. 87,521); TLT0903189-3193 (U.S. Ex. 87,522); TLT0903145-3148 (U.S. Ex. 87,523); TLT0903132-3135 (U.S. Ex. 87,524); TLT0903116-3117 (U.S. Ex. 87,525); TLT0903181-3185 (U.S. Ex. 87,526); TLT0903177-3180 (U.S. Ex. 87,527); TLT0903166-3169 (U.S. Ex. 87,528); TLT0903208-3211 (U.S. Ex. 88,367); TLT0903202-3207 (U.S. Ex. 88,368); TLT0903197-3201 (U.S. Ex. 88,369).

71. Many meetings of the SAB had no written record. According to a confidential report on the December 9, 1981 meeting of the SAB, the following policy regarding meetings was reaffirmed: "to conduct informal 'in house' conferences on specific subjects 'off the record' held without minutes or publication, but not to sponsor open meetings with a resultant publication." This policy was in effect at least ten years prior to the 1981 meeting and continued into the late 1990s. CTRMIN-SAB 000611-0612 (U.S. Ex. 80,480); Deposition of Vincent Lisanti, Richardson v. Philip Morris, December 8, 1998 112:16-21, 114:1-116:18.

72. When Little resigned from TIRC, Helmut Wakeham of Philip Morris complained to David Felton, a BATCo scientist, at a meeting in London on September 10, 1970 that finding a Scientific Director to succeed Little "was in the hands of the lawyers committee" and the Tobacco Institute without consultation with CTR or company scientists. 10315968-5971 (U.S. Ex. 26,378) (U.S. Ex. 26,379) (U.S. Ex. 63,573); LG200173-0175 (U.S. Ex. 85,997).

73. Gil Heubner, Medical Director at the Tobacco Institute, also objected to lawyers' involvement in the selection of staff for CTR. In a July 1971 meeting that he had with J.V. Blalock of Brown & Williamson, Heubner advised Blalock that (a) he disapproved of the practice that all applicants for Scientific Director were interviewed by lawyers and decisions were made without medical advice, and (b) "lawyers make bad scientists and should not be the final judge of scientists." Blalock told Addison Yeaman, Brown & Williamson Vice President and General Counsel, about Huebner's observations. 680241709-1712 at 1711 (U.S. Ex. 30,849).

74. Contrary to Defendants' assertions that the members of the SAB were disinterested parties who received no monetary compensation from the tobacco companies or from TIRC/CTR, members of the SAB awarded themselves over $5 million in grants-in-aid funding between 1954 and 1991. 682632255-2261 (U.S. Ex. 22,258); Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 23, 2002, 250:15-253:11.

75. Defendants, through the CTR's Board of Directors (discussed at U.S. FPFF ¶ 55, supra), exercised control over the CTR research grant program throughout its existence by approving the amount of funding for the grant program and, after the first few years, by selecting the CTR Scientific Directors and their staff. CTRMN003816-3835 (U.S. Ex. 21,147);

Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 23, 2002, 56:22-57:18.

76. Many of Defendants' documents expose the process by which members of CTR's Board of Directors approved or disapproved funding for research proposals over the years. 507875993-5993 (U.S. Ex. 22,692), ATX300010994-0995 (U.S. Ex. 22,694) (Richard Hickey); 521031101-1101 (U.S. Ex. 22,695), 521031106-1107 (U.S. Ex. 22,696) (Eleanor Macdonald); 503655086-5088 (U.S. Ex. 20,720); 503655086-5088 (U.S. Ex. 75,190) (Franklin Institute); 01336194-6195 (U.S. Ex. 22,697) (Duncan Hutcheon and Domingo Aviado); 521030802-0802 (U.S. Ex. 22,698) (Joe Janis); 01338089-8089 (U.S. Ex.22,701), 86023647-3648 (U.S. Ex.22,702) (Carl Seltzer); LG2000678-0679 (U.S. Ex. 22,703) (Charles Puglia and Jay Roberts); LG2000682-0683 (U.S. Ex. 34074) (John Salvaggio); LG2000705-0705 (U.S. Ex. 22,705) (Theodor Sterling and Harold Perry); 503655236-5237 (U.S. Ex. 22,706) (Duncan Hutcheon and Peter Regna).

77. The Enterprise, through CTR, sought out certain researchers and/or areas of research and solicited grant applications. One of the reasons that Paul Kotin decided to resign from the CTR Scientific Advisory Board was that he was disturbed by "the going out and requesting the submission of grants, of applications for grants. And I felt this circumvented the original foundation for the SAB, at least for my membership in the SAB." Deposition of Paul Kotin, Falise v. American Tobacco, July 6, 2000, 67:10-69:24. Another possible reason for Kotin's resignation was reported by visitors from the United Kingdom's Tobacco Research Council in October 1964: "The recent [CTR] Annual Report by Dr. Little was severely criticised

by the U.S. Surgeon General at a Washington press conference. Dr. Kotin was also highly critical of it and talks privately of resigning from the S.A.B. if another report of the same nature is going to be published next year." 512678484-8499 (U.S. Ex. 51,653); 1003119099-9135 (U.S. Ex. 20,152) (U.S. Ex. 35,649); 105407261-7329 (U.S. Ex. 34,739).

78. Clarence Cook Little admitted that, when CTR saw a line of work that showed promise, CTR approached the researchers and "brought them in and asked them for advice as to whether the idea . . . was foolish or did they think it could be done and after the conference in which they agreed that it might be done, then we asked them, 'are any of you willing to try this if we provide your institution with money and you with help?'" Deposition of Clarence Cook Little, Lartigue v. R.J. Reynolds, October 6, 1960, 2800:12-25; Deposition of Vincent Lisanti, Small v. Lorillard, March 31, 1998 477:11-480:25; see also TLT0900214-0216 at 0215 (U.S. Ex. 88,370).

79. Sheldon Sommers, Scientific Director for CTR, testified that CTR frequently initiated research. When asked if CTR suggested particular research for which it would make available grants, Sommers responded, "Yes. I go out all the time looking for opportunities and new ideas and investigators in various fields of biomedicine." Deposition of Sheldon Sommers, Rogers v. R.J. Reynolds, December 17, 1985, 50:19-53:18; Deposition of Sheldon Sommers, Cipollone v. Liggett Group, Inc., October 3, 1986 180:15-183:18; Deposition of Sheldon Sommers, Hoskins v. R.J. Reynolds, October 8, 1997, 176:18-177:11; 85760397-0397 (U.S. Ex. 85,998).

80. According to the January 31, 1975 minutes of CTR's annual meeting of the

members, after this meeting, the CTR staff was given more control over the grant and contract application process: "The Chairman stated that in the continued effort to bring maximum information to the Scientific Advisory Board preliminary investigation is being made by the Council's staff. . . . . Following this, the proposals are then submitted for study by a subcommittee of the Board [SAB]. . . ." CTRMIN-MOM000070-0087 at 0071 (U.S. Ex. 32,618).

(4) Defendants' Other Involvement in TIRC and CTR

81. Throughout the existence TIRC CTR, representatives of the member companies of TIRC/CTR and their attorneys were influential in the activities and research undertaken by TIRC/CTR. A December 9, 1966 letter from William Bates, Director of the Research Department at Liggett, to Frederick Haas, Liggett General Counsel, critiqued a research proposal submitted by Pacific Northwest Laboratories. Bates noted: "Due to the nature of the program and the critical value of establishing sites and quantities of exposure . . . it seems to me that this is the kind of program which should be funded in the normal C.T.R. manner rather than for special project funds or Ad Hoc funds." LG2002645-2646 (U.S. Ex. 34,083).

82. Beginning in November 1971, CTR staff met semiannually with representatives of the member companies, usually the research directors and general counsel. The all-day meetings were designed to keep members of the Enterprise aware of the status of research sponsored by CTR. CTRMIN-MOM000016-0034 at 0018, 0022 (U.S. Ex. 21,170).

83. A March 28, 1973 handwritten note from Helmut Wakeham of Philip Morris to Robert Hockett, Vice President of CTR, clearly illustrates attorney involvement in CTR's grant

process. In the note, Wakeham rated the projects discussed at a recent SAB meeting according to industry relevance, meaning those which had the greatest benefit to the industry. Wakeham advised Hockett to "use them for what you think they might be worth and throw the paper away." 1000255259-5260 (U.S. Ex. 35,189).

84. Contacts and communication between high level smoking and health research scientists at BATCo and scientists at CTR were frequent and direct. BATCo scientists David G. Felton and Lionel C. F. Blackman visited TIRC/CTR in at least 1958, 1971, 1976, 1979, and 1984. 11220411-0412 (U.S. Ex. 86,871); 60025041-5043 (U.S. Ex. 86,872); 517002090-2091(U.S. Ex. 66,527); 11297897-7897 (U.S. Ex. 67,378); 11297878-7878 (U.S. Ex. 86,888); TINY0003106-3116 (U.S. Ex. 21,369); 105408490-8499 (U.S. Ex. 21,135) (U.S. Ex. 76,169); 501941283-1284 (U.S. Ex. 20,691).

85. In October 1979, David G. Felton of BATCo went on a month-long "fact-finding mission to a number of laboratories engaged on research relating to smoking and health" in the United States. Felton was accompanied by two lawyers for most of his visits, either Patrick Sirridge of Shook, Hardy & Bacon or Timothy Finnegan of Jacob & Medinger. During the trip, Felton met with Carol Henry, Richard Kouri and Roger Curren of Microbiological Associates, which had a contract with CTR for three projects. Felton foreshadowed industry concerns about the projects and noted: "I sensed that there was a potential political problem to be faced by CTR about this project, particularly over some of the findings." See U.S. FPFF § I.B.(5), infra, for discussion of CTR contracts. Near the end of the trip, Felton also met with CTR staff including Addison Yeaman, CTR President; William Gardner, CTR Scientific Director; W.T. Hoyt, CTR

Executive Vice President; Robert Hockett, CTR Research Director; Vincent Lisanti, CTR Associate Research Director; and David Stone and Donald Ford, members of CTR's scientific staff. Discussion included Felton's visit to Microbiological Associates, nitrosamines, smoking and stress, the Cold Spring Harbour Symposium, and nicotine research. One of the reasons given why CTR was not doing nicotine research was that "[t]here is a general nervousness in the US industry (apart from Philip Morris), in working on the effects of nicotine, because of the risk of demonstrating nicotine dependence or addiction. There are fears that this would result in the Industry coming under the control of the Food and Drug Administration." During his visit, Felton also met with Tobacco Institute representatives Horace Kornegay, President, and Marvin Kastenbaum, Director of Statistics. 109879229-9295 (U.S. Ex. 34,923); 109879296-9308 (U.S. Ex. 86,063).

(5) Defendants' Many Uses of TIRC/CTR

86. Despite Defendants' assertions that CTR was solely an organization that funded independent research for the purpose of finding answers to smoking and health questions, CTR served many useful roles for the Enterprise in addition to the research conducted under the auspices of CTR. It was a public relations tool; it provided insulation from product liability; it was a conduit of information between the various members of the Enterprise; its employees provided litigation support by giving advice and technical information to members of the Enterprise; and it provided spokespersons for the Enterprise at Congressional hearings. As described by Ernest Pepples in an internal Brown & Williamson letter to Joseph E. Edens, Charles I. McCarty, I.W. Hughes and DeBaun Bryant dated April 4, 1978:

> Originally, CTR was organized as a public relation effort. The industry told the world CTR would look at the diseases which were being associated with smoking. There was even a suggestion by our political spokesmen that if a harmful element turned up the industry would try to root it out. The research of CTR also discharged a legal responsibility. The manufacturer has a duty to know its product. The Scientific Advisory Board composed of highly reputable independent scientists constitute a place where the present state of the art is constantly being updated. Theoretically SAB is showing us the way in a highly complex field. There is another political need for research. Recently it has been suggested that CTR or industry research should enable us to give quick responses to new developments in the propaganda of the avid anti-smoking groups. For example, CTR or someone should be able to rebut the suggestion that smokers suffer from a peculiar disease, as widely alleged in the press some few months ago. A properly designed research effort should encompass the need for instant response on subjects of public interest in the smoking and health controversy. Finally the industry research effort has included special projects designed to find scientists and medical doctors who might serve as industry witnesses in lawsuits or in a legislative forum. All of these matters and more should be considered in asking what kind of research the industry should do.

680212421-2423 at 2422 (U.S. Ex. 54,024); 682338651-8653 (U.S. Ex. 22,899).

(a) TIRC/CTR and Research

87. TIRC/CTR funded research through a variety of mechanisms: grants, contracts, CTR Special Staff Services, and CTR Special Projects (discussed further at U.S. FPFF § I.D(2), infra). Response of Defendant The Council for Tobacco Research - U.S.A., Inc. to Plaintiff's Second Set of Interrogatories, United States v. Philip Morris, et al. (served March 15, 2002), at Interrogatory/Response No. 10 (U.S. Ex. 87,529).

(i) The Nature of CTR Funded Grant Research

88. TIRC focused its energies and resources in two areas. First, it served as a public relations unit for Defendants, especially in relation to growing public concern about the risks of smoking, by repeatedly attacking scientific studies that demonstrated the harms of cigarette smoke and working to reassure smokers about cigarettes. See U.S. FPFF § IV.A., infra. Second, it developed a research program that focused on basic processes of disease and that was distant from, if not completely irrelevant to, evaluating the immediate and fundamental questions of the health effects associated with smoking – the very subject that the industry had pledged to pursue through CTR. Expert Report of Allan Brandt, United States v. Philip Morris, et al. (R. 1147; filed May 10, 2002), at 21-25.

89. TIRC/CTR sent its "Statement of Policy" to medical and scientific publications, medical and graduate schools, science writers, medical writers, and others interested in grant applications. The statement read, "The Council for Tobacco Research - U.S.A., Inc. (The Council) is dedicated to supporting the investigation of fundamental matters relating to a connection between tobacco use and human health." CTRMN000269-0270 (U.S. Ex. 87,531); TLT0903213-3212 (U.S. Ex. 88,371); TLT0903214-3214 (U.S. Ex. 88,372); TLT0903194-3196 (U.S. Ex. 88,373); TLT0901359-1359 (U.S. Ex. 88,374); TLT0902780-2781 at 2780 (U.S. Ex. 88,375).

90. However, TIRC did not pursue direct research on cigarettes and disease. Instead, TIRC directed most of its resources to alternative theories of the origins of cancer, centering on genetic factors and environmental risks. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al. (R. 1147; filed May 10, 2002), at 34-39.

91. Harmon McAllister, Vice President of CTR, described the type of research funded: "Our research is basic medical research on the etiology of diseases that have been epidemiologically linked to smoking. That's our global - that's the way we operate. Those are the sorts of applications we entertain." Deposition of Harmon McAllister, Broin v. Philip Morris, December 6, 1993, 46:2-16.

92. Under Clarence Cook Little's leadership, TIRC never wavered from its essential mission of insisting that a genuine scientific controversy existed regarding the causal link between smoking cigarettes and adverse health effects. In 1958, three British scientists, D.G.I. (David) Felton of BATCo, H.R. (Herbert) Bentley of Imperial Tobacco, and W.W. Reid of BATCo visited the United States for four weeks and met with representatives of Defendant American, Defendant Liggett, Defendant Philip Morris, Defendant TIRC/CTR, the SAB of TIRC/CTR, the Industry Technical Committee, and others. The scientists reported that "Liggett & Meyers stayed out of TIRC originally because they doubted the sincerity of TIRC's motives and believed that the organization was too unwieldy to work efficiently. They remain convinced that their misgivings were justified. In their opinion TIRC has done little if anything constructive, the constantly reiterated 'not proven' statements in the face of mounting contrary evidence has thoroughly discredited TIRC, and the SAB of TIRC is supporting almost without exception projects which are not related directly to smoking and lung cancer." TINY0003106-3116 (U.S. Ex. 21,369); 105408490-8499 (U.S. Ex. 21,135) (U.S. Ex. 76,169); 501941283-1284 (U.S. Ex. 20,691).

93. After another visit to the United States in the fall of 1964, two British scientists

wrote in their report: "As we know, CTR supports only fundamental research of little relevance to present day problems." 1003119099-9135 (U.S. Ex. 20,152) (U.S. Ex. 35,649).

94. In a January 12, 1968 memorandum, Addison Yeaman, Brown & Williamson Vice President and General Counsel, wrote, "Review of SAB's current grants indicates that a very sizable number of them are for projects in what might be called 'basic research' without specific orientation to the problem of the relationship of the use of tobacco to human health." 00552837-2839 at 2837 (U.S. Ex. 22,968); see also 321668053-8055 at 8054 (U.S. Ex. 20,591).

95. At a January 18, 1968 meeting with Cy Hetsko, Vice President and General Counsel for American Tobacco, and Addison Yeaman, Vice President and General Counsel for Brown & Williamson, Janet Brown, outside counsel for American Tobacco, explained CTR's strategy in undertaking only basic research of disease, as opposed to researching questions directly related to tobacco and health. The reason was that this type of basic research kept alive the Enterprises' open question argument on causation. Yeaman summarized Brown's position as:

> First, we maintain the position that the existing evidence of a relationship between the use of tobacco and health is inadequate to justify research more closely related to tobacco, and
> Secondly, that the study of the disease keeps constantly alive the argument that, until basic knowledge of the disease itself is further advanced, it is scientifically inappropriate to devote the major effort to tobacco.

LG2023842-3843 at 3842 (U.S. Ex. 21,211).

96. Under the leadership of Clarence Cook Little, the major thrust of TIRC was to emphasize that human cancers were complex processes, difficult to study and difficult to understand. Virtually none of the research funded by TIRC/CTR centered on immediate

questions relating to epidemiology or the carcinogenesis of smoke. In an October 14, 1969 memorandum written to Ross R. Millhiser of Philip Morris, Helmut Wakeham, Vice President and Director of Research for Philip Morris, admitted that he would agree with the opinion that "the efforts of the tobacco industry through CTR and the American Medical Association have failed to involve the best investigators. At the beginning of our support of smoking and health research, this failure may have been connected with our consistent denial of the statistics and our continued assertion that there is nothing to the cigarette causation hypothesis." Wakeham also lamented the fact that "the scientific expertise of the industry, because of the liability suit situation, has not been permitted to make a contribution to the problem, a contribution which I believe was and is vital." 1001609594-9595 (U.S. Ex. 21,437) (U.S. Ex.76,162).

97. In a memorandum dated December 8, 1970, and addressed to Joseph Cullman, Chairman of Philip Morris and Chairman of the Executive Committee of the Tobacco Institute, Helmut Wakeham admitted that CTR had not freely pursued the health impact of tobacco: "It has been stated that CTR is a program to find out the 'truth about smoking and health.' What is truth to one is false to another. CTR and the Industry have publicly and frequently denied what others find as 'truth.' Let's face it. We are interested in evidence which we believe denies the allegation that cigarette smoking causes cancer." 1000255938-5940 (U.S. Ex. 20,085); 2015062594-2596 (U.S. Ex. 20,334).

98. A memorandum prepared by Clarence Cook Little and Robert Hockett, and forwarded to Cyril Hetsko, Addison Yeaman, William Smith, Henry Ramm, and Mr. Grant, described CTR's areas of research. At the end of the memorandum, the authors emphasized that

the following two viewpoints apply to all the work of the Council:

> 1. The complexity of origin of all the diseases statistically associated with tobacco use, and the inadequacy of the single factor method of approach to this whole problem.
> 2. The basic importance of the so-called Host Factor. This means the innate or genetic differences between human individuals which continue to develop and operate throughout their lifetime and which results in distinct and individual differences in susceptibility or unsusceptibility to the various environmental challenges which their life experience presents.

The memorandum further instructed that these two factors be kept in mind and to "conduct the various specific pieces of research which we support in such a way as to add to the increasing body of experimental evidence which justifies this attitude." HT135160-5164 (U.S. Ex. 21,174).

99. In 1970, Helmut Wakeham expressed his opinion of the CTR research program in a letter addressed to Earle Clements, President of the Tobacco Institute: "[M]uch of the grant work [under CTR] has little or no relevance to smoking and health, in my opinion." 1001817276-7277 (U.S. Ex. 85,999).

100. After another visit to the United States in 1973, during which he met with Defendants' representatives, attorneys, and scientists, Geoffrey F. Todd, Executive Director of the Tobacco Research Council, an organization in the United Kingdom equivalent to CTR, wrote: "It was difficult to avoid the sad conclusion that C.T.R. has become a backwater of little significance in the world of smoking and health." 100226995-7033 (U.S. Ex. 21,134).

(ii) <u>CTR and Contract Research</u>

101. The Enterprise also funded contract research through CTR as a means to engage in self-serving research that was strictly controlled by the Enterprise under the guise of

independent research (discussed further at U.S. FPFF § IV.D., infra). 1003718457-8457 (U.S. Ex. 86,000). These contracts were proposed by CTR's Scientific Director and submitted to the SAB for approval. Deposition of Vincent F. Lisanti, Arch v. American Tobacco Co., June 10, 1997, 61:20-65:21.

102. On December 6, 1977, Robert Heimann, Chairman and Chief Executive Officer of Defendant American, wrote a letter to Addison Yeaman, CTR's Chairman and President and formerly the General Counsel of Brown & Williamson, strongly condemning CTR's new focus on directed or contract research as "a violation of our advertised pledges to the public." Heimann also wrote, "For many years after the T.I.R.C. was established in 1954 we were able to say that 'all grants are made upon recommendation of an advisory board of independent doctors, scientists, and educators. Recipients of grants are assured complete scientific freedom in conducting their investigations.' Indeed, this point was made part of our pledge to the public in [the Frank Statement] . . . . This we can no longer say since what is called 'directed' or 'contract' research has been brought into the picture. As I remarked at the September 1976 meeting, the original concept of T.I.R.C. did not embrace the idea of contract research but envisioned industry support of research on a pro bono publico, arm's length basis." Heimann's denunciation of CTR's lack of independence was copied to: V.B. Lougee, III, President and CEO of American Tobacco; Janet Brown, outside counsel for American Tobacco; Richard Stinnette, Assistant to Chairman of American Tobacco; Joseph Cullman, III, Chairman of Philip Morris; Joseph Edens, President of Brown & Williamson; Clifford Goldsmith, President of Philip Morris; William Hobbs, President of R.J. Reynolds; Curtis Judge, President of Lorillard; and Collin Stokes, Chairman of the Board

of R.J. Reynolds. 2022200158-0160 at 0158 (U.S. Ex. 87,532).

(b) TIRC/CTR and Public Relations

103. From the outset, the dual functions of TIRC – public relations and scientific research – were intertwined. In December 1953, Timothy Hartnett, President of Brown & Williamson, summarized the crisis of the industry in the following terms: "But cancer research, while certainly getting our support, can be only half an answer. . . . **The other side of the coin is public relations . . . [which] is basically a selling tool and the most astute selling may well be needed to get the industry out of this hole.** . . . It isn't exaggeration that no public relations expert has ever been handed so real and yet so delicate a multi-million dollar problem. . . . Finally, one of the roughest hurdles which must be anticipated is how to handle significantly negative research results, if, as, and when they develop." 1005039779-9783 (U.S. Ex. 20,190) (emphasis added).

104. One name initially proposed for TIRC/CTR, the "Tobacco Industry Committee for Public Information," reflected its public relations purpose. However, John Hill of the public relations firm Hill & Knowlton suggested that it would be better if the word "research" appeared in the title of the committee. Hill & Knowlton's December 1953 preliminary recommendations for cigarette manufactures explained, "[t]he word 'research' should be included in the name of the Committee to establish the fact that the group will carry on or sponsor fundamental scientific research and will not be solely an information agency." FPL0012310-2134 (U.S. Ex. 86,615); TLT0900422-0430 at 0424 (U.S. Ex. 88,376); TLT0901541-1545 at 1542 (U.S. Ex. 87,225); TLT0901553-1557 at 1554 (U.S. Ex. 88,377).

105. A white paper entitled "A Scientific Perspective on the Cigarette Controversy" was one of the first projects undertaken by Hill & Knowlton on behalf of its new client, TIRC. Defendants perceived an urgent need for the white paper project to help soothe the public's fears. John Hill of Hill & Knowlton described the booklet as "excerpts from important scientific articles published in this country and abroad which present a balanced view of the situation and particularly which present the other side of the controversy, as distinguished from the view promoted by Doctors Graham, Ochsner and Wynder, who have contended that cigarette smoking caused cancer." The white paper was one of the earliest attempts by Defendants to offer reassuring "science" to smokers. In fact, many of the contributors to the white paper had close ties to the industry. 689103383-3437 (U.S. Ex. 54, 275); TLT0902326-2327 (U.S. Ex. 87,533); TLT0900062-0062 (U.S. Ex. 87,534); TLT0900145-0146 (U.S. Ex. 88,378); TLT0901009-1010 (U.S. Ex. 88,379); TLT0901011-1011 (U.S. Ex. 88380); TLT0920009-0009 (U.S. Ex. 88381); TLT0902324-2325 (U.S. Ex. 88,382); TLT0900127-0130 (U.S. Ex. 88,383); TLT0900136-0137 (U.S. Ex. 88,384); 93219023-9024 (U.S. Ex. 88,385).

106. "A Scientific Perspective on the Cigarette Controversy" was released April 14, 1954, with 205,000 copies being printed. Since the white paper might have been perceived as commercial in character and designed to promote the smoking of tobacco, distribution was limited. The booklet was sent to 176,800 doctors, as well as to deans of medical and dental colleges. The booklet with a press release went to a press distribution of 15,000, including: editors of daily and weekly newspapers, consumer magazines, veterans magazines, and medical and dental journals; news syndicate managers; business editors; editorial and science writers;

radio and television commentators; news columnists; and Members of Congress. The press release was also sent to some 1,400 radio stations. The white paper reaffirmed the promise of the Frank Statement – that Defendants accepted an interest in people's health as a basic responsibility and paramount to every other consideration in their business. It also went on to set forth findings that indicated that the scientific evidence was not conclusive. 2023335303-5304 (U.S. Ex. 20,388); 1005039987-40008 (U.S. Ex. 20,192); TLT0901688-1707 (U.S. Ex. 88,386); TLT0902951-2951 (U.S. Ex. 87,535); TLT0900051-0052 (U.S. Ex. 87,536); TLT0900055-0056 (U.S. Ex. 87,537); TLT0900059-0059 (U.S. Ex. 87,538); TLT0900063-0064 (U.S. Ex. 87,539); TLT0900065-0065 (U.S. Ex. 87,540); TLT0900066-0066 (U.S. Ex. 87,541); TLT0900067-0067 (U.S. Ex. 87,542); TLT0900068-0069 (U.S. Ex. 87,543); TLT0902918-2921 (U.S. Ex. 88,387) TLT0902954-2955 (U.S. Ex. 88,388).

107. John Hill of Hill & Knowlton offered some "aggressive moves" to be taken by TIRC to counter "recent tricky anti-tobacco blasts." The suggestions, including, "forceful" statements by Clarence Little, Chairman of the SAB, in interviews, press releases and press conferences, were thereafter carried out. TLT0902432-2433 (U.S. Ex. 88,389); TLT0901177-1178 (U.S. Ex. 88,390); TLT0901099-1099 (U.S. Ex. 88,391); TLT0900110-0111 (U.S. Ex. 88,392); TLT0903237-3238 (U.S. Ex. 88,393).

108. In the June 1954 "Public Relations Report and Recommendations for Tobacco Industry Research Committee," Hill & Knowlton boasted about the success of its public relations efforts for TIRC: "Committee headquarters is steadily gaining recognition as a source of authoritative information on the subject of tobacco and health. The result is that news and

magazine writers, columnists and commentators are turning to the Committee and its public relations counsel for more and more information." SHSW001328-1333 at 1329 (U.S. Ex. 86,001); TLT0901558-1563 at 1559 (U.S. Ex. 88,394); see also TLT0902082-2087 (U.S. Ex. 88,395); TLT0900291-0294 (U.S. Ex. 88,396); TLT0903164-3165 (U.S. Ex. 88,397).

109. Timothy Hartnett became the full-time chairman of TIRC on July 1, 1954, the day after his retirement as President of Brown & Williamson. According to the press release announcing his appointment, Hartnett stated that the

> tobacco industry is determined to find the answers to the public's questions about smoking and health. The appointment of a full-time chairman completes an organization dedicated to carrying on comprehensive and objective scientific and statistical research to establish the facts and report them to the public. . . . It is an obligation of the Tobacco Industry Research Committee at this time to remind the public of [some] essential points: (1) There is no conclusive scientific proof of a link between smoking and cancer; (2) Medical research points to many possible causes of cancer; . . . (5) The millions of people who derive pleasure and satisfaction from smoking can be reassured that every scientific means will be used to get all the facts as soon as possible.

2023335303-5304 (U.S. Ex. 20388); 01138996-8997 (U.S. Ex. 20,037); TLT0901831-1832 (U.S. Ex. 88,398).

110. In his 1955 administrative reports to TIRC, Wilson Hoyt, TIRC Executive Secretary and Hill & Knowlton executive, wrote about the relationship of public relations and research in TIRC's program. In his April 1955 Statement, he explained: "Essentially, the major purposes of the TIRC are Research and Public Relations. Our job is to maintain a balance between the two, and to continue to build soundly so that at all times Research and Public Relations complement each other. In that way we intend to assume the mantle of leadership and,

ultimately, to create a condition where the public will look to the TIRC for answers rather than to others." In his January 1955 Statement, he wrote, "Within this framework we have furthered and coordinated the two major purposes for which the Committee was organized namely, the public relations phase and the research program." CTRMN003816-3835 at 3826 (U.S. Ex. 21,147); TM0020071-0101 at 0076 (U.S. Ex. 21,373); see also TLT0901479-1483 (U.S. Ex. 88,399).

111. United States Surgeon General Leroy E. Burney's assessment of the scientific evidence linking cigarettes to lung cancer was published in the November 28, 1959 issue of the *Journal of the American Medical Association*. Hill & Knowlton, having anticipated the appearance of the Burney article and learned of its contents in advance of publication, provided the press with statements made by TIRC Scientific Director Clarence Cook Little countering the Surgeon General's statement. Burney, Leroy E., "Smoking and Lung Cancer: A Statement of the Public Health Service," *JAMA* 71: 1835 (November 1959) (U.S. Ex. 63,608); HT0145148-5150 (U.S. Ex. 21,177); 503283464-3467 (U.S. Ex. 22,981).

112. In a July 17, 1963 memorandum, Addison Yeaman, General Counsel for Brown & Williamson, acknowledged that TIRC principally acted as a public relations unit: "The TIRC cannot, in my opinion, provide the vehicle for such research. It was conceived as a public relations gesture and (however undefiled the Scientific Advisory Board and its grants may be) it has functioned as a public relations operation." 689033412-3416 (U.S. Ex. 22,034); 2046754905-4909 (U.S. Ex. 20,477).

113. Industry news releases selectively used "CTR research results to challenge some of the anticigarette charges." 966000976-0977 (U.S. Ex. 86,084); 966056987-6988 (U.S. Ex.

86,002); 70100997-1001 (U.S. Ex. 86,003); BWX0011014-1015 (U.S. Ex. 36,245).

114. A document detailing discussions held among CTR executives between November 10 and 15, 1971, noted the likelihood that CTR would continue public relations activities,

> [T]here was confidence that CTR would not be primarily a public relations tool, tacitly admitting that this was what it had been previously. On the other hand, there was equal confidence in future CTR research would be steered clear of any embarrassing connection with smoking as a cause of disease. The second objective seems more likely to be achieved than the first.

100249579-9627 at 9589 (U.S. Ex. 34,628).

115. TIRC's research program never escaped its public relations origins. As Alexander Spears, Lorillard's Director of Research, explained in 1974:

> Historically, the joint industry funded smoking and health research programs have not been selected against specific scientific goals, but rather for various purposes such as public relations, political relations, position for litigation, etc. Thus, it seems obvious that reviews of such programs for scientific relevance and merit in the smoking and health field are not likely to produce high ratings. In general, these programs have provided some buffer to the public and political attack of the industry, as well as background for litigious strategy.

01421596-1600 (U.S. Ex. 20,049).

116. In a 1975 speech to CTR members, Addison Yeaman gave his observations on the Council, among them he noted, "It is my sober judgement that CTR, as it now operates is the greatest public relations <u>asset</u> you have in the problem of tobacco and health." 11303014-3020 at 3017 (U.S. Ex. 86,005).

(i) <u>TIRC/CTR Newsletters and Annual Reports</u>

117. In late 1957, the Tobacco Information Committee, a subcommittee of TIRC, was formed from what was previously known as the Public Relations Committee. The committee was comprised of public relations employees from the companies and public relations counsel representing the companies. The Tobacco Information Committee published the first two issues of the *Tobacco and Health* newsletter on behalf of the industry. The *Tobacco and Health* newsletter contained articles that disputed the relationship between smoking and disease, criticized research supporting such a relationship, and emphasized that differing opinions existed regarding tobacco use and health. After its creation in 1958, the Tobacco Institute (discussed further at U.S. FPFF § I.C., infra) assumed responsibility for publishing the *Tobacco and Health* newsletter on behalf of Defendants. 70123540-3540 (U.S. Ex. 31,483); HT0128002-8023 (U.S. Ex. 21,176); TIMN123324-3327 (U.S. Ex. 21,282); TIMN0130834-0837 (U.S. Ex. 86,006); TIKU 000006665-6668 (U.S. Ex. 86,007); 511018410-8413 (U.S. Ex. 22,459); TIMN123314-3317 (U.S. Ex. 21,345); 70123530-3530 (U.S. Ex. 31,474); 70123531-3531 (U.S. Ex. 31,475); 70123532-3532 (U.S. Ex. 31,476); 70123533-3533 (U.S. Ex. 31,477); 70123534-3534 (U.S. Ex. 31,478); 70123535-3535 (U.S. Ex. 31,479); 70123536-3536 (U.S. Ex. 31,480); 70123537-3537 (U.S. Ex. 31,481); 70123538-3539 (U.S. Ex. 31,482); 70123540-3541 (U.S. Ex. 31,483); 70123542-3543 (U.S. Ex. 31,484); TLT0902120-2120 (U.S. Ex. 88,400).

118. Initially, *Tobacco and Health* was to be published by the SAB and TIRC. This provoked a strong reaction from members of the Scientific Advisory Board who received advance copies of the first issue. In a letter from SAB member, McKeen Cattell to SAB Chairman, Clarence Little, Cattell classified the new publication as "obviously propaganda

material" and expressed serious concern about the effect it would have on the SAB's program. Julius Comroe, another SAB member, advised that the SAB and TIRC not be identified with the *Tobacco and Health* publication. In response to these concerns, the publication was issued under the name of the Tobacco Information Committee. 701235030-5030 (U.S. Ex. 31,474); 70123533-3533 (U.S. Ex. 31,477); 70123534-3534 (U.S. Ex. 31,478).

119. From October 1957 to at least 1968, first TIRC and then the Tobacco Institute published the newsletter under various names, such as *Tobacco and Health*, *Research Reports on Tobacco and Health*, and *Reports on Tobacco and Health Research*. The newsletter was published two or three times a year. In 1962, circulation of the newsletter reached 520,000, with about 315,000 copies going to doctors, dentists, and medical schools, and the rest going to writers and editors, public opinion leaders, all members of Congress, brokerage houses, tobacco groups, farm and supplier groups, industry groups, and member companies. Publication of research results helped make news and was coordinated with other publicity efforts. TIMN0000697-0700 (U.S. Ex. 86,008); TIMN0000709-0712 (U.S. Ex. 86,009); TIMN0000713-07141 (U.S. Ex. 21,264); TIMN0000715-0718 (U.S. Ex. 86,010); TIMN0000719-0722 (U.S. Ex. 86,011); TIMN0000723-0726 (U.S. Ex. 86,012); TIMN0000727-0728 (U.S. Ex. 86,013); TIMN0000729-0732 (U.S. Ex. 86,053); TIMN0000733-0734 (U.S. Ex. 86,014); TIMN0000736-0738 (U.S. Ex. 86,015); TIMN0000739-0744 (U.S. Ex. 86,016); TIMN0000745-0747 (U.S. Ex. 86,017); TIMN0000748-0750 (U.S. Ex. 86,045); TIMN0000751-0756 (U.S. Ex. 86,018); TIMN0000757-0762 (U.S. Ex. 86,019); TIMN0000763-0774 (U.S. Ex. 86,020); TIMN0000775-0780 (U.S. Ex. 86,021); TIMN0000781-0784 (U.S. Ex. 86,022); TIMN0000785-0788 (U.S. Ex.

86,023); TIMN0000789-0792 (U.S. Ex. 86,024); TIMN0000793-0796 (U.S. Ex. 86,025); TIMN0000797-0800 (U.S. Ex. 86,026); TIMN0000801-0804 (U.S. Ex. 86,027); TIMN0000805-0808 (U.S. Ex. 86,028); TIMN0000809-0812 (U.S. Ex. 86,029); 1005037509-7512 (U.S. Ex. 26,173); TIMN0123324-3327 (U.S. Ex. 62,650) (U.S. Ex. 21,282); TIMN0130693-0696 (U.S. Ex. 62,844); TIMN0130707-0710 (U.S. Ex. 62,845); TIMN0130728-0731 (U.S. Ex. 62,847); TIMN0130802-0803 (U.S. Ex. 62,849); TIMN0130816-0817 (U.S. Ex. 62,851); TIMN0130828-0829 (U.S. Ex. 62,852); TIMN0000713-0714 (U.S. Ex. 21,264); TITX0006663-6664 (U.S. Ex. 86,036); TIFL0515304-5307 (U.S. Ex. 77,032); TIMN0123270-3273 (U.S. Ex. 77,058); TIMN0123276-3279 (U.S. Ex. 77,059); TIMN0123304-3307 (U.S. Ex. 77,060); TIMN0130687-0690 (U.S. Ex. 77,068); TIMN0130742-0745 (U.S. Ex. 77,069); TIMN0130749-0752 (U.S. Ex. 77,070); TIMN0130778-0781 (U.S. Ex. 77,071); TIMN0130790-0793 (U.S. Ex. 77,072); TIMN396546-6549 (U.S. Ex. 77,096); TITX0006679-6682 (U.S. Ex. 77,111); TITX0006686-6688 (U.S. Ex. 77,112); 502367882-7887 (U.S. Ex. 49,132); TIMN0123314-3317 (U.S. Ex.21,345); TITX0006691-6694 (U.S. Ex. 86,044); TIMN0000748-0750 (U.S. Ex. 86,045); TINY0006115-6117 (U.S. Ex. 86,046); 500500776-0779 (U.S. Ex. 20,634); TIMN0130810-0811 (U.S. Ex. 62,850); TIKU000006641-6642 (U.S. Ex. 86,047); TIMN0130735-0738 (U.S. Ex. 62,848); TIKU000006559-6562 (U.S. Ex. 86,048); TIMN0130721-0724 (U.S. Ex. 86,049); TIKU000006545-6548 (U.S. Ex. 86,050); TIMN0130756-0761 (U.S. Ex. 86,051); TIKU000006580-6585 (U.S. Ex. 87,544); TIMN0130714-0717 (U.S. Ex. 62, 846); TIKU000006538-6541 (U.S. Ex. 86,052); 511018410-8413 (U.S. Ex. 22,459); TIMN0000729-0732 (U.S. Ex. 86,053); TIMN0123232-3235 (U.S. Ex. 86,054); ATC0541909-1914 (U.S. Ex.

86,055); ATC2445612-5615 (U.S. Ex.86,056); ATC2467590-7590 (U.S. Ex. 86,057); TIMN0070640-0656 (U.S. Ex. 21,299); TIMN0070657-0674 (U.S. Ex. 22,983); 1005037571-7571 (U.S. Ex. 26,174).

120. According to Hill & Knowlton, the primary purpose of the *Tobacco and Health* newsletter was to present directly to the medical and scientific communities research material related to tobacco and health – material that frequently did not deal with tobacco but suggested other causes of cancer, such as viruses, air pollution, and previous chest ailments. A secondary purpose was to attract the attention of the lay press to studies that challenged the validity of research linking cancer to cigarette use. In order to combat the effects of the *Tobacco and Health* newsletter, four non-governmental health agencies began issuing a *Medical Bulletin on Tobacco* in 1962. TIMN0081441-1457 (U.S. Ex. 21,482).

121. In a procedural memorandum, Hill & Knowlton delineated specific criteria for selecting reports to be included in "Tobacco and Health." The memorandum stated that research did not have to always deal specifically with tobacco; for example, research which suggested that other factors may cause diseases associated with smoking should be included; "[t]he most important type of story is that which casts doubt on the cause and effect theory of smoking and disease." TIMN00721488-1491 (U.S. Ex. 86,058); CTRPUBLICSTMT001270-1281 (U.S. Ex. 32,646).

122. In the *Tobacco and Health* newsletters, the Enterprise often issued public statements reaffirming promises it had made about TIRC: "[TIRC's] purpose is solely to obtain new information and to advance human knowledge in every possible phase of the tobacco and

health relationship." MNAT00515648-5651 (U.S. Ex. 21,227); 511018410-8413 (U.S. Ex. 22,459).

123. TIRC/CTR issued Annual Reports from 1956 through 1997. The TIRC/CTR Annual Reports routinely included, in varying formats: abstracts of articles published by researchers funded by TIRC/CTR grants; brief statements regarding organization and policy; lists of SAB members and their affiliations; lists of grantees; lists of ongoing and completed projects; and research summaries, commentaries, rationales, and observations. 85865669-5692 (U.S. Ex. 22,954); 2058185000-5317 (U.S. Ex. 20,499); 515709297-9340 (U.S. Ex. 20,866); MNAT00515749-5762 (U.S. Ex. 86,059).

124. TIRC/CTR Annual Reports were sent to medical editors at newspapers, medical editors for television programs, deans of colleges and universities in the United States, libraries at colleges and universities, college and university grant offices, the CTR Board of Directors, members of the CTR SAB, the CTR grantees, CTR class A and B members, and the Tobacco Institute. Deposition of Lorraine Pollice, United States v. Philip Morris, et al., June 27, 2002, 64:11-75:17, 120:4-10; Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 24, 2002, 62:8-67:2; 10023197-3197 (U.S. Ex. 26,128).

125. After a visit to the United States in October 1964, Sir Philip J. Rogers, TRC Chairman, and Geoffrey F. Todd, TRC Director, wrote in their report that the lawyers on the Ad Hoc Committee were involved with "clearing papers (e.g. Dr. Little's annual report)." 1003119099-9135 (U.S. Ex. 20,152) (U.S. Ex. 35,649).

126. The commentary in the Annual Reports uniformly challenged the hypothesis that

smoking was linked to lung cancer and emphasized that data regarding smoking and health were controversial, contradictory, and inconclusive:

- 1957 Report of the Scientific Director ("sound medical and experimental knowledge of tobacco use is relatively limited, at times contradictory, and often conjectural rather than factual. . . . There is not known today any simple or quick way to answer the question of whether any one factor has a role in causing human lung cancer . . . no one has established that cigarette smoke, or any one of its known constituents, is cancer causing to man. . . . Members of the [TIRC SAB] Board take the general position that definitive conclusions or predictions of individual risks are unwarranted by the present imperfect state of knowledge in the complex field of lung cancer causation," and describing cancer as "this so-called constitutional disease");

- 1958 Report of the Scientific Director ("a problem may well be obscured, and its solution delayed, by the soothing acceptance of an oversimplified and immature [tobacco theory] hypothesis. . . . The proponents of the tobacco theory have generated increasingly intensive and extensive propaganda. . . . As a result, a non-scientific atmosphere, conducive to prematurity, unbalance, and inadequacy of public judgement, has pervaded the whole field. . . . The prohibition concept discounts or ignores all considerations of smoking benefits in terms of pleasure, relaxation, relief of tension or other functions.");

- 1961 Report of the Scientific Director ("[T]hose who most actively promote this [smoking-lung cancer] hypothesis have consistently ignored or, at best, have minimized the fact that numerous directly relevant experiments either have failed to support the hypothesis or have provided only weak or uncertain data.");

- 1963-64 Report of the Scientific Director ("After 10 years the fact remains that knowledge is insufficient either to provide adequate proof of any hypothesis or to define the basic mechanisms of health and disease with which we are concerned.");

- 1964-65 Report of the Scientific Director ("[E]vidence to support the thesis that cigarettes exercise a direct carcinogenic effect on man has not been forthcoming.");

- 1978 Report of the Council for Tobacco Research-U.S.A., Inc. ("[T]he complex etiology of these constitutional diseases [cancer, heart disease, chronic pulmonary ailments] remains unraveled. These diseases have been associated statistically with smoking, but such associations are not proof of cause and effect.").

515709297-9340 (U.S. Ex. 20,866); 85865693-5741 (U.S. Ex. 22,237); 515709297-9340 (U.S. Ex. 20,866); 85865742-5804 (U.S. Ex.21,082); 1005100667-0670 (U.S. Ex. 86,060); 01141473-1541 (U.S. Ex. 20,039); 1002315484-5561 (U.S. Ex. 20,126); 1002316572-6677 (U.S. Ex. 20,131).

127. For more than two decades, the Annual Reports continued to discount the conclusions reached by the public health community and the Surgeon General linking smoking and disease and presented a view parroting the "open question" position of the tobacco industry. 515709297-9340 (U.S. Ex. 20,866); 85865669-5692 (U.S. Ex. 22,954); 85865693-5741 (U.S. Ex. 22,237); 85865742-5804 (U.S. Ex. 21,082); 85865805-5873 (U.S. Ex. 21,083); 85865874-5946 (U.S. Ex. 21,084); 01141473-1541 (U.S. Ex. 20,039); 85866020-6080 (U.S. Ex. 21,085); 1002315412-5483 (U.S. Ex. 20,125); 1002315484-5561 (U.S. Ex. 20,126); 1002315562-5640 (U.S. Ex. 20,010); 1002315641-5722 (U.S. Ex. 20,011); 1002315723-5834 (U.S. Ex. 20,127); 1002315835-5920 (U.S. Ex. 21,800); 1005082487-2584 (U.S. Ex. 20,202); 1005082585-2690 (U.S. Ex. 20,203); 1005082691-2788 (U.S. Ex. 20,012); 2028556086-6177 (U.S. Ex. 20,428); 1002316312-6397 (U.S. Ex. 20,128); 1002316398-6485 (U.S. Ex. 20,129); 1002316486-6571 (U.S. Ex. 20,130); 1002316572-6677 (U.S. Ex. 20,131); 1002316678-6780 (U.S. Ex. 20,132).

128. A June 20, 1984 memorandum from Wendell Stone, attorney at Shook, Hardy & Bacon, during the Cipollone litigation, acknowledged the bias of CTR/TIRC's annual reports. Stone commented that the reports, especially the early ones, "contained lengthy commentary . . . which read much like industry position papers." Stone also concluded:

> The TIRC/CTR commentary on research did not always seem to conform fully to the positions taken or implied in the abstract. For

> example, with respect to the Leuchtenberger inhalation research, the abstracts in the annual reports tend to give the impression that these researchers did in fact have a good animal model of lung cancer production by smoke inhalation. However, commentary on this research in the front material to the reports tended to argue away the relevance of the results.

515709297-515709340 (U.S. Ex. 20,866).

(ii) TIRC/CTR Public Statements

129. The Enterprise directed public attention to TIRC/CTR's research and based public statements and press releases upon it in order to have the public believe that the tobacco industry was objectively researching the relationship between smoking and disease and to perpetuate the industry's open controversy position. See U.S. FPFF §§ IV.A. and IV.D., infra.

130. Hill & Knowlton's 1959 Public Relations Report to TIRC explained that:

> Comment from TIRC for the press remains an effective way to meet anti-tobacco publicity efforts and emphasizes the multiple factors that should be considered. This, of course, is complemented with a continuing program of supplying information to give editors and writers a balanced perspective on questions of tobacco and health.

HT0145148-5150 (U.S. Ex. 21,177).

131. The relationship between TIRC/CTR and Hill & Knowlton remained close for many years. Because TIRC had no headquarters and no staff when it started up, Hill & Knowlton provided a working staff and temporary office space and assigned one of its experienced executives, Wilson T. Hoyt, to serve as Executive Secretary for the TIRC. In early 1956, the TIRC Executive Committee approved the removal of TIRC's offices to the building

where Hill & Knowlton's offices were located. At their January 29, 1964 meeting, the TIRC Executive Committee agreed to immediately transfer seven Hill & Knowlton employees, including Hoyt, to TIRC. TLT0902041-2064 (U.S. Ex. 88,401); CTRMN003816-3835 at 3825 (U.S. Ex. 21,147); 93218985-8986 (U.S. Ex. 21,116); TLT0900114-0115 (U.S. Ex. 88,402); TLT0900284-0284 (U.S. Ex. 88,403); TLT0900138-0142 (U.S. Ex. 88,404).

132. Even after the Tobacco Institute (discussed further at U.S. FPFF § I.C., infra) was created, CTR continued its public relations functions; it retained public relations advisor Hill & Knowlton until 1969, and retained Leonard Zahn, one of Hill & Knowlton's former employees, until 1994. 93218985-8986 (U.S. Ex. 21,116); 70057072-7073 (U.S. Ex. 21,983); 512678484-8499 (U.S. Ex. 51,653); 689103383-3437 (U.S. Ex. 54,275).

133. Leonard Zahn & Associates served as CTR's public relations counsel from 1969-1994. During his tenure Zahn attended SAB meetings, organized press conferences, prepared articles, and drafted press releases, public statements and the annual reports for CTR. Zahn also served as a liaison between CTR and the Tobacco Institute. Deposition of Leonard Zahn, Richardson v. Philip Morris, December 16, 1998, 308:7-14; Deposition of Leonard Zahn, Richardson v. Philip Morris, January 13, 1999, 837:6-837:21; 70124410-4414 (U.S. Ex. 31,512); 70124415-4415 (U.S. Ex. 31,513); 70124416-4416 (U.S. Ex. 31,514) 70124368-4372 (U.S. Ex. 31,486); CTR98CONG00032-0032 (U.S. Ex.86,061); CTR98CONG00070-0070 (U.S. Ex. 25,897); 682631398-1405 at 1400 (U.S. Ex. 30,983); CTRMN015360-5360 (U.S. Ex. 79,868); CTRMN015361-5361 (U.S. Ex. 79,869); CTRMN015362-5365 (U.S. Ex. 79,870); CTRMN015370-5371 (U.S. Ex. 79,873); CTRMN015380-5381 (U. S. Ex. 79, 877).

(c) TIRC/CTR and Litigation Support

134. In a November 17, 1978 Philip Morris memorandum, statements by Shook, Hardy & Bacon partner William Shinn confirmed CTR's assistance to the industry in litigation matters. "CTR began as an organization called Tobacco Industry Research Council [sic] (TIRC). It was set up as an industry 'shield' in 1954. . . . CTR has helped our legal counsel by giving advice and technical information, which was needed at court trials." 2045752106-2110 at 2107 (U.S. Ex. 20,467); 1003718428-8432 at 8429 (U.S. Ex. 35,902).

135. In October 2003, Steven Klugman, counsel for CTR, submitted a declaration that stated: "Documents in CTR's files show that lawyers who defended the tobacco companies in products liability cases consulted with Dr. Hockett [TIRC's Associate Scientific Director in 1960] from time to time about the scientific issues in those cases." Declaration of Steven Klugman, United States v. Philip Morris, et al., October 1, 2003, at ¶ 33 (U.S. Ex. 87,586) (U.S. Ex. 86,811). In addition, Klugman's declaration confirmed that, "when defendants called Dr. Little [TIRC's Scientific Director] as an expert witness in disease causation [in Lartigue v. R.J. Reynolds Tobacco Company, E.D.La. 1960], he was cross-examined by plaintiff's counsel, Melvin Belli, about the activities of TIRC, during which Mr. Belli characterized him as the cigarette company defendants' 'research guy.'" Declaration of Steven Klugman, United States v. Philip Morris, et al., October 1, 2003, at ¶ 34 (U.S. Ex. 87,586) (U.S. Ex. 86,811) (citing Lartigue Tr. at 2757, 2761, 2796).

136. Hockett also provided assistance to the Enterprise in a variety of ways. In a document dated March 5, 1964, Hockett analyzed the 1964 Surgeon General's report and

suggested ways in which Defendants could attack the report. He recommended that CTR not make direct public criticisms of the Report. However, he commented that "public commentaries by experts in the field who are unconnected with The Council, published over their own signatures will have value." Specifically, he advised that Joseph Berkson (who received funding from Defendants through Special Account No. 3) was publishing a commentary; Alan Donnahue had published such a commentary and that CTR was furnishing him with information; CTR was arranging a meeting with Theodor Sterling, who he hoped would also write a commentary (Sterling went on to receive more funding through CTR Special Projects than any other scientist). 1005154551-4557 (U.S. Ex. 26,202); 11327172-7172 (U.S. Ex. 88,405); 11327173-7173 (U.S. Ex. 88,406); 50061435-1436 (U.S. Ex. 29,472); 11327126-7128 (U.S. Ex. 26,435); XBW0010893-0896 (U.S. Ex. 26,456).

137. Over the years Defendants continued to use the CTR scientific staff to aid their defense in litigation. Sheldon C. Sommers, Scientific Director of CTR, served as an expert witness on behalf of Cigarette Company Defendants in Galbraith v. R.J. Reynolds in 1985 and in Cipollone v. Liggett in 1986. Deposition of Sheldon Sommers, Galbraith v. R.J. Reynolds, September 04, 1985, 3:15-20; Deposition of Sheldon Sommers, Cipollone v. Liggett, October 2, 1986, 13:14-21.

138. For many years, the Literature Retrieval Division of CTR provided litigation support to industry members. See U.S. FPFF § I.F., infra, for a discussion of CTR's Literature Retrieval Division.

(d) TIRC/CTR and Spokespersons at Congressional and Other Hearings

139. A November 17, 1978 Philip Morris memorandum containing statements by Shook, Hardy & Bacon partner William Shinn also confirmed CTR's assistance to the industry in providing speakers to Congress and other hearings: "CTR has supplied spokesmen for the industry at Congressional hearings. The monies spent at CTR provides a base for introduction of witnesses." 2045752106-2110 at 2107 (U.S. Ex. 20,467); 1003718428-8432 at 8429 (U.S. Ex. 35,902).

140. In 1962, Surgeon General Luther Terry, announced that the United States Public Health Service ("USPHS") would conduct a review on smoking and health. The group chosen to perform the review was later known as the Surgeon General's Advisory Committee on Smoking and Health. On July 24, 1962, Terry held a meeting to discuss the formation of the study group. Attendees included representatives from the Surgeon General's Office, the National Cancer Institute, American Cancer Society, American Heart Association, the Federal Trade Commission, and the Food & Drug Administration, among others. George Allen, President of the Tobacco Institute, and Clarence Cook Little, Scientific Director of TIRC, were present at the meeting to represent the Enterprise. At the meeting, Terry provided a list of proposed names for members of the Advisory Committee, with the request that each representative strike the names of any person to whom they objected. Little also provided a supplemental list of proposed individuals for the Committee, which was distributed. 2015069381-9383 (U.S. Ex. 86,064).

141. The Tobacco Institute and TIRC worked together with attorneys to research and object to certain individuals proposed to serve on the Surgeon General's Advisory Committee. According to a September 28, 1962 internal TIRC memorandum, Assistant Surgeon General

Peter Hamill contacted Robert Hockett, Associate Scientific Director of TIRC, to determine if TIRC would object to specific individuals. The names were "immediately checked" with Stanley Temko, counsel for the Tobacco Institute, and then cleared through Edwin Jacob, counsel for TIRC. Jointly, Little, Jacob and Allen decided on the objections that were raised. 11308689-8690 (U.S. Ex. 86,065).

142. In a July 25, 1962 memorandum to Timothy Hartnett, TIRC Chairman, Clarence Little described his impressions of the meeting with Terry on the formation of Surgeon General's Advisory Committee. Little strongly suggested that individual companies clear with TIRC any communications to be made with USPHS:

> I should like, at this time to urge as strongly as possible, that individual companies clear through TIRC before they decide to approach the USPSH directly. Direct individual approach without such consultation and clearance is fraught with the most serious and dangerous possibilities. It can be considered as:
>
> > (a) A lack of coordination and cooperation within the industry
> > (b) An expression of lack of confidence in the designated representatives and, indeed, in the TIRC as a whole.
> > (c) Pressure of a non-scientific nature forced on the USPHS before the scientific phase of its study is complete.
> > (d) Opening the door to conflicts in attitudes, statements, and interpretations within the industry and to contradictions and misunderstandings between the efforts of the representatives of TIRC and individual companies.
> > (e) It is in conflict with the well-established policies of administrative efficiency to have a number of independent contacts and representations in existence when a coordinating body is available.

1002609781-9784 (U.S. Ex. 86,066).

143. At a December 20, 1962 meeting, Little convinced Hamill that TIRC should serve as the "main channel of industry information" between the Surgeon General Advisory Committee and Defendants, as opposed to contacting the individual tobacco companies which, according to Little, could incur "legal and company competitive problems. " 85867910-7912 (U.S. Ex. 86,067).

144. A September 26, 1962 memorandum from Timothy Harnett, Chairman of TIRC, to members of the TIRC Executive Committee (Joseph Cullman of Philip Morris; William Cutchins of Brown & Williamson; Bowman Gray of R.J. Reynolds); Lewis Gruber of Lorillard; and Paul Hahn of American Tobacco) discussed the direction of TIRC's research program in response to the ultimate findings of the Surgeon General's Advisory Committee. Hartnett wrote:

> In <u>any</u> case Dr. Little feels that the industry will need to widen and deepen its support of research into the various effects of tobacco use in relationship to health. This assumption is based upon the expectation that the findings of the 'Expert Advisory Committee' of the Surgeon General will be either:
>
> > (a) Condemnatory to tobacco use. (This will require research as necessary for defense and maintenance of existence.)
> > (b) Inconclusive, expressing a hazard by statistical inference even though lacking in clinical and laboratory proof. (A strong research program will be needed to prove the sincerity and determination of the industry to find out the whole truth on its own.)
> > (c) Uncertain or relatively favorable, indicating much more needs to be known about the subject. . . .

70123542-3543 (U.S. Ex. 31,484).

145. On March 14, 1963, George Allen, President of the Tobacco Institute, forwarded a

letter from Hamill to the members of the Board of Directors, requesting any scientific information that might be of value to the Advisory Committee. Allen reminded the members that responses should be submitted through the Tobacco Institute or TIRC. Defendants, including R.J. Reynolds and Brown & Williamson, responded to the letter through the Tobacco Institute and referred Hamill to TIRC for scientific information. 2015064984-4985 (U.S. Ex. 86,068); 1005102314-2315 (U.S. Ex. 86,069); 11309803-9803 (U.S. Ex. 86,070); 680249780-9781 (U.S. Ex. 85,390).

146. During a June 26, 1963 telephone conversation between W.T. Hoyt, TIRC Executive Director, and Geoffrey F. Todd, Director of Britain's Tobacco Research Council, Hoyt stated that TIRC was "trying to keep their approach to S.G.A.C. on the highest scientific plane and are leaning over backwards to avoid any appearance of presenting propaganda on behalf of manufacturers." Nevertheless, he asserted that, even if TIRC "should feel it was desirable that the reports [by Battelle on the effects of nicotine] should be submitted to the Surgeon General's Advisory Committee, TIRC would not do that themselves. The reports would have to be presented through Brown & Williamson or some other channel." It had always been contemplated by British American Tobacco, sponsor of the Battelle nicotine research, that "if the reports stood up scientifically, it might be desirable to get them submitted to the U.S. Surgeon General's Committee." Less than a week after the Hoyt/Todd conversation, Brown & Williamson had determined that submission of the Battelle "developments" to the Surgeon General was "undesirable," and Hoyt had agreed to withhold disclosure of the three Battelle reports to the members of the TIRC Scientific Advisory Board until further notice from Addison

Yeaman, Brown & Williamson's General Counsel. 105636833-6834 (U.S. Ex. 75,518); 689033429-3429 (U.S. Ex. 54,274); 689033420-3420 (U.S. Ex. 54,272); 689033421-3421 (U.S. Ex. 31,045); 689033422-3422 (U.S. Ex. 22,734); 689033423-3423 (U.S. Ex. 31,046); 689033428-3428 (U.S. Ex. 54,273); 689636015-6015 (U.S. Ex. 86,072).

C. The Tobacco Institute

(1) Formation of The Tobacco Institute

147. In October 1954, George Whiteside, attorney for Defendant American Tobacco, explained to Paul Hahn, President of American Tobacco, that he was seriously concerned about the recent trend "in the field of anti-tobacco agitation . . . and feels the urgent need for reappraisal and the adoption of what we have called an 'affirmative' approach." Hahn passed on to Timothy Hartnett, TIRC Chairman, Whiteside's recommendation that the Cigarette Company Defendants "should seriously consider the setting up of a separate entity operating in the field of public information, with a name other than 'Tobacco Industry Research Committee' under which such activity would be conducted; since such activity would not involve the name of the Tobacco Industry Research Committee, the issuance of its statements, etc., would not present any problem of embarrassment to the members of the Scientific Advisory Board." TLT0900231-0231 (U.S. Ex. 88,407). No separate entity was set up for four years.

148. During the next four years, however, TIRC's public relations function caused a growing resentment on several fronts. Some Scientific Advisory Board ("SAB") members had

always wanted a more distinct separation between the SAB and TIRC. One reason advanced was that it did not appear appropriate for TIRC to be making "partisan" arguments on behalf of the industry while at the same time sponsoring research that was supposed to be objective. Members of the TIRC SAB considered it inadvisable and "downright unacceptable" for the SAB or its members to be quoted in TIRC press releases and public statements concerning the smoking and health controversy. As emphasized in the minutes of the October 17-18, 1954 TIRC SAB meeting, the SAB "recognized the need for a more affirmative informational approach by the TIRC, and expressed the feeling that it would be in order for the Committee [TIRC] to take more positive action on its own through Mr. Hartnett as chairman without, at the same time, drawing the Advisory Board or the research program into such utterances." ATX110005290-5303 (U.S. Ex. 21,774); Deposition of Paul Kotin, Falise v. American Tobacco, October 31, 2000, 348:25-352:14; CTRMN004227-4232 at 4230 (U.S. Ex. 86,073); TLT0900231-0231 (U.S. Ex. 88,407); TLT0900241-0241 (U.S. Ex. 88,408); TLT0900713-0716 at 0715 (U.S. Ex. 88,409).

149. At the very beginning of his chairmanship, Clarence Cook Little believed that care should be taken by the SAB members in approving and signing onto public statements authored by the TIRC because "it is very easy for the public to confuse a statement made by the Tobacco Industry Research Committee with a statement made by the Scientific Advisory Board." A public statement by TIRC was "capable of being interpreted as a joint [Scientific] Advisory Board and Tobacco Industry Research Committee action," and that confusion could put the public's positive attitude toward the SAB in jeopardy. Nevertheless, John Hill of Hill & Knowlton attempted to, and did indeed, convince Little of "the need to let the public know that

the case has not been proven and closed, but that there are 'two sides.'" TLT0902016-2016 (U.S. Ex. 88,410) TLT0903072-3073 (U.S. Ex. 88,411); TLT0900186-0186 (U.S. Ex. 88,202); TLT0900185-0185 (U.S. Ex. 88,203); TLT0901152-1152 (U.S. Ex. 88,204); TLT0901197-1198 (U.S. Ex. 88,205); TLT0920063-0066 at 0065 (U.S. Ex. 88,206); 501941582-1585 at 1583-1584 (U.S. Ex. 29,541).

150. By 1957, some members of the Enterprise were also concerned with the legal implications of Little's public statements. Lawyers for the Enterprise saw Little as a potential witness in litigation and worried that his public statements could compromise his usefulness in court. PP10003-2-0980-0993 at 0983 (U.S. Ex. 86,074).

151. Moreover, some members of the Enterprise wanted an organization that would take a much more aggressive public relations stance to counter arguments linking smoking and disease and to oppose proposed labeling legislation facing the industry. 70123537-3537 (U.S. Ex. 31,481); TIOK0034101-4102 (U.S. Ex. 63,011); HK16-HK16 (U.S. Ex. 87,545); SHSW314-W314 (U.S. Ex. 87,547); TIMS0012012-2013 (U.S. Ex. 77,099); 2074164618-4618 (U.S. Ex. 86,905); 2078348038-8038 (U.S. Ex. 86,906); TLT0920042-0043 (U.S. Ex. 88,207); http://energycommerce.house.gov/tobacco/docs/bw/0012691297.tif (U.S. Ex. 86,774).

152. This disquiet substantially contributed to the formation of a nonprofit corporation, the Tobacco Institute, which assumed many of the public relations functions of TIRC/CTR. 501941580-1581 (U.S. Ex. 20,004); 2010007711-7711 (U.S. Ex. 20,014); 2010007677-7677 (U.S. Ex. 20,013); 2010007701-7702 (U.S. Ex. 26,647); 2010007690-7691 (U.S. Ex. 22,252); 93481139-1140 (U.S. Ex. 21,117); TLT0900382-0382 (U.S. Ex. 88,208); TLT0900385-0389

(U.S. Ex. 88,209); TLT0900390-0391 (U.S. Ex. 88,210); TLT0900392-0392 (U.S. Ex. 88,211); TLT0900393-0393 (U.S. Ex. 88,212); TLT0900394-0394 (U.S. Ex. 88,213); TLT0900395-0395 (U.S. Ex. 88,214); TLT0900396-0396 (U.S. Ex. 88,215); TLT0900397-0397 (U.S. Ex. 88,216); TLT0900398-0398 (U.S. Ex. 88,217); TLT0900399-0399 (U.S. Ex. 88,218); TLT0900400-0400 (U.S. Ex. 88,219); TLT0900401-0401 (U.S. Ex. 88,220); TLT0900402-0402 (U.S. Ex. 88,221); TLT0900403-0403 (U.S. Ex. 88,222); TLT0900404-0404 (U.S. Ex. 88,223); TLT0900405-0405 (U.S. Ex. 88,224); TLT0900407-0407 (U.S. Ex. 88,225); TLT0900418-0418 (U.S. Ex. 88,226); TLT0920025-0025 (U.S. Ex. 88,227); TLT0920037-0037 (U.S. Ex. 88,228); TLT0920038-0038 (U.S. Ex. 88,229).

153. In a 1957 letter to Paul Hahn, President of American Tobacco, Edward Darr, President of R.J. Reynolds, congratulated Hahn on the formation of TIRC: "There is no question in my mind that if this Committee had not been formed, the cigarette industry by now would have been in a deplorable position. . . . In other words, the TIRC has been a successful defensive operation." Darr also recommended that the Enterprise form a prototype for what became the Tobacco Institute: "[T]he tobacco industry should go on the offensive in bringing the truth about cigarette smoking to the public. . . . I am convinced that an organization of tobacco manufactures formed for the narrow and well defined purpose of presenting facts and information helpful to the industry can and should be formed . . ." TIOK0034101-4102 at 4101 (U.S. Ex. 63,011).

154. At the November 8, 1957 meeting of the full membership of TIRC, the 1958 budget was submitted, but approval was withheld until a later date. The reason for this "was not

disclosed in the general meeting, but it was later explained to Mr. Hartnett that possibly some of the functions now being carried on by the Tobacco Information Bureau [a TIRC subcommittee] would become part of the activities of the Cigarette Institute if and when formed." 501941580-1581 (U.S. Ex. 20,004).

155. On December 6, 1957, letters were sent out by R.J. Reynolds and its outside counsel to representatives of the Cigarette Company Defendants scheduling a "meeting of the presidents or head men of the cigarette companies" for December 12, 1957 in the TIRC offices to discuss the organization of "The Cigarette Institute, Inc.," a trade organization for the industry. 2010007711-7711 (U.S. Ex. 20,014); 2010007696-7696 (U.S. Ex. 86,075).

156. A February 4, 1958 Hill & Knowlton memorandum reveals that R.J. Reynolds's Bowman Gray had told Hill & Knowlton President John Hill that, "although certain activities are under way, the efforts to oppose this [labeling] legislation were not being properly coordinated and directed, due to the fact that the Institute which had been formed to do this job was not yet ready to function." TLT0900376-0380 (U.S. Ex. 88,230); TIMS0012012-2013 (U.S. Ex. 77,099); TIOK0034101-4102 (U.S. Ex. 63,011); http://energycommerce.house.gov/tobacco/docs/bw/0012691297.tif (U.S. Ex. 86,774).

157. In January 1958, twelve manufacturers of cigarettes, smoking and chewing tobacco, and snuff jointly announced the formation of the Tobacco Institute. The companies forming the Tobacco Institute included Defendants American, Brown & Williamson, Liggett, Lorillard, Philip Morris, and R.J. Reynolds. 93481139-1140 (U.S. Ex. 21,117); TLT0920038-0041 (U.S. Ex. 88,231).

158. The Tobacco Institute was incorporated in New York State. According to the Certificate of Incorporation, New York City and the District of Columbia were the corporation's territory of operations; its principal office was in New York City; the number of the Tobacco Institute Board of Directors was to be not less than three nor more than twenty-five. TIMN0010606-0609 (U.S. Ex. 21,291).

159. Prior to the formation of the Tobacco Institute, Hill & Knowlton served the tobacco industry on an advisory basis. In 1958, when the Tobacco Institute was created, Hill & Knowlton was employed on a full time basis to serve as public relations counsel to the tobacco industry. TIMN0070539-0571 (U.S. Ex. 21,268); TLT0900374-0375 (U.S. Ex. 88,232); HK003024-3054 (U.S. Ex. 86,076); TLT0920052-0053 (U.S. Ex. 88,233); HK002964-2977 (U.S. Ex. 86,077).

160. The Tobacco Institute had a Board of Directors "composed in a fashion similar to that of the Council for Tobacco Research" and an Executive Committee consisting of the chief executive officers of the major tobacco companies, but was "run by a committee of [] lawyers, one from each of the major member tobacco companies." 044227839-7844 (U.S. Ex. 20,066).

161. Members of the Enterprise also convened regularly between 1958 and 1998 at the Tobacco Institute's Board of Directors meetings. At these meetings, representatives from the Enterprise discussed and passed resolutions regarding the Tobacco Institute's budget, programs and projects of the various divisions, election of officers, payment of dues, and amendments to the bylaws. TIMN0012720-2729 (U.S. Ex. 88,234); TIMN0005742-5754 (U.S. Ex. 88,235); TIMN0005777-5787 (U.S. Ex. 88,236); TIMN005798-5803 (U.S. Ex. 88,237); TIMN0012795-

2805 (U.S. Ex. 88,315); TIMN0005848-5856 (U.S. Ex. 88,316); TIMN0012837-2845 (U.S. Ex. 88,238); TIMN0012846-2851 (U.S. Ex. 88,239); TIMN0012865-2870 (U.S. Ex. 88,317); TIMN0005940-5946 (U.S. Ex. 88,240); TIMN0012893-2900 (U.S. Ex. 88,241); TIMN0012901-2911 (U.S. Ex. 88,242); TIMN0006140-6146 (U.S. Ex. 88,243); TIMN0012951-2955 (U.S. Ex. 88,244); TIMN0012956-2962 (U.S. Ex. 88,318); TIMN0012963-2973 (U.S. Ex. 88,321); TIMN0012974-2980 (U.S. Ex. 88,245); TIMN0012995-3000 (U.S. Ex. 88,246); TIMN0013001-3010 (U.S. Ex. 88,247); TIMN0006405-6411 (U.S. Ex. 88,248); TIMN0013203-3213 (U.S. Ex. 88,249); TIMN0014400-4410 (U.S. Ex. 88,250).

162. The first meeting of the Tobacco Institute Board of Directors was held on January 30, 1958. Former Congressman James Richards of South Carolina was elected President and Executive Director; Joseph F. Cullman, III, President of Defendant Philip Morris, was elected Treasurer; and Chandler Kibbe, Vice President of Defendant Philip Morris, was elected Assistant Treasurer. An Executive Committee was set up, and appointed as members were Cullman; Benjamin Few, President of Liggett; Bowman Gray, Chairman of R.J. Reynolds; Lewis Gruber, President and Chairman of Lorillard; and J. Whitney Peterson, President of United States Tobacco. Covington & Burling was appointed legal counsel to the Tobacco Institute, and Hill & Knowlton was appointed public relations counsel. TIMN0005705-5712 (U.S. Ex. 21,290); see also TLT0900333-0335 (U.S. Ex. 88,251); 2010007677-7677 (U.S. Ex. 20,013).

163. At the first meeting of the Tobacco Institute's Board of Directors, the bylaws were amended to read in Article III, Section 1, that "Each member elected pursuant to Article II shall pay annual dues (a) in the amount of $100 or (b) at the rate of (i) one twentieth of a cent for every

thousand tax-paid cigarettes plus (ii) 5 cents for every thousand pounds of manufactured tobacco produced by it during the preceding calendar year, which of (a) or (b) shall be larger." TIMN0005705-5712 (U.S. Ex.21,290); 1005136918-6933 (U.S. Ex. 20,223).

164. Although the membership fluctuated during the existence of the Tobacco Institute (1958 to the present), all Defendants (except BATCo, CTR, and the Tobacco Institute itself) created, agreed to fund, and/or did jointly fund the Tobacco Institute over the years. From 1958 through 1999, payments to the Tobacco Institute from Defendants amounted to more than $618,432,000, including: $19,146,216 from American; $15,933,769 from Brown & Williamson; $1,848,530 from Liggett; $29,195,668 from Lorillard; $161,505,876 from Philip Morris; and $110,298,387 from R.J. Reynolds. Responses of Individual Defendants to Plaintiff's First Set of Interrogatories, United States v. Philip Morris, et al., at Interrogatory/Response No. 25, (U.S. Ex. 77,407) (American), (U.S. Ex. 75,693) (Brown & Williamson), (U.S. Ex. 75,925) (Liggett), (U.S. Ex.61,444) (Lorillard), (U.S. Ex. 75,555) (Philip Morris), (U.S. Ex. 61,446) (R.J. Reynolds); TFAL0000001-0010 at 0009 (U.S. Ex. 21,892); 2023390612-0616 at 0614 (U.S. Ex. 21,895); 81616559-6562 at 6561 (U.S. Ex. 21,897); 81616516-6520 at 6518 (U.S. Ex. 21,896); 89694214-4220 at 4216 (U.S. Ex. 21,898); 89693636-3641 at 3638 (U.S. Ex. 21,899); 89696116-6124 at 6118 (U.S. Ex. 21,900); 89693336-3342 at 3338 (U.S. Ex. 22,989); 89693376-3384 at 3378 (U.S. Ex. 21,901); TIOK0000243-0249 at 0245 (U.S. Ex. 21,902); TIOK0000250-0256 at 0252 (U.S. Ex. 21,907); TIOK0000257-0265 at 0259 (U.S. Ex. 21,911); TIOK0000266-0273 at 0268 (U.S. Ex. 21,912); TIOK0000274-0281 at 0276 (U.S. Ex. 21,914); TIOK0000282-0289 at 0284 (U.S. Ex. 21,919); TIOK0000290-0297 at 0292 (U.S. Ex. 21,920);

TICT0009911-9918 at 9913 (U.S. Ex. 86,078); TIOK0000298-0304 at 0300 (U.S. Ex. 22,687); TICT0009919-9925 at 9921 (U.S. Ex. 21,962); TIOK000305-0312 at 0307 (U.S. Ex. 21,963); TICT0009888-9895 at 9890 (U.S. Ex.86,079); TIOK000313-0320 at 0315 (U.S. Ex. 22,685) (U.S. Ex. 21,967); TICT0009896-9903 at 9898 (U.S. Ex. 85,965); TIOK000321-0327 at 0323 (U.S. Ex. 22,684) (U.S. Ex. 21,968); TICT0009904-9910 at 9906 (U.S. Ex. 86,080); TI16352199-2372 at 2202-2211, 2271-2282, 2290-2294, 2309-2313, 2339-2341, 2368-2368, 2393-2395 (U.S. Ex. 22,183); TI16351836-1838 (U.S. Ex. 21,972); TICT0009885-9887 (U.S. Ex. 62,581) (U.S. Ex. 21,974); TICT0009871-9874 (U.S. Ex. 21,976); TICT0009863-9866 (U.S. Ex. 21,977); TICT0009867-9870 (U.S. Ex. 21,978) (U.S. Ex. 75,539); TI14940101-0103 (U.S. Ex. 87,548); Table, "Defendants' Dues Paid And/Or Contributions To The Tobacco Institute," attached as Appendix at APP-13-APP-15 to United States' Rule 7.1/56.1 Statement Of Material Facts Not In Dispute submitted in support of United States' Motion For Partial Summary Judgment Regarding Defendants' Affirmative Defenses That The Rico Claims And Sought Relief Are Prohibited By The Tenth Amendment And Separation Of Powers And That Defendants Are Not Jointly And Severally Liable For Any Disgorgement Ordered By The Court, United States v. Philip Morris, (R. 2330; filed July 1, 2003), ARU5840108-0110 (U.S. Ex. 88,677).

165. Lorillard was not a member of the Tobacco Institute from 1967 to 1970. However, even when Lorillard was not a member of the Tobacco Institute, it continued to "receive the releases and other information issued by the Institute," attended meetings of the lawyers of all the major companies at the Institute's offices, and was "kept apprised of the Institute's activities." 044227839-7844 (U.S. Ex. 20,066); Statement By Defendants The Council

For Tobacco Research – U.S.A., Inc. and The Tobacco Institute, Inc., Pursuant To Local Civil Rules 7.1(h) and 56.1, In Support Of Their Joint Motion For Summary Judgment, United States v. Philip Morris, et al. (R. 2397; filed August 1, 2003), at ¶ 92.

166. Defendant Philip Morris and Defendant Philip Morris Companies were both members of the Tobacco Institute. A handwritten note on an October 1985 Philip Morris document explained that the effect of Section 2 of Article III of the Tobacco Institute bylaws "is to permit Philip Morris Companies as a non-voting member while Pm Inc. [sic] continues as the voting member." Both Defendants had Class A directors on the Tobacco Institute Board of Directors. 2021266018-6018 (U.S. Ex. 26,735); 2021266019-6028 (U.S. Ex. 26,736); TIMN0017710-7711 (U.S. Ex. 87,550); TIMN0010629-0629 (U.S. Ex. 88,252); Deposition of William Adams, Connor v. Philip Morris, May 15, 1997, 19:10-20:5.

167. In an August 24, 1981 internal memorandum to I.W. (Ivor Wallace) Hughes, CEO of Brown & Williamson, Robert Sachs, Assistant General Counsel for Brown & Williamson, discussed the pros and cons of Tobacco Institute membership. Among his points, Sachs reasoned that "[o]ne of the clearest disadvantages to withdrawal [from the Tobacco Institute] would be the message it would send to the anti-smoking forces both inside and out. It would be the first obvious chink in the industry's armor . . . it would not seem like a good time for the industry to show anything but a united front." Sachs also noted the restrictions that Tobacco Institute membership imposed on individual company expression: "Not being a T.I. member, we would obviously feel freer to express our opinions both to the media and the government officials. There have been times when the need for consensus has resulted in a watered down industry

position[.]" Nevertheless, Sachs concluded that it was in Brown & Williamson's interest to remain a member of the Tobacco Institute in order to foster industry unity, enhance the effectiveness of tobacco industry lobbying, and maintain a buffer between individual companies and the media or government. 517004011-4012 at 4011 (U.S. Ex. 86,088).

168. At a special meeting of the membership in March 1973, the Tobacco Institute amended its bylaws to create two classes of membership. Class A members were the cigarette manufacturers (those members who as of the date of any election of directors would be subject to additional dues assessment per Article III, Section 1 of the bylaws). Class A members would be entitled to elect twice the number of directors as there were Class A members. Members not subject to such assessment would be entitled to elect the same number of directors as there were Class B members. At that meeting, five additional directors were elected to the Tobacco Institute Board of Directors for a total of thirteen directors: Joseph E. Edens, President of Brown & Williamson; Curtis H. Judge, President of Lorillard; Ross R. Millhiser, Vice Chairman of Philip Morris; Raymond Mulligan, President of Liggett; and William S. Smith, Chairman of R.J. Reynolds. In addition, the members determined that the chief executive of each member company would be designated to serve on the Tobacco Institute Executive Committee. William Smith was elected Tobacco Institute Executive Committee Chairman and Curtis H. Judge was elected Tobacco Institute Executive Committee Vice Chairman. LG20000457-0461 (U.S. Ex. 86,081); 536484137-4274 (U.S. Ex. 20,929); TIMN451429-1435 (U.S. Ex. 87,551).

169. According to its 1958 Certificate of Incorporation, the Tobacco Institute was formed were "to promote a better understanding by the public of the tobacco industry and its

place in the national economy; to cooperate with governmental agencies and public officials with reference to the tobacco industry; to collect and disseminate information relating to the use of tobacco; to collect and disseminate scientific and medical material relating to tobacco; to collect and disseminate information relating to the tobacco industry published or released by any governmental agency, federal or state, or derived from other sources independent of the industry; to collect and disseminate information relating to legislative and administrative developments, federal or state, affecting the tobacco industry; to promote public good will."
TIMN0010606-0609 (U.S. Ex. 21,291).

170. Despite these publicly stated purposes, the privately articulated primary functions of the Tobacco Institute included: advancing – through press releases, advertisements, publications, and other public statements – the Enterprise's primary position that there were scientific and medical doubts concerning the relationship between smoking and disease; disputing statements from health organizations about smoking and disease, and later about second hand smoke and disease; making certain that Defendants' positions on issues related to the connection between smoking and disease and second hand smoke and disease were kept constantly before the public, the medical community, the press, and the government and were consistent with each other's; selectively using the results of TIRC/CTR research projects and other industry-sponsored research projects to question the charges against smoking, to emphasize the complexities of those diseases with which smoking has been statistically associated, and to reassure the public that the industry was actively investigating the issues; denying that cigarette smoking was addictive; minimizing the difficulties of quitting smoking; and denying that the

industry marketed to youth.

171. According to Horace Kornegay, President of the Tobacco Institute, the public relations purpose of the Tobacco Institute was "to have a full, free and frank discussion by the public of the smoking and health controversy . . . [whereby] an informed public will come to a proper conclusion." Deposition of Horace Kornegay, Nickloff v. Liggett, April 16, 1973, 38:12-19.

172. In a January 10, 1968 memorandum to Earle Clements, President of the Tobacco Institute, William Kloepfer, Tobacco Institute Vice President for Public Affairs, set forth the public relations policy for the Tobacco Institute, which was "to attempt to increase substantially public awareness of the cigarette controversy; putting it another way, to make a greater portion of the public aware that widespread indictment of cigarettes as a cause of poor health does not amount to conviction." TIMN0016964-0016982 at 6964 (U.S. Ex. 21,564).

173. In an April 15, 1968 memorandum to Earle Clements, President of the Tobacco Institute, William Kloepfer, Vice President of the Tobacco Institute, observed the danger of promulgating the Institute's fraudulent position on smoking and health. He wrote, "**[o]ur basic position in the cigarette controversy is subject to the charge, and maybe subject to a finding, that we are making false and misleading statements to promote the sale of cigarettes.**" TIMN252389-2391 (emphasis added) (U.S. Ex.62,726) (U.S. Ex. 75,449) (U.S. Ex. 77,080).

174. In a 1970 memorandum, William Kloepfer, Vice President of the Tobacco Institute, listed the strategic objectives of the Tobacco Institute:

> -To inform the public that there still exists a scientific controversy about smoking and health.
> -To convince the public that the only way to resolve this continuing controversy is through scientific research.
> -To inform the public of this industry's research commitment, the results growing out of it, and our interest in fostering research.
> -To provide cigarette consumers with the other side of the controversy in order to offset their exposure to unbalanced mass media presentations.

TIMN0004004-4007 at 4006 (U.S. Ex. 87,552).

175. Beginning in 1975, the Tobacco Institute produced the "Smoking & Health Quotes Book" for members of the Enterprise. The book contained quotes from scientists regarding smoking and health that were "helpful in articulating our position in the controversy. " One Tobacco Institute executive lauded the production of the book as "the kind of industry cooperation we can be proud of." TIMN0250735-0737 at 0736 (U.S. Ex. 86,087).

176. A May 18, 1982 letter from William Shinn, Shook, Hardy & Bacon, directed to Robert Sachs, Counsel for Brown & Williamson, and Arthur Stevens, General Counsel for Lorillard, described in detail Shook, Hardy & Bacon's relationship with the Tobacco Institute. Shinn divided the law firm's activities into four categories: Tobacco Institute Clearance Procedures, Tobacco Institute Committees, Science and Research, and General. Clearance procedures were defined as a number of standard operating procedures in examining Tobacco Institute materials with potential smoking and health overtones. Shinn described the active involvement of lawyers as going beyond just the review of Tobacco Institute materials: "We often spend a great deal of time working back and forth with T.I. to get a satisfactory document, and sometimes find ourselves in the position of preparing the final version." Tobacco Institute

committee work involved attending Committee of Counsel, Communications Committee, and Executive Committee meetings. See U.S. FPFF § I.E., infra, for discussion of Tobacco Institute Committees. Science and Research work primarily concerned the development of Special Projects and industry witnesses. General work was a catchall category with activities ranging from literature review for the purposes of isolating possible expert witnesses to appearances at the Tobacco Institute's College of Tobacco Knowledge. See U.S. FPFF § I.C(4)(c), infra, for discussion of College of Tobacco Knowledge. 2015035387-5391 (U.S. Ex. 36,651); 2015028028-8032 (U.S. Ex. 36,638); 521043046-3050 (U.S. Ex. 20,891).

177. Gil Heubner, Medical Director at the Tobacco Institute, expressed his frustrations with lawyers' involvement in the Tobacco Institute in a July 8, 1971 meeting with John Blalock, a member of the Tobacco Institute's Communications Committee. According to Heubner the "Kansas City Group" (Shook, Hardy & Bacon's headquarters were in Kansas City) exercised "far too much control over certain policies and practices." According to Blalock, Heubner's specific concerns were:

> (1) their control of extraordinary funds of The Institute that are made available in the medical area; (2) their disregard for his review and recommendations; (3) their power to give or withhold final approval for almost all decision in the communications area and for Institute actions; and (4) their seeming failure to understand basic public attitudes.

680241709-1712 at 1710 (U.S. Ex. 30,849).

(2) Cooperation Between the Tobacco Institute and TIRC/CTR

178. The Tobacco Institute and CTR had various interactions with each other, shared Defendant-members, and worked in tandem to carry out the fraudulent purposes of the

Enterprise. In furtherance of the scheme to defraud, the Tobacco Institute publicized selective CTR-funded studies and passed off CTR-funded Special Projects as well as lawyers' special projects to the public as independent research. TIMN0125189-5189 (U.S. Ex. 77,065); TLT0920037-0037 (U.S. Ex. 88,253).

179. In a February 5, 1958 letter to John W. Hill of Hill & Knowlton, public relations counsel for both TIRC and the Tobacco Institute, Paul Hahn, President of American Tobacco shared his expectations of the coordinated position of the Tobacco Institute and TIRC/CTR on the effects of smoking and health. He wrote, "In the present state of evidence, the position of the Institute should be compatible with that of TIRC and SAB. . . ." Hahn then summarized the position of the SAB: "Science does not yet know the answer to the question regarding whether tobacco is a health hazard; further research is needed." TLT0900385-0389 at 0387 (U.S. Ex. 88,254); JH000207-0211 at 0209 (U.S. Ex. 86,082); TIMN252389-252391 (U.S. Ex. 62,726) (U.S. Ex. 75,449) (U.S. Ex. 77,080).

180. On April 14, 1958, John W. Hill of Hill & Knowlton wrote to James Richards, Tobacco Institute President and Executive Director, that "Mr. Hartnett [TIRC Chairman] has asked us to see to it that all TIRC publications and reports are promptly brought to your attention. He has also asked that we take any other steps we can to insure adequate mutual information and coordination between TIRC and the Institute on public relations matters affecting the industry." TLT0920052-0053 (U.S. Ex. 87,211).

181. In October 1962, the Tobacco Institute and the Executive Committee of TIRC held a joint meeting to discuss industry advertising. It was suggested at the meeting that the

industry should use paid advertising to state its position "that the charges against cigarettes as a health hazard do not constitute a 'closed case' against smoking." TIOK0033722-3724 at 3722 (U.S. Ex. 63,008); see also Response of Defendant The Tobacco Institute to Plaintiff's First Set of Requests for Admission Amended Pursuant to Order #119, United States v. Philip Morris, et al. (served April 19, 2002), at Request/Response No. 154 (U.S. Ex.87,227).

182. A 1966 document entitled "The 'Mission' of the President of the Tobacco Institute" explained that, to meet the Enterprise's objectives, "the full resources of the Institute must be directed toward a consistent and positive program to gain public exposure to research results and scientific opinions that question the charges against smoking and that point up the complexities of those diseases with which smoking has been statistically associated." 502645038S-5038Z (U.S. Ex. 23,053).

183. One of several joint publications by TIRC and the Tobacco Institute led with the headline: "The subject of smoking and health continues to make news. Charges against tobacco have been widely publicized, but less attention is given to the views of those who do not accept these charges." TIMN0081632-1632 (U.S. Ex. 86,083); 2015066285-6285 (U.S. Ex. 26,711).

184. On April 20, 1970, Jim Bowling, Philip Morris employee, briefed and updated Robert Heimann, President of American Tobacco, "on industry public relations in the field of smoking and health." Bowling reported that the Tobacco Institute planned to hold a press conference on April 30, 1970, to discredit the Auerbach-Hammond beagle study, and that the spokesmen for the industry would be CTR's Arthur Furst and Sheldon Sommers who would "take a stand against the ACS [American Cancer Society] propaganda approach to 'science.'"

966000976-0977 (U.S. Ex. 86,084); 966056987-6988 (U.S. Ex. 86,085); BWX0011014-1015 (U.S. Ex. 36,245).

185. In a June 5, 1970 memorandum to Horace Kornegay, President of the Tobacco Institute, William Kloepfer and Fred Panzer, Vice Presidents of the Tobacco Institute, proposed specific guide lines to assist Henry Ramm, Chairman of CTR, in selecting a new Scientific Director. Kloepfer and Panzer provided a timetable with dates by which the new Scientific Director should have been selected and performed specific public relations activities on behalf of the CTR. Kloepfer and Panzer also provided a suggested candidate for the position of Scientific Director. TIMN0004138-4141 (U.S. Ex. 87,588).

186. As directed by the Tobacco Institute Executive Committee, Horace Kornegay met in 1973 with Henry Ramm, CTR Chairman, to discuss "closer cooperation between the Institute and the Council for Tobacco Research." Kornegay reported, at the April 2, 1973 meeting of the Tobacco Institute membership and Board of Directors, that "CTR did desire closer cooperation with the Institute and that the scientific personnel of the Institute would be invited to attend the May 15, 1973 CTR meeting in New York." LG2000457-0461 (U.S. Ex. 21,876).

187. In 1974, William Kloepfer, Tobacco Institute Vice President for Public Affairs, conducted filmed interviews with several CTR-affiliated persons on issues related to smoking and health. The opinions of the CTR-affiliated persons were unanimously supportive of the Enterprise's positions on smoking and health issues. Sheldon Sommers, CTR's Associate Scientific Director, stated that "there is no sound evidence that smoking is harmful to the health of the nonsmoker." Domingo Aviado, CTR Special Project funding recipient, stated that "on the

basis of existing scientific evidence, tobacco smoke, I think, constitutes no health hazard to normal nonsmokers in public places." Robert Hockett, CTR's Scientific Director, stated that "it just seems to me that there is no justification for any general laws with respect to the protecting of nonsmokers from smoke." William Shinn of Shook, Hardy & Bacon, a law firm with substantial influence over CTR's Special Project funding, opined on why regulation of smoking was unnecessary. TITX0001450-1455 (U.S. Ex. 77,110).

188. After four months as CTR President, Addison Yeaman chaired his first meeting of the CTR membership on December 10, 1975. Speaking to the members for the first time as president, Yeaman told them that "all the resources [of CTR], all the knowledge [of CTR], all the help that CTR can give, should be available to the lawyers, to the Tobacco Institute, and to any other of the troops in the field," and that CTR should be independent but "independent within the policies set down by the membership." 11303014-3020 (U.S. Ex. 86,005); 682631405-1421 (U.S. Ex. 21,025).

189. While the purpose of the Ad Hoc Committee, which was made up of representatives of legal, public relations, and research executives of various companies in the Enterprise, was to "consider policy questions in general and particularly grants, contracts, the fate of CTR, etc.," Ernest Pepples, Brown & Williamson Vice President and General Counsel, insisted in 1978 that "in the deliberations of the ad hoc committee, the needs of TI have to be met." 2045752106-2110 (U.S. Ex. 20,467); 1003718428-8432 (U.S. Ex. 35,902).

190. On November 9, 1984, CTR released a report to the media on the results of a mouse cigarette smoke inhalation research project favorable to the industry because it found no

lung cancer, and provided the Tobacco Institute with several hundred copies for public relations use. TI05120121-0121 (U.S. Ex. 62,209); TI05120129-0129 (U.S. Ex. 86,086).

(3) Tobacco Institute Committees

191. The Tobacco Institute was run by a variety of committees, which were made up of representatives and agents from Defendants Philip Morris, Lorillard, Liggett, R.J. Reynolds, and Brown & Williamson, and employees from Defendant Tobacco Institute. The most influential and powerful Tobacco Institute committees were the Tobacco Institute Committee of Counsel, the Tobacco Institute Executive Committee, and the Tobacco Institute Communications Committee.

(a) Committee of Counsel and Outside Counsel

192. The Tobacco Institute Committee of Counsel was comprised of the general counsels of the sponsoring companies of the Tobacco Institute – Philip Morris, R.J. Reynolds, Lorillard, Liggett, and Brown & Williamson – as well as counsel for American. 85686131-6131 (U.S. Ex. 87,589) (Lorillard); 1005147807-7807 (U.S. Ex. 36,119) (Philip Morris); 03654362-4362 (U.S. Ex. 29,296) (R.J. Reynolds); LG2000172-0172 (U.S. Ex.34,056) (Brown & Williamson); LG2014927-4931 (U.S. Ex. 86,090) (Liggett); 681725305-5307 (U.S. Ex. 75,407) (U.S. Ex. 21,019) (American). Representatives from Philip Morris Companies also were members of the Committee of Counsel, and some Committee of Counsel meetings were held at Philip Morris Companies headquarters in New York. 2023033745-3745 (U.S. Ex. 87,590) ; 2023033795-3795 (U.S. Ex. 87,591) .

193. The purpose of the Committee of Counsel was "[t]o provide legal advice on any

matter that we would bring before it or they as member companies would bring before it." Deposition of Samuel Chilcote, State of Minnesota v. Blue Cross, Blue Shield, September 18, 1997, 14:17-16:19.

194. The importance of the Committee of Counsel was described in an October 1964 trip report written by visitors from Britain's Tobacco Research Council:

> The leadership in the U.S. smoking and health situation therefore lies with the powerful Policy Committee of senior lawyers advising the industry, and their policy, very understandably, in effect, is "don't take any chances." It is a situation that does not encourage constructive or bold approaches to smoking and health problems, and it also means that the Policy Committee of lawyers exercise close control over all aspects of the problems.

1003119099-9135 (U.S. Ex. 20,152) (U.S. Ex. 35,649).

195. Over the years, members of the Committee of Counsel included counsel from Defendant Philip Morris – Thomas Ahrensfeld (1971-1980); Martin Barrington (1998); John Vance Hewitt (1961-1965); Alexander Holtzman (1980-1988); Denise Keane (1995-1997); Fredric Newman (1988-1989); Paul Smith (1961-1965); counsel from Defendant American – Eugene Anderson (1961-1965); Cyril Hetsko (1961-1965); Horace Hitchcock (1961-1965); Gilbert Klemann (1991); counsel from Defendant R.J. Reynolds – Paul Randour (1987-1990); Charles Blixt (1995-1998); James Chapin (1976-1994); Wayne Juchatz (1985-1994); H. Henry Ramm (1961-1965); Henry C. Roemer (1971-1976); Samuel Witt (1981-1984); counsel from Defendant Liggett – DeBaun Bryant (1972-1976); Joseph Greer (1976-1983); Frederick P. Haas (1971-1975); Francis H. Horan (1961-1965); Josiah S. Murray (1983-1992); J. Bowen Ross (1984); counsel from Defendant Brown & Williamson – F. Anthony Burke (1994-1998); Ernest

Pepples (1976-1987); James Ravlin (1961-1965); Addison Yeaman (1961-1965); counsel from Defendant Lorillard – Freeman (Matt) Daniels (1961-1965); Arthur Stevens (1971-1998); attorneys from Covington & Burling – Richard Verheij (1994-1998); Thomas Austern (1961-1965, 1971-1983); Clausen Ely (1995-1998); Burke Marshall (1961); John Rupp (1984-1995); Stanley Temko (1978-1998); attorneys from Jacob, Medinger & Finnegan – Max Crohn (1976-1980); Edwin Jacob (1961-1965); attorneys from Shook, Hardy & Bacon – David K. Hardy (1993-1996); David R. Hardy (1971-1976); Donald Hoel (1985-1989); Robert Northrip (1989-1991); Steven Parrish (1990-1994); William Shinn (1976-1984); an attorney from Davis and Polk, Leighton Coleman (1961-1965); an attorney from Forsyth, Decker & Murray, A.S. Forsyth (1961-1965); and counsel from United States Tobacco. Response of Defendant The Tobacco Institute to Plaintiff's First Set of Interrogatories, United States v. Philip Morris, et al. (served February 6, 2001), at Interrogatory/Answer 13 (U.S. Ex.64,758); Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 71:17-22; Deposition of Steven Parrish, United States v. Philip Morris, et al., June 25, 2002, 173:2-7; Deposition of Arthur Stevens, United States v. Philip Morris, et al., June 18, 2002, 20:17-22:11; Deposition of J. Kendrick Wells, United States v. Philip Morris, et al., July 1, 2002, 180:1-194:11 (Confidential); Deposition of Samuel Chilcote, Richardson v. Philip Morris, September 21, 1998, 100:21-103:4; 521043046-3050 (U.S. Ex. 20,891); 680038350-8352 (U.S. Ex. 20,980).

196. The Tobacco Institute Committee of Counsel had a rotating chairmanship that was coordinated with chairmanship of the Tobacco Institute Executive Committee. If, for example, the R.J. Reynolds representative on the Tobacco Institute Executive Committee was Chairman of

the Executive Committee, then the R.J. Reynolds representative on the Tobacco Institute Committee of Counsel was the Chairman of the Committee of Counsel. Deposition of Samuel Chilcote, Richardson v. Philip Morris, September 21, 1998, 100:21-103:4.

197. The primary function of the Committee of Counsel within the Enterprise was described in a document prepared by Ernest Pepples, General Counsel for Brown & Williamson: "[T]he primary function of this Committee of Counsel has been to circle the wagons, to coordinate not only the defense of active cases, but also to coordinate the advice which the General Counsels give to ongoing operations of their companies pertaining to products liability risks." 517004087-4090 (U.S. Ex. 20,874).

198. The Committee of Counsel met frequently and the agenda of the Committee of Counsel meetings covered a wide range of topics that were of concern to the Defendants. 03654134-4134 (U.S. Ex. 29,291); 85686132-6132 (U.S. Ex. 87,592); 85686235-6236 (U.S. Ex. 87,593); 85685497-5497 (U.S. Ex. 32,030); 03654220-4220 (U.S. Ex. 29,293); 03654179-4180 (U.S. Ex. 87,594); 507733680-3680 (U.S. Ex. 86,092); 503762768-2768 (U.S. Ex. 86,093); 03654341-4342 (U.S. Ex. 29,295); 03654327-4328 (U.S. Ex. 29,294); 85685745-5745 (U.S. Ex. 86,094); 503689705-9705 (U.S. Ex. 86,095); 85682380-2381 (U.S. Ex. 32,023); 1005085870-5870 (U.S. Ex. 35,994); LG2005471-5473 (U.S. Ex. 88,096); 03654160-4160 (U.S. Ex. 86,097).

199. For example, after a meeting on May 7, 1963, a member of the Committee circulated a memorandum proposing to sponsor a consumer survey to look for awareness of smoking and health issues, noting that, if the survey came out favorably, "it is possible that this information could be of significance to the industry both for its Congressional presentation and

for other purposes. If, for example, we are able to establish that the American consumer overestimates the risks of habitual smoking, the case for warning or labeling would be weakened." The memorandum continued to discuss how to "skew" the results by eliminating questions that "might upset an otherwise favorable return." Most importantly, the document stated:

> the question has been raised of possible adverse use of a survey. Specifically, M. Austern has suggested that should the results of the survey prove unfavorable, they may be subpoenaed or otherwise may fall into the hands of the FTC, a congressional Committee, or a plaintiff in pending cancer litigation. There is no question that some risk exists. We have been assured by both Elrich & Lavidge and by Professor Steiner that they would transmit to us every interview and every copy of the analysis. Thus, when it is completed, there will be nothing in the records of Elrich & Lavidge or Professor Steiner to subpoena. The danger of a successful subpoena would be reduced (though not entirely eliminated) if the survey were in an attorney's files. **In any event, if the returns were unfavorable they could be destroyed and there would be no record in any office of the nature of the returns.**

LG2006318-6330 (U.S. Ex. 21,203) (U.S. Ex. 36,274) (emphasis added).

200. A May 23, 1964 memorandum prepared by Abe Krash, a partner with Arnold, Fortas & Porter, discussed a May 7, 1964 meeting of Henry Ramm, General Counsel for R.J. Reynolds; Cyril Hetsko, General Counsel for American; Frederick Haas, General Counsel for Liggett; John Russell, Counsel for Lorillard; Paul Smith, Associate General Counsel for Philip Morris; Addison Yeaman, General Counsel of Brown & Williamson; H. Thomas Austern, attorney with Covington & Burling; and Robert Wald, attorney with Wald, Harkreder & Rockefeller. Krash described the decision to proceed, on a preliminary basis, with a public

opinion survey on the public awareness of the health issues involving cigarette smoking, which might be used as a basis for testimony at congressional hearings to support the position that labels and warnings in advertisements were not necessary. LG2006318-6330 (U.S. Ex. 21,203) (U.S. Ex. 36,274).

201. On April 3, 1968, members of the Committee of Counsel met with Clarence Cook Little of CTR in the morning and then with Little and Robert Hockett in the afternoon. In the morning session, Little advocated that "closer liason [sic] should be established and more frequent meetings held between the industry (represented by General Counsel) and both the SAB and CTR staff." BWX0003853-3866 at 3854 (U.S. Ex. 36,213). In the afternoon session, CTR Special Projects were discussed. It was noted by Hockett, "that one of [CTR Special Project funding recipient] Enslein's great assets to the staff is his ability to pass in and out of the 'camp of the enemy' (as it were) at will, learning useful things." BWX0003868-3883 at 3882 (U.S. Ex. 36,214).

202. The Committee of Counsel was involved in many areas of the Enterprise's activities. According to minutes of a January 8, 1978 Committee of Counsel meeting, industry attorneys made recommendations on industry witness development, Special Projects, Special Accounts and institutional research. In attendance were Horace Kornegay, Jack Mills, Bill Kloepfer, Anne Duffin, Fred Panzer, Earle Clements, and Marvin Kastenbaum of the Tobacco Institute; Dave Hardy and William Shinn of Shook, Hardy & Bacon; Edwin Jacob of Jacob, Medinger & Finnegan; Tom Ahrensfeld, Alexander Holtzman, Abe Krash, and Jerome Chapman of Philip Morris; Jack Roemer of R.J. Reynolds; Arthur Stevens of Lorillard; Fred Haas and

Joseph Greer of Liggett; and Debaun Byrant of Brown & Williamson. 680239427-9429 (U.S. Ex. 30,835).

203. Members of the Committee of Counsel communicated and collaborated with other industry committees. For example, according to notes from an August 4, 1977 meeting written by Janet Brown, outside counsel to American, the Committee of Counsel worked with the Tobacco Institute Communications Committee on advertising matters. MNATPRIV00011771-1782 (U.S. Ex. 59,824).

204. According to a November 1977 document that was authored by attorney Janet Brown in April 1975, Arthur Stevens of Lorillard was the Chairman of the Committee of Counsel. Thomas Ahrensfeld of Philip Morris, Debaun Bryant of Brown & Williamson, Frederick Haas of Liggett, and Henry Roemer of R.J. Reynolds were members of the Committee of Counsel. It was proposed that the Committee of Counsel discuss a genetic project to be undertaken at the University of Colorado and the University of Hawaii that was being addressed by the Research Liaison Committee (further discussion at FPFF § I.E(1), infra). http://energycommerce.house.gov/tobacco/docs/bw/0012690847.tif. (U.S. Ex. 86,832).

205. A December 9, 1977 memorandum from Max Crohn, Assistant General Counsel of R.J. Reynolds, to the Committee of Counsel discussed the Committee's December 8, 1977 meeting and his appointment as chair of a subcommittee "that will begin assembling witnesses and witness statements to be used in an appropriate forum where the effects of smoke on the nonsmoker is at issue." Crohn had requested the assistance of, among others, William Shinn and Donald Hoel of Shook, Hardy & Bacon; Edwin Jacob and Timothy Finnegan of Jacob, Medinger

& Finnegan; and Stanley Temko of Covington & Burling. http://energycommerce.house.gov/tobacco/docs/bw/0012685027.tif (U.S. Ex. 86,815).

206. An October 13, 1980 letter from Thomas Ahrensfeld, General Counsel of Philip Morris, to H. Thomas Austern, attorney with Covington & Burling; James Chapin, General Counsel of United States Tobacco; Max Crohn, General Counsel of R.J. Reynolds; Joseph Greer, General Counsel of Liggett; Arnold Henson, General Counsel of American; Ernest Pepples, General Counsel of Brown & Williamson; William Shinn, Shook, Hardy & Bacon; Arthur Stevens, General Counsel of Lorillard; and Stanley Temko, Covington & Burling, described the agenda for the next Committee of Counsel meeting to take place on October 29, 1980. Enterprise matters to be discussed included: "1. Report on meeting with UFAC; 2. Model product liability legislation; 3. Litigation; 4. Use of medical and scientific witnesses in legislative hearings; 5. Suggested procedures for handling of sensitive documents by Tobacco Institute; 6. Legal coverage of trade meetings; 7. Lawsuits concerning smoking in work places; 8. Current legal and administrative developments; 9. Smoking and health; 10. Other business." LG2008241-8242 (U.S. Ex. 21,206).

207. The September 10, 1981 Committee of Counsel meeting was held at the offices of Chadbourne, Parke, Whiteside & Wolff in New York. In attendance were Robert Sachs of Brown & Williamson; Samuel Witt of R.J. Reynolds; Frederic Newman of Philip Morris; Arthur Stevens and James Cherry of Lorillard; William Shinn, Robert Northrip, and Patrick Sirridge of Shook, Hardy & Bacon; Francis Decker of Webster & Sheffeld; Edwin Jacob and Timothy Finnegan of Jacob, Medinger & Finnegan; and Janet Brown and Thomas Bezanson of

Chadbourne Parke. Issues discussed included CTR Special Projects and the CTR Literature Retrieval Division. 03746184-6185 (U.S. Ex. 20,600); 03746187-6190 (U.S. Ex. 86,098); 2024671248-1255 (U.S. Ex. 21,584); 1005121522-1526 (U.S. Ex. 23,046); LDOJ2607427-7434 (U.S. Ex. 86,099). See U.S. FPFF § I.D(2), infra, for discussion of CTR Special Projects; see U.S. FPFF § I.R, infra, for discussion of CTR Literature Retrieval Division.

208. During a May 26, 1982 Committee of Counsel meeting, attendees included William Shinn and Donald Hoel, Shook, Hardy & Bacon; Edwin Jacob and Tim Finnegan, Jacob, Medinger & Finnegan; Stanley Temko and John Rupp, Covington & Burling; Alexander Holtzman and Frederic Newman, Philip Morris; Ernest Pepples and Robert Sachs, Brown & Williamson; Samuel Witt, R.J. Reynolds; Joseph Greer, Liggett; Arthur Stevens, Lorillard; Samuel Chilcote, Tobacco Institute; and Gilbert Klemann and Thomas Bezanson, Chadbourne, Parke, Whiteside & Wolf. Committee members Witt, Shinn, and Chilcote established that all proposed Tobacco Institute ads would be reviewed by the Committee on behalf of the Enterprise. BWX0004268-4274 (U.S. Ex. 36,225); XBW0011383-1396 (U.S. Ex. 86,100).

209. On April 19, 1983, in response to the passage of the Alcohol and Drug Abuse Amendments of 1983, H.R. 1696, 98th Congress (1993), which called for the Secretary of Health and Human Services to report to Congress on the "current findings of the health effects of marijuana and the addictive property of tobacco," Arthur Stevens wrote in a memorandum to Lorillard executives Curtis Judge, Robert Ave, and Alexander Spears, "Chilcote and I will review with the Committee of Counsel how we might gear up some research to assist in responding to future attacks in the area of addiction which may arise as a result of this legislation." 03601381-

1387 at 1382 (U.S. Ex. 86,101); 03601453-1453 (U.S. Ex. 86,102); 01333625-3625 (U.S. Ex. 26,468).

210. Present at the November 14, 1983 Committee of Counsel meeting were Arthur Stevens, General Counsel of Lorillard; Stanley Temko, attorney at Covington & Burling; Josiah Murray, Liggett General Counsel; Horace Kornegay, Samuel Chilcote, and Howard Liebengood of the Tobacco Institute; Janet Brown, counsel for American; William Shinn and Donald Hoel attorneys at Shook, Hardy & Bacon; Thomas Ahrensfeld, Frederic Newman, Alexander Holtzman, and Michael Damita of Philip Morris; and Samuel Witt, Wayne Juchatz, and Gene Ainsworth of R.J. Reynolds. Enterprise topics discussed included pending legislation on self-extinguishing cigarettes and warning notice legislation, Special Projects, and product liability legislation. 03654139-4147 (U.S. Ex. 86,103); XBW0011405-1416 (U.S. Ex. 86,104).

211. Present at the June 11, 1985 Committee of Counsel meeting were Thomas Ahrensfeld, Frederic Newman, Alexander Holtzman and Michael Damita of Philip Morris; Murray Bring, attorney at Arnold and Porter; Samuel Witt and Harold Henderson, counsel at R.J. Reynolds; Donald Hoel and David Hardy, attorneys at Shook, Hardy & Bacon; Samuel Chilcote and Robert Lewis of the Tobacco Institute; Robert Sachs, Assistant General Counsel of Brown & Williamson; Josiah Murray and Jim O'Hara of Liggett; Arnold Henson, General Counsel of American; and Thomas Bezanson, attorney at Chadbourne, Parke, Whiteside & Wolf. The Committee discussed action on an ingredients list, funding projects under Special Account No. 4, and federal product liability litigation. BWX0004264-4267 (U.S. Ex. 36,224); 680542504-2505 (U.S. Ex. 86,105).

212. An August 23, 1989 Tobacco Institute document lists the members of the Committee of Counsel as Wayne Juchatz, Chairman, R.J. Reynolds; James Chapin, United States Tobacco; William Gary, Pinkerton Tobacco; Donald Hoel, Shook, Hardy & Bacon; Josiah Murray, III, Liggett; Frederic Newman, Philip Morris; Paul Randour, American; John Rupp, Covington & Burling; Arthur Stevens, Lorillard; Stanley Temko, Covington & Burling; A. Ross Wollen, Culbro/General Cigar, and states that duplicates should be sent to Raymond Pritchard, Brown & Williamson. TIFL0407411-7411 (U.S. Ex. 22,044).

213. A December 13, 1990 Tobacco Institute document lists the members of the Committee of Counsel as Paul Randour, Chairman, American; James Chapin, United States Tobacco; Wayne Juchatz, R.J. Reynolds; William McClure, III, Pinkerton Tobacco; Josiah Murray, III, Liggett; Robert Northrip, Shook, Hardy & Bacon; Steven Parrish, Philip Morris; John Rupp, Covington & Burling; Arthur Stevens, Lorillard; Stanley Temko, Covington & Burling; and A. Ross Wollen, Culbro/General Cigar. TIFL0407410-7410 (U.S. Ex. 22,041).

214. Present at the June 10, 1992 Committee of Counsel meeting were Arthur Stevens, General Counsel of Lorillard; Wayne Juchatz, General Counsel of R.J. Reynolds; Lisa Stiles, Jim Chaplin, Richard Verheij, John Rupp, Stanley Temko, and Keith Teel of Covington & Burling; Debra Christie, Liggett Corporate Counsel; Bob Lewis, Vice President of the Tobacco Institute; Kurt Malmgren, Vice President of the Tobacco Institute; Gil Klemann, General Counsel of American; Tom Bezanson, attorney at Chadbourne & Parke; David Kentoff, attorney at Arnold & Porter; Gary Long, attorney at Shook, Hardy & Bacon; John Strauch, attorney at Jones, Day, Reavis & Pogue; Chuck Wall and Steve Parrish of Philip Morris; Dan Donahue, Vice President

at R.J. Reynolds; Sam Chilcote, President of the Tobacco Institute; and Donald Hoel, attorney at Shook, Hardy & Bacon. Enterprise matters discussed included pending litigation, "fire safe" cigarettes, Environmental Protection Agency/Occupational Safety and Health Administration developments, ETS case monitoring, Congressional and other federal developments, tort law reform, and state activities. 681000290-0293 (U.S. Ex. 21,015).

215. Even upon Liggett's decision to cease participation in the Tobacco Institute as a Class A member, it confirmed its commitment to the Tobacco Institute's goals. In a September 21, 1993 letter from Liggett's in-house counsel Josiah Murray to the Tobacco Institute's President and Counsel, Liggett sought to reduce its payments to the Tobacco Institute, but at the same time sought Tobacco Institute approval for Liggett to continue participating in the Tobacco Institute's Committee of Counsel, and for Liggett to have continued access to Tobacco Institute information and data, including reports and memoranda from Covington & Burling to the Committee of Counsel. In seeking these materials, Murray assured the letter's recipients that Liggett would continue to conform its conduct in accordance with the Enterprise's strategies, writing:

> It is not the intent of Liggett to conduct its business in a manner adverse to the interest of the industry as a whole with respect to those legal and political issues as to which, by applicable law, the several competitor companies have a right to act in concert and in collaboration one with another, and attaining this objective is enhanced, of course by [Liggett] being adequately informed.

LWDOJ00023390-00023392 (U.S. Ex. 25,910)

216. The Committee of Counsel was assisted by outside counsel, including the law firms of Shook, Hardy & Bacon; Jacob, Medinger & Finnegan; and Covington & Burling. http://energycommerce.house.gov/tobacco/docs/bw/0012685027.tif (U.S. Ex. 86,815).

217. Covington & Burling was counsel for the Tobacco Institute and also described as counsel for the "industry." 682150942-0942 (U.S. Ex. 86,491). Charles Blixt, General Counsel for R.J. Reynolds, testified that an attorney from Covington & Burling attended every meeting of the Committee of Counsel. Agenda proposals for the Committee of Counsel meetings were first reviewed by Covington & Burling attorneys before they were sent to member companies. Deposition of Charles Blixt, United States v. Philip Morris, et al., October 31, 2002 159:20-161:13, 169:13-170:1.

218. Shook, Hardy & Bacon was counsel for Defendants Tobacco Institute, Philip Morris, Philip Morris Companies, Lorillard, R.J. Reynolds, and Brown & Williamson. 521043046-3050 (U.S. Ex. 20,891); 2046733674 (U.S. Ex. 38,547); 2046729440-9441 (U.S. Ex. 88,045).

219. In a May 18, 1982 memorandum addressed to Robert Sachs, Assistant General Counsel for Brown & Williamson, and Arthur Stevens, Senior Vice President and General Counsel for Lorillard, and copied to Thomas Ahrensfeld, Senior Vice President and General Counsel for Philip Morris; Alexander Holtzman, Assistant General Counsel for Philip Morris; Ernest Pepples, General Counsel for Brown & Williamson; and Samuel Witt, General Counsel for R.J. Reynolds, William Shinn of Shook, Hardy & Bacon, described Shook, Hardy & Bacon's activities related to the Tobacco Institute. Shook, Hardy & Bacon examined "most material emanating from the Tobacco Institute which has potential smoking and health overtones." This review involved a great deal of give and take and sometimes Shook, Hardy & Bacon "prepar[ed] the final version" of the product. Shook, Hardy & Bacon also assisted the Tobacco Institute in

setting strategy, preparing witnesses on smoking and health issues, briefings, reviewing press releases, advertisements, and other public statements, and orchestrating follow-up activities. Shinn remarked: "While we are asked occasionally to do something that we believe T.I. should do itself, we have always reserved the right to decline unless directed by the Committee of Counsel." 521043046-3050 (U.S. Ex. 20,891).

220. Shook, Hardy & Bacon's role was further explained in a June 28, 1988 memorandum from Donald Hoel of Shook, Hardy & Bacon to Todd Sollis, Associate General Counsel for Philip Morris Management Corporation. Hoel explained that "[b]ecause SHB represents several of those [cigarette] manufacturers and enjoys a close association with the TI, the firm is able to move freely among industry members, facilitating cooperation and open communication. In this way, SHB helps eliminate potential difficulties within the tobacco industry that could reduce PM's ability to address effectively smoking and health issues and impair its defense of lawsuits." 2015007199-7207 (U.S. Ex. 20,311).

221. Jacob, Medinger & Finnegan was counsel for R.J. Reynolds, Brown & Williamson, and CTR. Edwin Jacob attended and gave presentations at Committee of Counsel meetings; he was also involved in the administration of CTR Special Projects (discussed further at U.S. FPFF § I.D(2), infra). 680038350-8352 (U.S. Ex. 20,980); 1005121522-1526 (U.S. Ex. 23,046).

(b) The Tobacco Institute Executive Committee

222. The Tobacco Institute Executive Committee had the "final voice on TI matters" and Tobacco Institute statements; included two representatives of each of the cigarette

manufacturer member companies of the Tobacco Institute; and had a rotating chairmanship. 680546825-6829 (U.S. Ex. 21,002); Deposition of Samuel Chilcote, Richardson v. Philip Morris, September 21, 1998, 92:21-97:2.

223. The Tobacco Institute Executive Committee met frequently to keep abreast of issues of common concern within the Enterprise. TIMN0013334-3339 (U.S. Ex. 88,256); TIMN0000013422-3424 (U.S. Ex. 88,257); TIMN0013425-3428 (U.S. Ex. 88,258); TIMN0013471-3476 (U.S. Ex. 88,259); TIMN0013411-3413 (U.S. Ex. 88,260); TIMN0013429-3431 (U.S. Ex. 88,261); TIMN0013432-3435 (U.S. Ex. 88,262); TIMN0013436-3440 (U.S. Ex. 88,263); TIMN0013460-3464 (U.S. Ex. 88,264); TIMN0013471-3476 (U.S. Ex. 88,265); TIMN0013508-3513 (U.S. Ex. 88,266); TIMN0013514-3517 (U.S. Ex. 88,267); TIMN0013518-3251 (U.S. Ex. 88,268); TIMN0013526-13530 (U.S. Ex. 88,269); TIMN0013554-3557 (U.S. Ex. 88,270); TIMN0013232-3235 (U.S. Ex. 88,271); TIMN0013236-3241 (U.S. Ex. 88,272); TIMN0013340-3344 (U.S. Ex. 88,273); TIMN0013348-3349 (U.S. Ex. 88,274); TIMN0013418-3421 (U.S. Ex. 88,275); TIMN13450-3454 (U.S. Ex. 88,276); TIMN0013261-3269 (U.S. Ex. 88,277); TIOK0013285-3290 (U.S. Ex. 88,278); TIMN0013290-3293 (U.S. Ex. 88,279); 1002908968-8967 (U.S. Ex. 88,280); 4209471-9472 (U.S. Ex. 88,281); 4209412-9418 (U.S. Ex. 88,282); TIMN0013276-3284 (U.S. Ex. 88,283); TIMN0013298-3304 (U.S. Ex. 88,284); TIMN013350-3351 (U.S. Ex. 88,285); TIMN0013361-3362 (U.S. Ex. 88,286); TIMN0013395-3396 (U.S. Ex. 88,287); TIMN0013414-3417 (U.S. Ex. 88,288); TIMN0013441-3445 (U.S. Ex. 88,289); TIMN0013446-3449 (U.S. Ex. 88,290); TIMN0013455-3456 (U.S. Ex. 88,291); TIMN0013465-3470 (U.S. Ex. 88,292); TIMN0013477-3484 (U.S. Ex. 88,293); TIMN0013485-

3489 (U.S. Ex. 88,294); TIMN0013490-3495 (U.S. Ex. 88,295); TIMN0013496-3499 (U.S. Ex. 88,296); TIMN0013500-3507 (U.S. Ex. 88,297); TIMN0013550-3553 (U.S. Ex. 88,298); TIMN0013558-3563 (U.S. Ex. 88,299); TIMN0013583-3589 (U.S. Ex. 88,300); TIMN0013628-3632 (U.S. Ex. 88,301); TIMN0013651-3655 (U.S. Ex. 88,302); TIMN0013656-3659 (U.S. Ex.88,303); TIMN0014418-4425 (U.S. Ex. 88,304); TIMN0017720-7722 (U.S. Ex. 88,305); TIMN0017725-7729 (U.S. Ex. 88,306); TIMN0017731-7736 (U.S. Ex. 88,307); TIMN0018436-8439 (U.S. Ex. 88,308); TIMN0018451-8455 (U.S. Ex. 88,309); TIMN0018462-8466 (U.S. Ex. 88,310); TIMN0018590-8593 (U.S. Ex. 88,311); TIMN0019234-9239 (U.S. Ex. 88,312).

224. For example, the Tobacco Institute Executive Committee met on January 12, 1964, where the implications of the 1964 Surgeon General's Report on Smoking and Health were discussed. Agreement was reached that it was "considered to be of prime importance that the industry maintain a united front and that if one or more companies were to conduct themselves as a matter of self interest, particularly in advertising, obvious vulnerability would be the result." 680546825-6829 (U.S. Ex. 21,002); LG2008203-8210 (U.S. Ex. 22,682).

225. A 1974 Tobacco Institute report entitled "Defending Tobacco" stated that the Tobacco Institute Board of Governors' adoption, in January 1971, of the Guidelines for Authority and Responsibility of the Tobacco Institute had greatly improved its overall efficiency by setting out authority and responsibility of the Tobacco Institute's staff and committees, placing more authority in its President, and establishing more frequent meetings of the Executive Committee to establish and review Tobacco Institute policies, programs and objectives within the Enterprise. The Guidelines eliminated much undue delay occasioned in the past in obtaining approval and

authority from the Tobacco Institute Executive Committee or its Board members for Tobacco Institute action. TIFL0529869-9880 (U.S. Ex. 21,263); TIMN217628-7639 (U.S. Ex. 21,263).

226. In 1978, the Tobacco Institute Executive Committee was comprised of Chairman Ross Millhiser, Vice Chairman of Philip Morris; Clifford Goldsmith, President of Philip Morris; Kinsley R. Dey, Jr., President of Liggett; Robert Seidensticker, Vice President of Liggett; Joseph Edens, President of Brown & Williamson; Charles McCarty, Chairman of Brown & Williamson; William Hobbs, President of R.J. Reynolds; J. Paul Stricht, President of R.J. Reynolds; Curtis Judge, President of Lorillard; Arthur Stevens, Vice President and General Counsel of Lorillard; W. Brooks George, attorney for Larus & Brother; and Stuart Bloch of General Cigar. LG0237151-7159 at 7154 (U.S. Ex. 21,194).

227. At the June 13, 1979 meeting of the Tobacco Institute Executive Committee, the Industry Research Committee (consisting of James Bowling, Alexander Spears, Ernest Pepples, Irwin Tucker, Arnold Henson, Ed Jacob, William Shinn, and Janet Brown) and its function within the Enterprise was discussed. See U.S. FPFF § I.E(1), infra., for discussion of Industry Research Committee. CTR and joint industry research on smoking and health was the main topic. It was noted that "regs/litigation is the overarching reason for Joint Ind [sic] research. . . . Can't put all our eggs in 1 basket." 03677101-7103 (U.S. Ex. 29,313).

228. Through the Executive Committee, Cigarette Company Defendants maintained strict control over the activities of the Tobacco Institute. For instance, according to an internal memorandum on the Institute's advertising clearance process, William Kloepfer wrote that "[t]he next step is scrutiny by the Executive Committee. No advertising can be paid for without its

approval." TIMN262974-2974 (U.S. Ex. 21,350) (U.S. Ex. 62,893).

(c) The Tobacco Institute Communications Committee

229. The Tobacco Institute Communications Committee reviewed and approved Tobacco Institute advertisements, media plans, and public relations campaigns carried out by the Tobacco Institute on behalf of the Enterprise. Deposition of Samuel Chilcote, Richardson v. Philip Morris, September 21, 1998, 263:5-14.

230. Each Tobacco Institute member company designated its public relations people to attend meetings of the Communication Committee and to inform their respective companies about the activities of the Committee. Deposition of Anne Duffin, Barnes v. American Tobacco, October 6, 1997, 118:4-121:2.

231. Membership of the Communication Committee in 1970 consisted of Charles Wade, R.J. Reynolds Senior Vice President; John Blalock, Brown & Williamson public relations director; James Bowling, Philip Morris Senior Vice President; John Bresnahan, Lorillard; David Hardy, Shook, Hardy & Bacon; and Daniel Provost, Liggett. Nonmembers attending the October 13, 1970 meeting of the Tobacco Institute Communications Committee were Leonard Zahn, CTR public relations counsel; Frank Saunders and Alexander Holtzman of Philip Morris; William Ruder, Philip Morris public relations; William Shinn of Shook, Hardy & Bacon; Stanley Temko of Covington & Burling; Richard Lewis, Brown & Williamson; and Tobacco Institute employees William Kloepfer, Anne Duffin, Horace Kornegay, Earle Clements, Frederick Panzer, Marvin Kastenbaum, Gil Huebner, and Albert Barr. 794003131-3132 (U.S. Ex. 86,107); TIMN0081843-1864 (U.S. Ex. 86,108); 680241688-1688 (U.S. Ex. 30,843); 680241689-1689 (U.S. Ex. 30,844);

03678709-8711 (U.S. Ex. 88,313); CW00950411-0411 (U.S. Ex. 88,314); 517007543-7543 (U.S. Ex. 86,109); 521043547-3550 (U.S. Ex. 86,110); TIMN166219-6220 (U.S. Ex. 62,654); 680241704-1705 (U.S. Ex. 54,034); TIMN262974-2975 (U.S. Ex. 62,893) (U.S. Ex. 21,350); ZN21992-1995 (U.S. Ex. 21,375); 690014846-4848 (U.S. Ex. 86,111); 980125936-5937 (U.S. Ex. 32,455).

232. Members of the Communication Committee considered CTR a public relations benefit for the Enterprise. According to minutes from the September 17, 1971 Communication Committee meeting, William Kloepfer, Vice President of the Tobacco Institute, briefed the committee on the status of industry financed research, including that funded by CTR. Kloepfer called this research, "the best basis for affirmative public relations." TIMN0003978-3980 (U.S. Ex. 87,595).

233. Membership of the Communications Committee in 1974 consisted of Chairman Charles Wade, R.J. Reynolds Senior Vice President; J. Robert Ave, Lorillard Advertising and Brand Management; James Bowling, Philip Morris Senior Vice President; Thomas Pickett, United States Tobacco Vice President; H. Copland Robinson, Liggett Director of Brand Management; William Kloepfer, Tobacco Institute Senior Vice President; and David Hardy, Shook, Hardy & Bacon. Nonmembers attending the May 21, 1974 meeting of the Tobacco Institute Communications Committee were James Dowdell, R.J. Reynolds public relations executive; Ralph Rossi of United States Tobacco; Cyril Hetsko, Vice President and General Counsel of American Tobacco; Donald Hoel, Shook, Hardy & Bacon; Leonard Zahn, CTR public relations counsel; William Anderson, Tobacco Growers Information Committee; Burns

Roper of the Roper Organization; and Horace Kornegay, Albert Barr, and Ann Duffin of the Tobacco Institute. TIMN0124674-4674 (U.S. Ex. 88,323); 10395932-5932 (U.S. Ex. 88,324).

234. A 1974 Tobacco Institute report entitled "Defending Tobacco" stated that, prior to 1967, much of the communications between member companies was through the Tobacco Institute Committee of Counsel, or by informational memoranda. In 1969, one change that greatly facilitated the internal information flow within the Enterprise was the creation of the Communications Committee, which was made up of representatives of each major company and of the Tobacco Institute's legal counsel and who met frequently to advise on the Tobacco Institute's public relations strategy. TIFL0529869-9880 (U.S. Ex. 21,263); TIMN217628-7639 (U.S. Ex. 21,263).

235. Membership of the Communications Committee in 1985 consisted of Chairman Thomas Humber, Brown & Williamson; Sara Ridgway, Lorillard Vice President of Public Relations; David Fishel, R.J. Reynolds Vice President of Public Relations; Hugh Foley, United States Tobacco; William Kloepfer, Tobacco Institute Senior Vice President; Ernest Quinby, Philip Morris scientist; William Ruder, Philip Morris public relations; John Rupp, Covington & Burling; Lee Stanford, Shook, Hardy & Bacon; George Walters, Liggett; Harold Grant, Liggett's Vice President of Sales and Marketing; and Herb Osmon, R.J. Reynolds Director of Public Issues. TIMN0124717-4718 (U.S. Ex. 86,113); 680570007-0008 (U.S. Ex. 86,114).

236. During the 1980s, the priority issues facing the Tobacco Institute Communications Committee were Youth Smoking, Environmental Smoke, Smoking in the Workplace, and Taxation. 503744434-4436 (U.S. Ex. 86,115); 502123452-3453 (U.S. Ex. 86,116).

237. Membership of the Communications Committee in 1991 consisted of Chairman Thomas Griscom, R.J. Reynolds Vice President of External Relations; Robert Barrett, United States Tobacco; Donald Hoel, Shook, Hardy & Bacon; Tom Jones, Lorillard; Thomas Ogburn, Jr., R.J. Reynolds Vice President of Public Issues; John Rupp, Covington & Burling; Susan Stuntz, Tobacco Institute Public Relations Vice President; Daniel Conforti, American Tobacco Investor Relations Director; John Nelson, Philip Morris Senior Vice President; Carol Jova, Liggett Personnel Manager Company Communications; Robert Rukeyser; and Paul Hicks. 87716615-6618 (U.S. Ex. 86,117).

238. Through these Tobacco Institute committees, the Defendants, through their executives, employees, agents, and attorneys, controlled the Tobacco Institute and set its policy, including approving and authorizing the misleading and fraudulent statements about material matters made by Tobacco Institute. Over time, this structure changed somewhat, but Defendants always maintained control over the Tobacco Institute's activities. Thus, the Tobacco Institute's many committees carried out the objectives of the Enterprise.

(4) Defendants' Many Uses of the Tobacco Institute

(a) Tobacco Institute Public Statements, Advertisements, Press Releases, and Publications

239. The Tobacco Institute was the leading joint public voice of the Cigarette Company Defendants. To further the Enterprise's goals, the Tobacco Institute created and issued press releases, public statements, advertisements, and publications on behalf of Defendants and the tobacco industry on the following topics, among others: (1) denying the link between smoking and disease; (2) discrediting scientists and public health officials; (3) making the public aware of

the scientific efforts of the tobacco industry; (4) denying that cigarette smoking was addictive; and (5) denying that the industry marketed to youth. For detailed discussion of these topics, see U.S. FPFF § IV, infra. TIMN0120725-0726 (U.S. Ex. 87,596); TIMN0120727-0728 (U.S. Ex. 87,597); TIMN0120729-0730 (U.S. Ex. 65625); TIMN0120731-0732 (U.S. Ex. 87,598); TIMN0120733-0734 (U.S. Ex. 87,599); TIMN0120735-0736 (U.S. Ex. 87,600); TIMN0120737-0738 (U.S. Ex. 87,601); TIMN01200739-0741 (U.S. Ex. 87,602); TIMN0120742-0742 (U.S. Ex. 87,603); TIMN0120743-0743 (U.S. Ex. 87,604); TIMN0120744-0744 (U.S. Ex. 87,605); TIMN0120745-0745 (U.S. Ex. 87,606); TIMN012046-0746 (U.S. Ex. 87,607); TIMN0120747-0747 (U.S. Ex. 87,608); TIMN0120748-0748 (U.S. Ex. 87,609); TIMN0120750-0750 (U.S. Ex. 87,610); TIMN0120751-0751 (U.S. Ex. 87,611); TIMN0120752-0752 (U.S. Ex. 87,612); TIMN0120753-0753 (U.S. Ex. 87,613); TIMN0120754-0754 (U.S. Ex. 87,614); TIMN0120755-0755 (U.S. Ex. 87,615); TIMN0120756-0757 (U.S. Ex. 87,616); TIMN0120758-0759 (U.S. Ex. 87,617); TIMN0120760-0760 (U.S. Ex. 87,618); TIMN0120761-0761 (U.S. Ex. 87,619); TIMN0120762-0762 (U.S. Ex. 87,620); TIMN0120763-0764 (U.S. Ex. 87,621); TIMN0120765-0767 (U.S. Ex. 87,622); TIMN0120768-0769 (U.S. Ex. 87,623); TIMN0120770-0771 (U.S. Ex. 87,624); TIMN0120772-0773 (U.S. Ex. 87,625); TIMN0131860-1861 (U.S. Ex. 21744); TIMN0131854-1854 (U.S. Ex. 87,626); TIMN0131855-1857 (U.S. Ex. 87,627); TIMN0131858-1859 (U.S. Ex. 87,628); TIMN0081712-1713 (U.S. Ex. 87,629); TIMN0081714-1714 (U.S. Ex. 87,630); TIMN0000471-0495 (U.S. Ex. 87,631); TIMN0133954-3960 (U.S. Ex. 62,653); TIMN0134016-4020 (U.S. Ex. 87,633); TIMN0133707-3711 (U.S. Ex. 87,634); TIMN0076952-6961 (U.S. Ex. 87,635); TIMN0123212-3215 (U.S. Ex. 87,636); TIMN0122571-2573 (U.S. Ex.

87,637); TIMN0122574-2576 (U.S. Ex. 87,638); TIMN0122577-2578 (U.S. Ex. 87,639); TIMN0120706-0708 (U.S. Ex. 87,640); TIMN0131847-1847(U.S. Ex. 87,641); TIMN0120619-0619 (U.S. Ex. 87,642); TIMN0120618-0618 (U.S. Ex. 87,643); TIMN0109576-9576 (U.S. Ex. 87,644); TIMN0133717-3717 (U.S. Ex. 87,645); TIMN0004099-4099 (U.S. Ex. 87,646); TIMN0081695-1696 (U.S. Ex. 21,308); TIMN0081948-1948 (U.S. Ex. 87,647); TIMN0133713-3713 (U.S. Ex. 87,648); T28062-8062 (U.S. Ex. 87,649); MNAT00535792-5792 (U.S. Ex. 87,650); MNAT00535793-5793 (U.S. Ex. 87,651); MNAT00535794-5794 (U.S. Ex. 87,652); MNAT00535795-5795 (U.S. Ex. 87,653); MNAT00535796-5796 (U.S. Ex. 87,654); MNAT00535797-5797 (U.S. Ex. 87,655); TIMN0123086-3115 (U.S. Ex. 87,656); MNAT00668188-8197 (U.S. Ex. 87,657); TIMN0124603-4610 (U.S. Ex. 87,658); TIMN0133838-3838 (U.S. Ex. 87,659); TIMN395543-5566 (U.S. Ex. 87,660); TIMN269636-9645 (U.S. Ex. 87,661); TIMN319660-9665 (U.S. Ex. 87,662); TIMN325834-5835 (U.S. Ex. 21,283); TIMN325832-5833 (U.S. Ex. 87,663); TIMN325836-5837 (U.S. Ex. 87,664); MNAT00276115-6117 (U.S. Ex. 87,665); MNAT00532922-2928 (U.S. Ex. 87,666); MNAT00275488-5498 (U.S. Ex. 87,667); TIMN0120792-0793 (U.S. Ex. 87,668).

240. The function of the Public Relations Division of the Tobacco Institute was "to represent our member companies with the press, general public, anyone who had a question about tobacco, specifically the smoking and health issue, but also economics, history. We represented all the companies, so that no one of them had to answer questions from a press person or stock analyst." Deposition of Anne Duffin, Munn v. Philip Morris, January 7, 1987, 93:21-94:5.

241. A May 1, 1972 memorandum from Fred Panzer, a public relations specialist with the Tobacco Institute, to Tobacco Institute President Horace Kornegay began by describing past industry action: "For nearly twenty years, this industry has employed a single strategy to defend itself . . . it has always been a holding strategy, consisting of creating doubt about the health charge without actually denying it, advocating the public's right to smoke without actually urging them to take up the practice . . . encouraging objective scientific research as the only way to resolve the question of health hazard." Panzer went on to discuss a proposed public relations campaign – The Roper Proposal – designed to persuade the public that "cigarette smoking may not be the health hazard that the anti-smoking people say it is because other alternatives are at least as probable" (emphasis omitted). The proposed campaign would suggest two such possible alternatives: (1) the constitutional hypothesis, i.e., smokers differ importantly from nonsmokers in terms of heredity, constitutional makeup, lifestyle, and stress; and (2) the multi-factorial hypothesis, i.e., other factors such as air pollution, viruses, food additives, and occupational hazards contribute to diseases for which smoking is considered a cause. TIMN0077551-7554 (U.S. Ex. 21,269); 2074677056-7061 (U.S. Ex. 87,669); TIMN254468-4471 (U.S. Ex. 87,670); CTRMN028487-8490 (U.S. Ex. 87,671); TIOK0034152-4155 (U.S. Ex. 63,015); TINY0001914-1917 (U.S. Ex. 87,672); Deposition of Frederick Panzer, Small v. Lorillard, October 27, 1997, 206:16-207:20; Deposition of Frederick Panzer, Iron Workers v. Philip Morris, December 18, 1998, 18:22-21:12; 680911592-1595 (U.S. Ex. 87,673).

242. In order to issue public statements regarding smoking and health, the Tobacco Institute contracted numerous scientists to conduct research on related issues. Such consultants

included Salvatore DiNardi, Gio Gori, Larry Holcomb, Alan Katzentein, Peter Lee, Maurice LeVois, Mark Reasor, Sorell Schwartz, Murray Senkus, David Weeks, Lawrence Wexler, Philip Witorsch, and Ray Witorsch. Response of Defendant The Tobacco Institute to Plaintiff's First Set of Interrogatories, United States v. Philip Morris, et al. (served February 6, 2001), at Interrogatory/Answer No. 8 (U.S. Ex. 64,758).

243. Over the years, the Tobacco Institute attempted to discredit many of the Surgeon General's Reports. A "personal and confidential" Lorillard memorandum dated January 8, 1979 from Curtis H. Judge to J. Robert Ave and Arthur J. Stevens related a January 5, 1979 conversation that Judge had with Alexander Spears of Lorillard and another conversation with Bill Kloepfer of the Tobacco Institute: "Dr. Spears surmises that this carbon monoxide information may be the new 'bombshell' part of the Surgeon General's report and the part of the report which is new and likely to attract the media. At 4:30 on Friday afternoon I talked with Bill Kloepfer at the Tobacco Institute and he had just learned of this information a few hours ago (about the same time we did) on what he described as an 'intercept.' He agrees with our conclusions as to how it will be used in the Surgeon General's report and the Institute will work on counteracting it. I promised that we would get the information to him should we receive it before he does." 85158126-8127 at 8126-8127 (U.S. Ex. 56,009).

244. The Enterprise's concern over the 1983 Surgeon General's Report pervaded the Tobacco Institute's documents for months before the report was ever published. An August 11, 1982 Tobacco Institute memorandum from George E. Schafer to Samuel D. Chilcote, Jr. detailed the plan and schedule for scientific activities. From the outset, the memorandum noted plans to

"[d]evelop a paper on relative risk and its significance to the smoking and health controversy." The memorandum further mentioned plans to "[d]evelop smoking and cardiovascular disease papers in anticipation of the 1983 Report of the Surgeon General." TI03961854-1855 at 1854 (U.S. Ex. 62,155).

245. On October 12, 1982, William Kloepfer, detailed those plans to "meet" the 1983 Surgeon General's Report. Before the Surgeon General's Report was even made public, "Sam Chilcote . . . asked that [the Tobacco Institute] take certain steps to blunt the impact of the 1983 Surgeon General's report on the ground that, as in the past, it will lack objectivity. We expect the subject to be smoking and heart diseases." Specifically, the plans directed the Scientific Division "to prepare a relatively brief logical paper covering selected areas of inadequate knowledge and contradictions in the case for smoking as a cause of or risk factor in heart diseases." The true nature of the clearance process was also detailed in the memorandum: "Shook, Hardy will provide clearance of the paper and of its final format which will be developed by the Public Relations Division. At the same time the PR staff and PR counsel will prepare a list of media people who may be expected to cover the Surgeon General's Report." Even more explicitly, the following directive was issued by Kloepfer: "When the Surgeon General's Report is issued, the PR staff will stick to the TI position rather than commenting directly on the report." TI03961860-1861 (U.S. Ex. 62,156).

246. A document dated October 18, 1982, entitled "Memorandum for the Record - Subject: Planning TI's Response or Planning to Meet the 1983 Surgeon General's Report" detailed the entire chronology of this Tobacco Institute effort. As early as July 1, 1982, "the

Scientific Affairs Division was in the process of devising strategies to counter the 1983 Surgeon General's Report." TI0396-1863-1866 at 1863 (U.S. Ex. 62,157).

247. At the December 9, 1982 Tobacco Institute Board of Directors meeting, Samuel D. Chilcote, Jr., discussed the Tobacco Institute's approach to the upcoming 1983 Surgeon General's Report. The Tobacco Institute's plans included personally passing out summaries of its document on "Smoking and Cardiovascular Disease" to several dozen reporters; having George Schafer on hand to answer the reporters' questions and lend credibility; holding its "own press conference challenging the contention that smoking causes cardiovascular disease" a day or so before the Surgeon General's press conference, with Shook, Hardy & Bacon providing assistance; and attempting to "encourage a non-tobacco state congressman to launch an investigation into MRFIT [Multiple Risk Factor Intervention Trials] shortly before the Surgeon General's conference," alleging that is was a waste of $115 million tax payers' dollars, "thereby putting the Surgeon General on the defensive." TIMN0017276-7303 (U.S. Ex. 86,118).

248. A January 11, 1983 memorandum detailing the monthly overview of the Tobacco Institute's Scientific Affairs Division listed as its first "key" item the "[p]reparation and refinement of Institute's response to the 1983 Surgeon General's forthcoming report on heart disease." TI03962431-2432 at 2431 (U.S. Ex. 62,160).

249. Similarly, the Tobacco Institute was very active in planning a response for the Enterprise regarding the release of the 1987 Surgeon General's Report which discussed the addictive nature of smoking. Suggested strategies for the Tobacco Institute response and the public's potential reaction were carefully considered. TIMN34639-9639 (U.S. Ex. 62,752);

TIMN349632-9633 (U.S. Ex.62,751). Tobacco Institute President Samuel Chilcote authored informational memoranda about the Surgeon General's Reports for distribution to the Tobacco Institute Executive Committee. See, e.g., TIMN399307-9309 (U.S. Ex. 62,875) (1992 Surgeon General's Report).

250. Attorneys representing the industry closely collaborated with members of the Enterprise in their efforts to mislead and defraud the public. Attorneys meticulously edited and rewrote drafts of Tobacco Institute advertisements, articles, and public statements. Lawyers additionally recommended ideas for articles and provided materials to the Tobacco Institute for consideration. 1005134430-4432 (U.S. Ex. 36,107); 508089329-9329 (U.S. Ex. 86,089); TIMN359150-9150 (U.S. Ex. 62,755).

251. In a July 6, 1977 memorandum to William Kloepfer of the Tobacco Institute, attorney Donald Hoel of Shook, Hardy & Bacon significantly changed the draft of an article entitled "Why the Case Against Smoking is Not Closed" and recommended a "major rewriting effort." Hoel also expressed dissatisfaction that attorneys had not previously had the chance to review the article. He wrote that "it would be beneficial and time-saving if the content of such material as the proposed article could be first 'cleared' with the appropriate persons at the Tobacco Institute before an 'approved' draft is sent here for legal clearance." Hoel went on to recommend that the lawyers be given advance notice of such articles so they could "make suggestions and provide materials for consideration." TIMN262629-2629 (U.S. Ex. 62,734) (U.S. Ex. 65,578).

252. The Tobacco Institute also worked with its public relations counsel and its

member companies to anonymously disseminate deceptive and misleading public statements, such as the *True* magazine article, to promote the sale of cigarettes. See also U.S. FPFF § V., infra. Joseph Fields, a public relations agent for Brown & Williamson, arranged for Stanley Frank to write a smoking and health article, and, in January 1968, Frank's article entitled "To Smoke or Not to Smoke - That Is Still The Question" appeared in *True* magazine. In the article, Frank stated that he had reviewed the evidence and found it contradictory and inconclusive; he concluded that the hazards of cigarette smoking were not so real as the public had been led to believe. Frank did not disclose that he had been paid $500 by the Defendants for his time and expenses in writing the article and had been guaranteed another $1250 in the event that it was not published; that tobacco industry representatives including Ed Jacob of Jacob & Medinger, attorneys for TIRC, had reviewed the article prior to publication; or that he worked for Hill & Knowlton. 2022886165-6165 (U.S. Ex. 88,325); 690012993-2993 (U.S. Ex. 88,326); TIMN0071383-1383 (U.S. Ex. 88,327); TIMN0071384-1384 (U.S. Ex. 88,328); TIMN0071385-1385 (U.S. Ex. 88,329); TIMN0071386-1386 (U.S. Ex. 88,330); TIMN462375-2380 (U.S. Ex. 21,660).

253. Furthermore, one of the Tobacco Institute's public relations agencies, The Tiderock Corp., had arranged to run a one-half-page advertisement promoting the *True* article entitled "Are Cigarettes Really Harmful to Your Health?" The advertisement ran in the top seventy-two markets in the United States at an estimated cost of $69,000 paid for by Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, American, and Lorillard. The Defendants did "not expect people to read the ad, and rush out and buy a copy of *True*," rather the impact of

the advertisement came "from the fact that the advertisement quotes some very pertinent and direct comments on our side." In addition, Tiderock arranged for reprints of the article as an eight-page booklet with a transmittal note on the first page that read: "The Editors . . . We thought that you, as a leader in your profession and community, might be interested in reading this story from the January issue of *True* about one of today's most controversial issues." According to a January 17, 1968 letter from Tiderock to William Kloepfer, Tobacco Institute Vice President of Public Relations, Defendants had "ordered reprints in the following quantities: Lorillard 43,500; Brown & Williamson 10,000; Philip Morris 10,000; Reynolds 30,000. It's hard to see how very many literate Americans will not have read the *True* piece a few weeks hence." Member companies of the Tobacco Institute distributed 600,000 copies of the *True* article to physicians, the media, and business and political leaders without revealing the Defendants' role in generating and disseminating the article or the financial relationship between Stanley Frank and the Defendants. Not until this information was revealed in a series of investigations by the *Wall Street Journal*, *Consumer Reports*, and Senator Warren Magnuson did the public become aware of the deception. After the *True* article incident, Hill & Knowlton severed its relationship with the Tobacco Institute, letting its contract run out on December 31, 1968. 2022886165-6165 (U.S. Ex. 88,325); 690012993-2993 (U.S. Ex. 88,326); TIMN0071383-1383 (U.S. Ex. 88,327); TIMN0071384-1384 (U.S. Ex. 88,328); TIMN0071385-1385 (U.S. Ex. 88,329); TIMN0071386-1386 (U.S. Ex. 88,330); TIMN462375-2380 (U.S. Ex. 21,660); TIMN462646-2646 (U.S. Ex. 22,977); TIMN0123336-3336 (U.S. Ex. 21,628); TITX0000182-0182 (U.S. Ex. 88,452); TITX0000183-0183 (U.S. Ex. 21,623);

TIMN462462-2469 (U.S. Ex. 88,442); 85872287-2294 (U.S. Ex. 88,443); 0002400103-0103 (U.S. Ex. 88,432); TITX0000179-0180 (U.S. Ex. 88,426); TIMN0070311-0311 (U.S. Ex. 88,427); TIMN0123339-3339 (U.S. Ex. 88,428); TIMN0070286-0286 (U.S. Ex. 88,429); 690012803-2805 (U.S. Ex. 88,433); 690012801-2801 (U.S. Ex. 88,434); 690012802-2802 (U.S. Ex. 88,435); TIMN0071397-1397 (U.S. Ex. 88,430); 690012777-2777 (U.S. Ex. 88,453); 690012570-2629 at 2621-2624 (U.S. Ex. 88,444); TIMN0071492-1492 (U.S. Ex. 88,431).

(b) Methods of Communication

254. In addition to press releases and public statements, the Tobacco Institute regularly published newsletters to further publicize its fraudulent messages on behalf of the Enterprise. In May 1976, the Tobacco Institute published its first issue of *The Tobacco Observer*. The public purpose of the newsletter, as stated in the first issue, was to "enable 'thousands' whose livelihoods are associated with tobacco 'to be well informed about the problems facing tobacco.'" *The Tobacco Observer* was published bi-monthly from 1976 until December 1988, under the supervision of the Tobacco Institute's Special Projects. 690018786-8786 (U.S. Ex. 86,119); TIOK0015372-5378 at 5373 (U.S. Ex. 86,126); TIMN366674-6895 at 6864 (U.S. Ex. 86,120).

255. The Tobacco Institute circulated *The Tobacco Observer* free of charge to company employees, broadcasters, newspapers, and individuals. At the early stages of publication, the Tobacco Institute requested and received lists of names and addresses of potential subscribers from the tobacco companies. In 1978, the Tobacco Institute calculated circulation to have reached 80,000 and by 1988 circulation had almost doubled to 145,000. Most subscriptions, however, were unsolicited. According to a June 1, 1987 memorandum from Anne Duffin to

Peter Sparber, "TTO [*The Tobacco Observer*] subscribers, some dating back 11 years, have never been asked if they want copies. Most were added to the subscription list by Institute staff through personal contact or tobacco group rosters[.]" 670059500-9506 at 9503 (U.S. Ex. 86,121); 690019767-9767 (U.S. Ex.86,122); 680549177-9182 at 9179 (U.S. Ex. 86,123); TIOK0015372-5378 at 5372 (U.S. Ex. 86,126).

256. Articles in *The Tobacco Observer* perpetuated the Enterprise's denials of causation and harm. Headlines announced, "Smoke not harmful to average non-smoker" (October 1978). In the May 1976 issue, one headline read "No Simple Answers; Research Disputes UPI;" this article followed another that stated, "no cause and effect relationship between cigarette smoking and pulmonary emphysema has been established." In a June 1, 1987 memorandum, Anne Duffin wrote candidly about *The Tobacco Observer*, "Historically TTO [*The Tobacco Observer*] has related good news only, presenting the bad only in its most optimistic context . . . TTO's purpose was to inform, to cast favorable light upon tobacco's many controversies." 03048388-8399 at 8388 (U.S. Ex. 86,124); TIMN0127465-7475 at 7467 (U.S. Ex. 86,125); TIOK0015372-5378 at 5373 (U.S. Ex. 86,126).

257. In 1986, as part of a "targeted mass-mailing outreach campaign," the Tobacco Institute began circulating *Tobacco Update*, a one sheet, double-sided summary of Tobacco Institute positions, and sending copies of *Tobacco Update* to op-ed page managers, columnists, and business editors of every daily newspaper with a circulation of 10,000 or more. TIMN339121-9128 at 9121 (U.S. Ex.86,127).

258. In a December 1986 memorandum to William Kloepfer, Tobacco Institute

employee Steve Stapf lauded the achievements of the *Tobacco Update*. Stapf wrote, "[w]e [the Tobacco Institute] know that background mailings will be accepted and used by media outlets. The success of our 'FYI' and 'Tobacco Update' mailings have exceeded even my highest expectations." TIDN0012135-2137 at 2136 (U.S. Ex. 86,128).

259. The *Tobacco Update* mailings helped to further the Enterprise's goals, particularly those associated with ETS and youth marketing. A *Tobacco Update* from 1992 condemned the EPA's ETS Risk Assessment, stating, "EPA science is of uneven quality, and the Agency's policies and regulations are frequently perceived as lacking strong scientific foundation." A *Tobacco Update* issued soon after dismissed the risks associated with ETS: "In real-life situations, ETS does not significantly affect the levels of most chemicals in the air." 93139192-9194 at 9192, 9194 (U.S. Ex. 86,129); 947089976-9979 (U.S. Ex.32,332).

260. During the early 1990s, the Tobacco Institute issued a series of *Tobacco Updates* focusing on cigarette marketing and youth smoking. The mailings touted the ineffective efforts and initiatives taken by the Enterprise to reduce youth smoking and falsely stated that Defendants did not market to youth. The updates also falsely denied that cigarette marketing influenced youth smoking incidence and behavior, alleging that "it is not tobacco advertising that plays a key role in juvenile smoking initiation and incidence." TIMN0046998-6999 (U.S. Ex. 86,130); TIMN0159359-9360 (U.S. Ex. 86,131); TIMN0125632-5633 (U.S. Ex. 86,132); TIMN183102-3103 (U.S. Ex. 86,133); TIMN183031-3032 (U.S. Ex.86,134); 2044418064-8065 (U.S. Ex. 86,135); TIMN0047000-7001 (U.S. Ex. 86,136); TIMN0046996-6997 (U.S. Ex. 86,137); TIMN0046994 -6995 at 6995 (U.S. Ex. 86,138); TIFL0524116-4117 at 4116 (U.S. Ex. 62,635).

261. The Tobacco Institute also published the newsletter *Tobacco and Health Research* (also known as *Tobacco and Health*), which was initially produced by TIRC. See U.S. FPFF § I.B(5)(b), supra. Even when published by the Tobacco Institute, the newsletters' copy primarily came from CTR research. A 1968 *Tobacco and Health Research* procedural memorandum from Hill & Knowlton to William Kloepfer, Tobacco Institute Vice President, stated: "Most papers used in TH&R come from the Council for Tobacco Research Library through advance distribution of Ken Austin of CTR." T13890-3893 at 3890 (U.S. Ex. 21,614).

262. A July 13, 1960 Hill & Knowlton memorandum to the Robert Heimann, President of American and Chairman of the Tobacco Institute's Communication Committee, totaled the distribution of *Tobacco and Health* at 536,742. Mailings of the newsletter included publishers and editors of United States daily newspapers, radio and television commentators, United States Senators and Representatives, and magazine editors. TIMN271864-1870 (U.S. Ex. 87,674).

(c) Tobacco Institute College of Tobacco Knowledge

263. Coordination of information and careful instruction on how information should be presented to the public was a central theme of the Enterprise. Following the party line so as not to leave any member vulnerable to attack in litigation or to subject the industry to further regulation was considered vital. One extremely useful method employed by the Enterprise to ensure that industry representatives understood and were able to publicly transmit consistent statements regarding smoking and health and other issues important to the Defendants was the operation of training seminars through the Tobacco Institute's College of Tobacco Knowledge, which began in 1975. TI16740638-0642 (U.S. Ex. 86,139); 2025864882-4895 (U.S. Ex.86,140).

264. The College of Tobacco Knowledge "was something that the Tobacco Institute did for member companies to bring them up to speed on tobacco issues." Deposition of Brennan Dawson, United States v. Philip Morris, et al., July 1, 2002, 122:9-12. It "was a tobacco knowledge program for tobacco employees, for people who came into the industry to give them a sense of the history of tobacco, the economics of tobacco, contributions that tobacco would make, to give them a familiarity with some of the public issues that – some of the unanswered questions, things that they would be reading about, a better understanding. . . . We did this as a courtesy to our members for a number of years." Deposition of Samuel Chilcote, Richardson v. Philip Morris, September 21, 1998, 259:8-261:10.

265. The College of Tobacco Knowledge was a "seminar that gave attendees an overview of a number of issues that the tobacco industry faces or faced at the time." Deposition of Walker Merryman, Florida v. American, July 25, 1997, 147:16-148:2. The College of Tobacco Knowledge was operated and funded by the Tobacco Institute. Deposition of Brennan Dawson, United States v. Philip Morris, et al., July 1, 2002, 122:17-20; Deposition of Leonard Zahn, Massachusetts v. Philip Morris, May 28, 1998, 147:14-18. The Tobacco Institute staff "taught the sessions of the Tobacco College of Knowledge." Deposition of Brennan Dawson, United States v. Philip Morris, et al., July 1, 2002, 123:7-9; Deposition of Samuel Chilcote, Richardson v. Philip Morris, September 21, 1998, 261:11-15.

266. Walker Merryman, Tobacco Institute Vice President and Director of Communications, noted that the Tobacco Institute had run seminars for people new to the Tobacco Institute or to public affairs in the Tobacco Institute's member companies "to give them

general briefings on some of the major issues." Deposition of Walker Merryman, Richardson v. Philip Morris, April 9, 1998, 87:4-88:2. Students who attended the College sessions were "people from the tobacco industry;" people whose responsibilities included public affairs, public relations, government relations; "[p]eople from all facets of the industry from seed bed to sales counter;" and industry lobbyists. Deposition of Walker Merryman, Florida v. American, July 25, 1997, 148:17-149:8.

267. After approval of the curriculum by Tobacco Institute executives Merryman, Kloepfer, and Chilcote, the Tobacco Institute mailed announcements to its Communications Committee, INFOTAB, its senior staff, and other interested parties. TIFL0071011-1012 (U.S. Ex.86,141); TIFL0071174-1174 (U.S. Ex. 86,142). In preparing for a College session, the Tobacco Institute would make its "senior vice presidents aware of the fact that one of these seminars was scheduled. And if they had new employees that they wanted to have invited or if they thought there was a contract lobbyist who might benefit, they could invite that individual. We also would let our member companies know that another seminar was scheduled, and if they had people in mind whom they thought would benefit from such a seminar, they could be invited." Deposition of Walker Merryman, Florida v. American, July 25, 1997, 149:9-150:3; 85701033-1033 (U.S. Ex. 86,143), 85701041-1042 (U.S. Ex. 86,144); TIFL0069155-9155 (U.S. Ex. 86,145); TIFL0069161-9161 (U.S. Ex. 86,146); 85700915-0923 (U.S. Ex. 86,147). The Tobacco Institute would also "send a letter with a synopsis of sort of a summary of the issues to be covered in the two days with perhaps some suggested reading material such as Tobacco Institute publications." Deposition of Walker Merryman, Florida v. American, July 25, 1997,

150:4-10.

268. During his presentations, Walker Merryman would "roam the room with a microphone and ask people questions [about what they had heard and learned over the two days] and see how they answered them." Deposition of Walker Merryman, Florida v. American, July 25, 1997, 151:12-152:18. For example, he might ask a student if he believed that there was a relationship between smoking and disease, and suggest that the better response was that "there is a statistical relationship between smoking and disease" rather than that "smoking causes disease." Deposition of Walker Merryman, Florida v. American, July 25, 1997, 153:16-156:10. Merryman noted that he was referred to as the "Dean of the Tobacco College of Knowledge" for his role in running such briefings. Deposition of Walker Merryman, Richardson v. Philip Morris, April 9, 1998, 88:3-88:7. TI16740590-0593 (U.S. Ex. 86,148).

269. A number of speakers generally spoke on a "half dozen or more different issues." Deposition of Walker Merryman, Florida v. American, July 25, 1997, 157:24-158:2. Speakers at the College sessions included Tobacco Institute employees whose specialities might be communications; public relations; federal and state regulation; medical consultants; state senators or representatives; economists; and statisticians. Deposition of Walker Merryman, Florida v. American, July 25, 1997, 158:5-159:5. No one spoke who believed that smoking caused disease because the Tobacco Institute assumed "that virtually everyone had heard that message." Deposition of Walker Merryman, Florida v. American, July 25, 1997, 159:13-160:4.

270. The College of Tobacco Knowledge was "a getting together, perhaps annually . . . of various personnel from various tobacco companies, and even perhaps tobacco associations . . .

in Washington at the Tobacco Institute" and elsewhere, where the participants "would listen to speakers on various aspects involving the industry." Deposition of Leonard Zahn, Massachusetts v. Philip Morris, May 28, 1998, 144:22-145:13. During his appearances at College sessions, Leonard Zahn would describe the activities of the Council for Tobacco Research and its research program "so that all the mid and perhaps slightly above mid-level employees from the various companies would have an idea, more exact knowledge, of what the Council was and how it worked." Deposition of Leonard Zahn, Massachusetts v. Philip Morris, May 28, 1998, 145:17-146:11, 149:25-150:10. Zahn passed out, or made available, Council for Tobacco Research materials including the Annual Report. Deposition of Leonard Zahn, Massachusetts v. Philip Morris, May 28, 1998, 148:8-20.

271. The syllabus for the College of Tobacco Knowledge that was held in Washington, D.C., from January 30 through February 3, 1978, described it as "a one-week educational program for selected member companies, allied interest and Institute personnel." 1000019640-9647 (U.S. Ex. 86,149). Attendees included representatives from Lorillard, Liggett Group, R.J. Reynolds Tobacco Co., R.J. Reynolds Industries, Brown & Williamson, Philip Morris, Philip Morris International, Philip Morris Inc., Philip Morris Europe, the Tobacco Institute, the Council for Tobacco Research, Rothmans International, Benson & Hedges, Canadian Tobacco Manufacturers Council, Shook, Hardy & Bacon, and Covington & Burling. 1000019649-9651 (U.S. Ex. 86,150). On the second day of the 1978 session, Charles Waite, the Tobacco Institute's Medical Director, and Marvin Kastenbaum, the Tobacco Institute's Director of Statistics, set forth the Enterprise's position on Smoking and Health, described in the syllabus as follows:

> The industry position on the asserted health effects of tobacco use is that smoking may be hazardous, it may not be, no one knows for sure. How and why that position is taken will be explored from several perspectives. Subject areas will include: Why a correlation can fall short of causation; False data and research dishonesty; Allergies, twin studies and orangutans; Enzyme inhibitors; Geographic anomalies.

1000019640-9647 (U.S. Ex. 86,149).

272. Addison Yeaman, CTR Chairman and President, spoke on the topic of Sponsoring Science, described in the syllabus as follows: "For 25 years, tobacco manufacturers, growers and warehouse operators have funded independent scientific research into tobacco use and health. How it is done and what is being learned." 1000019640-9647 (U.S. Ex. 86,149). Also discussed on the second day was the industry's position on Public Smoking: "[T]he emergence of the tobacco industry's most current controversy . . . regulations by states and localities; whether smoke is a hazard to nonsmokers; is smoker segregation discriminatory; can or will the police enforce smoking laws; around what bend lies tobacco Prohibition." 1000019640-9647 (U.S. Ex. 86,149). The lecture on "Winning" was described in the syllabus as: "With appropriate gathering of affected [sic] interests and a hard-hitting presentation of facts to blunt the anti-smokers' emotion, state and local legislatures have been convinced that the fist of government does not belong in the glove of courtesy." 1000019640-9647 (U.S. Ex. 86,149).

273. In July 1978, the Tobacco Institute prepared a ten-page listing of "smoke/ smoker/ smoking adversary groups" and distributed it with a cover letter from Tobacco Institute Vice President Anne Duffin to the "students" who had attended the 1978 College session. 1000019624-9635 (U.S. Ex. 86,151).

274. In 1979, the Tobacco Institute held its College of Tobacco Knowledge for Tobacco Institute employees and five to eight employees from each member company from February 5-8, 1979. 85701065-1066 (U.S. Ex. 86,152). The 1979 College included a three-hour panel discussion on "Smoking in the Presence of Others." 1005147206-7206 (U.S. Ex. 86,153).

275. In 1980, the Tobacco Institute put together two sessions of the College of Tobacco Knowledge, one in February and one in September. TIFL0068940-8940 (U.S. Ex. 86,154); TI16740664-0665 (U.S. Ex.86,155). ICOSI sent its newly hired librarian to the February 1980 session of the College. 2501290388-0396 (U.S. Ex.86,156). Arthur Stevens, Lorillard, sent comments from the Lorillard attendees at the February college to the Tobacco Institute. 03022004-2008 (U.S. Ex 86,157); 85676573-6577 (U.S. Ex. 86,158). One employee wrote, "The information presented gave me a better view of the defensive position in which our industry finds itself." 03022004-2008 (U.S. Ex. 86,157); 85676573-6577 (U.S. Ex. 86,158).

276. The "Public Smoking Issue" was again a significant topic on the agenda for the "Tobacco Institute Sixth College of Tobacco Knowledge" held in Washington, D.C., on September 16-18, 1980. TIFL0068913-8926 (U.S. Ex. 86,159). In his opening remarks at the September 1980 session, Tobacco Institute Vice President Daniel Milway stated: "It is the role of the Institute to encourage public awareness and understanding of the controversy about public smoking and smoking and health." TIFL0067999-8004 (U.S. Ex. 86,160). Speaker John Kelly, the Tobacco Institute's Senior Vice President for State Activities, traced the rise of the public smoking issue in the 1970s, the growth of legislative intervention, the defeat of ballot initiatives in 1978 and 1979, the industry's plans to deal with more ballot initiatives in 1980, the Tobacco

Institute's representations to state and local legislatures, and anecdotal reference to wins and losses for smokers. TIFL0068913-8926 (U.S. Ex. 86,159). Speaker John Rupp, Covington & Burling attorney, discussed lawsuits against public authorities, public places, and employers restricting smoking, and the judicial views of the where and when of smoking. TIFL0068913-8926 (U.S. Ex. 86,159). William Kloepfer, Vice President of the Tobacco Institute's Public Affairs Division, was asked to anchor the public relations presentation on "Communicating on the Issues." TIFL0068939-8939 (U.S. Ex. 86,161).

277. In feedback after the September 1980 session regarding whether or not the College of Tobacco Knowledge was worthwhile, one Lorillard attendee wrote: "Definitely - The opportunity to meet with the pros, who fight in the trenches, was an experience which expanded my knowledge and commitment to **our mutual goals**." 85700954-0955 (U.S. Ex. 86,162) (emphasis added).

278. The Tobacco Institute Seventh College of Tobacco Knowledge was held on February 17-18, 1981. TIFL0068950-8955 (U.S. Ex. 86,163). In the session on "The Scientific Controversy," the Tobacco Institute's Medical Consultant George Schafer reviewed the history of the health controversy, commented on the Surgeon General's reports, and summarized the industry's views and its research support. TIFL0068950-8955 (U.S. Ex. 86,163). Comments by Lorillard attendees on the Seventh College included: "[A]fter the program was completed, I definitely have a better understanding of the **industries [sic] position** in certain areas . . . past attendees should be updated whenever the **industries [sic] stand** on a position changes or new information is available, especially in the overall smoking and health controversy." 85180845-

0846 (U.S. Ex.86,164); 85700890-0891 (U.S. Ex. 86,165) (emphasis added). Another comment was: "I also learned some important 'do's and 'don't's' to observe when discussing the smoking and health issue." 85700895-0895 (U.S. Ex. 86,166).

279. The Eighth College of Tobacco Knowledge was held in Washington, D.C. on November 16-17, 1981. It trained a wide range of tobacco industry representatives, including David E. Ferrers, BATCo's Public Affairs Advisor, and five INFOTAB employees from Brussels. Two CTR executives, Robert Gertenbach, CTR Executive Vice President, and W.T. Hoyt, CTR President, two Liggett employees, and three Shook, Hardy & Bacon employees also attended the College. TI04962304-2306 (U.S. Ex. 62,199); TI16740660-0663 (U.S. Ex. 72,403); 503908538-8538 (U.S. Ex. 29,737). On the first day of the November 1981 College, speakers included Leonard Zahn, CTR Public Relations Advisor, and Mary Covington, Secretary General of INFOTAB. TI04962331-2334 (U.S. Ex. 86,167). Zahn discussed the role played by CTR in smoking and health research. TI04962389-2389 (U.S. Ex. 62,201); TI04962390-2398 (U.S. Ex. 62,202); TIFL0068387-8387 (U.S. Ex. 77,028). As INFOTAB's Secretary General, Covington presented an "international perspective of smoking issues and related activities of the tobacco industry." 2501029891-9901 (U.S. Ex. 20,557). Covington explained that the Tobacco Institute's College of Tobacco Knowledge "seminars offer an opportunity to learn a lot about smoking issues and industry programs in a very short time. . . . Without a concerted effort by the tobacco industry, [initiatives to eliminate smoking in public places] will make gradual headway in changing attitudes towards smoking as a socially acceptable custom." 2501029891-9901 (U.S. Ex. 20,557).

280. For over a decade, the College of Tobacco Knowledge provided another opportunity for the Tobacco Institute and the Council for Tobacco Research to coordinate Enterprise activities. In a letter dated October 27, 1981, William Hobbs, CTR Chairman, wrote that CTR representatives "Tom Hoyt and Bob Gertenbach will attend T.I.'s College of Tobacco Knowledge November 16 and 17" providing an opportunity for the Tobacco Institute's Horace Kornegay to brief the CTR President and Executive Vice President on "T.I.'s advertising and research plans" because "it might be beneficial to CTR management." 503908538-8538 (U.S. Ex. 29,737).

281. Two sessions of the Tobacco Institute's College of Tobacco Knowledge were held in 1982, one in April and one in October. Of the forty-nine students registered for the October session, seventeen students were from foreign countries, including Brian Gapes, Director of the Tobacco Institute of Australia; Jerome Mostyn, BATCo Public Affairs Advisor; and Anthony St. Aubyn, Assistant Director of the Tobacco Advisory Council, the United Kingdom equivalent of CTR. See U.S. FPFF § I.H(3), infra. TI04962210-2211 (U.S. Ex. 67,250); TI16740652-0659 (U.S. Ex.86,168).

282. Two sessions of the Tobacco Institute's College of Tobacco Knowledge were held in 1983 – the Eleventh College on March 31 and April 1 and the Twelfth College on September 27-28. TI16740741-0749 (U.S. Ex.86,169); TI04962337-2341 (U.S. Ex.86,170); TI16740734-0740 (U.S. Ex.86,171). At both 1983 sessions, William Kloepfer spoke to the students on public relations issues. In addressing the issue of the "effectiveness and unity" of the tobacco industry, Kloepfer contended that because "**what affects one affects all**," the Tobacco Institute used many

strategies "**to keep us together, to keep us all aware**" (emphasis added). According to Kloepfer, the Tobacco Institute Public Relations Division was primarily responsible for four strategies: the Tobacco Institute *Tobacco Observer* newspaper reaching 150,000 readers six times a year; advertising in tobacco trade publications; appearing as speakers before trade and industry groups; and the Tobacco Institute Tobacco College of Knowledge that has helped "educate" and "orient hundreds of key family members . . . **a united industry is our most potent public relations and legislative tool**." (emphasis added). TI04962436-2454 (U.S. Ex. 86,172); TIFL0526112-6125 (U.S. Ex. 62,625). In addressing the issue of public smoking restrictions, Kloepfer maintained that "through our spokesmen, our literature, and our advertising, we broadcast two messages: (1) ambient smoke has not been proven dangerous to non-smokers, and (2) smoking restrictions cause unnecessary expense, inconvenience, and discrimination." TI04962436-2454 (U.S. Ex. 86,172); TIFL0526112-6125 (U.S. Ex. 62,625). In addressing "our oldest, most frustrating issue," Kloepfer noted, "We call it the primary issue. It is the smoking and health controversy. We think of it as controversy . . . a subject far from decided . . . and through our spokesmen and literature we make that point." TI04962436-2454 (U.S. Ex. 86,172); TIFL0526112-6125 (U.S. Ex. 62,625).

283. The Thirteenth College of Tobacco Knowledge was held in July 1984. 85700776-0776 (U.S. Ex. 86,173); TI16740727-0733 (U.S. Ex. 86,174); TI10570168-0168 (U.S. Ex. 86,175). In June 1986, the Tobacco Institute sponsored the Fourteenth College of Tobacco Knowledge which focused on three major issues: public smoking, excise taxes, and advertising restrictions. TIFL0071151-1151 (U.S. Ex. 86,176); TIFL0071174-1174 (U.S. Ex. 86,142).

Industry ETS consultants Nancy Balter and John Graham "Gray" Robertson spoke about public smoking restrictions. TIFL0071152-1154 (U.S. Ex. 86,177); TIFL0071200-1202 (U.S. Ex. 86,178); TIFL0067813-7819 (U.S. Ex. 86,179).

284. In September 1987, the Tobacco Institute sponsored the Fifteenth College of Tobacco Knowledge. TIFL0072275-2277 (U.S. Ex.86,180). According to Walker Merryman's opening remarks, the Fifteenth College was "the largest we have ever entertained." TI16740614-0616 (U.S. Ex. 86,181). Following the format inaugurated in 1986, the Tobacco Institute's Public Affairs Division Issues Team coordinated sessions that highlighted the Tobacco Institute's most effective arguments, experts, allies, and other resources. TI11961414-1414 (U.S. Ex. 86,182). Students at the Fifteenth College included four employees of Defendant Philip Morris Companies. TIFL0072290-2303 (U.S. Ex. 86,183).

285. The Tobacco Institute offered its Sixteenth, and last, College of Tobacco Knowledge on September 15 and 16, 1988 with a welcoming reception the evening of September 14. 87645518-5522 (U.S. Ex. 86,184); TIFL0068394-8402 (U.S. Ex. 86,185); TI11961377-1377 (U.S. Ex.86,186); Deposition of Walker Merryman, Florida v. American Tobacco Co., July 25, 1997, 148:9-13.

286. Some time between November 1988 and June 1989, the decision was made to eliminate the Tobacco Institute College of Tobacco Knowledge ostensibly because of budgetary concerns. TI01361955-1955 (U.S. Ex. 86,187); TIFL0070810-0810 (U.S. Ex. 86,188).

(d) Defeating Threats to the Enterprise's Viability - ASSIST

287. Defendants, through the Tobacco Institute, often mounted coordinated attacks on

any perceived threats to the viability of their Enterprise, the preservation and enhancement of their profits, or the expansion of the market for their cigarettes. A prime example of such an attack is the Tobacco Institute's attack on ASSIST (American Stop Smoking Intervention Study).

288. ASSIST began with an announcement by Louis W. Sullivan, Secretary of Health and Human Services, on Friday, October 4, 1991. Sullivan announced that the National Cancer Institute ("NCI") and the American Cancer Society ("ACS") were jointly launching an eight-year program (the ASSIST program) to encourage cessation and prevent tobacco use; and that seventeen state health departments had won such ASSIST contract awards following a national competition. ASSIST's emphasis on the development of community-based coalitions throughout the states set it apart from other government smoking control programs. Its aims were to help more than 4.4 million adults stop smoking; to prevent 2 million young people from starting smoking; and to reduce smoking prevalence from 28% of American adults to less than 15%. TIMN0019101-9106 (U.S. Ex. 86,189); TIFL0505851-5856 (U.S. Ex. 86,190); TIMN377496-7497 (U.S. Ex. 86,191).

289. During ASSIST's Phase I, running from 1991 to 1993, the funded state health departments were to identify and develop local community-based tobacco control coalitions, work with them to plan specific smoking control programs, identify high-risk smoking population groups, and determine the best approaches for reaching these targeted groups. In Phase II, from 1993 to 1998, the community-based coalitions were to implement selected smoking control activities through five channels, namely, work sites, schools, health care facilities, community organizations, and community environment or mass media.

TIMN0019116-9120 (U.S. Ex. 87,675); TI13851378-1378 (U.S. Ex. 65,516); TI13851379-1381 (U.S. Ex. 65,517); TI13851813-1818 (U.S. Ex. 65,520).

290. Because of ASSIST's potential to decrease Defendants' profits, the Tobacco Institute, the Tobacco Institute Executive Committee, and Defendants immediately began developing multiple strategies "to counter potential state and local legislative action resulting from the NCI/ACS grants to these 17 states." TI13851378-1378 (U.S. Ex. 65,516); TI13851379-1381 (U.S. Ex. 65,517).

291. Within three days of Sullivan's announcement, Tobacco Institute President Samuel Chilcote had alerted the Tobacco Institute Executive Committee that Institute spokesmen had responded to media inquiries by noting the "questionable use of taxpayers' dollars while other major public programs are suffering from inadequate funding" and that, "while Sullivan insists that the funds will not be used for lobbying, the press release statement that monies will be used to 'educate . . . public officials about the benefits . . . of public health policies in combating smoking' appears to suggest lobbying activity." By Monday, October 7, 1991, Tobacco Institute staff had also contacted selected congressional offices concerning the announcement and raised concerns about the manner in which these funds were being spent, and Cathey Yoe, the Tobacco Institute's Director of Legislative Information, had sent a list of proposed actions to counter the potential legislative impact of the ASSIST grants to the other Tobacco Institute employees in the State Activities Division. TIMN00190099-9100 (U.S. Ex. 86,192); TIFL0505849-5850 (U.S. Ex. 86,193); TI13851393-1394 (U.S. Ex. 65,519); TI13850151-0152 (U.S. Ex. 65,496); TI13851417-1418 (U.S. Ex. 86,194).

292. By the following day, October 8, 1991, the Tobacco Institute's Roger Mozingo, had prepared an action plan "to deal with the ASSIST situation." According to the plan, "[p]otential courses of action being studied to manage the situation" included: (i) restricting or limiting how the ASSIST funds were used through the state appropriations process and contacts with state executive branch officials; (ii) working with Congressional delegations in tobacco states to eliminate ASSIST funds in future appropriation bills, or, at least, to restrict how the funds could be used; and (iii) in states where legislatures were considering the use of state funds to reduce tobacco consumption or such initiatives were proposed, telling officials and voters that ASSIST and other federal funds were already being used in their states for these purposes. TI13851382-1382 (U.S. Ex. 65,518).

293. By October 9, 1991, the Tobacco Institute had developed a plan that Walter Woodson, a director in the Tobacco Institute's State Activities Division, called "the TI plan of attack on the ASSIST program." The Tobacco Institute carried out the "plan of attack" by coordinating its efforts with Defendants' state government relations departments, lawyers, lobbyists, consultants, and other tobacco industry allies. To stem the potential damage to their profits, Defendants filed demanding and time-consuming FOIA requests; protested to Congress and the Administration the use of federal taxpayer dollars for ASSIST in an era of mounting deficits; included language in appropriation or other bills that would prohibit use of NCI funds for influencing state or local legislation; ensured that those applying for ASSIST grants meet stringent state guidelines and face regular and rigorous state auditing processes; limited state health departments' authority to fund community coalitions which advocate tobacco control

legislation or regulation; requested hearings and investigations and filed complaints and lawsuits regarding"illegal lobbying," a term used by Defendants to describe ASSIST policy advocacy activities; redirected tobacco control education monies to other programs in states which faced severe state budget shortfalls; identified local business groups and apprised them of the ASSIST grant program so that they might join a community-based coalition and apply for ASSIST grants; expanded monitoring of coalition groups in the seventeen ASSIST states and publicized any missteps to state leaders and the public; and promoted existing publications that called into question the motives and operating techniques of certain voluntary health organizations. TI13851378-1378 (U.S. Ex. 65,516); TI13851379-1381 (U.S. Ex. 65,517); 522524692-4716 (U.S. Ex. 87,676); TI13850202-0202 (U.S. Ex.65,499); TI13850203-0206 (U.S. Ex. 65,500); TI13851357-1357 (U.S. Ex. 87,677).

294. The tobacco industry considered ASSIST a major threat because of its scope, its emphasis on public and private policy change, and its fostering of local tobacco control coalitions and infrastructures. At the June 11, 1992 Tobacco Institute Executive Committee meeting, Susan Stuntz declared that the tobacco industry's biggest challenge "has been the creation of an anti-smoking infrastructure right down to the local level. . . . ASSIST will hit us in our most vulnerable areas, in the localities and in the private workplace. It has the potential to peel away from the industry many of its historic allies. For example, major employers . . . , chambers of commerce, labor unions, and groups like the Urban League and NAACP." TI13851818-1818 (U.S. Ex. 65,520).

295. Similar tactics aimed at disrupting, weakening, or destroying ASSIST were used

by Defendants throughout the eight years of the program. For example, a December 15, 1994 Tobacco Institute memorandum concluded that "the best way to use the new lobbying prohibition may be to bring a complaint to the Inspector General of the Department of Health and Human Services . . . we could coordinate a grassroots effort that would send dozens of complaints to the Inspector General's office, forcing the Inspector General to address the problem . . . if the Inspector General dismisses the complaints . . . his actions will be of interest to the appropriate congressional oversight committees." TI13850309-0314 (U.S. Ex. 65,503).

296. In a January 26, 1995 report, "Analysis and Recommendations Concerning Selected States ASSIST Projects," prepared by Hays, Hays & Wilson for the Tobacco Institute, one of the potential objectives was to "[e]xpose the ASSIST Project as a government-sponsored lobbying effort and instrument of the left designed to destroy a legal industry." TI13850258-0300 (U.S. Ex. 65,502).

297. In a June 17, 1996 memorandum to the Tobacco Institute's Bob McAdam and Rob Walker, a Tobacco Institute consultant Thomas Briant praised the benefits of the exhaustive FOIA document requests in Minnesota. The documents produced were "like a road map because they indicate what cities are being targeted for ordinances, when the ASSIST groups will attempt to pass the ordinance, and what kind of restrictions will be proposed to the city council of the target locality." The Tobacco Institute tracked ASSIST activities by surveying the targeted cities; the survey results showed "a reduction in the number of cities actually being contacted by the ASSIST groups even though the grants require the ASSIST groups to attempt to pass a local ordinance in the targeted cities. While there may be several reasons for this apparent decline in

local activity, one reason for the reduction may be the **chilling effect the document requests** have had." TI14200701-0702 (U.S. Ex. 65,524) (emphasis added).

298. In spite of Defendants' ploys, in the seventeen states that took part in ASSIST, the prevalence of smoking dropped nearly a percentage point faster than in the rest of the country. Frances A. Stillman, Anne M. Hartman, Barry I. Graubard, Elizabeth A. Gilpin, David M. Murray, and James T. Gibson, "Evaluation of the American Stop Smoking Intervention Study (ASSIST): A Report of Outcomes," 95 *J. Nat'l Cancer Inst.* 1681 (2003) (U.S. Ex. 86,820).

299. When asked about a November 2003 article indicating that the prevalence of smoking in ASSIST states dropped nearly a percentage point faster than in the rest of the country, Jennifer Golisch, a spokeswoman for Philip Morris, would not comment on the study. "Study Praises U.S. Anti-Smoking Program," Associated Press, November 19, 2003 (U.S. Ex. 86,817).

(e) Disingenuously Promoting the Enterprise

300. In addition to working covertly to undermine smoking cessation programs aimed at reducing youth smoking such as ASSIST, Defendants continually marketed to youth; however, the Enterprise wanted to convey to the public that the tobacco industry was responsible and did not do so. The Cigarette Company Defendants used the Tobacco Institute as a means to convey its false and misleading message that they did not market to youth.

301. Despite public claims that they were not marketing to youth, the Tobacco Institute mailed to schools and libraries, posters highlighting the importance of tobacco in 1971. The Institute received an overwhelmingly negative response from teachers and librarians calling the mailing an obvious attempt to influence school children. 680241709-1712 (U.S. Ex. 30,849).

302. A September 21, 1984 Tobacco Institute memorandum from Ann Duffin, Vice President of Public Relations, to Tobacco Institute employee P.R. Pink, and copied to Walker Merryman, Vice President of the Tobacco Institute, regarding "wording on TI youth position" actually contradicted Defendants' argument that it backed anti-youth smoking campaigns:

> Because of litigation, SHB [Shook Hardy & Bacon] prefers that we not talk about precisely how long it has been an industry policy that youth should not smoke. We can say 'for many years.' We can use 'for more than two decades' or some such only if in the context that's how long it has been clear that the industry doesn't want kids to smoke, wording Stanford said he had recently cleared. This sounds like splitting hairs, but I can see the wisdom under present New Jersey circumstances of not further pinpointing exactly when the industry announced it would avoid advertising/promoting cigarettes to youth.

TIMN201581-1581 (U.S. Ex. 23,016).

303. In a December 11, 1990 statement announcing new initiatives to discourage youth smoking, Brennan Dawson, Vice President of the Tobacco Institute, emphasized the "industry's long standing commitment and history of positive actions against youth smoking." TIMN187578-7584 at 7579 (U.S. Ex. 86,199) (emphasis in original).

304. In 1990, the Tobacco Institute circulated an advertisement entitled "What's the Tobacco Industry Doing to Discourage Youth Smoking? A Lot." The advertisement listed initiatives such as supporting state laws prohibiting the sale of cigarettes to those under eighteen and limiting the distribution of product samples. TIMN334944-4944 (U.S. Ex. 86,200); 2501511471-1471 (U.S. Ex. 86,201).

305. On December 14, 1990, Brennan Dawson, Vice President of the Tobacco Institute, appeared on the television program "Industry Report" to talk about the tobacco

industry's "campaign to curb youth smoking." Dawson stated, "The tobacco industry has a long record of trying to keep its products out of the hands of young people. We're now broadening that effort considerably and undertaking five new major programs that will continue to demonstrate our commitment that tobacco products are for adults, not for kids." TIMN389731-9733 (U.S. Ex. 86,204).

306. In February 1992, the Tobacco Institute joined with the Family C.O.U.R.S.E. Consortium in launching a series of ads with the theme "Smoking Should Not Be A Part of Growing Up" to promote the "Tobacco: Helping Youth Say No" booklet. In a statement, announcing the release of the ads, Brennan Dawson reiterated the Enterprises' public stance on youth smoking, "We have long been against youth smoking. We have long taken steps to demonstrate that commitment." TIFL0010106-0110 at 0107 (U.S. Ex. 86,205).

307. In July 1995, the National Institute of Drug Abuse released data reporting that the rate of daily smoking among teenagers had increased from 1993 to 1994. The Tobacco Institute issued a press release on July 19, 1995, a day before the new data was released, reporting the results of the study but also emphasizing the increase in illegal drug use among teenagers. The release concluded, "The Institute has long supported efforts to discourage youth smoking via a range of programs and initiatives. We will continue these efforts and encourage others to work with us in pursuit of our shared goal to keep cigarettes away from young people." TIFL0524268-4269 at 4268 (U.S. Ex. 86,206); 511409174-9175 at 9174 (U.S. Ex. 86,207); 522878939-8940 at 8939 (U.S. Ex. 86,208); 522626180-6181 at 6180 (U.S. Ex. 86,209).

308. In a January 2, 1996 Tobacco Institute press release, the Enterprise stressed its

support of youth prevention programs, stating, "Members of tobacco, retail and wholesale industries have joined together to aggressively support efforts to combat the problem of youth access to tobacco products." A January 18, 1996 release stated, "The tobacco industry supports the goal of eliminating tobacco sales to minors . . . will continue to support all reasonable measures to keep youngsters from smoking." TICT0005655-5658 at 5656 (U.S. Ex. 65,547); TIMN328489-8490 at 8489 (U.S. Ex. 86,210); 520813139-3140 at 3139 (U.S. Ex. 86,211); 517225259-5260 at 5259 (U.S. Ex. 86,212); 517154601-4602 at 4601 (U.S. Ex. 86,213); 515324315-4316 at 4315 (U.S. Ex. 86,214); 515323014-3015 at 3014 (U.S. Ex. 86,215); 515243982-3983 at 3982 (U.S. Ex. 86,216); 518232198-2199 at 2198 (U.S. Ex. 86,217); see also TICT005792-5793 (U.S. Ex. 87,678).

309. A January 24, 1996 Tobacco Institute press release entitled, "Tobacco Industry Shares Goal of Eliminating Underage Smoking" touted the Enterprises' longstanding "commitment" to reduce youth smoking. The release stated, "The tobacco industry agrees that kids should not smoke. . . . . The tobacco industry has – and will continue – to support reasonable efforts to fulfill that goal." TIFL0524270-4271 at 4270 (U.S. Ex. 62,636); TNJB0007705-7706 at 7705 (U.S. Ex. 86,220); TICT0005642-5643 at 5642 (U.S. Ex. 86,221).

(f) Tobacco Institute Testing Laboratory

310. In June 1966, the Federal Trade Commission ("FTC") announced that it was establishing a laboratory to measure by machine the tar and nicotine content of cigarette smoke. That same year, the tobacco industry decided to establish its own laboratory, the Tobacco Institute Testing Laboratory ("TITL"), which would be a separate division of the Tobacco

Institute. The TITL was established so that Defendants could conduct tests to determine the accuracy and reliability of the FTC laboratory's tests. The TITL was also used by the tobacco industry for different testing purposes. TITL0003128-3130 (U.S. Ex. 21,372); 515805538-5538 (U.S. Ex. 20,870); 680239934-9935 (U.S. Ex. 20,992); TIMN267146-7146 (U.S. Ex. 21,354).

311. A meeting was held on September 30, 1966, at which William Bates, Research Director for Liggett; Robert Griffith, Director of Research and Development for Brown & Williamson; Edward Harlow, Plant Manager for American; Murray Senkus, Director of Research for R.J. Reynolds; Everett Cogbill of American; and Frank Resnik, Vice President of Philip Morris, were in attendance to plan the operation of TITL. TITL0003363-3374 (U.S. Ex. 21,931); TITL0003375-3375 (U.S. Ex. 21,932).

312. The Tobacco Institute also worked out arrangements with its members whereby Defendants' technicians worked with the FTC laboratory in measuring tar and nicotine and in the procurement of testing machines. TITL0003108-3111 (U.S. Ex. 21,597).

313. TITL operations were supervised by a committee consisting of one scientifically qualified representative from each company that participated in funding the laboratory. TITL initially employed three laboratory technicians and operations were under the day-to-day supervision of Laboratory Director William Steele. TITL0003115-3117 (U.S. Ex. 63,025).

314. At a February 14-16, 1968 meeting of the Research Directors for Defendants Liggett, Brown & Williamson, American, R.J. Reynolds, Lorillard, and Philip Morris (also attended by an attorney from Covington & Burling), it was acknowledged that TITL was a "Mechanism for Mutual Cooperation." 500500320-0323 (U.S. Ex. 20,633).

315. In a presentation to the Lorillard Executive Committee on May 15, 1968, Alexander W. Spears, Director of Research and Development, noted that the scope of TITL had "been broadened to include a contract research program on human smoking patterns and measurement of smoke withdrawn from the end of the cigarette by the smoker." 01246525-6537 (U.S. Ex. 34,516).

316. At a March 11, 1969 Tobacco Institute news conference, William Kloepfer of the Tobacco Institute and Frank Resnik of Philip Morris expressed "regret . . . that given the wide degree of suspicion about our industry's product, there seems to be such a corresponding suspicion about the validity of what we say." Resnik explained the purpose of a "standard or monitor cigarette" used by FTC and TITL in their "smoking machine as a means of gauging whether the machine is functioning properly on any given test." LG0162781-2785 (U.S. Ex. 21,191).

317. The industry clearly used TITL for its own commercial purposes. For example, the industry collectively used TITL in its testing of the chemical Chemosol in the late 1960s and early 1970s. American Chemosol Corporation claimed in documents filed with the application for a Canadian patent and German patent that the benzopyrene in tobacco smoke and the "cancer producing tendencies of cigarette smoke" were reduced when the tobacco was sprayed with Chemosol. 500500320-0323 (U.S. Ex. 20,633); TIMN267142-7143 (U.S. Ex. 21,353).

318. Representatives from Defendants American, Brown & Williamson, Liggett, Lorillard, Philip Morris, and R.J. Reynolds, along with Larus & Brother, Stephano Brothers, and United States Tobacco, offered to engage in a testing project with American Chemosol in 1967.

http://energycommerce.house.gov/tobacco/docs/bw/0012695326.tif (U.S. Ex. 87,221); TIMN267210-7212 (U.S. Ex. 21,360).

319. It was acknowledged that this offer represented industry cooperation on the issue. For example, at the February 14-16, 1968 meeting of the Research Directors, there was a discussion about the need for a cooperative effort with respect to controlling the composition of smoke and the need for "an industry-wide consideration of some of the additives and filtering devices . . . as in the case of Chemosol." 500500320-0323 (U.S. Ex. 20,633).

320. American Chemosol Corporation responded to the offer from Defendants American, Brown & Williamson, Liggett, Lorillard, Philip Morris, and R.J. Reynolds, along with Larus & Brother, Stephano Brothers, and United States Tobacco in 1969, by contacting H. Thomas Austern, an attorney from Covington & Burling, who advised the Committee of Counsel on the negotiations and received guidance from them on the Cigarette Company Defendants' position. It was agreed that Hazleton Laboratories would conduct the testing based upon a protocol developed by the Research Directors of each of the nine participants, and that the companies would be billed by the Tobacco Institute. TIMN267210-7212 (U.S. Ex. 21,360); TIMN267203-7204 (U.S. Ex. 21,359); TIMN267188-7189 (U.S. Ex. 21,358); TIMN267184-7186 (U.S. Ex. 21,682); TIMN267181-7182 (U.S. Ex. 21,357) TIMN267181-7182 (U.S. Ex. 77,085).

321. A protocol was developed whereby Hazleton would prepare smoke condensate from two groups of cigarettes that were furnished by the industry, one group was treated with Chemosol and one was untreated, and then skin-painting experiments were conducted on groups

of mice. Hazleton would test for levels of nicotine, moisture, and the amount of benzo(a)pyrene in the condensate, and the industry would use TITL to perform control testing of samples of the batches, which it did in 1970. TIMN267169-7173 (U.S. Ex. 21,356); TIMN267158-7159 (U.S. Ex. 21,355); TIMN267146-7146 (U.S. Ex. 21,354).

322. At a September 10, 1969 meeting of the Industrial Technical Committee held at the offices of CTR, there was a presentation about Chemosol at which James Gargus of Hazleton Laboratories was present. The Committee agreed, based upon questions from industry counsel, that "the group preferred to keep the test to just 85 mm. cigarettes **to protect against the possibility of one or more lengths appearing to be a 'safer' design**." 100186855-6859 at 6859 (U.S. Ex. 20,119) (emphasis added).

323. By February 1971, when the Canadian and German patents and their supporting applications were disclosed, the industry grew concerned because its scientists had concluded, based upon the description of the treatment, that Chemosol could not produce the claimed results. The industry, however, had undertaken to sponsor the Chemosol tests "without knowing what the treatment involved." The industry received interim reports of the testing from representatives of Hazleton. TIMN267142-7143 (U.S. Ex. 21,353); TIMN267122-7126 (U.S. Ex. 21,352); TIMN267120-7121 (U.S. Ex. 21,351).

324. The industry continued to monitor Chemosol until as late as 1973. Chemosol was discussed at a meeting of the Committee of Counsel on September 6, 1973. 680215434-5435 (U.S. Ex. 22,279).

325. TITL was used to verify the accuracy of the FTC's labs results until the FTC

decided to close its own laboratory in 1987. John Rupp of Covington & Burling then prepared guidelines regarding: (i) the operation of TITL; and (ii) the use of TITL test results for tar and nicotine contents in cigarette advertising. TIMN203171-3171 (U.S. Ex. 21,347).

326. By the 1990s, there was an agreement with the FTC that each company had to use tar and nicotine and carbon monoxide values obtained by TITL in their advertisements. 2022970464-0466 (U.S. Ex. 20,369).

327. Pursuant to the 1998 Master Settlement Agreement, it was agreed that the Tobacco Institute would be dissolved, but TITL was permitted to continue in operation. The laboratory, however, was renamed Tobacco Industry Testing Laboratory and was incorporated on February 2, 1999. The Tobacco Industry Testing Laboratory continues to do product testing for the industry. TI31112636-2639 (U.S. Ex.21,259); TI31112641-2648 (U.S. Ex. 62,539); Deposition of William Adams, United States v. Philip Morris, et al., June 18, 2002, 17:16-17:20.

D. Joint Research Activity through CTR and the Tobacco Institute

(1) Special Research Projects and Witness Development

328. Defendants Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, American, CTR, and the Tobacco Institute orchestrated a variety of research projects that they dubbed Special Projects. These projects took numerous forms, including CTR Special Projects, Lawyers Special Projects (projects paid through Lawyers Special Accounts), and special projects conducted through the Tobacco Institute. These projects were all exclusively funded by these Defendants and the main purpose of the lawyer-directed and orchestrated research was the procurement and development of witnesses favorable to Defendants for

testimony before Congress, other regulatory bodies, in litigation, and for support of industry public statements.

329. Special Projects were overseen by the main members of the Committee of Counsel, that is the General Counsels of each of the six Cigarette Company Defendants – Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American. 2045752106-2110 at 2107 (U.S. Ex. 20,467); 1003718428-8432 at 8429 (U.S. Ex. 35,902); 01124376-4421 (U.S. Ex. 26,394); 01124445-4445 (U.S. Ex. 26,400).

330. Defendants' General Counsels received frequent updates on joint industry research that was funded through CTR Special Projects and Special Accounts. 507875845-5848 (U.S. Ex. 29,921); 1005134354-4354 (U.S. Ex. 36,104); 100513455-4362 (U.S. Ex. 36,105); 507877630-7632 (U.S. Ex. 86,222); 1005048375-8378 (U.S. Ex. 35,940); 1005048379-8379 (U.S. Ex. 35,941); LG2002618-2526 (U.S. Ex. 21,200); 507875764-5764 (U.S. Ex. 29,919); 507875765-5768 (U.S. Ex. 29,920); 1005061626-1626 (U.S. Ex. 35,960); 1005061615-1615 (U.S. Ex. 35,958); 1005061616-6125 (U.S. Ex. 35,959); 1005061626-1626 (U.S. Ex. 35,960); 1005061627-1635 (U.S. Ex. 35,961); 503653901-3909 (U.S. Ex. 86,224); 680305856-5858 (U.S. Ex. 30,887); 680305849-5850 (U.S. Ex. 30,886); BWX0003838-3842 (U.S. Ex. 79,952); 2501190758-0759 (U.S. Ex. 20,562).

331. Special Projects were managed by the Ad Hoc Committee, a group consisting of in-house counsel, litigating lawyers, and other agents such as public relations representatives of Defendants, and organized to do long range policy planning with respect to research and witness development. 2045752106-2110 at 2107 (U.S. Ex. 20,467); 1003718428-8432 at 8429 (U.S. Ex.

35,902); 536300352-0365 (U.S. Ex. 20,927).

332. At times, members of the Ad Hoc Committee and the Committee of Counsel held joint meetings to keep everyone informed as to the status of matters related to the Enterprise. BWX0000007-0007 (U.S. Ex. 59,828).

333. Ad Hoc Committee members also met often with the staff of CTR. For example, on February 10, 1966, Edwin Jacob, Ed Cooke, and Alexander Holtzman, Ad Hoc Committee members met with the CTR staff. Holtzman circulated a memorandum detailing the meeting to Janet Brown, Edward Cooke, Francis Decker, David Hardy, Edwin Jacob, William Shinn, and Butler. Specific CTR Special Projects were discussed, and new CTR staff members. 2015033263-3271 (U.S. Ex. 88,638).

334. As an example, in January 1967, the Ad Hoc Committee was comprised of: (1) Janet C. Brown, Chadbourne & Parke, counsel to American and CTR; (2) Kevin L. Carroll, White & Case, counsel to Brown & Williamson; (3) Donald J. Cohen, Webster, Sheffield, Fleischmann, Hitchcock & Chrystie, counsel to Liggett; (4) Edward J. Cooke, Jr., Davis, Polk & Wardell, counsel to R.J. Reynolds; (5) Francis Decker, Webster, Sheffield, Fleischmann, Hitchcock & Chrystie, counsel to Liggett; (6) Alexander Holtzman, Conboy, Hewitt, O'Brien & Boardman, counsel to Philip Morris; (7) Edwin J. Jacob, Jacob, Medinger & Finnegan, counsel to CTR, Brown & Williamson, and R.J. Reynolds; and (8) William W. Shinn, Shook, Hardy, Ottman, Mitchell & Bacon, counsel to Philip Morris, Lorillard, and Brown & Williamson. 2015059690-9697 (U.S. Ex. 20,309).

335. It is clear that "Special Projects" research was designed to retain witnesses rather

than address smoking and health issues in a way that would be helpful to the public. A 1960 CTR document lists the names and addresses of forty scientists as possible medical witnesses in lawsuits. 10079816-9817 (U.S. Ex. 26,215). An undated Lorillard document lists as one of the recommendations for industry research support: "Be prepared to increase industry funding of special projects to resolve scientific problems and develop witnesses." 80419203-9203 (U.S. Ex. 21,062).

336. On December 17, 1965, at a meeting of the "Committee of Six," representatives of at least CTR, Brown & Williamson, and R.J. Reynolds, and outside counsel met to discuss CTR and Ad Hoc projects in relation to the need for industry witness development. LG2000139-0144 (U.S. Ex. 21,196), RC-6033491-3496 (U.S. Ex.21,196); 2072420469-0469 (U.S. Ex. 86,226); 95522182-2185 (U.S. Ex. 56,821); 01124441-4444 (U.S. Ex. 20,034).

337. By letter dated January 4, 1966, attorney John Russell of Perkins, Daniels & McCormack informed J.E. Bennett, President of Lorillard: "As you are aware, the lawyers have, together with the staff of Council for Tobacco Research, been reviewing our industry's research program with a view toward developing some sort of a master plan." Russell advised that there were three categories of research: "A. Adversary needs (Congress, litigation, etc.); B. Defensive needs; and C. Basic research." He further advised that some projects would be paid through Lawyers' Special Accounts and some out of CTR. 01124445-4445 (U.S. Ex. 26,400).

338. An April 12, 1966 R.J. Reynolds document describing the mission of the Tobacco Institute discussed Defendants' goals including witness development in upcoming health litigation. The document stated that the authorization and purpose of CTR Special Projects and

Ad Hoc Committee lawyer projects was to assure efficient handling of medical evidence and to provide the industry with witnesses for health litigation. 502645038.S-5038.Z (U.S. Ex. 23,053).

339. In a letter dated October 28, 1966, attorney Francis Decker advised David Hardy of Shook, Hardy & Bacon on the status of certain Ad Hoc matters. He stated, "Dr. Pratt is presently only available on a limited basis. However, we intend to try to develop him as a possible witness. . . . Dr. Soloff made the remark about the finding that the non-smoker and ex-smoker have the same incidence of heart disease. Nonetheless, I think he could be an excellent witness. To begin with, I think he might he persuaded that the validity of the above statement is questionable." 1005105988-5990 (U.S. Ex. 36,020).

340. In a January 12, 1967 letter to the Ad Hoc Committee, David Hardy of Shook, Hardy & Bacon requested evaluations of potential industry witnesses. In the same letter, Hardy asked Ad Hoc Committee members to analyze the value of various CTR and Ad Hoc projects in an effort to get practical use out of them in time for expected Congressional hearings. 2015059690-9697 (U.S. Ex. 20,309).

341. Hardy's involvement in Defendants' witness development plans to perpetuate the Enterprise's "open question" position had no limits. A February 8, 1967 letter to Hardy from Donald Cohen and Francis Decker, attorneys with Webster, Sheffield, Fleishman, Hitchcock & Chrystie, responded to Hardy's January 12, 1967 request for comments and evaluations of potential industry witnesses. It addressed many areas of possible testimony in great detail and provided names of doctors and scientists, many of whom were CTR Special Projects recipients and funded by various Defendants in later years. Cohen and Decker stated that Defendants'

witnesses "should describe the unexplained paradoxes in the cigarette smoke theory of disease causation. [They] should present the idea that the statistics are as consistent, if not more so, with the constitutional theory as with the cigarette smoking theory." Cohen and Decker also recommended that doctors and scientists who had received CTR grants-in-aid through the Scientific Advisory Board review process and CTR Special Project funding be used as potential witnesses. 1005154422-4435 at 4425 (U.S. Ex. 20,228).

342. In response to Hardy's January 12, 1967 letter, William Shinn of Shook, Hardy & Bacon drafted a letter on February 2, 1967, which was copied to members of the Ad Hoc Committee, regarding potential witnesses for Defendants in upcoming congressional hearings. 1005154472-4479 (U.S. Ex. 20,229); 2015059690-9697 (U.S. Ex. 20,309).

343. A February 27, 1967 Ad Hoc Committee document indicated that each member of the Ad Hoc Committee was assigned to specific scientific witnesses. This document listed the proposed witness names, the individual who suggested that particular witness, the corresponding assignments for the Ad Hoc Committee members, and the field in which that witness could provide testimony. 2015033925-3934 (U.S. Ex. 20,317).

344. Hardy continued to round up possible witnesses for future litigation throughout the 1960s. On March 31, 1967, Robert Hockett, on behalf of CTR, sent a memorandum to Hardy describing Adolphe D. Jonas, a psychiatrist who had worked on the psychology of smoking. In this memorandum, Hockett mentioned Jonas as a potential industry witness. 2015034120-4121 (U.S. Ex. 20,319).

345. One Tobacco Institute executive voiced his concern over Hardy's overt witness

development. According to a memorandum memorializing a meeting between John Blalock, Brown & Williamson Public Relations Director, a member of the Tobacco Institute's public relations committee, and Gil Heubner, Medical Director at the Tobacco Institute, "[a] point of real distress to Dr. Heubner is the influence of the Dave Hardy group." According to Huebner, whenever he mentioned a doctor or scientist, Hardy questioned whether or not they would make a good witness rather than focusing on their scientific contributions. 680241709-1712 at 1710 (U.S. Ex. 30,849).

346. CTR also recommended specific possible witnesses to the Cigarette Company Defendants. In a March 17, 1967 letter to Henry Ramm, Vice President and General Council to R.J. Reynolds, Clarence Cook Little of CTR provided the name and address of a scientist who had impressed him, recommending, "Both Tom and I think he might be a very valuable material witness before Congress or in court." 11327179-7179 (U.S. Ex. 26,436).

347. In an April 27, 1967 letter from Edward Cooke of Davis Polk Wardwell Sunderland & Kiendl to David Hardy of Shook, Hardy, Ottman, Mitchell & Bacon, Cooke advised that "surprisingly, [Mason Sones of the Cleveland Clinic] would reconsider his unwillingness to prepare a statement for Congress. I told him I would call him again in about ten days for his decision." 2015059590-9593 (U.S. Ex. 20,329).

348. A June 2, 1967 document listed potential industry witnesses. This list included scientists, doctors, and researchers in a wide range of fields with a brief biographical summary of their work and a characterization of their stance towards the industry. The lists also indicated whether any of these potential witnesses had an affiliation with CTR and handwritten notes about

any prior relationship these individuals had with industry counsel. 2015033948-3978 (U.S. Ex. 20,318).

349. Scientists' work was often funded by CTR solely because of a scientist's willingness to act as a witness in litigation or congressional hearings on behalf of the Enterprise. On October 3, 1968, in an attempt to funnel names to Hardy as potential witnesses before awarding scientists industry funding, Alexander Holtzman wrote a letter proposing CTR Special Project funding for Richard Hickey. Hickey's application to CTR had previously been turned down, but Holtzman stated that "Dr. Hickey is willing to prepare a statement for Congress provided that he is put in a position to complete the analysis of data which he has in-hand and he would, in my opinion, make an excellent witness." 1005084784-4786 at 4784 (U.S. Ex. 22,988).

350. Defendants' support of scientists through CTR Special Projects and Lawyers Special Projects allowed them access to papers and statements by such scientists before they were submitted for publication to journals or to regulatory bodies. For example, in 1968, William Shinn of Shook, Hardy & Bacon circulated an analysis of the Public Health Service morbidity study prepared by Theodor Sterling to Frederick Haas, Cyril Hetsko, Henry Ramm, Paul Smith, and Addison Yeaman. Shinn requested comments on Sterling's analysis because "[w]e want, of course, to make suggestions with respect to the <u>enclosed</u> papers" and noted that Sterling also was going to prepare documents for Congressional use. LG2006165-6167 (U.S. Ex. 34,088).

351. Similarly, on March 6, 1972, Shinn sent a letter to Jack Mills of the Tobacco Institute enclosing "a draft of a paper prepared by Dr. Sterling following our meetings in

Washington. He has asked my opinion with respect to his submitting this for a publication and I would appreciate being in a position to reflect your views as well as my own when I meet with him. I expect to talk with Dr. Sterling on March 14. I believe it to be extremely important that you and I discuss the enclosed draft prior to that date." TIMN460624-0624 (U.S. Ex. 62,774).

352. On September 26, 1977, Edwin Jacob sent a letter to Shinn, which enclosed a proposal from L.G.S. Rao. Jacob noted that "it now appears that this research is not appropriate for consideration as a CTR special project. Nevertheless, the work is of obvious value. . . . Dr. Rao should be a most effective proponent of some of his views and, under appropriate circumstances, might well be able to provide useful information to a Congressional Committee or other body inquiring into certain aspects of smoking and health. . . . For these, reasons, I would recommend that we fund Dr. Rao as a special project through Special Account No. 4." 503673274-3275 (U.S. Ex. 29,716).

353. An industry document that described the minutes of a General Counsel meeting at the offices of Philip Morris on January 4, 1978, at which representatives from Brown & Williamson, Liggett, R.J. Reynolds, the Tobacco Institute, and Philip Morris were present shows the development of Special Account No. 4 (a specific type of Lawyers Special Projects) to address the industry's need for witnesses. The Enterprise used Special Account No. 4 to fund researchers and scientists and to pay fees to consultants who could offer expert knowledge to Defendants and act as witnesses on their behalf. Recipients of such funding were sought out by Defendants' attorneys based on how helpful they would be in future litigation and congressional hearings. Funds were allocated accordingly. Discussions and details of the lawyers' special

projects were to be kept confidential. In this document, attendees of this meeting were advised to not discuss the details of Special Account No. 4 in writing, and instead questions on the matter would require a phone call. No response to a letter with a given date was assumed to mean that "the matter is agreeable." BWX0004364-4375 (U.S. Ex. 36,228); 03658901-8901 (U.S. Ex. 20,061); LG2024193-4196 at 4196 (U.S. Ex. 21,212).

354. In a February 9, 1978 letter to Thomas F. Ahrensfeld, General Counsel for Philip Morris; Max H. Crohn, Jr., General Counsel for R.J. Reynolds; Joseph Greer, General Counsel for Liggett; Arnold Henson, an attorney with Chadbourne & Parke; Ernest Pepples, General Counsel for Brown & Williamson; and Arthur J. Stevens, General Counsel for Lorillard, William Shinn of Shook, Hardy & Bacon wrote of the "need for special areas of research with due regard for the politics of science, the importance of developing witnesses and the need for a responsive mechanism to meet unfounded claims made about tobacco." In this document, Shinn recommended approval for Hans Eysenck funding through Special Account No. 4 and the Franklin Institute request through a CTR Special Project. Once again, recipients of this letter were reminded to not retain notes on matters of witness development. 503655086-5088 at 5087 (U.S. Ex. 20,720); 503655086-5088 (U.S. Ex. 75,190).

355. Special Project funding also allowed Defendants to have some say in publications resulting from such funding. In an April 17, 1979 letter from Henry Rothschild (recipient of CTR Special Projects and Lawyers Special Project funding) to Timothy Finnegan of Jacob, Medinger & Finnegan, Rothschild included a "preprint of a next to final copy of the paper we would like to submit to the New England Journal of Medicine . . . . I say the penultimate copy

because I await your comments prior to submission." 521031942-1942 (U.S. Ex. 30,469).

356. By at least the late 1970s, the Tobacco Institute and its agents became coordinators in Defendants' efforts to develop a group of witnesses for future litigations and hearings. An August 30, 1978 letter from Ernest Pepples of Brown & Williamson to British-American Tobacco Company, Ltd., discussed the request of Horace Kornegay, President of the Tobacco Institute, that the Committee of Counsel, which was comprised of the General Counsel from R.J. Reynolds, Philip Morris, Brown & Williamson, American Brands, Lorillard, and Liggett, be involved in selecting and providing scientific witnesses and documentary testimony for use in hearings before Congress and elsewhere. During its years as an active trade association, the Tobacco Institute prepared or provided over 100 witnesses for testimony before Congress, courts or state legislatures. 681725305-5307 (U.S. Ex. 21,019); 681725305-5307 (U.S. Ex. 75,407); Response of Defendant The Tobacco Institute to Plaintiff's First Set of Requests for Admission Amended Pursuant to Order #119, United States v. Philip Morris, et al. (served April 19, 2002), at Request/Response No. 161 (U.S. Ex. 87,227).

357. On September 7, 1978, the Subcommittee on Tobacco of the House Agriculture Committee, chaired by Walker Jones, held a hearing on smoking in public places. There were nine witnesses present to testify at this hearing, eight of which were paid by R.J. Reynolds, Philip Morris, Lorillard, Liggett, Brown & Williamson, and American through Special Account No 4. The remaining witness was a recipient of CTR Special Project No. 95 which was a feasibility study recommended by attorney Edwin Jacob. All of these witnesses testified that there was no good evidence that smoke was harmful to those people who do not smoke. A November 1979

R.J. Reynolds document described this hearing as "a structured hearing with only one side presented." 500025854-5856 (U.S. Ex. 20,615); 500025854-5856 (U.S. Ex. 75,396); 502122792-2797 at 2795 (U.S. Ex. 20,697); 502122792-2797 (U.S. Ex. 66,389).

358. Despite Defendants' assertions that CTR was an organization that funded independent research for the purpose of finding answers to smoking and health questions, a November 17, 1978 Philip Morris memorandum described CTR's role quite differently. This memorandum memorialized statements made by Shook, Hardy & Bacon partner William Shinn admitting that various Defendants and others continued to use the CTR for its public relations value and its value in defense of litigation, as well as for its overt value as a source and conduit for disinformation and as a means to introduce witnesses who would testify on behalf of the Enterprise:

> As a means of introduction, Bill Shinn described the history, particularly in relation to the CTR. CTR began as an organization called Tobacco Industry Research Council (TIRC). It was set up as an industry "shield" in 1954. That was the year statistical accusations relating smoking to diseases were leveled at the industry; litigation began; and the Wynder/Graham reports were issued. CTR has helped our legal counsel by giving advice and technical information, which was needed at court trials. CTR has supplied spokesmen for the industry at Congressional hearings. The monies spent at CTR provides a base for introduction of witnesses.

2045752106-2110 at 2107 (U.S. Ex. 20,467); 1003718428-8432 at 8429 (U.S. Ex. 35,902).

359. A February 22, 1980 letter from Arthur Stevens, Senior Vice President-General Counsel of Lorillard to Timothy Finnegan of Jacob & Medinger and copied to Thomas F. Ahrensfeld, Alexander Holtzman, Max H. Crohn, Joseph H. Greer, Arnold Henson, Ernest

Pepples, William W. Shinn, Ed Jacob, and Janet C. Brown acknowledged the reasons for why scientists were funded through Special Account No. 4. Stevens stated: "I am mindful of the continuing mandate with which your office, Shook, Hardy and others have been charged by your respective clients on behalf of the Industry: that is, to find witnesses and researchers – and, if necessary in order to determine the feasibility of developing a relationship with them, engage them as consultants, or as researchers on initially modest projects. . . . [T]his [is an] important aspect of the Industry's work, that is, to attempt to posture ourselves to defend product liability litigation and related attacks on our products." BWX0004097-4099 (U.S. Ex. 36,218); 85676690-6692 (U.S. Ex. 32,012); 1005146510-6512 (U.S. Ex. 36,118); 01110668-0670 (U.S. Ex. 87,679); 01335053-5055 (U.S. Ex. 26,480); 85676690-6692 (U.S. Ex. 32,012).

360. A March 11, 1980 document drafted by Max Crohn of R.J. Reynolds acknowledged that longtime CTR Special Project and Special Account No. 4 recipient Theodor Sterling was "one of our industry's most valuable outside assets." In addition to numerous publications and studies, Crohn noted that "he has continued to be one of the primary scientists available for consultation with Shook Hardy & Bacon in Kansas City." 503645463-5463 (U.S. Ex. 29,696).

361. Despite statements assuring the public that CTR and the Tobacco Institute were set up and acted as separate organizations for different industry purposes, a 1983 letter from Ernest Pepples of Brown & Williamson to Jim Bowling of Philip Morris and Alexander Spears of Lorillard attached "a paper proposing recommendations which we might make to the Executive Committee." 80419202-9202 (U.S. Ex. 21,061). The attached paper entitled "Industry

Research Support – Recommendations" listed the following among its considerations for upcoming scientific funding:

> Be prepared to increase scientific funding of special projects to resolve scientific problems and develop witnesses. . . .
> Maintain company cooperation – philosophies about research may differ at times, but goals should be the same. . . .
> Improve cooperation between industry mechanisms such as CTR and TI.

80419203-9203 (U.S. Ex. 21,062).

362. In 1984, the Tobacco Institute published "The Cigarette Controversy: Why more research is needed" as the formal statement of its member companies' position on the primary smoking issue. The publication included testimony by a number of Defendant-funded scientists, many of whom were recipients of Special Account No. 4. This publication was a summary of testimony presented to congressional committees. TIEX0000964-1904 (U.S. Ex. 62,619).

363. In a February 2, 1984 memorandum written by Arthur Stevens, General Counsel for Lorillard, to Alexander Holtzman, General Counsel for Philip Morris; Ernest Pepples, General Counsel for Brown & Williamson; Josiah Murray, General Counsel for Liggett; and Samuel Witt, General Counsel for R.J. Reynolds, Stevens discussed the intent of the Ad Hoc Committee to "propose a witness development plan" to assist the litigious and regulatory efforts of the member companies. 85687269-7270 at 7269 (U.S. Ex. 21,081).

364. An April 7, 1986 letter from Patrick Sirridge, Shook, Hardy & Bacon, to Alexander Holtzman, General Counsel for Philip Morris; Wayne W. Juchatz, General Counsel for R.J. Reynolds; Josiah J. Murray, III, General Counsel for Liggett; Ernest Pepples, General Counsel for Brown & Williamson; Paul A. Randour, General Counsel for American; and Arthur

J. Stevens, General Counsel for Lorillard, informed the CTR Board members that Shook, Hardy & Bacon would take over both the administration of Special Account No 4 from Jacob, Medinger & Finnegan and the submission of research proposals for CTR special projects. According to this letter, Shook, Hardy & Bacon anticipated higher funding requests for "certain witness development expenses incurred by national litigation counsel." 507877173-7174 at 7173 (U.S. Ex. 20,800).

365. An April 28, 1992 Wachtell Lipton memorandum from attorney David Murphy to attorneys Herbert Wachtell, Paul Vizcarrondo, Jr., and John Savarese described an issue that had come up at Lorillard. Art Stevens and William Allinder of Lorillard wanted to know if Lorillard could "participate in funding through a Shook, Hardy special account the work of a Georgetown pathologist, Bennett Jensen." Murphy reported that he had been advised that Jensen had received CTR Special Project funding in 1988, and now faced problems at Georgetown because of his ties to the tobacco industry. Shook, Hardy & Bacon proposed to "'give him' $40,000 – not for specific research . . . or with an eye to publication but solely in order to maintain a good relationship with him and secure his continued help in making contact with other scientists." Murphy also reported that "Allinder admits that Shook, Hardy wants to give Jensen money to keep him happy and that there is no immediate value to his research." Jensen, however, was a potential witness in the Haines litigation and his contacts "could lead to legislative witnesses." At the end of the memorandum, Murphy opined:

> In my overcautious view, the Jensen issue raises a larger question – whether "CTR Special Projects" funds (and after such activities were moved out of CTR, joint industry funds administered through Shook, Hardy) were used to purchase favorable judicial or

> legislative testimony, thereby perpetrating a fraud on the public. Admittedly, this notion of fraud was unknown to the common law, but if we assume the other side of the looking glass . . . perhaps it is cause for concern.

87715635-5636 (U.S. Ex. 21,101).

(2) CTR Special Projects

(a) Nature of CTR Special Projects

366. CTR Special Projects were a separate category of research projects funded by CTR. Unlike the grant-in-aid category of research, CTR Special Projects were not vetted by the CTR Scientific Advisory Board ("SAB"); instead the process was led by the General Counsels of Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American, as well as attorneys at outside law firms including Jacob, Medinger & Finnegan, and, in later years, Shook, Hardy & Bacon. "Although Liggett withdrew from the CTR in 1968, it continued to participate in [CTR] special projects until April 1977." Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 56:9-57:18; 515772203-2211 (U.S. Ex. 30,200).

367. In several ways, CTR Special Projects and CTR grants-in-aid were not clearly separated. Members of the tobacco industry funded CTR grants-in-aid; many of those same members funded CTR Special Projects. The CTR Scientific Director signed off on CTR grants-in-aid and CTR Special Projects. Many of the same researchers who received CTR grants-in-aid also received CTR Special Projects funding, sometimes for the same research. Response of Defendant The Council for Tobacco Research - U.S.A., Inc. to Plaintiff's First Set of Interrogatories, United States v. Philip Morris, et al. (served February 6, 2001), at Schedule C (U.S. Ex. 75,927); Deposition of Harmon McAllister, United States v. Philip Morris, et al., May

23, 2002, at 135:14-136:2, 143:11-144:25; 208:16-209:17; 70119271-9271 (U.S. Ex. 79,107).

368. CTR Special Projects also involved research including epidemiology, laboratory work, and animal experimentation; however, the lawyers who requested and monitored the work were not scientists and did not have scientific backgrounds. The lawyers needed to circumvent the CTR SAB method of funding because the SAB evaluated its project-funding requests in part for scientific legitimacy, while the lawyers had litigation and liability objectives foremost in mind for CTR Special Projects. Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 58:20-59:19.

369. CTR Special Projects were initiated around 1965, following: 1) the 1964 Surgeon General Advisory Committee's Report; 2) the 1965 Congressional Hearings on the Labeling Act; and/or 3) criticisms by industry members of CTR's research program." 515772203-2211 (U.S. Ex. 30,200) ; 680900177-0182 (U.S. Ex. 30,918); 521300052-0053 (U.S. Ex. 86,228).

370. The creation of a different kind of research program at CTR was discussed at a November 15, 1965 meeting of counsel. Cyril Hetsko's notes from the meeting reported that: "Smith says there should be a way to have research done that the Industry would want done without getting into the SAB part of CTR. Clements thinks there should be some way of getting industry desired research done. Addison Yeaman and Frederick Haas argue for, perhaps, a separate unit in CTR (not involving SAB) to arrange for industry desired research. I suggested the possibility of reducing the 'free research' budget now enjoyed by SAB and applying some of that money to 'industry desired' projects not under SAB control." BWX0002863-2864 (U.S. Ex. 36,179).

371. In a November 18, 1965 internal Liggett memorandum regarding CTR, Frederick Haas, Liggett's General Counsel, further explained that:

> As a result of a conference held by the General Counsel, we broached another subject with Council staff. In view of the present posture of the industry with the Congress, Federal Trade Commission, etc., it was suggested that the organization of the Council be further implemented by creating an Industry Projects Advisory Board, which could feed suggestions for research to the staff. The Industry Projects Advisory Board would consist of General Counsel with the aid and advice of the Ad Hoc Committee and at least, in our instance, Dr. Bates. As projects of particular interest to the industry are devised, these are submitted to the staff of the Council, which would evaluate whether the project would be likely to obtain SAB approval. If, however, such approval were unlikely, or the element of time necessitated prompt action, or in a particular instance if the SAB received the suggestions and declined to go forward with it, the project would be handled independently.
>
> This, of course, means that in addition to the budget proposed by the Council for 1966, there would be additional expenditures for special industry projects. The Ad Hoc Committee has been commissioned to come up with ideas, which will be discussed at a meeting on December 7.

LG2002635-2638 at 2637-2638 (U.S. Ex.21,201).

372. Moreover, starting in the mid-1960s, Shook, Hardy & Bacon developed smoking and health literature databases within the firm to help the lawyers pick scientists friendly to the tobacco industry's liability positions so that these scientists could receive CTR funding through the CTR Special Projects method. Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 61:16-63:20.

373. A January 10, 1966 letter from Frederick Haas, General Counsel for Liggett, to Milton Harrington of Liggett, explained CTR's recent request for funding: "As you know, general

counsel had discussed with the staff of the Council the practicability of its conducting certain special projects in the areas of research which might be inspired by the industry. The suggestion was enthusiastically received. I previously informed you that this would require an additional budget separate and apart from that of the research approved by the Scientific Advisory Board grants in aid." LG2002641-2641 (U.S. Ex. 34,081) ; LG2002639-2639 (U.S. Ex. 34,080).

374. A January 17, 1966 memorandum prepared by Janet Brown and distributed to Edward Cooke, Francis Decker, David Hardy, Alexander Holtzman, Ed Jacob, and Butler, memorialized a conference that had been held with Robert Hockett and W.T. Hoyt of CTR at the direction of the Ad Hoc Committee regarding CTR Special Projects. It was decided that Hoyt would be the CTR person "apprised of all communications relating to [CTR] special projects." Ad Hoc Committee assistance to CTR was also discussed. Brown noted that "Hockett would welcome Ad Hoc recommendations for additional staff members. . . . Hockett would welcome Ad Hoc recommendations for additions to the Scientific Advisory Board." The status of several CTR Special Projects was also reviewed at the meeting. 2015033326-3339 (U.S. Ex. 36,642).

375. An April 14, 1967 memorandum from Addison Yeaman, Vice President and General Counsel of Brown & Williamson, addressed to Frederick Haas, General Counsel for Liggett; Cyril Hetsko, General Counsel for American; Henry Ramm, General Counsel for R.J. Reynolds; Paul Smith, Associate General Counsel for Philip Morris; and Earle Clements, President of the Tobacco Institute, confirmed that many of CTR's research activities were not independent and did not investigate the link between smoking and disease as publicly claimed by the industry: "We have deliberately isolated the SAB from those areas of research which they

might consider were of a controversial or adversary nature and I see no reason why that isolation cannot and should not be maintained to the fullest preservation of the scientific integrity and dignity of the SAB, but with the release of funds from the SAB portion of CTR's budget to both research directly related to tobacco and the so-called Special Projects." 321668053-8055 at 8054 (U.S. Ex. 20,591); 680262182-2184 at 2183 (U.S. Ex. 20,997) (U.S. Ex. 86,229).

376. Sometimes projects rejected by the CTR SAB could be approved as CTR Special Projects. For example, on February 12, 1968, David Hardy of Shook, Hardy, Ottman, Mitchell & Bacon sent a letter to Alexander Holtzman, Assistant General Counsel of Philip Morris, advising that "General Counsel approved the idea of having Dr. Larson's project presented to the Scientific Advisory Board for their consideration, and if it is rejected that they would then consider it as a special project." 1005049459-9459 (U.S. Ex. 35,952); 1005049463-9466 (U.S. Ex. 26,182); 1005049467-9467 (U.S. Ex. 26,183); 1005049468-9470 (U.S. Ex. 26,184); 1005049471-9478 (U.S. Ex. 26,185); 1005049460-9460 (U.S. Ex. 26,180); 1005049461-9462 (U.S. Ex. 26,181); 1005049442-9442 (U.S. Ex. 26,179).

377. On July 26, 1968, Hardy advised Holtzman: "It is expected that Dr. Larson will soon come up with a draft of a statement for Congress in accordance with his earlier assurance to you and that in his project he will have a substantial number of lungs to examine and will cover both asbestos and a refutation of the Auerbach work on precancerous changes. . . . This will be handled as a CTR special project." 1005049457-9458 (U.S. Ex. 35,951).

378. A February 24, 1969 Lorillard memorandum described the origin of CTR Special Projects: "For a number of years, certain representatives of the industry have felt that the work of

the Council [for Tobacco Research] has not been as pertinent to our problems as it might be. . . . In an effort to meet this objection, in 1965 the Council embarked on a program of guided research. . . . In order to finance this phase of their activity, a special projects budget was developed." 044227839-7844 (U.S. Ex. 20,066).

379. Janet Brown, in a letter to David Hardy dated June 13, 1974, addressed the issue of CTR's "independence" and the problem with CTR's Special Projects:

> Where the industry is itself the arbiter of the amount and nature of research to be done, however, argument that the research is self-serving – that is, is too little, too late, does not bear reasonable relation to the nature and scope of the problems nor to the industry's market position, sales, profits, advertising expenditures – gain in force and acceptance. Moreover, the industry may have little, if any leeway to disassociate itself from any results of such research with which it does not agree.

03659023-9025 at 9025 (U.S. Ex. 87,177); LWODJ9055578-5580 (U.S. Ex. 87,176) (Confidential).

380. In a September 22, 1978 memorandum from Henry Ramm of R.J. Reynolds to Colin Stokes of R.J. Reynolds, Ramm was seeking to be relieved of some of his responsibilities, including being on the CTR Board of Directors. He recommended that the R.J. Reynolds Legal Department continue to oversee "the special research projects conducted under the aegis of CTR; the Literature Retrieval Division of CTR; and other similar projects **which have traditionally been sponsored by lawyers in the industry for primarily legal reasons**." 504480626-0629 at 0628 (U.S. Ex. 20,730) (emphasis added).

381. A November 17, 1978 memorandum written by Robert Seligman, Vice President of Research and Development of Philip Morris, described a November 15, 1978 meeting

attended by Ernest Pepples, General Counsel for Brown & Williamson; Charles Tucker, General Counsel for R.J. Reynolds; Timothy Finnegan, attorney with Jacob, Medinger & Finnegan; William Shinn, attorney with Shook, Hardy & Bacon; Arnold Henson, General Counsel for American; Janet Brown, attorney with Chadbourne & Parke described as retained counsel for CTR; Ivor Wallace Hughes, Vice President of Brown & Williamson; Alexander Spears, Vice President of Lorillard; James Bowling, Senior Vice President of Philip Morris; Robert Seligman, Vice President of Philip Morris Research and Development; and Thomas Osdene, Director of Research for Philip Morris. The meeting had been "called to help an ad hoc committee, selected by the chief executives of the tobacco industry, do long-range policy planning in regard to smoking and health. On the ad hoc committee are representatives of legal, public relations, and research executives of various companies. Any long-range plans which are developed are to be made known to the individual companies through their chief counsel. The ad hoc committee is to consider policy questions in general and particularly grants, contracts, the fate of CTR, etc." At the meeting, Shinn described the history of CTR and CTR Special Projects. Seligman also reported that it was Shinn's feeling that "'[CTR] special projects' are the best way that monies are spent. On these projects, CTR has acted as a 'front'; however there [were] times when CTR has been reluctant to serve in that capacity and in rare instances they have refused to serve in that capacity." 2045752106-2110 at 2107 (U.S. Ex. 20,467); 1003718428-8432 at 8429 (U.S. Ex. 35,902).

382. An April 18, 1980 memorandum to file by Arthur Stevens stated: "I concluded that this work [CTR Special Project recipients Kuper and Janis] is potentially useful from a

litigation point of view." 01336290-6290 (U.S. Ex. 88,436).

383. In certain instances, special projects were transferred among the different industry groups who administered them. A September 18, 1981 letter from Francis Decker, an attorney with Webster & Sheffield, to Joseph Greer, Vice President and General Counsel for Defendant Liggett, enclosed his notes from a September 10, 1981 meeting of the Committee of Counsel. Decker's notes described a discussion between Arthur Stevens, General Counsel for Defendant Lorillard, and Edwin Jacob, CTR attorney with Jacob, Medinger & Finnegan, regarding the differences between CTR Special Projects and Lawyers Special Projects:

> Stevens: "I need to know what the historical reasons were for the difference between the criteria for lawyers' special projects and CTR special projects."
> . . .
> Jacob: "When we started the CTR Special Projects, the idea was that the scientific director of CTR would review a project. If he liked it, it was a CTR Special Project. If he did not like it, then it became a lawyers' special project."
> Stevens: "He took offense re scientific embarrassment to us, but not to CTR."
> Jacob: "With Spielberger, we were afraid of discovery for FTC and with Aviado, we wanted to protect it under the lawyers. We did not want it out in the open."

LG2000741-0750 at 0745-0746 (U.S. Ex. 36,269).

384. A 1984 document prepared by Lee Stanford of Shook, Hardy & Bacon to David Hardy of Shook, Hardy & Bacon, concerning the briefing of Alex Spears of Lorillard for a deposition, discussed CTR Special Projects. The document acknowledged that "[t]hese are initiated and developed through outside counsel (SHB and J&M)." 92456261-6268 (U.S. Ex. 21,658) (U.S. Ex. 75,420).

385. A document prepared in or about 1992 entitled "Funding Sources of Tobacco Industry Research" noted that CTR Special Projects were "-Research directed at industry problem -Witness development objective -Approved by general counsel -Funded through CTR." 01334642-4655 (U.S. Ex. 34,528).

(b) Reporting CTR Special Projects to the Committee of Counsel

386. Industry lawyers at Jacob, Medinger & Finnegan and Shook, Hardy & Bacon monitored CTR Special Projects and provided reports to various General Counsels of Defendants Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American. For example, on October 11, 1966, David Hardy of Shook, Hardy & Bacon, sent a letter to Frederick Haas of Liggett, Cyril Hetsko of American, Henry Ramm of R.J. Reynolds, Paul Smith of Philip Morris, and Addison Yeaman of Brown & Williamson, transmitting a report providing the status, progress, and recommendations for special projects. On October 20, 1966, Hardy sent a letter to the Committee of Counsel updating the report on the status of special projects, which included an update of the CTR Special Projects that had been provided by CTR Executive Director W.T. Hoyt. LG2000149-0171 (U.S. Ex. 21,197); 2015059722-9723 (U.S. Ex. 20,332); 1005105992-6031 (U.S. Ex. 36,022); CTR98CONG00189-0358 (U.S. Ex. 25,898).

387. On April 21, 1967, Hardy sent a letter to Janet Brown, Kevin Carroll, Donald Cohen, Edward Cooke, Francis Decker, Alexander Holtzman, Edwin Jacob, and William Shinn requesting a status report on all Special Projects. On April 27, 1967, Cooke sent a response to Hardy providing reports on special projects. On May 2, 1967, Holtzman, General Counsel for Philip Morris, provided Hardy with the status of the special projects with which he was

associated, including CTR Special Projects; Holtzman sent a second letter to Hardy on June 12, 1967, providing the status on an additional number of CTR Special Projects. 2015059705-9705 (U.S. Ex. 20,331); 2015059590-9593 (U.S. Ex. 20,329); 2015059701-9704 (U.S. Ex. 20,330); 2015059586-9588 (U.S. Ex. 20,328).

388. On March 17, 1977, Donald Hoel of Shook, Hardy & Bacon sent a letter to the following General Counsels: Thomas Ahrensfeld of Philip Morris; Joseph Greer of Liggett; Cyril Hetsko of American; Ernest Pepples of Brown & Williamson; Henry Roemer of R.J. Reynolds; and Arthur Stevens of Lorillard, and provided observations on a report by the Karolinska Institute in Sweden, which had been supported with a CTR Special Project. The authors intended to publish an article entitled "The Interactions of Smoking, Environment and Heredity and Their Implication For Disease Etiology – A Report of Epidemiological Studies on the Swedish Twin Registry." TIMN261386-1387 (U.S. Ex. 21,288).

389. In October 1982, Patrick Sirridge of Shook, Hardy & Bacon sent a letter to Joseph Greer, Arnold Henson, Alexander Holtzman, Ernest Pepples, Arthur Stevens, and Samuel Witt enclosing an "updated chart of CTR Special Projects and activities supports under Special Accounts 4 and 5." 1005048374-8374 (U.S. Ex. 35,939).

(c) Lawyer's Recommendations for CTR Special Project Approval

390. Attorneys at Jacob, Medinger & Finnegan and Shook, Hardy & Bacon made recommendations to Defendants' General Counsel and to each other as to whether projects should be conducted through CTR Special Projects. For example, on May 19, 1967, William Shinn of Shook, Hardy & Bacon, sent a letter to Alexander Holtzman, Philip Morris General

Counsel, regarding CTR Special Projects, outlining a proposal to support and publicize research advancing the theory of smoking as beneficial to health as a stress reducer, even for "coronary prone" persons; representing that stress (rather than nicotine addiction) explains why smoking clinics fail; and proposing to publicize the "image of smoking as 'right' for many people . . . as a scientifically approved 'diversion' to avoid disease causing stress." 1005083882-3882 (U.S. Ex. 20,204) 1005083883-3886 at 3884, 3886 (U.S. Ex. 35,992).

391. On February 5, 1974, Shinn sent a letter to the following General Counsel: Thomas Ahrensfeld of Philip Morris, DeBaun Bryant of Brown & Williamson, Frederick Haas of Liggett, Cyril Hetsko of American, Henry Roemer of R.J. Reynolds, and Arthur Stevens of Lorillard, stating that "Dave Hardy and I strongly recommend approval of the $50,000 grant for Dr. Carl D. Seltzer's work as a CTR special project" at Harvard University, citing his valuable work underway and published works relating to smoking and health, which were helpful to the industry. 1005108380-8381 at 8381 (U.S. Ex. 20,209).

392. On April 15, 1975, Jacob sent a letter to David Hardy of Shook, Hardy & Bacon regarding a proposed University of Hawaii grant, which had been reviewed by William Gardner of CTR. 00552421-2422 (U.S. Ex. 88,837); 014044424443 (U.S. Ex. 88,838); 03658997-8998 (U.S. Ex. 88,839).

393. On April 8, 1976, Jacob sent a letter to David Hardy of Shook, Hardy & Bacon regarding the funding of a biostatistician at Yale to assist Alvan Feinstein, longtime CTR Special Project funding recipient. 507731449-1449 (U.S. Ex. 29,873).

394. On February 8, 1977, Timothy Finnegan of Jacob & Medinger sent a letter to

William Shinn of Shook, Hardy & Bacon regarding funding for Theodore Finley. Finnegan noted that he had discussed the matter with William Gardner of CTR and that "Gardner feels that CTR cannot now support this project but is quite willing to have it as a special project." Finnegan recommended funding, noting that Finley was "willing to speak his mind on the issues." MNATPRIV00039087-9088 (U.S. Ex. 86,230).

395. On April 9, 1979, Timothy Finnegan of Jacob & Medinger sent a letter to William Shinn of Shook, Hardy & Bacon regarding research at the Franklin Institute on "tobacco glycoprotein." Finnegan noted that "Gardner [of CTR] has also reviewed Franklin Institute's proposal for additional research and is of the view that this work should be done as a special project." 521029925-9934 (U.S. Ex. 30,454).

396. On June 3, 1986, Patrick Sirridge of Shook, Hardy & Bacon sent a letter to the following General Counsel: Alexander Holtzman of Philip Morris; Wayne Juchatz of R.J. Reynolds; Josiah Murray of Liggett; Ernest Pepples of Brown & Williamson; Paul Randour of American; and Arthur Stevens of Lorillard, recommending approval for additional funding of Henry Rothschild through CTR Special Projects. 507878840-8840 (U.S. Ex. 20,802).

397. Such industry attorney recommendations continued from the 1960s through the 1990s. 507731454-1455 (U.S. Ex. 29,877); 507731401-1402 (U.S. Ex. 29,869); LG2000429 - 0430 (U.S. Ex. 34,067); MNATPRIV0001240-1241(U.S. Ex. 86,231); 01240529-0530 (U.S. Ex. 86,232); LG2002513-2514 (U.S. Ex. 34,076); 1005070386-0387 (U.S. Ex. 35,981); 00493288-3289 (U.S. Ex. 29,408); 1005108380-8381 (U.S. Ex. 20,209); MNATPRIV00012777-2778 (U.S. Ex. 86,233); BWX0003749-3749 (U.S. Ex. 36,197); 507731448-1448 (U.S. Ex. 86,234);

686052385-2387 (U.S. Ex. 21,035); 03638976-8979 (U.S. Ex. 20,060) (U.S. Ex. 46,483); 521030664-0669 (U.S. Ex. 30,460); MNATPRIV00013022-3023 (U.S. Ex. 86,235); 521029925-9934 (U.S. Ex. 30,454); 521029927-9928 (U.S. Ex. 87,681); MNATPRIV00013051-3052 (U.S. Ex. 86,236); 521029280-9285 (U.S. Ex. 30,446); 01335965-5966 (U.S. Ex. 26,516); 03751370-1372 (U.S. Ex. 29,331); 507877407-7408 (U.S. Ex. 29,928); 2010047385-7386 (U.S. Ex. 36,524); BWX0002818-2819 (U.S. Ex. 36,172); BWX0002757-2757 (U.S. Ex. 36,168); 521029925-9934 (U.S. Ex. 30,454); 01335472-5472 (U.S. Ex. 26,493); 507877520-7520 (U.S. Ex. 29,929); 01335967-5968 (U.S. Ex. 26,517); 01335571-5571 (U.S. Ex. 26,498); 507877464-7464 (U.S. Ex. 86,237); 503654929-4930 (U.S. Ex. 29,708); BWX0004151-4151 (U.S. Ex. 36,221); 521028907-8908 (U.S. Ex. 30,441); 01335959-5959 (U.S. Ex. 26,514); 503645464-5465 (U.S. Ex. 29,697); 521032774-2776 (U.S. Ex. 30,477); BWX0003759-3760 (U.S. Ex. 86,238); 01338515-8517 (U.S. Ex. 26,570); BWX0003761-3761 (U.S. Ex. 36,198); 01334899-4899 (U.S. Ex. 26,474); 521032314-2314 (U.S. Ex. 30,472); 503566684-6684 (U.S. Ex. 29,688); 01336293-6293 (U.S. Ex. 86,239); 503655414-5414 (U.S. Ex. 29,710); 01331881-1881 (U.S. Ex. 26,467); 503566490-6490 (U.S. Ex. 29,685); BWX0003796-3796 (U.S. Ex. 36,202); BWX0003408-3409 (U.S. Ex. 36,189); 503655440-5441 (U.S. Ex. 29,711); 2010045302-5303 (U.S. Ex. 36,517); 1005083560-3561 (U.S. Ex. 35,991); 01336515-6516 (U.S. Ex. 26,540); BWX0002869-2870 (U.S. Ex. 36,181); 507877338-7339 (U.S. Ex. 29,926); 01336191-6192 (U.S. Ex. 26,522); 521030664-0669 (U.S. Ex. 30,460); 521032378-2378 (U.S. Ex. 30,475); 1000018644-8644 (U.S. Ex. 35,079); BWX0003827-3827 (U.S. Ex. 36,205); 503566848-6848 (U.S. Ex. 29,689); 1000781727-1727 (U.S. Ex. 35,321); 03754226-4227 (U.S. Ex. 29,343);

01337638-7638 (U.S. Ex. 86,240); 503566368-6369 (U.S. Ex. 29,684); 521031920-1921 (U.S. Ex. 30,468); BWX0003488-3489 (U.S. Ex. 36,195); MNATPRIV00013028-3029 (U.S. Ex. 86,241); 507731483-1484 (U.S. Ex. 29,881); BWX0003473-3475 (U.S. Ex. 36,193); 507731378-1378 (U.S. Ex. 29,866); 01337978-7978 (U.S. Ex. 86,242); 2015026873-6874 (U.S. Ex. 36,633); 01338391-8392 (U.S. Ex. 26,567); 521029363-9367 (U.S. Ex. 30,448); 2021016014-6015 (U.S. Ex. 86,243); 01337575-7576 (U.S. Ex. 26,552); 521031555-1555 (U.S. Ex. 30,464); 1005125624-5624 (U.S. Ex. 36,093); 507877086-7086 (U.S. Ex. 86,244); 1005125797-5798 (U.S. Ex. 36,097); 505741621-1622 (U.S. Ex. 86,245); BWX0003772-3773 (U.S. Ex. 36,199); 521029363-9367 (U.S. Ex. 30,448); 1005125315-5316 (U.S. Ex. 36,090); 503645228-5229 (U.S. Ex. 29,695); BWX0003444-3445 (U.S. Ex. 36,191); 503645557-5558 (U.S. Ex. 86,246); 1005125615-5616 (U.S. Ex. 36,092); 1005125754-5754 (U.S. Ex. 36,094); 503645740-5741 (U.S. Ex. 29,699); 504339396-9397 (U.S. Ex. 29,751); BWX0002772-2773 (U.S. Ex. 36,171); 521030035-0036 (U.S. Ex. 30,458); 1005125390-5391 (U.S. Ex. 36,091); 521030032-0033 (U.S. Ex. 30,457); 503655400-5401 (U.S. Ex. 86,247); 504867410-7411 (U.S. Ex. 86,248); BWX0002884-2885 (U.S. Ex. 36,182); 1005125300-5301 (U.S. Ex. 36,089); 521030027-0028 (U.S. Ex. 30,456); 03747448-7449 (U.S. Ex. 29,327); 680800024-0024 (U.S. Ex. 30,914); 682166942-6942 (U.S. Ex. 86,249); ATX9277370208-0209 (U.S. Ex. 36,233); 521029202-9203 (U.S. Ex. 30,444); 1005125129-5130 (U.S. Ex. 36,084); 503645752-5753 (U.S. Ex. 29,700); RJR0028472-8473 (U.S. Ex. 29,687); BWX0003776-3777 (U.S. Ex. 36,201); 1005064666-4667 (U.S. Ex. 35,973); LG2002762-2763 (U.S. Ex. 34,086); BWX0004202-4202 (U.S. Ex. 36,222); 507731371-1371 (U.S. Ex. 86,250); 507731375-1376 (U.S. Ex. 29,864);

1005064678-4679 (U.S. Ex. 35,975); 2010045972-5973 (U.S. Ex. 36,523); 521032115-2116 (U.S. Ex. 30,470); 503645128-5129 (U.S. Ex. 86,251); 1005064711-4712 (U.S. Ex. 35,977); 503566655-6656 (U.S. Ex. 29,686); BWX0003460-3461 (U.S. Ex. 36,192); BWX0002825-2826 (U.S. Ex. 36,173); 503654728-4729 (U.S. Ex. 29,707); 1005064646-4647 (U.S. Ex. 35,972); 01337544-7545 (U.S. Ex. 86,252); 503566273-6274 (U.S. Ex. 86,253); 521031847-1848 (U.S. Ex. 30,466); 1005064594-4595 (U.S. Ex. 35,969); BWX0002886-2887 (U.S. Ex. 36,183); 503655382-5383 (U.S. Ex. 86,254); 503655216-5217 (U.S. Ex. 86,255); BWX0002866-2867 (U.S. Ex. 36,180); 1005064627-4628 (U.S. Ex. 35,971); BWX0004060-4060 (U.S. Ex. 36,217); BWX0002893-2894 (U.S. Ex. 36,185); 503653937-3938 (U.S. Ex. 86,256); 2010045965-5965 (U.S. Ex. 36,522); 507731344-1344 (U.S. Ex. 29,862); 01335398-5398 (U.S. Ex. 26,488); 521029712-9713 (U.S. Ex. 30,451); 1005064547-4548 (U.S. Ex. 35,967); 503645684-5685 (U.S. Ex. 86,257); BWX0002888-2889 (U.S. Ex. 36,184); 507237529-7530 (U.S. Ex. 86,258); 521030984-0985 (U.S. Ex. 86,259); 507734470-4471 (U.S. Ex. 86,260); 507734475-4476 (U.S. Ex. 86,261); 507732105-2106 (U.S. Ex. 86,262); 507734379-4380 (U.S. Ex. 29,905); 507734460-4461 (U.S. Ex. 86,263); 507731677-1677 (U.S. Ex. 86,264); 507734423-4423 (U.S. Ex. 86,265); 507731548-1549 (U.S. Ex. 86,266); 507734458-4458 (U.S. Ex. 86,267); TLT0270555-0555 (U.S. Ex. 76,373); 2015026873-6874 (U.S. Ex. 36,633); 507731658-1659 (U.S. Ex. 86,269); 507731764-1765 (U.S. Ex. 86,270); 507731469-1470 (U.S. Ex. 86,271); 507731333-1334 (U.S. Ex. 86,272); 507731976-1976 (U.S. Ex. 86,273); 507731758-1758 (U.S. Ex. 29,896); 507731651-1651 (U.S. Ex. 86,274); 507732213-2214 (U.S. Ex. 29,903); 507732211-2211 (U.S. Ex. 29,902); 507731648-1648 (U.S. Ex. 29,888); 507731575-1576 (U.S.

Ex. 86,275); 507731487-1487 (U.S. Ex. 86,276); 507731428-1429 (U.S. Ex. 86,277); 507731973-1973 (U.S. Ex. 86,278); 507731911-1911 (U.S. Ex. 86,279); 507878874-8875 (U.S. Ex. 86,280); 1005064682-4683 (U.S. Ex. 35,976); BWX0002850-2850 (U.S. Ex. 36,176); 03751975-1976 (U.S. Ex. 29,340); 521029363-9367 (U.S. Ex. 30,448); 503645219-5219 (U.S. Ex. 29,694); 03747528-7528 (U.S. Ex. 29,328); 503673542-3545 (U.S. Ex. 88,437); 01336110-6113 (U.S. Ex. 26,519); 1005064561-4561 (U.S. Ex. 35,968); 01335579-5579 (U.S. Ex. 26,499); 521029353-9353 (U.S. Ex. 30,447); 2015029385-9385 (U.S. Ex. 36,639); 503645209-5209 (U.S. Ex. 29,693); 04225030-5031 (U.S. Ex. 29,396); TIMN460370-0370 (U.S. Ex. 67,773) (Category I); 03751970-1970 (U.S. Ex. 29,339); 03751968-1969 (U.S. Ex. 29,338); 85676224-6224 (U.S. Ex. 32,010); 01336499-6500 (U.S. Ex. 26,535); 03754228-4229 (U.S. Ex. 29,344); 507877111-7112 (U.S. Ex. 88,438); 86003017-3018 (U.S. Ex. 56,084).

398. General Counsel for individual Defendants – and even CTR staff – made recommendations for CTR Special Projects to Shook, Hardy & Bacon attorneys who then passed on such recommendations to other General Counsel. For example, on October 28, 1966, Henry Ramm, Vice President and General Counsel of R.J. Reynolds, sent a letter to Robert Hockett of CTR concerning a proposal by Josel Szepsenwol. Ramm advised Hockett: "This matter has been discussed briefly with other General Counsel. I think it is entirely possible that with your recommendation Special Project funds could be furnished to carry on the research project for the short term until a grant has been made by the SAB." CTR98CONG00057-0057 (U.S. Ex. 32,515).

399. On October 3, 1968, Alexander Holtzman sent a letter to Hardy proposing that

Richard Hickey, who had previously applied for funding through CTR but was denied, receive Special Project funding. On October 21, 1968, Hardy endorsed that recommendation by sending a letter to Frederick Haas of Liggett; Cyril Hetsko of American; Henry Ramm, General Counsel for R.J. Reynolds; Paul Smith, General Counsel for Philip Morris; and Addison Yeaman, General Counsel for Brown & Williamson, recommending approval for Hickey as a CTR Special Project. 1005084784-4786 (U.S. Ex. 22,988); 1005084799-4800 (U.S. Ex. 20,206).

400. In 1981, Arthur Stevens of Lorillard engaged in extensive correspondence with Patrick Sirridge of Shook, Hardy & Bacon regarding the possibility of establishing an industry relationship with Henry Shotwell. 01349577-9577 (U.S. Ex. 86,281); 01349576-9576 (U.S. Ex. 86,282); 01349575-9575 (U.S. Ex. 86,283); 01349574-9574 (U.S. Ex. 86,284); 01349557-9557 (U.S. Ex. 86,285).

401. On November 28, 1983, Arthur Stevens, Senior Vice President and General Counsel of Lorillard, sent a letter to Patrick Sirridge of Shook, Hardy & Bacon, which inquired: "Is Binstock someone who might be appropriate for a special project?" 03746232-6232 (U.S. Ex. 29,322).

402. CTR personnel also recommended that certain projects be funded as CTR Special Projects. For example, on December 24, 1969, Arthur Furst, CTR consultant, sent a letter to Hardy recommending Special Project funding for Professor Hans J. Eysenck to test the hypothesis of a relationship between the emotional make-up of people and cancer by conducting a pilot study of carcinogenesis in rats bred for differences in neurotic characteristics. 1005070515-0515 (U.S. Ex. 20,201).

403. On March 6, 1970, W.T. Hoyt, CTR Executive Director, sent a letter to David Hardy of Shook, Hardy, Ottman, Mitchell & Bacon, enclosing a proposal from Richard Hickey. Hoyt requested "if the matter [of additional funding for Hickey] could be discussed informally [with general counsel] it would be helpful to me as we will soon have to request funds for special projects, and I will need to know how much to ask for." CTRSP-FILES0007856-7856 (U.S. Ex. 86,286); CTR98CONG00152-0152 (U.S. Ex. 32,528).

404. On April 15, 1970, Robert Hockett, CTR Associate Scientific Director, also sent a note to Alexander Holtzman of Philip Morris recommending special project funding for a second year of research by Hickey. Hockett noted that Hickey's project was "not likely to be funded by the Scientific Advisory Board from their budget. . . . We leave it to you to carry the ball on this." By letter dated May 28, 1970, William Shinn of Shook, Hardy & Bacon advised Holtzman that he now had approval from Philip Morris, R.J. Reynolds, and Liggett "with respect to the Hickey Special Project" and that he intended "to call the other General Counsel, if I have not heard from them by then, early next week." 1005065603-5603 (U.S. Ex. 21,691); 2015031514-1514 (U.S. Ex. 20,316).

405. A memorandum to the file prepared by William Gardner of CTR pertained to a CTR Special Project and the Indiana University School of Medicine. Gardner noted: "I suggest that [the project] be continued as a feasibility study for one more year as a special project." CTRSP-FILES015147-5147 (U.S. Ex. 21,296), CTR98CONG00168-0168 (U.S. Ex. 32,534).

406. Even representatives from the Tobacco Institute offered opinions on CTR Special Project recipients. By letter dated February 23, 1971, Marvin Kastenbaum, Director of Statistics

of the Tobacco Institute, advised William Shinn of Shook, Hardy & Bacon with respect to the funding of Hickey: "I see no objection to funding this project. It is very important to have people like Hickey in our stable. Also, his material is publishable." 2015031341-1341 (U.S. Ex. 36,640).

(d) Defendants' Approval of CTR Special Project Funding

407. After receiving recommendations, the General Counsels of Defendants Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American would decide whether a project was approved as a CTR Special Project. Sometimes, general counsel would advise CTR directly if a project was approved for CTR Special Project funding. For example, on July 22, 1970, Henry Ramm, Senior Vice President and General Counsel of R.J. Reynolds, advised Robert Hockett, Associate Scientific Director of CTR, regarding the "proposed Conference to be held in the West Indies in January 1972, counsel representing Philip Morris, Brown & Williamson, American Brands, Liggett & Myers and Lorillard which companies together with Reynolds participate in Special Projects have advised that if the Scientific Advisory Board does not approve this project the same can be treated as an approved Special Project." CTRSP-FILES009810-9810 (U.S. Ex. 21,696); CTRSP-FILES009811-9811 (U.S. Ex. 32,705); CTRSP-FILES009812-9813 (U.S. Ex. 32,706); BWX0010831-0840 (U.S. Ex. 36,244).

408. In fact, the proposed conference was approved as a CTR Special Project in October 1970; was held on St. Martin Island on January 12-15, 1972; and was called the Conference on the Motivational Mechanisms of Cigarette Smoking. Among the attendees were

A.K. Armitage from Britain's Tobacco Research Council; Robert Hockett, CTR Associate Scientific Director; Henry Ramm, CTR Chairman and President; Gilbert Huebner, Tobacco Institute Medical Director; Marvin Kastenbaum, Tobacco Institute Director of Statistics; and several of the Defendants' research directors, including William Bates of Liggett, I.W. Hughes of Brown & Williamson, Murray Senkus of R.J. Reynolds, Alexander Spears of Lorillard, and Helmut Wakeham of Philip Morris; and several CTR Special Project funding recipients, including Hans Eysenck, Richard Hickey, Hans Selye, and Carl Seltzer. 503654881-4885 (U.S. Ex. 88,413); 105394371-4388 (U.S. Ex. 88,414); CTRSP-FILES009590-9590 (U.S. Ex. 88,415); CTRSP-FILES009589-9589 (U.S. Ex. 88,416). See U.S. FPFF § IV.E., infra, for additional discussion of the Conference and the subsequent publication of proceedings.

409. In general, however, General Counsel would subsequently advise Jacob, Medinger & Finnegan or Shook, Hardy & Bacon whether or not their companies would agree to fund the recommended CTR Special Projects. The following are but a few examples.

(i) American Tobacco

410. For example, on February 28, 1975, Cyril Hetsko, Senior Vice President and General Counsel for American, sent a letter to Donald Hoel of Shook, Hardy & Bacon indicating that American was agreeable to participating in the Cederlof-Friberg preparations and publication of a twin studies monograph with the understanding that "when the project has been approved by all, it will be handled as a CTR - Special Project." ATX300000157-0157 (U.S. Ex. 21,130).

411. On October 13, 1986, Paul Randour, Senior Vice President and General Counsel of American, sent a letter to Bernard O'Neill of Shook, Hardy & Bacon indicating that American

had agreed to contribute to the CTR Special Project of Lawrence Kuper and Joseph Janis. http://energycommerce.house.gov/tobacco/docs/bw/0012685445.tif (U.S. Ex. 87,682).

412. On April 27, 1988, Randour sent another letter to O'Neill indicating that American had approved a CTR Special Project for Alvin Feinstein. BWX9990349-0349 (U.S. Ex. 87,683).

(ii) Brown & Williamson

413. On February 18, 1977, Ernest Pepples, Vice President and General Counsel of Brown & Williamson, sent a letter to Shinn of Shook, Hardy & Bacon indicating that Brown & Williamson "will be pleased to join with the other tobacco companies in support of this [CTR special] project" for Theodore Finley. 507877537-7537 (U.S. Ex. 20,801).

414. On January 26, 1982, Pepples sent a letter to Patrick Sirridge of Shook, Hardy & Bacon indicating Brown & Williamson's agreement with Sirridge's recommendation that "the research proposal from Drs. Hutcheon and Regna be approved as a CTR Special Project." 521030631-0631 (U.S. Ex. 20,888).

415. On July 23, 1984, Pepples sent a letter to Chester Wrobleski, attorney with Jacob, Medinger & Finnegan, indicating that Brown & Williamson would approve the funding of the "two proposals submitted by Drs. Kuper and Janis as [CTR] special Projects." 521031038-1038 (U.S. Ex. 20,889).

416. On December 20, 1984, Pepples sent a letter to Donald Hoel, attorney with Shook, Hardy & Bacon, approving his request for funding from Brown & Williamson as a CTR Special Project the involvement of Marvin Kastenbaum of the Tobacco Institute on a symposium

on the human chromosome. 521030983-0983 (U.S. Ex. 86,287).

417. On July 8, 1985, Pepples sent a letter to Donald Hoel, attorney with Shook, Hardy & Bacon, approving his request for funding from Brown & Williamson for Air Conditioning & Ventilation Associates Atlantic, Inc. (ACVA Atlantic) as a CTR Special Project. 521028861-8861 (U.S. Ex. 52,692); 2050987576-7576 (U.S. Ex. 27,065).

418. Pepples also sent letters approving the funding of the following scientists through CTR Special Projects: 1977 - Sterling (68014337-4377) (U.S. Ex. 86,288) ; 1979 - Hutcheon (521030664-0669) (U.S. Ex. 30,460); 1979 - Franklin Institute/Salvaggio (521029925-9934) (U.S. Ex. 30,454); 1979 - Franklin Institute (521029925-9934) (U.S. Ex. 30,454); 1980 - Hutcheon (521030664-0669) (U.S. Ex. 30,460); 1982 - Hutcheon/Regna (521030631-0631) (U.S. Ex. 20,888); 1982 - Rothschild (521031875-1875) (U.S. Ex. 30,467); 1982 - Gorlin (521030032-0032) (U.S. Ex. 30,457); 1982 - Rao (521031322-1325) (U.S. Ex. 30,463); 1983 - Rothschild (521031846-1846) (U.S. Ex. 30,465); 1983 - Eysenck (521029712-9713) (U.S. Ex. 30,451).

(iii) Lorillard

419. In a July 14, 1970 memorandum from Arthur Stevens, Senior Vice President and General Counsel of Lorillard, to Alexander W. Spears of Lorillard, Stevens requested Spears' views of a proposed CTR Special Project - a "Benefits of Smoking" Symposium. 01243259-3259 (U.S. Ex. 20,041).

420. On February 8, 1972, Stevens sent a letter to David Hardy of Shook, Hardy & Bacon, indicating that Lorillard would participate in the industry funding of Hans Selye.

01240219-0219 (U.S. Ex. 26,444).

421. On February 4, 1980, Stevens sent a letter to William Shinn of Shook, Hardy & Bacon indicating Lorillard's participation in funding Domingo Aviado. Stevens stated: "Your efforts in obtaining Dr. Aviado's services, to the benefit of the Industry, are sincerely appreciated." 01334994-4994 (U.S. Ex. 26,475).

422. On July 10, 1980, Stevens sent a letter to Patrick Sirridge of Shook, Hardy & Bacon indicating that Lorillard would participate in the additional funding of Louis Soloff. In a blind copy note to Curtis Judge and Alexander Spears of Lorillard, Stevens indicated: "This work was started as a CTR grant. Two years of the intended three have been completed. Its continuation then encountered some 'political' problems. It seems appropriate to help CTR by adopting the third year as a Special Project." 01338114-8114 (U.S. Ex. 26,565).

423. On March 27, 1981, Stevens sent a letter to Timothy Finnegan of Jacob, Medinger & Finnegan, indicating that Lorillard would participate in the interim funding of Joseph Janis "pending consideration by CTR of a grant application." In a blind note to Curtis H. Judge and Alexander W Spears of Lorillard, Stevens advised: "This is intended to keep Janis in research funds until he either gets CTR or other funding. . . . This project is clearly litigation defense oriented. Janis will be a witness in the future. He is a protege of Greenberg and Kuper. Kuper will testify for UST [United States Tobacco] in its oral cancer case (Douglas) in Arkansas in May." 01336286-6286 (U.S. Ex. 26,527).

424. On August 28, 1981, Arthur Stevens sent a letter to Edwin Jacob of Jacob, Medinger & Finnegan, indicating that Lorillard would participate in funding for Charles

Spielberger. In a blind note to Curtis Judge and Alexander Spears of Lorillard, Stevens indicated: "We continue to regard Spielberger as an important potential witness." 01338207-8207 (U.S. Ex. 26,566).

425. By letter dated March 11, 1982, Arthur Stevens advised David Hardy that "Lorillard will participate in this funding" for Richard Hickey's CTR Special Project. In a blind note to Curtis Judge, Alexander Spears, and James Cherry of Lorillard, Stevens noted:

> Despite Hardy's indication last year that we would not likely renew Hickey, I am satisfied that we should do so - for reasons relating to litigation and Congressional testimony. During the year it apparently became clear that Hickey has established a good relationship with two other scientists who remain important to us, viz., Burch and Feinstein. Hickey's work apparently ties well into work relating to genetic and constitutional theories of causation. CTR has strongly suggested that we continue to maintain a good relationship with Hickey. He remains one of the limited number of strong supporters who is willing to speak out on a variety of epidemiological questions, and has written a strong statement for the Waxman hearings.

01335922-5922 (U.S. Ex. 20,045).

426. On August 14, 1984, Stevens sent a letter to Chester Wrobleski indicating that Lorillard would participate in the funding of the two Kuper/Janis projects through CTR Special Projects. 80412203-2203 (U.S. Ex. 21,060).

427. On May 20, 1986, Stevens sent a letter to Patrick Sirridge indicating that Lorillard would participate in the funding of a two year extension of the Alfred Jenson CTR Special Project. 85171343-1344 (U.S. Ex. 22,042).

428. On September 16, 1986, Stevens sent a letter to O'Neill indicating that Lorillard would participate in the continued funding of the Kuper/Janis CTR Special Project. 80412199-

2199 (U.S. Ex. 21,059).

429. By letter dated December 14, 1988, Stevens advised O'Neill that Lorillard would participate in the supplemental funding for Jenson's CTR Special Project. 91821884-1884 (U.S. Ex. 57,129).

430. Lorillard also sent letters approving the funding of the following scientists through CTR Special Projects: 1972 - Fundenberg (1240455-0455) (U.S. Ex. 26,447); 1972 - Bahnson (01240436-0436) (U.S. Ex. 26,445); (01240437-0437) (U.S. Ex. 26,446); 1972 - MacDonald (01336587-6587) (U.S. Ex. 26,543); 1974 - Ogura (01336855-6855) (U.S. Ex. 26,545); 1974 - MacDonald (01336555-6555) (U.S. Ex. 26,541); 1975 - Ratcliffe (00499935-9935) (U.S. Ex. 29,415); 1980 - Franklin Institute (01335470-5471) (U.S. Ex. 26,492); BWX0002758-2759 (U.S. Ex. 36,169); 1980 - Furst (01335570-5570) (U.S. Ex. 26,497); 1980 - Hickey (01335958-5958) (U.S. Ex. 26,513); 1980 - Seltzer (01338086-8086) (U.S. Ex. 26,564); 1980 - Sterling (01338514-8514) (U.S. Ex. 26,569); 1980 - Brooke (04225204-5204) (U.S. Ex. 86,289); (01334889-4890) (U.S. Ex. 86,290); (01334892-4894) (U.S. Ex. 86,291); (04225198-5198) (U.S. Ex. 29,399); 1980 - Janis (01336289-6289) (U.S. Ex. 26,528); 1980 - Salvaggio (01337806-7806) (U.S. Ex. 26,556); 1980 - Macdonald (01336501-6503) (U.S. Ex. 26,536); (01336504-6505) (U.S. Ex. 26,537); 1980 - Hutcheon (01336190-6190) (U.S. Ex. 26,521); 1982 - Seltzer (01338062-8062) (U.S. Ex. 26,563); 1982 - Riley (01337090-7090) (U.S. Ex. 26,549); 1982 - Brooke (01334735-4735) (U.S. Ex. 26,469); 1982 - Kuper/Janis/Greenberg (01336268-6268) (U.S. Ex. 26,524); (01336271-6271) (U.S. Ex. 26,526); (503689655-9655) (U.S. Ex. 29,724); 1982 - Rao (01336959-6959) (U.S. Ex. 26,546); 1982 - Bick (01335009-5009) (U.S.

Ex. 26,477); (85678325-8325) (U.S. Ex. 32,016); (01335008-5008) (U.S. Ex. 26,476); 1983 - Eysenck (01335403-5403) (U.S. Ex. 86,292); 1983 - Hickey (01335902-5902) (U.S. Ex. 86,293); 1983 - Seltzer (01337994-7994) (U.S. Ex. 26,562); 1983 - Salvaggio/Lehrer (01337733-7733) (U.S. Ex. 26,553); 1983 - Schrauzer (01337962-7962) (U.S. Ex. 26,557); 1983 - Rothschild (01337543-7543) (U.S. Ex. 26,551); 1983 - Kuper/Janis (01336249-6249) (U.S. Ex. 26,523); 1983 - Hutcheon (01336089-6089) (U.S. Ex. 26,518); 1983 - Eysenck (01335396-5396) (U.S. Ex. 26,486); 1983 - Lees (01336438-6438) (U.S. Ex. 26,531); 1984 - Kuper/Janis (80412203-2203) (U.S. Ex. 21,060); 1985 - Seltzer/van den Berg (80412549-2549) (U.S. Ex. 31,963); 1986 - Jenson (85171343-1344) (U.S. Ex. 22,042); 1986 - Kuper/Janis (80412199-2199) (U.S. Ex. 21,059); 1990 (Seltzer) - 87598541-8541 (U.S. Ex. 56,250).

(iv) R.J. Reynolds

431. On June 9, 1970, Henry H. Ramm, Vice President and General Counsel of R.J. Reynolds, sent a letter to David Hardy of Shook, Hardy & Bacon confirming R.J. Reynolds's funding for Alvan Feinstein's Special Project, which continued for a number of years. 507731453-1453 (U.S. Ex. 29,876); 507731447-1447 (U.S. Ex. 29,872).

432. On July 26, 1984, Samuel Witt, Vice President and General Counsel of R.J. Reynolds, sent a letter to Chester Wrobleski of Jacob, Medinger & Finnegan confirming R.J. Reynolds's approval of joint funding for Lawrence Kuper and Janis. 503655278-5278 (U.S. Ex. 21,683).

433. On January 10, 1985, Witt sent a letter to Donald Hoel of Shook, Hardy & Bacon, agreeing to share the cost of a CTR Special Project for the Marvin Kastenbaum symposium "The

Human Chromosome"; Marvin Kastenbaum was Director of Statistics at the Tobacco Institute. 507734469-4469 (U.S. Ex. 29,909).

434. On August 23, 1985, Witt sent a letter to Sirridge accepting R.J. Reynolds's share of funding for William Gutstein "as a CTR Special Project." 507732293-2293 (U.S. Ex. 20,786).

435. On June 5, 1986, Wayne Juchatz, Vice President and General Counsel of R.J. Reynolds, sent a letter to Sirridge confirming that R.J. Reynolds would share funding for Alfred Jenson's CTR Special Project. 507731762-1762 (U.S. Ex. 20,785).

436. R.J. Reynolds also sent letters approving funding for the following scientists through CTR Special Projects over the years: 1979 - Eysenck (507731386-1386) (U.S. Ex. 29,867); (507731381-1381) (U.S. Ex. 86,294); 1981 - Janis (507731482-1482) (U.S. Ex. 29,880); 1981 - Eysenck (507731377-1377) (U.S. Ex. 29,865); 1983 - Eysenck (507731370-1370) (U.S. Ex. 29,863); 1982 - Rothschild (508371649-1649) (U.S. Ex. 86,295); 1983 - Hilado (507875736-5736) (U.S. Ex. 86,296); (03751438-1439) (U.S. Ex. 29,332); 1983 - Eysenck (507731343-1343) (U.S. Ex. 29,861); 1984 - Jenson (503645683-5683) (U.S. Ex. 29,698); 1985 - Gruhn (507734474-4474) (U.S. Ex. 29,910); 1985 - Hecht (507734459-4459) (U.S. Ex. 29,908); 1985 - Seltzer (507731676-1676) (U.S. Ex. 29,891); 1985 - IIT Research Institute (507734422-4422) (U.S. Ex. 29,907); 1985 - Wakefield (507734414-4414) (U.S. Ex. 29,906); 1985 - Salvaggio/Lehrer (507731547-1547) (U.S. Ex. 29,884); 1985 - Oak Ridge National Laboratory (507734377-4377) (U.S. Ex. 29,904); 1985 - Kuper/Janis (507731475-1475) (U.S. Ex. 29,879); 1985 - Seltzer (507731657-1657) (U.S. Ex. 29,890); 1985 - Gutstein (507732293-2293) (U.S. Ex. 20,786); 1985 - DiNardi (507734477-4477) (U.S. Ex. 29,911); 1986 - Bick

(507737625-7625) (U.S. Ex. 29,912); 1986 - Bick (507731653-1653) (U.S. Ex. 22,769); 1986 - Feinstein (507731427-1427) (U.S. Ex. 29,871); 1986 - Jenson (507731762-1762) (U.S. Ex. 20,785); 1986 - Rothschild (507731504-1504) (U.S. Ex. 51,245); 1986 - Eysenck (507877123-7123) (U.S. Ex. 29,923); 1987 - Bick (507731975-1975) (U.S. Ex. 29,900); 1987 - Seltzer (507731649-1649) (U.S. Ex. 29,889); 1987 - Jenson (507731757-1757) (U.S. Ex. 29,895); 1987 - Gutstein (507732210-2210) (U.S. Ex. 29,901); 1987 - Rothschild (507731486-1486) (U.S. Ex. 29,882); 1988 - Sterling (507731727-1727) (U.S. Ex. 29,893); 1989 - Seltzer (507731568-1568) (U.S. Ex. 29,885); 1988 - Seltzer (507731646-1646) (U.S. Ex. 29,887); 1988 - Bick (507731972-1972) (U.S. Ex. 29,899); 1988 - Seltzer/van den Berg (507731572-1572) (U.S. Ex. 29,886).

(v) Liggett

437. When Liggett in-house counsel received recommendations regarding CTR Special Projects, the matter was reviewed internally before an answer was given to industry counsel. LG2000431-0431(U.S. Ex. 34,068) ; LG2002673-2673 (U.S. Ex. 34,084) ; LG2002696-2696 (U.S. Ex. 34,085) ; LG2002537-2537(U.S. Ex. 34,079); LG2002535-2535(U.S. Ex. 34,078); LG2000488-0488(U.S. Ex. 34,071); LG2000633-0633(U.S. Ex. 34,073); LG2002552-2552(U.S. Ex. 86,297).

438. On May 28, 1970, William Shinn of Shook, Hardy & Bacon sent a letter to Alexander Holtzman, Assistant General Counsel for Philip Morris, advising that he now had approval from Philip Morris, R.J. Reynolds, and Liggett for CTR Special Project funding for Richard Hickey. 2015031514-1514 (U.S. Ex. 20,316).

439. On February 28, 1974, Frederick Haas, General Counsel for Liggett, sent a letter to Shinn advising him of Liggett's agreement to fund Carl Seltzer. LG2002533-2533 (U.S. Ex. 21,198).

(vi) Philip Morris

440. On February 21, 1979, Alexander Holtzman sent a letter to Donald Hoel of Shook, Hardy & Bacon confirming that Philip Morris would continue funding Richard Hickey's jointly sponsored research. 1005053953-3953 (U.S. Ex. 20,198).

441. On June 28, 1979, Holtzman sent a letter to Edwin Jacob of Jacob & Medinger indicating that Philip Morris would support approval of Hans Eysenck's request for additional funding. 2010047654-7654 (U.S. Ex. 22,948); 1005053931-3931 (U.S. Ex. 86,298).

442. On December 17, 1981, Frederic Newman, Assistant General Counsel of Philip Morris, sent a letter to Sirridge of Shook, Hardy & Bacon indicating that Philip Morris agreed to support the Jenson study, the Theodor Sterling study, the Arvin Glicksman study, and the Senkus consultancy (a Special Account No. 4 project). 1005113488-3488 (U.S. Ex. 86,299).

443. On August 11, 1983, Helen Frustace, Holtzman's secretary, sent a letter to Sirridge of Shook, Hardy & Bacon indicating that Philip Morris approved funding for Duncan Hutcheon. 1005064626-4626 (U.S. Ex. 20,200).

(vii) Philip Morris Companies

444. On March 13, 1986, Philip Morris Companies sent a letter from Philip Morris Companies' employee Helen Frustace to Donald Hoel of Shook, Hardy & Bacon indicating approval of the request to support Dr. Theodore Sterling's research project "provided it is also

approved by four other companies." 2015047160-7160 (U.S. Ex. 20,326).

445. On May 9, 1988, Philip Morris Companies sent a letter from Frustace addressed to O'Neill of Shook, Hardy & Bacon indicating approval of the request of Rodger L. Bick for a one-year extension on funding for his CTR Special Project. 2015006925-6925 (U.S. Ex. 20,310).

446. On May 16, 1988, Philip Morris Companies sent a letter from Frustace addressed to Donald Hoel indicating Philip Morris Companies' agreement to renew Carl Seltzer's CTR Special Project. 2015006923-6923 (U.S. Ex. 23,047).

(e) Administration of CTR Special Projects

447. Either before or after approval by the General Counsel of Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American, CTR Special Projects were sent to the CTR Scientific Director for "review." An employee of CTR testified, however, that she did not recall any projects approved by the General Counsel which were not also approved by the CTR Scientific Director. Deposition of Lorraine Pollice, United States v. Philip Morris, et al., June 27, 2002, 47:19-47:22; CTR98CONG01063-1063 (U.S. Ex. 32,544).

448. Once a CTR Special Project was approved by General Counsel and the CTR Scientific Director, Jacob, Medinger & Finnegan or Shook, Hardy & Bacon would communicate to CTR how CTR Special Projects were to be funded. CTR would then assign each Special Project a number and the CTR staff would administer and distribute the funds for the CTR Special Project to the recipient or his or her affiliated research institution from a separate bank account maintained solely by CTR to fund CTR Special Projects. For example, on June 27,

1968, Jacob of Jacob, Medinger & Finnegan sent a letter to Wilson T. Hoyt, Executive Director of CTR, with respect to funding for A. Clifford Barger that had been approved for CTR Special Project funding, and requested: "[W]ould you please assign a CTR SP Number to the project and let me know what that number is." Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 24, 2002, 92:19-95:3, 136:2-136:7; Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 56:9-57:18; Deposition of Lorraine Pollice, United States v. Philip Morris, et al., June 27, 2002, 43:10-54:18; 11330520-0520 (U.S. Ex. 20,282); CTR98CONG00058-0058 (U.S. Ex. 22,955); CTRSP-FILES025322-5322 (U.S. Ex. 86,300); CTRSP-FILES003693-3693 (U.S. Ex. 86,301), CTR98CONG00147-0147 (U.S. Ex. 32,526); 512678701-8710 (U.S. Ex. 20,847).

449. In April 1984, Lorraine Pollice of CTR hand-recorded a message from Patrick Sirridge, attorney with Shook, Hardy & Bacon, that a CTR Special Project for Hickey had not been approved by the companies and that Hickey would be sending in a new proposal. Deposition of Lorraine Pollice, United States v. Philip Morris, et al., June 27, 2002, 105:18-109:18; CTRSP-FILES018407-8407 (U.S. Ex. 87,684).

450. CTR Special Projects were not part of CTR's general fund budget; CTR's members provided the funding for CTR Special Projects in separate transactions. Each member company of CTR – Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American – could decide whether or not to contribute to a particular project. The division of costs, however, were usually based upon the companies' respective market shares and the companies sent their share of a project's cost directly to CTR. CTR personnel often sent letters to

the General Counsels of the six companies' requesting payments for the CTR "Special Projects Fund." Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 66:9-67:9; CTRSP-FILES026615-6615 (U.S. Ex. 86,302); 81616878-6882 (U.S. Ex. 31,968); 671726536-6536 (U.S. Ex. 36,147); 671726538-6538 (U.S. Ex. 36,148); 680305856-5858 (U.S. Ex. 30,887); 564000689-0691 (U.S. Ex. 30,689); 508371654-1654 (U.S. Ex. 29,972).

451. From 1966 to 1990, Defendants contributed the following amounts to CTR Special Projects: American contributed approximately $2,049,354; Brown & Williamson contributed approximately $2,571,354; Lorillard contributed approximately $1,638,490; Philip Morris contributed approximately $5,837,923; and R.J. Reynolds contributed approximately $6,029,255. From 1966 to 1975, Liggett contributed approximately $143,830. Response of Defendant The Council for Tobacco Research - U.S.A., Inc. to Plaintiff's First Set of Interrogatories, United States v. Philip Morris, et al. (served February 6, 2001), at Schedule C (U.S. Ex. 75,927).

452. According to a Shook, Hardy & Bacon document, CTR Special Project funds were disbursed by CTR "both as a matter of administrative convenience and because some researchers were reluctant to receive direct funding by tobacco companies." 2048925520–5539 at 5532 (U.S. Ex. 38,725). For the same reasons, letters advising of the funding of a CTR Special Project were sent directly from CTR to the CTR special project recipient. CTRSP-FILES0004380438-0438 (U.S. Ex. 87,680); CTRSP-FILES000195-0195 (U.S. Ex. 32,648); CTRSP-FILES000641-0641 (U.S. Ex. 32,654); CTRSP-FILES001483-1483 (U.S. Ex. 32,658); CTRSP-FILES001621-1621 (U.S. Ex. 32,662); CTRSP-FILES002290-2290 (U.S. Ex. 32,664);

CTRSP-FILES001351-1351 (U.S. Ex. 32,656); CTRSP-FILES002349-2349 (U.S. Ex. 32,666); CTRSP-FILES000473-0473 (U.S. Ex. 32,652); CTRSP-FILES002508-2508 (U.S. Ex. 32,668); CTRSP-FILES002596-2596 (U.S. Ex. 32,670); CTRSP-FILES003308-3309 (U.S. Ex. 32,672); CTRSP-FILES003411-3411 (U.S. Ex. 32,673); CTRSP-FILES001537-1537 (U.S. Ex. 32,660); CTRSP-FILES003720-3720 (U.S. Ex. 32,676); CTRSP-FILES004319-4319 (U.S. Ex. 32,677); CTRSP-FILES007864-7864 (U.S. Ex. 32,687); CTRSP-FILES007978-7978 (U.S. Ex. 32,691); CTRSP-FILES008643-8643 (U.S. Ex. 32,693); CTRSP-FILES015092-5092 (U.S. Ex. 32,862); CTRSP-FILES018169-8169 (U.S. Ex. 32,901); CTRSP-FILES008799-8799 (U.S. Ex. 21,165); CTRSP-FILES007855-7855 (U.S. Ex. 32,685); CTRSP-FILES012474-2474 (U.S. Ex. 32,731); CTRSP-FILES009104-9104 (U.S. Ex. 32,700); CTRSP-FILES009484-9484 (U.S. Ex. 32,704); CTRSP-FILES008789-8789 (U.S. Ex. 32,697); CTRSP-FILES009142-9142 (U.S. Ex. 32,702); CTRSP-FILES007715-7715 (U.S. Ex. 32,681); CTRSP-FILES010404-0404 (U.S. Ex. 32,708); CTRSP-FILES007969-7969 (U.S. Ex. 32,689); CTRSP-FILES008649-8649 (U.S. Ex. 32,695); CTRSP-FILES010602-0603 (U.S. Ex. 32,710); CTRSP-FILES010870-0870 (U.S. Ex. 32,714); CTRSP-FILES011218-1218 (U.S. Ex. 32,716); CTRSP-FILES011331-1331 (U.S. Ex. 32,718); CTRSP-FILES011338-1338 (U.S. Ex. 32,720); CTRSP-FILES011379-1379 (U.S. Ex. 32,721); CTRSP-FILES012835-2835 (U.S. Ex. 32,747); CTRSP-FILES007790-7790 (U.S. Ex. 32,683); CTRSP-FILES012988-2988 (U.S. Ex. 32,753); CTRSP-FILES013000-3000 (U.S. Ex. 32,755); CTRSP-FILES011428-1428 (U.S. Ex. 32,723); CTRSP-FILES010858-0858 (U.S. Ex. 32,712); CTRSP-FILES013053-3053 (U.S. Ex. 32,757); CTRSP-FILES013259-3259 (U.S. Ex. 32,769); CTRSP-FILES013320-3320 (U.S. Ex. 32,771); CTRSP-FILES012929-2929 (U.S. Ex. 32,751);

CTRSP-FILES013371-3371 (U.S. Ex. 32,773); CTRSP-FILES011659-1659 (U.S. Ex. 32,725); CTRSP-FILES013433-3433 (U.S. Ex. 32,775); CTRSP-FILES013446-3446 (U.S. Ex. 32,777); CTRSP-FILES013121-3121 (U.S. Ex. 32,759); CTRSP-FILES013806-3806 (U.S. Ex. 32,779); CTRSP-FILES014139-4139 (U.S. Ex. 32,786); CTRSP-FILES014150-4150 (U.S. Ex. 32,788); CTRSP-FILES014329-4329 (U.S. Ex. 32,818); CTRSP-FILES014346-4346 (U.S. Ex. 32,822); CTRSP-FILES012874-2874 (U.S. Ex. 32,749); CTRSP-FILES014385-4385 (U.S. Ex. 32,824); CTRSP-FILES014412-4412 (U.S. Ex. 32,826); CTRSP-FILES014566-4566 (U.S. Ex. 32,827); CTRSP-FILES014585-4585 (U.S. Ex. 32,829); CTRSP-FILES014694-4694 (U.S. Ex. 32,837); CTRSP-FILES014740-4740 (U.S. Ex. 32,839); CTRSP-FILES014323-4323 (U.S. Ex. 32,816); CTRSP-FILES014782-4782 (U.S. Ex. 32,845); CTRSP-FILES015102-5102 (U.S. Ex. 32,864); CTRSP-FILES013183-3183 (U.S. Ex. 32,761); CTRSP-FILES014764-4764 (U.S. Ex. 32,843); CTRSP-FILES015120-5120 (U.S. Ex. 32,866); CTRSP-FILES015268-5268 (U.S. Ex. 32,868); CTRSP-FILES016084-6084 (U.S. Ex. 32,870); CTRSP-FILES015092-5092 (U.S. Ex. 32,862); CTRSP-FILES014683-4683 (U.S. Ex. 32,835); CTRSP-FILES014751-4751 (U.S. Ex. 32,841); CTRSP-FILES014316-4316 (U.S. Ex. 32,814); CTRSP-FILES014088-4088 (U.S. Ex. 32,785); CTRSP-FILES016333-6333 (U.S. Ex. 32,876); CTRSP-FILES016464-6464 (U.S. Ex. 32,882); CTRSP-FILES016708-6708 (U.S. Ex. 32,885); CTRSP-FILES017875-7875 (U.S. Ex. 32,887); CTRSP-FILES013188-3188 (U.S. Ex. 32,763); CTRSP-FILES017901-7901 (U.S. Ex. 32,889); CTRSP-FILES014306-4306 (U.S. Ex. 32,812); CTRSP-FILES015080-5080 (U.S. Ex. 32,861); CTRSP-FILES018044-8044 (U.S. Ex. 32,893); CTRSP-FILES014671-4671 (U.S. Ex. 32,833); CTRSP-FILES018131-8131 (U.S. Ex. 32,895); CTRSP-FILES018143-8143 (U.S. Ex. 32,897);

CTRSP-FILES014340-4340 (U.S. Ex. 32,820); 11016698-6698 (U.S. Ex. 86,303); CTRSP-FILES014997-4997 (U.S. Ex. 32,859); CTRSP-FILES012352-2352 (U.S. Ex. 32,728); CTRSP-FILES014296-4296 (U.S. Ex. 32,810); CTRSP-FILES013244-3244 (U.S. Ex. 32,767); CTRSP-FILES013934-3934 (U.S. Ex. 32,781); CTRSP-FILES018166-8166 (U.S. Ex. 32,899); CTRSP-FILES 014597-4597 (U.S. Ex. 32,831); CTRSP-FILES 018174-8174 (U.S. Ex. 32,903); CTRSP-FILES 018333-8333 (U.S. Ex. 32,921); CTRSP-FILES 017986-7986 (U.S. Ex. 32,891); 11012799-2799 (U.S. Ex. 86,304); CTRSP-FILES016383-6383 (U.S. Ex. 32,880); CTRSP-FILES014985-4985 (U.S. Ex. 32,857); CTRSP-FILES014261-4261 (U.S. Ex. 32,808); CTRSP-FILES022459-2459 (U.S. Ex. 32,934); CTRSP-FILES016121-6121(U.S. Ex. 32,872); CTRSP-FILES022472-2472 (U.S. Ex. 32,935); CTRSP-FILES016365-6365 (U.S. Ex. 32,878); CTRSP-FILES018322-8322 (U.S. Ex. 32,919); CTRSP-FILES013223-3223 (U.S. Ex. 32,765); CTRSP-FILES014007-4007 (U.S. Ex. 32,783); CTRSP-FILES022580-2580 (U.S. Ex. 32,944); CTRSP-FILES022548-2548 (U.S. Ex. 32,942); CTRSP-FILES022596-2596 (U.S. Ex. 32,946); 70103506-3506 (U.S. Ex. 86,305); CTRSP-FILES012748-2748 (U.S. Ex. 32,743); 11018538-8538 (U.S. Ex. 23,329); CTRSP-FILES022713-2713 (U.S. Ex. 32,953); CTRSP-FILES022677-2677 (U.S. Ex. 32,951); CTRSP-FILES014953-4953 (U.S. Ex. 32,855); CTRSP-FILES014257-4257 (U.S. Ex.32, 806); CTRSP-FILES022277-2277 (U.S. Ex. 32,932); 11022873-2873 (U.S. Ex. 86,306); CTRSP-FILES018315-8315 (U.S. Ex. 32,917); CTRSP-FILES012729-2729 (U.S. Ex. 32,741); CTRSP-FILES023909-3909 (U.S. Ex. 32,966); CTRSP-FILES024179-4179 (U.S. Ex. 32,968); CTRSP-FILES024196-4196 (U.S. Ex. 32,970); CTRSP-FILES014251-4251 (U.S. Ex. 32,804); CTRSP-FILES018462-8462 (U.S. Ex. 32,929); CTRSP-FILES022642-2642 (U.S.

Ex. 32,949); 11022854-2854 (U.S. Ex. 86,307); CTRSP-FILES024213-4213 (U.S. Ex. 32,972); CTRSP-FILES016297-6297 (U.S. Ex. 32,874); CTRSP-FILES022526-2526 (U.S. Ex. 32,940); CTRSP-FILES018406-8406 (U.S. Ex. 32,927); CTRSP-FILES012693-2693 (U.S. Ex. 32,739); CTRSP-FILES014918-4918 (U.S. Ex. 32,853); CTRSP-FILES014245-4245 (U.S. Ex. 32,802); CTRSP-FILES018306-8306 (U.S. Ex. 32,915); CTRSP-FILES024248-4248 (U.S. Ex. 32,974); CTRSP-FILES024288-4288 (U.S. Ex. 32,976); CTRSP-FILES014894-4894 (U.S. Ex. 32,851); CTRSP-FILES012674-2674 (U.S. Ex. 32,737); CTRSP-FILES024307-4307 (U.S. Ex. 32,978); CTRSP-FILES026260-6260 (U.S. Ex. 32,998); CTRSP-FILES014235-4235 (U.S. Ex. 32,800); CTRSP-FILES018370-8370 (U.S. Ex. 32,925); CTRSP-FILES024371-4371 (U.S. Ex. 32,980); CTRSP-FILES026265-6265 (U.S. Ex. 33,000); CTRSP-FILES024586-4586 (U.S. Ex. 32,982); CTRSP-FILES025049-5049 (U.S. Ex. 32,984); CTRSP-FILES018297-8297 (U.S. Ex. 32,913); CTRSP-FILES023646-3646 (U.S. Ex. 32,964); CTRSP-FILES025334-5334 (U.S. Ex. 32,988); CTRSP-FILES025404-5404 (U.S. Ex. 32,990); CTRSP-FILES018359-8359 (U.S. Ex. 32,923); CTRSP-FILES025803-5803 (U.S. Ex. 32,992); CTRSP-FILES012650-2651 (U.S. Ex. 32,735); CTRSP-FILES014878-4878 (U.S. Ex. 32,849); CTRSP-FILES022507-2507 (U.S. Ex. 32,938); CTRSP-FILES014224-4224; (U.S. Ex. 32,798) CTRSP-FILES018287-8287 (U.S. Ex. 32,911); CTRSP-FILES025884-5884 (U.S. Ex. 32,994); CTRSP-FILES025899-5899 (U.S. Ex. 32,996); CTRSP-FILES014219-4219 (U.S. Ex. 32,796); CTRSP-FILES018279-8279 (U.S. Ex. 32,909); CTRSP-FILES 022499-2499 (U.S. Ex. 32,937); CTRSP-FILES023427-3427 (U.S. Ex. 32,962); CTRSP-FILES014840-4840 (U.S. Ex. 32,847); CTRSP-FILES012591-2591 (U.S. Ex. 32,733); CTRSP-FILES014209-4209 (U.S. Ex. 32,794); CTRSP-FILES025224-5224 (U.S. Ex. 32,986);

CTRSP-FILES022899-2899 (U.S. Ex. 32,961); CTRSP-FILES018201-8201 (U.S. Ex. 32,907); CTRSP-FILES014202-4202 (U.S. Ex. 32,792); CTRSP-FILES022863-2863 (U.S. Ex. 32,959); CTRSP-FILES018181-8181 (U.S. Ex. 32,905); CTRSP-FILES014196-4196 (U.S. Ex. 32,790).

453. CTR Special Project recipients were instructed to use an acknowledgment line in publications resulting from CTR Special Project funding different from the acknowledgment line used in publications resulting from CTR grant recipient funding. The ever-so-slightly different acknowledgment line, however, did not disclose that the CTR Special Project research program was undertaken at the specific request of Defendants for their own purposes and not vetted by the CTR Scientific Advisory Board. Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 24, 2003, at 145:23-149:18.

454. CTR did not include information about CTR Special Project research in its Annual Reports, which were widely distributed to medical editors at newspapers, medical editors for television programs, deans of colleges and universities in the United States, libraries at colleges and universities, college and university grant offices, the CTR board of directors, members of the CTR Scientific Advisory Board, CTR grantees, CTR Class A and B members, and the Tobacco Institute, and contained information about current and terminated grants-in-aid, grantees and their institutions. See U.S. FPFF § I.B(5)(b), supra. Deposition of Lorraine Pollice, United States v. Philip Morris, et al., June 27, 2002, 64:11-75:17, 120:4-120:10.

(f) Defendants Continued to Fund Special Projects After They Stopped Using CTR to Fund Special Projects

455. CTR Special Project funding ended sometime around 1990; thereafter, Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American continued to

jointly fund self-serving research projects on behalf of the Enterprise. Deposition of Lorraine Pollice, United States v. Philip Morris, et al., June 27, 2002, 54:13-54:18; CTRSP-FILES014196-4196 (U.S. Ex. 32,790).

456. For example, on March 2, 1990, Stevens sent a letter to Patrick Sirridge of Shook, Hardy & Bacon, enclosing a check for $46,461, which represented Lorillard's share of joint funding for Theodor Sterling. Stevens noted "that this is no longer a CTR project, but is now being funded directly by the Companies and administered as a Special Research Project through your firm." On March 7, 1990, Wayne Juchatz of R.J. Reynolds sent a letter to Sirridge enclosing R.J. Reynolds's portion for the continued funding of Sterling. On March 19, 1990, Paul Randour of American also sent a letter to Sirridge indicating approval of the joint funding of Sterling. On July 23, 1990, Ernest Pepples of Brown & Williamson sent a letter to Sirridge enclosing a check for $65,579, which represented Brown & Williamson's share of funding for Sterling. Pepples sent another contribution for Sterling's work in 1991. 87598486-8486 (U.S. Ex. 21,096); 507731678-1678 (U.S. Ex. 29,892) (U.S. Ex. 76,278); ATX300004011-4011 (U.S. Ex. 21,131); 521100040-0040 (U.S. Ex. 20,893); 521100027-0027 (U.S. Ex. 22,969); 91765001-5001 (U.S. Ex. 32,125).

457. On September 26, 1990, Patrick Sirridge of Shook, Hardy & Bacon sent a letter to Wayne Juchatz of R.J. Reynolds, Josiah Murray of Liggett, Ernest Pepples of Brown & Williamson, Paul Randour of American, Arthur Stevens of Lorillard, and Charles Wall of Philip Morris concerning funding for Rodger Bick. Sirridge noted that "[f]or over 10 years, Dr. Rodger Bick's research on lung cancer has been supported under a CTR Special Project. Dr. Bick has

requested that his support be renewed so that he can continue the work. We recommend that this project be approved in the amount of $40,404.32 and be funded directly by the companies." Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American all agreed to jointly fund the continued research. 86002659-2661 (U.S. Ex. 32,046); 507731850-1851 (U.S. Ex. 86,308); 680712948-2948 (U.S. Ex. 30,912); 512678317-8317 (U.S. Ex. 30,044); ATX300004028-4028 (U.S. Ex. 76,276); BWX9990305-0305 (U.S. Ex. 34,129); 2021130228-0228 (U.S. Ex. 26,731); 507731849-1849 (U.S. Ex. 76,279); 86002653-2653 (U.S. Ex. 32,045); 87688005-8005 (U.S. Ex. 32,060); 91768262-8262 (U.S. Ex. 32,126).

458. In 1990, the companies continued to fund jointly the work of Alvan Feinstein that had previously been funded as a CTR Special Project on behalf of the Enterprise. BWX9990237-0237 (U.S. Ex. 34,128); 507731403-1403 (U.S. Ex. 29,870).

459. By letter dated February 26, 1991, Sirridge requested continued funding from Randour of American and Juchatz of R.J. Reynolds for Carl Seltzer, a long-time CTR Special Project recipient. Sirridge advised that Brown & Williamson, Lorillard, and Philip Morris had already agreed to the continued funding. BWX0003847-3848 (U.S. Ex. 36,212).

460. In March 1992, Bernard O'Neill of Shook, Hardy & Bacon sent a letter to Wayne Juchatz of R.J. Reynolds, Ernest Pepples of Brown & Williamson, Paul Randour of American, Arthur Stevens of Lorillard, and Charles Wall of Philip Morris, and copied Steven Parrish of Philip Morris, recommending another extension of joint industry funding of Theodor Sterling, a long-time CTR Special Projects grantee. The funding was requested for Sterling's work on analyzing the "methodical weaknesses in the epidemiological data in the area of smoking and

health" and "address[ing] issues relating to indoor air quality and ETS exposure." According to O'Neill, Sterling's work "provide[d] a much needed perspective on the possible meanings of these scientific reports" on smoking and health issues. 2015002947-2955 at 2947-2948 (U.S. Ex. 20,308) (U.S. Ex. 75,121).

461. On May 18, 1992, Charles Wall, Vice President and Associate General Counsel of Philip Morris Companies, sent a letter to O'Neill of Shook, Hardy & Bacon which was accompanied by a check representing Philip Morris Companies' contribution to Sterling's research efforts. 2023230770-0770 (U.S. Ex. 20,384).

(g) Scientists Funded Through CTR Special Projects

462. Documents reflect that the following scientists were funded through the CTR Special Project program: William H. Alban; Austin; Domingo M. Aviado; Roberto Bachi; Claus B. Bahnson; William J. Bair; Clifford A. Barger; Bevilacqua; Cesare Biancifiori; Rodger L. Bick; Herman V. Boenig; Brian Bozelka; Lyman A. Brewer, III; Geoffrey L. Brinkman; Barbara B. Brown; Brunner; Victor B. Buhler; John Robert Carter; Jeffrey N. Clark; Richard C. Clelland; Irven DeVore; Salvatore R. DiNardi; William L. Dunn (Philip Morris); Kurt Enslein; Hans J. Eysenck; Alvan R. Feinstein; T.N. Finley; G.H. Friedell; H. Hugh Fudenberg; Arthur Furst (CTR); Arvin S. Glicksman; Victor Gould; John G. Gruhn; Michael R. Guerin; William H. Gutstein; Frederick Hecht; Norman W. Heimstra; Doris L. Herman; Katherine M. Herrold; Richard J. Hickey; Robert C. Hockett (CTR); Ebbe Curtis Hoff; Freddy Homburger; E. Lee Husting; Duncan Hutcheon; Joseph M. Janis; Alfred Bennett Jenson; William V. Judy; Marvin A. Kastenbaum (Tobacco Institute); Leo Katz; David M. Kissen; Jerome Kleinerman; Suzanne

Knoebel; Lawrence L. Kuper; Hiram T. Langston; Mariano LaVia; Leonard A. Lee; Samuel B. Lehrer; Eleanor J. MacDonald; Thomas F. Mancuso; J.H. Manhold; Marcus M. Mason; Neal L. McNiven; Aldo Misefari; Kenneth M. Moser; Harry Ness; S. O'Shea; Joseph M. Ogura; Ingram Olkin; Oser; Harold Perry; Charles D. Puglia; L.G.S. Rao; Herbert L. Ratcliffe; Vernon Riley; J.B. Roberts; Jay Roberts; Gray Robertson; Lisa Rosenblatt; Henry Rothschild; Linda Russek; Henry I. Russek; John Salvaggio; G.N. Schrauzer; Segi; Carl C. Seltzer; Hans Selye; Lucio Severi; James F. Smith; Louis A. Soloff; Darrel H. Spackman; Douglas H. Sprunt; R. Stankus; Frederick J. Stare; Russell Stedman; Theodor D. Sterling; David A. Sterling; Harold L. Stewart; Guiseppe Teti; Thomas; J.R. Trinidad; James A. Wakefield; John S. Waugh; John Vivian Wells; Carolyn K.Wells; Travis Winsor; George Wolf; Wough; and J. Yerushalmy. 92613920-4198 (U.S. Ex. 32,132); 503654113-4113 (U.S. Ex. 86,310); 503654114-4153 (U.S. Ex. 86,311); 293001439-1443 (U.S. Ex. 28,115); LG2000495-0519 (U.S. Ex. 86,312).

(3) Lawyers Special Projects

463. In addition to CTR Special Projects, Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American also conducted special research projects on behalf of the Enterprise, often referred to as Lawyers Special Projects, under the guidance of the Ad Hoc Committee. The Ad Hoc Committee was made up of a Defendants' litigation counsel and other industry agents appointed to coordinate tobacco industry activity with respect to research. 2045752106-2110 at 2107 (U.S. Ex. 20,467); 1003718428-8432 at 8429 (U.S. Ex. 35,902).

464. An April 12, 1966 document entitled "The 'Mission' of the President of The Tobacco Institute" discussed the Ad Hoc Committee stating that it was "composed of lawyers

representing each of the six major cigarette manufacturers [Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American] and was set up originally to assure efficient handling of medical evidence, and provide witnesses in health litigation. More recently Ad Hoc has been charged with preparing a compendium of needed research, both 'practical' and 'basic' – projects are with CTR Special Projects or Ad Hoc." 502645038S-5038Z at 5038W (U.S. Ex. 23,053).

465. In an October 27, 1966 memorandum from David Hardy to Ad Hoc Committee members Janet Brown, Kevin Carroll, Donald Cohen, Edward Cooke, Francis Decker, Alexander Holtzman, Edwin Jacob, William Shinn, and Edward DeHart, Hardy enclosed an outline of assignments for drafting industry position statements. 1005154394-4395 (U.S. Ex. 36,127); 1005154396-4401 (U.S. Ex. 36,128).

466. In another October 27, 1966 letter, David Hardy of Shook, Hardy & Bacon, discussed Ad Hoc projects with Alexander Holtzman, then an attorney with Conboy, Hewitt, O'Brien & Boardman. With respect to Holtzman's Ad Hoc assignments, Hardy stated: "I am counting on you strongly in shaping up some real ammunition for any upcoming hearings." 1005154393-4393 (U.S. Ex. 36,126).

467. In a September 1, 1967 letter, Robert Hockett, Associate Scientific Director of CTR, described the Ad Hoc program to Addison Yeaman. He wrote, "We really have two research programs now – the SAB program and the Ad Hoc program. The former is aimed at basic issues and ultimate solutions; the latter at immediate situations which must be handled or not." 70124399-4400 at 4399 (U.S. Ex. 31,506).

468. Ad Hoc Committee Special Project funding was paid from Lawyers Special Accounts, which were initially maintained by Edwin Jacob's law firm and then transferred to Shook, Hardy & Bacon in 1986. In 1986, Shook, Hardy & Bacon advised that it anticipated higher funding requests for "certain witness development expenses incurred by national litigation counsel." 2015037179-7182 (U.S. Ex. 20,320); 507877173-7174 at 7173 (U.S. Ex. 20,800); 682166938-6938 (U.S. Ex. 86,313).

(a) Special Account No. 3

469. Special Account No. 3 was maintained to coordinate smoking and health databases for use by the members of the Enterprise. A January 15, 1975 memorandum from Frederick Haas, Liggett General Counsel, to Arthur Sloat, President of Liggett, describes how Defendants used Special Account No. 3 and Special Account No. 4: "Account #3 is the central file available to company and litigating counsel. . . . It is separated from Account #4 because we have considered it to be lawyers' work product, and, therefore, not subject to subpoena. Account #4 is utilized to obtain the services of doctors and scientists who could be available for Congressional hearings, litigation, etc." He further stated, "I and other lawyers who have for several decades been close to the litigation aspects of smoking and heath have consistently found that the work done from the funds generated from the above accounts have been extremely important in defending lung cancer and related cases." LG2021550-1550 (U.S. Ex. 21,209).

(b) Special Account No. 4

(i) Nature of Special Account No. 4

470. From 1969 through at least 1989, the contributors to Special Account No. 4,

which was used on behalf of the Enterprise for lawyers' special project funding, consultancy fees, and witness expenses, included American, Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, and Lorillard. http://tobaccodocuments.org/atc/13255544.html (U.S. Ex. 87,687); 80680301-0303 (U.S. Ex. 21,066); 80680283-0285 (U.S. Ex. 21,065); 2015038280-8284 (U.S. Ex. 20,321); 2015028333-8336 (U.S. Ex. 20,314); 80680143-0144 (U.S. Ex. 21,064); http://tobaccodocuments.org/atc/13254063.html (U.S. Ex. 21,858); 2015054674-4677 (U.S. Ex. 20,327); 2015026550-6553 (U.S. Ex. 20,313); 1005122219-2222 (U.S. Ex. 20,214); 100512228-2231 (U.S. Ex. 23,333); 1005122237-2240 (U.S. Ex. 20,215); 1005122246-2249 (U.S. Ex. 20,216); 1005122257-2260 (U.S. Ex. 20,217); 1005122262-2265 (U.S. Ex. 20,218); 1005122267-2271 (U.S. Ex. 20,219); 03638929-8931 (U.S. Ex. 20,059); 2015042056-2059 (U.S. Ex. 21,862); 2015042079-2082 (U.S. Ex. 20,325); 2015042069-2072 (U.S. Ex. 22,949); 507875857-5859 (U.S. Ex. 20,795); 507876993-6994 (U.S. Ex. 20,799); 507875832-5834 (U.S. Ex. 20,794); 507876986-6987 (U.S. Ex. 20,798); 507876979-6979 (U.S. Ex. 20,797); 507875698-5700 (U.S. Ex. 22,953); http://tobaccodocuments.org/atc/13232355.html (U.S. Ex. 87,688); 507875674-5674 (U.S. Ex. 20,793); 2015037179-7182 (U.S. Ex. 20,320); ATX140000938-0939 (U.S. Ex. 21,122); 03638985-8985 (U.S. Ex. 86,314); 682069982-9982 (U.S. Ex. 86,315).

471. A January 11, 1967 letter from Edwin Jacob to Frederick Haas, Cyril Hetsko, Henry Ramm, Paul Smith, and Addison Yeaman requested contribution to Cabell, Medinger, Forysth & Decker's (Edwin Jacob's law firm at the time) Special Account No. 4 to pay for the expenses of Arthur D. Little Company's multivariate analysis work. Jacob advised that the

"funds in this account will be used solely for these A. D. Little projects and such other projects as may be designated by you as payable from that account." 03639032-9033 (U.S. Ex. 29,289).

472. A May 18, 1971 document prepared by Arthur Stevens of Lorillard noted the nature of "Special Account No. 4, which is used for Congressional and regulatory matters." 80680229-0229 (U.S. Ex. 31,967).

473. A September 19, 1973 document prepared by DeBaun Bryant of Brown & Williamson stated that Special Account No. 4 "is used to maintain expenses incurred for certain research work such as that done by Arthur D. Little on multivariate analysis; work performed by witnesses in preparation for Congressional or federal agencies hearings. The following companies contribute equal amounts to this account: American Brands, Brown & Williamson, Liggett & Myers, P. Lorillard, Philip Morris, Reynolds." 682150942-0942 (U.S. Ex. 86,491).

474. A December 9, 1977 document prepared by Max Crohn, Assistant General Counsel for R.J. Reynolds, further described Special Account No. 4: "Special Account No. 4 has been used to pay expenses and fees connected with expert consultancies and statement preparation." http://energycommerce.house.gov/tobacco/docs/bw/0012685027.tif (U.S. Ex. 86,815).

475. A document entitled "Special Account No. 4 - funding of Crohn Subcommittee Expenses and General Review" indicated that during a "General Counsel meeting" on January 4, 1978, it was agreed that "Special Account No. 4 could be used for paying fees and expenses of expert witnesses willing to prepare statements or consult." 03658901-8901 (U.S. Ex. 20,061).

476. A January 27, 1978 memorandum to the file prepared by Arthur Stevens of

Lorillard noted that

> At a Committee of Counsel meeting on January 4, 1978 the future handling of Special Account No. 4 was discussed. Each project to be funded out of Special Account No. 4 will be the subject of specific prior approval by the Committee of Counsel. However, blanket approval was given by the Committee of Counsel for expenditures out of the account not to exceed $10,000 per year, without the need for prior approval. L&M noted that it will participate in the funding of Special Account No. 4 during 1978 only to the extent that it did in 1977 (approximately $40 - $45,000?).

85675219-5219 (U.S. Ex. 32,009).

477. A February 9, 1978 memorandum from Shinn of Shook, Hardy & Bacon to Thomas Ahrensfeld, General Counsel for Philip Morris; Max Crohn, Assistant General Counsel for R.J. Reynolds; Joseph Greer, Vice President and General Counsel for Liggett; Arnold Henson, General Counsel for American; Ernest Pepples, Vice President and General Counsel for Brown & Williamson; and Arthur Stevens, General Counsel for Lorillard, stated in part: "Some of you have asked for additional information concerning funding through Special Account No. 4. This account is administered by Jacob & Medinger and Ed Jacob and I have reviewed the enclosed report. I also enclose a memorandum with regard to funding of projects and would appreciate your advice if you find this to be incorrect in any way. There is probably no need for you to retain those notes once you have satisfied yourself of the current situation." 503655086-5088 at 5086 (U.S. Ex. 20,720); 503655086-5088 (U.S. Ex. 75,190).

478. Another 1978 document described the present and future commitments of Special Account No. 4 funds and the procedure for the approval of emergency matters. The list of industry witnesses included: Aviado, Brown, Eysenck, Spielberger, Hine, Ridgon, Seltzer, Rao,

Booker, E. Fisher, Valentin, Heimstra, Dunlap, Farris, F. Fisher, Hickey, Moser, Okun, Sterling, Weil, Jones, Bick, Soloff, Kuper, Harvard Medical School (Huber), Stanford Research Institute, Franklin Institute, and the Industry Research Liaison Committee. It was noted that the projects for Weil and Jones in New Orleans and Bick in Los Angeles "may be suitable as a CTR Special Project." LG2024193-4196 at 4195 (U.S. Ex. 21,212); 89694310-4312 (U.S. Ex. 32,089); 89694319-4325 (U.S. Ex. 32,091); 89694313-4318 (U.S. Ex. 32,090).

479. In the 1980s, Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, American, Lorillard, and Liggett, through the law firm of Shook, Hardy & Bacon, contracted with Battelle Laboratories of Columbus, Ohio to conduct studies on tobacco smoke and nicotine in the environment. The project was funded through Special Account No. 4. Phase I involved the study of nicotine and the possible conversion of nicotine to cotinine in indoor atmospheres. Phase II involved the study of environmental tobacco smoke in indoor atmospheres. Alexander Spears, Research Director of Lorillard, and Murray Senkus, Research Director of R.J. Reynolds, assisted attorneys from Shook, Hardy & Bacon, including Patrick Sirridge, with review of the project, including site visits. Members of the Tobacco Institute Advisory Group on Environmental Tobacco Smoke consisting of Frank Colby, Michael Davidson, J.G. Easterle, Raymond Fagan, Charles Nystrom, Thomas Osdene, Alexander W. Spears, and Patrick Sirridge reviewed and approved the Phase II project. Philip Morris, R.J. Reynolds, Brown & Williamson, American, Lorillard, and Liggett also contracted, through the law firm of Covington & Burling, with Battelle Pacific Northwest Laboratories for inhalation toxicity studies. 01348599-8599 (U.S. Ex. 87,689); 01348503-8503 (U.S. Ex. 86,316); 01348490-8490 (U.S. Ex. 86,317);

01348473-8473 (U.S. Ex. 86,318); 01348483-8488 (U.S. Ex. 86,319); 01348489-8489 (U.S. Ex. 86,320); 01348465-8465 (U.S. Ex. 86,321); 01348315-8315 (U.S. Ex. 26,580); 502667789-7790 (U.S. Ex. 29,584); 503673514-3515 (U.S. Ex. 29,720); 521028996-8997 (U.S. Ex. 30,443); 01348441-8441 (U.S. Ex. 34,535); 01348727-8727 (U.S. Ex. 86,322); 521028981-8982 (U.S. Ex. 30,442); 503673416-3417 (U.S. Ex. 29,719); 2010045875-5876 (U.S. Ex. 36,519); 682008633-8635 (U.S. Ex. 30,939); 682008636-8636 (U.S. Ex. 30,941); 19672-19674 (U.S. Ex. 86,323); 01346204-6205 (U.S. Ex. 34,532); 01346206-6208 (U.S. Ex. 34,533).

480. On September 10, 1981, a report was prepared on "Meeting of Company Counsel and Ad Hoc Committee Members" which discussed special projects and the Literature Retrieval Division. In it, the following comments were attributed to Edwin Jacob: "These 'special projects' are litigation and hearing oriented," and "Difference between C.T.R. and Special Four (lawyers' projects). Director of C.T.R. reviews special projects – if project was problem for C.T.R., use Special Four. Also, if there are work product claims, need the lawyers' protection . . . done through Special Four because of possibility that C.T.R. would be subpoenaed." The comments, "Concerned that science has become diluted and secondary to lawyers' advocacy interests," were attributed to Stevens of Lorillard. Thomas Bezanson of Chadbourne & Parke also prepared a memorandum regarding the September 10, 1981 meeting. 2023918181-8185 at 8181(U.S. Ex. 20,397); 2045752086-2093 (U.S. Ex. 20,466); ATX9275490271-0280 (U.S. Ex. 36,231).

481. A January 10, 1983 chart demonstrates that Defendants jointly funded through Special Account No. 4. both consultancies (listed were Domingo Aviado, Theodore Blau, Walter Booker, Marc Micossi, Ragner Rylander, Carl Seltzer, and Murray Senkus of R.J. Reynolds) and

research projects (listed were Battelle Columbus Laboratories, Melvin First, Arthur Furst, Nancy Mello and Jack Mendelson, L.G.S. Rao, and Charles Spielberger). This chart also recorded a Special Account No. 5 (listed were Richard Brotman and Alfred Freedman) and "Other Special Projects" (listed were Richard Gorlin and Lloyd Klein through the Heart Research Foundation in New York City). This chart was sent on January 11, 1983, by Sirridge of Shook, Hardy & Bacon to Joseph Greer, General Counsel for Liggett; Arnold Henson, General Counsel for American; Alexander Holtzman, General Counsel for Philip Morris; Ernest Pepples, General Counsel for Brown & Williamson; Arthur Stevens, General Counsel for Lorillard; and Samuel Witt, General Counsel for R.J. Reynolds. LG2002618-2626 (U.S. Ex. 21,200); LG2002617-2617 (U.S. Ex. 21,199); 1005061636-1636 (U.S. Ex. 35,962); 1005061637-1645 (U.S. Ex. 35,963).

482. A Lorillard document outlining its 1986 budget stated that Special Account No. 4 was "[t]o sponsor smoking and health research. For witnesses and statements for legislative and regulatory hearings and proceedings (pass-through payments)." 85174505-4505 (U.S. Ex. 31,997).

483. Special Account No. 4 was first administered by Edwin Jacob's law firm and then by Shook, Hardy & Bacon starting in 1986. Attorneys from Jacob's firm and Shook, Hardy & Bacon would periodically request contributions from Philip Morris, R.J. Reynolds, American, Brown & Williamson, Lorillard, and Liggett, and send accountant's reports regarding the activity in the account. 682069986-9986 (U.S. Ex. 86,324); 682069987-9987 (U.S. Ex. 86,325); 682069955-9955 (U.S. Ex. 30,949); 682069952-9952 (U.S. Ex. 30,948); 682069951-9951 (U.S. Ex. 30,947); 682069923-9923 (U.S. Ex. 30,946); 682069922-9922 (U.S. Ex. 30,945);

682069917-9917 (U.S. Ex. 30,944); 682150944-0944 (U.S. Ex. 36,161); 682150943-0943 (U.S. Ex. 36,160); 682150938-0938 (U.S. Ex. 36,159); 682150937-0937 (U.S. Ex. 36,158); 682150933-0933 (U.S. Ex. 36,157); 682150932-0933 (U.S. Ex. 30,951); 682150940-0940 (U.S. Ex. 86,326); 682150931-0931 (U.S. Ex. 36,155); 682150925-0925 (U.S. Ex. 36,154); 507877173-7174 (U.S. Ex. 20,800); 682166939-6939 (U.S. Ex. 86,327); 682166940-6940 (U.S. Ex. 86,328); 507877176-7176 (U.S. Ex. 29,925); 507877175-7175 (U.S. Ex. 86,329); 507877176-7176 (U.S. Ex. 29,925); 682166937-6937 (U.S. Ex. 86,330); 682166936-6936 (U.S. Ex. 86,331); 682166935-6935 (U.S. Ex. 86,332); 682166930-6930 (U.S. Ex. 86,333); 682166929-6929 (U.S. Ex. 86,334); 680302487-2487 (U.S. Ex. 30,885); 86002376-2377 (U.S. Ex. 32,044).

(ii) Reporting Lawyers Special Projects to the Committee of Counsel

484. As with CTR Special Projects, progress and status of Lawyers Special Projects were sent to Committee of Counsel members. For example, on March 27, 1980, Edwin Jacob sent a letter to Thomas Ahrensfeld, Max Crohn, Joseph Greer, Arnold Henson, Ernest Pepples, and Art Stevens, enclosing "two papers being sent to the publisher by Kieron O'Conner, who has been working with Professor Eysenck, in part supported by the consultation research funds you have provided to Professor Eysenck through Special Account #4." 521029758-9788 (U.S. Ex. 30,452).

485. On March 28, 1980, Jacob sent a letter to Thomas Ahrensfeld, Max Crohn, Joseph Greer, Arnold Henson, Ernest Pepples, and Art Stevens enclosing a progress report from Professor Spielberger. 521032463-2496 (U.S. Ex. 30,476) 500515939-5939 (U.S. Ex. 29,465);

502822004-2004 (U.S. Ex. 29,586); 01355540-5540 (U.S. Ex. 26,583); BWX0002848-2848 (U.S. Ex. 36,175).

(iii) Lawyers' Recommendations for Special Account No. 4

486. General Counsel from Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American and lawyers from Jacob, Medinger & Finnegan and Shook, Hardy & Bacon made recommendations with respect to the funding of Special Account No. 4 projects.

487. For example, in a memorandum dated December 10, 1965, Alexander Holtzman of the law firm Conboy, Hewitt, O'Brien & Boardman, advised Janet Brown, Donald Cohen, Edward Cooke, David Hardy, Ed Jacob, and Butler about a proposal from P.E.S. Palmer of the Department of Radiology, University of Cape Town, South Africa, "for a study of lung cancer in a remote region of Southern Rhodesia." Palmer had come to his attention through his contact with Lauren V. Ackerman of Washington University (a researcher funded by the tobacco industry). The handwritten notation in the upper left-hand side of the document indicated "Rec. approval Ad Hoc!!" 01124431-4431 (U.S. Ex. 26,398).

488. On December 29, 1966, Alexander Holtzman, then Assistant General Counsel of Philip Morris, sent a letter to Paul Smith, General Counsel of Philip Morris, on possible Ad Hoc Committee funding for Alvan L. Baruch and Maurice Segal to write a paper to submit for publication on the information tending to show that cigarette smoking was not a cause of either chronic bronchitis or emphysema. 1005107379-7379 (U.S. Ex. 20,208).

489. On February 9, 1978, William Shinn of Shook, Hardy & Bacon sent a letter to Thomas Ahrensfeld, General Counsel of Philip Morris; Max Crohn, General Counsel of R.J.

Reynolds; Joseph Greer, General Counsel of Liggett; Arnold Henson, General Counsel of American; Ernest Pepples, General Counsel of Brown & Williamson; and Arthur Stevens, General Counsel of Lorillard, recommending the approval of funding for Hans Eysenck through Special Account No. 4. 03638976-8979 (U.S. Ex. 46,483).

490. On May 31, 1979, Edwin Jacob also sent a letter to Thomas Ahrensfeld, Max Crohn, Joseph Greer, Arnold Henson, Ernest Pepples, and Art Stevens recommending an additional year of funding for Eysenck through Special Account # 4; at the same time, he recommended further funding for the CTR Special Project for Eysenck. 507731387-1388 (U.S. Ex. 29,868).

491. On February 12, 1982, Pepples sent a letter to Sirridge of Shook, Hardy & Bacon, recommending the renewal of an annual grant to Arthur Furst be paid from Special Account No. 4. 521029995-0008 (U.S. Ex. 20,887).

492. Such industry attorney recommendations continued from the 1960s through the 1980s. LG2024197-4197 (U.S. Ex. 34,106); 521029215-9222 (U.S. Ex. 30,445); 01335056-5057 (U.S. Ex. 26,481); 503655001-5002 (U.S. Ex. 29,709); 1000022740-2741 (U.S. Ex. 35,080); BWX0004100-4101 (U.S. Ex. 36,219); BWX0002845-2845 (U.S. Ex. 36,174); 502520270-0270 (U.S. Ex. 29,557); 01347171-7172 (U.S. Ex. 26,579); 521029440-9440 (U.S. Ex. 30,449); 01334907-4907 (U.S. Ex. 86,336); 1005125765-5765 (U.S. Ex. 36,095); 01348697-8698 (U.S. Ex. 86,337); 01346134-6135 (U.S. Ex. 26,577); 521029280-9285 (U.S. Ex. 30,446); 1005125796-5796 (U.S. Ex. 36,096); 1005125223-5224 (U.S. Ex. 36,087); 521031322-1325 (U.S. Ex. 30,463); 503566029-6030 (U.S. Ex. 86,338); BWX0002861-2862 (U.S. Ex. 36,178);

503673531-3532 (U.S. Ex. 29,721) 1005125153-5154 (U.S. Ex. 36,085); 521029914-9918 (U.S. Ex. 30,453); 1005047922-7923 (U.S. Ex. 35,938); 521032350-2351 (U.S. Ex. 30,473); 503673356-3357 (U.S. Ex. 29,717); 521029990-9992 (U.S. Ex. 30,455); 503568475-8476 (U.S. Ex. 86,339); BWX0003802-3803 (U.S. Ex. 36,203); 521032142-2143 (U.S. Ex. 30,471); 1005064674-4674 (U.S. Ex. 35,974); 521028822-8822 (U.S. Ex. 30,439); 1005064613-4613 (U.S. Ex. 35,970); 503657525-7525 (U.S. Ex. 86,341); 507875777-5778 (U.S. Ex. 86,342); 521030551-0553 (U.S. Ex. 30,459); 03751441-1442 (U.S. Ex. 29,333); 508074841-4842 (U.S. Ex. 29,949); 2010045900-5901 (U.S. Ex. 36,520); 80411597-1598 (U.S. Ex. 31,961); 2010045907-5908 (U.S. Ex. 36,521); 507734373-4374 (U.S. Ex. 86,343); 86002656-2656 (U.S. Ex. 56,082); 86002593-2594 (U.S. Ex. 56,081).

(iv) Lawyers' Approval of Special Account No. 4 Funding

493. General Counsel from Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American advised Edwin Jacob's law firm and/or Shook, Hardy & Bacon whether or not their companies would contribute to the Special Account No. 4 project as the following examples confirm.

a. American Tobacco

494. A letter from Janet Brown, attorney with Chadbourne, Parke, Whiteside & Wolff, counsel for American, to Arnold Henson, Senior Vice President and General Counsel for Defendant American, dated August 11, 1981 confirmed American's participation in the joint funding of Thomas Mancuso, Charles Spielberger, and Evans through Special Account No. 4. ATX30 0011154-1154 (U.S. Ex. 21,132).

b. Brown & Williamson

495. A letter dated September 5, 1979 from Ernest Pepples to David Hardy of Shook, Hardy & Bacon, confirmed that "Brown & Williamson agrees to the use of Special Account No. 4 for funding Ms. Bowers." 521029306-9306 (U.S. Ex. 21,531).

496. On November 16, 1979, Pepples sent a letter to Patrick Sirridge of Shook, Hardy & Bacon indicating that Brown & Williamson would fund "Dr. Blau's work as a special non-CTR research project." 521029284-9284 (U.S. Ex. 87,690).

497. In 1980, Brown & Williamson agreed to fund Rodger Bick "out of Special Account No. 4." In 1981, they agreed to fund Theodore Blau's "non-CTR special project." In 1983, they agreed to fund Carlos Hilado "from Special Fund 4" and Arthur Furst "to be paid from Special Fund 4." 521029215-9222 (U.S. Ex. 30,445); 521029280-9285 (U.S. Ex. 30,446); 521030551-0553 (U.S. Ex. 30,459); 521029990-9992 (U.S. Ex. 30,455).

498. In 1982, Brown & Williamson agreed to fund Theodore Blau and Melvin First out of Special Fund 4. In 1983, Brown & Williamson agreed to fund Arthur Furst out of Special Fund 4. 521029280-9285 (U.S. Ex. 30,446); 521029914-9918 (U.S. Ex. 30,453); 521029990-9992 (U.S. Ex. 30,455).

c. Lorillard

499. A June 12, 1978 letter from Arthur Stevens to Edwin Jacob of Jacob & Medinger, confirmed that Lorillard would participate in the joint renewed funding for Hans Eysenck through Special Account No. 4. 85674693-4693 (U.S. Ex. 23,013).

500. A May 14, 1980 letter from Stevens to William Shinn of Shook, Hardy & Bacon

confirmed that Lorillard would participate in the "funding of a Special 4 project for a contract for consultancy services between your firm and Murray Senkus [of R.J. Reynolds]." 01331861-1861 (U.S. Ex. 26,464).

501. A July 7, 1982 letter from Stevens to Donald Hoel of Shook, Hardy & Bacon confirmed the use of Special Account No. 4 funds to purchase word processing equipment for use by Carl Seltzer. 85678849-8849 (U.S. Ex. 32,022).

502. By letter dated October 5, 1990, Stevens advised Patrick Sirridge of Shook, Hardy & Bacon that Lorillard would participate in continued funding of Rodger Bick's Lawyer's Special Project for 1991. 86002657-2658 (U.S. Ex. 56,083).

503. Stevens also sent letters to Shook, Hardy & Bacon which confirmed Lorillard's participation for the joint funding through Special Account No. 4 of Blau in 1982, Melvin First in 1982, Murray Senkus of R.J. Reynolds in 1982, Zeidman in 1983, and Blau in 1983. 01335102-5102 (U.S. Ex. 26,483); 01335447-5447 (U.S. Ex. 26,489); 01346076-6076 (U.S. Ex. 26,574); 01338970-8970 (U.S. Ex. 26,573); 01335086-5086 (U.S. Ex. 26,482).

504. Lorillard also reviewed special projects proposals in-house and critiqued proposed publications resulting from special project funding. 01335026-5026 (U.S. Ex. 86,614); 01335103-5103 (U.S. Ex. 26,484); 01335449-5449 (U.S. Ex. 26,491); 01335027-5027 (U.S. Ex. 26,479).

d. R.J. Reynolds

505. A letter dated March 31, 1982, from Samuel Witt, Vice President and General Counsel for R.J. Reynolds, to Sirridge of Shook, Hardy & Bacon, gave R.J. Reynolds's approval

for funding Arthur Furst's 1982 grant. The letter stated, "We agree that this should be paid from special fund four." 502499420-9420 (U.S. Ex. 21,720).

506. On October 31, 1985, Samuel Witt, Vice President, General Counsel and Secretary of R.J. Reynolds sent a letter to Patrick Sirridge of Shook, Hardy & Bacon advising that R.J. Reynolds agreed to contribute to "Dr. Blau's literature review project" through Special Fund 4." 507731747-1747 (U.S. Ex. 29,894).

e. Liggett

507. A letter dated June 27, 1984, from Josiah Murray, Vice President and General Counsel for Liggett, to Ed Jacob enclosed Liggett's quarterly contribution to Special Account No. 4. 507875702-5702 (U.S. Ex. 21,648).

f. Philip Morris

508. A letter dated August 15, 1978, from Alexander Holtzman of Philip Morris to Donald Hoel of Shook, Hardy & Bacon informed Hoel that Philip Morris would participate in the joint payment requested for Charles Hines that would be made from Special Account No. 4. 2010047953-7953 (U.S. Ex. 21,483).

509. A letter dated April 18, 1983, from Frederic Newman, Assistant General Counsel of Philip Morris, to attorneys Arthur Stevens, James Chapin, Joseph Greer, Joseph Murray, Paul Duke, Ernest Pepples, Samuel Witt, Arnold Henson, John Rupp and Bernard O'Neil, indicated that "a Special Research Project on proposed ventilation standards . . . will be performed by Code Consultants, Incorporated . . . the required funding of $26,750 will be handled through Special

Fund 4, and other arrangements will be coordinated through Shook Hardy & Bacon." 503688635-8635 (U.S. Ex. 86,344).

(v) Individuals and Organizations Funded Through Special Account No. 4

510. Documents reflect that, at a minimum, the following individuals and organizations received funding through Special Account No. 4 beginning in the 1960s through the 1990s: Able-Lands, Inc.; Lauren Ackerman; ACVA Atlantic Inc.; George Albee; Aleph Foundation; Arthur D. Little, Inc.; Aspen Conference; Atmospheric Health Sciences; Domingo Aviado; James Ballenger; Alvan L Barach; Walter Barker; Broda O. Barnes; Battelle Columbus Laboratories; Battelle Memorial Institute; Walter Becker; Peter Berger; Rodger L. Bick; Billings & Gussman, Inc.; Richard Bing; BioResearch Laboratories; Theodore Blau; Irvin Blose; Walter Booker; Evelyn J. Bowers; Thomas H. Brem; Lyman A. Brewer, III; Brigham Young University; Oliver Brooke; Richard Brotman; Barbara B. Brown; K. Alexander Brownlee; Katherine Bryant; Victor B. Buhler; Thomas Burford; J. Harold Burn; Marie Burnett; Maurice Campbell; Carney Enterprises, Inc.; Duane Carr; Rune Cederlof; Domenic V. Cicchetti; Martin Cline; Code Consultants Inc.; Cohen, Coleghety Foundation, Inc.; Colucci, & Associates, Inc.; Computerland; W. Clark Cooper; A. Cosentino; Daniel Cox; Gertrude Cox; CTR; Geza De Takato; Bertram D. Dimmens; Charles Dunlap; Henry W. Elliott; Engineered Energy Mgt. Inc.; Environmental Policy Institute; J. Earle Estes; Frederick J. Evans; William Evans; Expenses related to Congressional Hearings in Washington D.C.; Hans J. Eysenck; Eysenck Institute of Psychiatry; Jack M. Farris; Sherwin J. Feinhandler; Alvan R. Feinstein; Herman Feldman; Edward Fickes; T. Finley; Melvin First; Edwin Fisher; R. Fisher; Merritt W. Foster; Richard Freedman; Herbert

Freudenberger; Fudenberg; Arthur Furst; Nicholas Gerber; Menard M. Gertler; Jean Gibbons; Carl Glasser; Donald Goodwin; B. Greenberg; Alan Griffen; F. Gyntelberg; Harvard Medical School; Hearings-Kennedy-Hart Bill; William Heavlin; Norman Heimstra; Joseph Herkson; Richard J. Hickey; Carlos Hilado; Charles H. Hine; Hine, Inc.; Harold C. Hodge; Gary Huber; Wilhelm C. Hueper; Darrell Huff; Duncan Hutcheon; Industry Research Liaison Committee; Information Intersciences, Inc.; International Consultancy; International Technology Corporation; International Information Institute, Inc.; J.B. Spalding Statistical Service; J.F. Smith Research Account; Jacob, Medinger & Finnegan; Joseph Janis; Roger Jenkins; Marvin Kastenbaum; Leo Katz; Kirschbaum; Kravetz Levine & Spotnitz; Lawrence L Kuper; Mariano La Via; H. Langston; William G. Leaman; Michael Lebowitz; Samuel B. Lehrer; William Lerner; Edward Raynar Levine; G.J. Lieberman; Arthur D. Little; S.C. Littlechild; Eleanor Macdonald; Thomas Mancuso; Nathan Mantel; R. McFarland; Meckler Engineering Group; Milton Meckler; Nancy Mello; Jack Mendelson; Michigan State University; Marc Micozzi; Irvin Miller; K. Moser; Albert Niden; Judith O'Fallon; John O'Lane; William Ober; J.H. Ogura; Ronald Okun; Ingram Olkin; Thomas Osdene (Philip Morris); Peat, Marwick Main & Co.; Thomas L. Petty; Pitney, Hardin & Kipp; Leslie Preger; Walter J. Priest; R. Proctor; Terrence P. Pshler; Public Smoking Research Group; R.W. Andersohn & Assoc.; L.G.S. Rao; Herbert L. Ratcliffe; Attilio Renzetti; Response Analysis Project; Response Analysis Consultation; R.H. Rigdon; Jay Roberts; Milton B. Rosenblatt; John Rosencrans; Walter Rosenkrantz; Ray H. Rosenman; Linda Russek; Henry Russek; Ragnar Rylander; George L. Saiger; D.E. Sailagyi; I Richard Savage; Richard S. Schilling; Schirmer Engineering Corp.; S. Schor; G.N. Schrauzer; Charles Schultz; John Schwab;

Carl L. Seltzer; Murray Senkus (R.J. Reynolds); Paul Shalmy; R. Shilling; Shook, Hardy & Bacon; Henry Shotwell; Allen Silberberg; N. Skolnik; JF Smith; Louis A. Soloff; Sheldon C. Sommers (CTR); JB Spalding; Charles Spielberg; Charles Spielberger; Lawrence Spielvogel; St. George Hospital & Medical School; Stanford Research Institution Project; Russell Stedman; Arthur Stein; Elia Sterling; Theodor Sterling; Thomas Szasz; The Foundation for Research in Bronchial Asthma and Related Diseases; The Futures Group; Paul Toannidis; Trenton, New Jersey Hearings; Chris P. Tsokos; University of South Florida; Helmut Valentin; Richard Wagner; Norman Wall; Wayne State University; Weinberg Consulting Group; Roger Wilson; Wisconsin Alumni Research Foundation; Jack Wiseman; George Wright; John P. Wyatt; J. Yerushalmy; and Irving Zeidman. 01347232-7243 (U.S. Ex. 75,293); LG2004445-4445 (U.S. Ex. 86,345); LG2004512-4512 (U.S. Ex. 86,346); LG2004838-4838 (U.S. Ex. 86,347); LG2004847-4847 (U.S. Ex. 86,348); LG2004857-4857 (U.S. Ex. 86,349); 03638929-8931 (U.S. Ex. 20,059); 03746156-6159 (U.S. Ex. 86,350); 03746164-6172 at 6168 (U.S. Ex. 87,691); 03746174-6183 at 6178 (U.S. Ex. 87,692); 03746244-6244 (U.S. Ex. 86,351); 03746253-6262 at 6256 (U.S. Ex. 85,646); 03746309-6316 at 6313 (U.S. Ex. 85,355); 03746320-6331 at 6327 (U.S. Ex. 75,305); 85672200-2200 (U.S. Ex. 86,352); 86002410-2413 (U.S. Ex. 85,716); ATX090001902-1904 (U.S. Ex. 86,353); ATX090002446-2448 (U.S. Ex. 86,354); ATX140000938-0939 (U.S. Ex. 21,122); ATX190000928-0933 (U.S. Ex. 86,355); 507875672-5673 (U.S. Ex. 86,356); 507875674-5674 (U.S. Ex. 20,793); 507875698-5700 (U.S. Ex. 22,953); 507875832-5834 (U.S. Ex. 20,794); 507875857-5859 (U.S. Ex. 20,795); 507876979-6979 (U.S. Ex. 20,797); 507876991-6992 (U.S. Ex. 86,357); 507876993-6994 (U.S.

Ex. 20,799); 1005122219-2222 (U.S. Ex. 20,214); 100512228-2231 (U.S. Ex. 23,333); 1005122237-2240 (U.S. Ex. 20,215); 1005122262-2265 (U.S. Ex. 20,218); 1005122267-2271 (U.S. Ex. 20,219); 2015026550-6553 (U.S. Ex. 20,313); 2015028333-8336 (U.S. Ex. 20,314); 2015038280-8284 (U.S. Ex. 20,321); 2015054674-4677 (U.S. Ex. 20,327); 1005121995-1997 (U.S. Ex. 36,080); 1005122246-2249 (U.S. Ex. 20,216); 1005122257-2260 (U.S. Ex. 20,217); 2010047954-7955 (U.S. Ex. 86,358); 2015037179-7182 (U.S. Ex. 20,320); 2015041994-1997 (U.S. Ex. 36,654); 2015042056-2059 (U.S. Ex. 21,862); 2015042069-2072 (U.S. Ex. 22,949); 2015042079-2082 (U.S. Ex. 20,325); 507876986-6987 (U.S. Ex. 20,798); 80680143-0144 (U.S. Ex. 21,064); 80680283-0285 (U.S. Ex. 21,065); 80680301-0303 (U.S. Ex. 21,066); 86002393-2396 (U.S. Ex. 86,359); 681510941-0946 (U.S. Ex. 54,074).

(vi) Defendants Would Often Fund the Same Scientist Through Multiple Sources

511. Defendants would often fund the same scientist through a variety of different mechanisms. For example, on September 4, 1986, Patrick Sirridge of Shook, Hardy & Bacon sent a letter to General Counsel Alexander Holtzman of Philip Morris, Wayne Juchatz of R.J. Reynolds, Josiah Murray of Liggett, Ernest Pepples of Brown & Williamson, Paul Randour of R.J. Reynolds, and Arthur Stevens of Lorillard, recommending that Richard Hickey receive continued funding: "Because Dr. Hickey no longer has an official university position, we believe it is an appropriate time for his CTR Special Project support to end. However . . . Dr. Hickey [should be paid] for one year, $12,000. The consultancy would be paid from Shook Hardy & Bacon Special Account." 507875961-5962 at 5961 (U.S. Ex. 20,796).

512. Another example is the multiple source funding for Hans Eysenck, professor at

the University of London. Eysenck received CTR Special Project funding after initially applying – and being turned down – for a CTR SAB grant in 1969. Eysenck continued to receive CTR Special Project funding for a number of projects through 1986. Eysenck also received CTR SAB grant funding from 1973 through 1976. Jacob also recommended to Thomas Ahrensfeld of Philip Morris, Max Crohn of R.J. Reynolds, Joseph Greer of Liggett, Arnold Henson of American, Ernest Pepples of Brown & Williamson, and Art Stevens of Lorillard that Eysenck receive funding through Special Account No. 4 in 1978 and 1979. CTRSP-FILES008806-8806 (U.S. Ex. 21,168); CTRSP-FILES008804-8804 (U.S. Ex. 21,167); CTRSP-FILES008801-8801 (U.S. Ex. 21,166); CTRSP-FILES 08799-8799 (U.S. Ex. 21,165); CTRSP-FILES016124-6124 (U.S. Ex. 21,169); HK1698002-8002 (U.S. Ex. 21,473); 507731385-1385 (U.S. Ex. 20,784); 03747024-7205 (U.S. Ex. 21,538).

(c) Special Account No. 5

513. In a memorandum dated November 8, 1978, from Edwin Jacob of Jacob & Medinger to Thomas Ahrensfeld of Philip Morris; Joseph Greer, Liggett; Arnold Henson, American; Ernest Pepples, Brown & Williamson; Henry Roemer, R.J. Reynolds; and Art Stevens, Lorillard, and copied to Janet Brown of Chadbourne & Parke; DeBaun Bryant, Brown & Williamson; Max Crohn, R.J. Reynolds; Alexander Holtzman, Philip Morris; Lester Pollack, Lorillard; and William Shinn of Shook, Hardy & Bacon, Edwin Jacob enclosed a two-year, $400,000 research proposal from Alfred M. Freedman and Richard Brotman. Jacob advised, "Janet Brown, Bill Shinn and I have discussed this proposal with [Brotman and Freedman]. We recommend its approval." The Brotman/Freedman project was designated by counsel as Special

Account No. 5. 521029470-9485 (U.S. Ex. 30,450); 03639217-9217 (U.S. Ex. 29,290).

514. In a memorandum dated July 3, 1980 from Edwin Jacob to Thomas Ahrensfeld, Max Crohn, Arnold Henson, Ernest Pepples, and Art Stevens and copied to Janet Brown and William Shinn, Jacob requested a $10,000 further contribution from each company to "provide funds for defraying the expenses of the project of Drs. Brotman and Freedman for some months. Please make checks payable to Jacob & Medinger - Special Account # 5." 682070027-0027 (U.S. Ex. 36,145).

515. By memorandum dated February 2, 1982, Timothy Finnegan, partner in the Jacob & Medinger law firm, provided a status report on the Brotman/Freedman project to Joseph Greer, Arnold Henson, Alexander Holtzman, Ernest Pepples, Art Stevens, and Samuel Witt and copies to Janet Brown and Patrick Sirridge of Shook, Hardy & Bacon. Finnegan stated:

> In broad outline, the purpose of the original project was to combat what Drs. Freedman and Brotman perceived to be the growing repression by the government and other establishment forces of the public's "unacceptable" routine behavior through regulation of such behavior as anti-social, criminal or ill. The long-term focus of the project was to be on abuse of the regulatory process and of medical power in defining risks and "unhealthy" habits. Tobacco was to be treated in this overall behavioral context, unrelated to smoking per se. . . . The vehicle for this effort by Drs. Freedman and Brotman was to be The Center for Behavioral Analysis of Policy Issues (later renamed The Madison Institute for Policy Research and Development). A two-year budget in the total amount of $400,000 was approved to be funded on a per capita basis by American, Brown & Williamson, Lorillard, Philip Morris and Reynolds.

521029470-9485 at 9475-9476 (U.S. Ex. 30,450).

516. A February 1982 memorandum stated that there were two long-term goals of the Brotman/Freedman Institute: "establishing the Institute's credentials and securing broad-based

funding." The Institute did not, however, attract many other funds. As of February 1982, $312,500 had been dispersed to the Institute and "the only funding the Institute has received from outside the tobacco industry is the $25,000 from the Archdiocese of Brooklyn." 521029470-9485 at 9477 (U.S. Ex. 30,450).

517. In the February 1982 memorandum, Timothy Finnegan recommended a new one-year project for Brotman and Freedman for $237,500, requiring an additional $150,000 from the contributing companies. Finnegan described the new proposal as:

> Drs. Brotman and Freedman, under the auspices of the Institute, propose to conduct, over a one-year period, six "mini-conferences" culminating in an international conference. The purpose of these conferences will be to explore "critical issues in psychiatric classification" which have arisen as a result of DSM III (Diagnostic and Statistical Manual of Mental Disorders) and which must be addressed in connection with DSM IV. Since the ICD (International Classification of Diseases) determines, to a major degree, the content of the subsequent DSM, an international conference is planned which will consider, among other things, the classification issues in the context of the ICD. Controversial issues will be addressed at the conferences in the presence of strong and articulate proponents of opposite positions, and an effort will be made to resolve the controversies in a constructive manner. A monograph will be prepared following an international conference.

521029470-9485 at 9477-9478 (U.S. Ex. 30,450).

518. The issues regarding the Diagnostic and Statistical Manual of Mental Disorders focused on tobacco use disorder and tobacco withdrawal. Finnegan advised that "[c]ontributions would be made by the companies on a per capita basis and would be distributed through Special Account No. 5" and that "Janet Brown, Pat Sirridge and I have met with Drs. Brotman and Freedman to discuss the current proposal. We recommend its approval. We are prepared to

discuss it further with you as you may see fit." By letter dated February 12, 1982, Ernest Pepples advised Finnegan that "Brown & Williamson agrees with your recommendation." 03746884-6884 (U.S. Ex. 29,324); 521029470-9485 at 9478 (U.S. Ex. 30,450).

519. The Brotman/Freedman project was discussed at the June 1982 Committee of Counsel meeting. By memorandum dated July 15, 1982 addressed to Joseph Greer, Arnold Henson, Alexander Holtzman, Ernest Pepples, Art Stevens, and Samuel Witt and copied to Janet Brown and William Shinn, Chester Wrobleski of Jacob, Medinger & Finnegan provided an update of the proposal outlined in Finnegan's February 2, 1982 memorandum. LG2006022-6023 (U.S. Ex. 34,087); 521029470-9485 (U.S. Ex. 30,450); 511083098-3099 (U.S. Ex. 86,360); 1005125293-5294 (U.S. Ex. 36,088).

520. In July 1982, Arthur Stevens of Lorillard sent the Brotman/Freedman proposal to Lorillard scientist Alexander W. Spears for review. Spears prepared a memorandum to Stevens dated July 30, 1982, which included his assessment of the project. Spears stated:

> As you recall, we have discussed the Brotman/Freedman proposals on several occasions in the past, and I have always been very negative with respect to the significance of their proposals to the tobacco industry. I continue to believe that the material is of little potential value to this Industry. If there would be some merit in providing this support, it would have to be in the area of Brotman's and Freedman's value as witnesses in legislative proceedings. . . . Perhaps a reason for our lack of participation can be framed around the inability of Brotman/Freedman to obtain any significant support for their institute from any industry other than tobacco."

By letter dated August 3, 1982 addressed to Chester Wrobleski and copied to Joseph Greer, Arnold Henson, Alexander Holtzman, Ernest Pepples, Samuel Witt, and William Shinn, Arthur Stevens advised that "Lorillard will not participate in the funding of this project." Stevens blind

copied the letter to Curtis Judge, Alexander Spears, and Robert Ave. 01335523-5523 (U.S. Ex. 26,496); 01335522-5522 (U.S. Ex. 26,495); 521029470-9485 (U.S. Ex. 30,450); 01335521-5521 (U.S. Ex. 26,494).

521. The Brotman/Freedman project was approved in 1982 by four of the Defendants: American, Reynolds, Philip Morris and Brown & Williamson. 521029470-9485 (U.S. Ex. 30,450); 1005125164-5164 (U.S. Ex. 36,086); 682070019-0019 (U.S. Ex. 36,144); 682070017-0017 (U.S. Ex. 86,361); 682070016-0016 (U.S. Ex. 86,362); 2075783285-3285 (U.S. Ex. 27,559).

522. The Brotman/Freedman project ran from 1979 through the mid-1980s. When Shook, Hardy & Bacon took over the Jacob & Medinger Special Accounts, Shook, Hardy & Bacon received a check from Jacob & Medinger in the amount of $37,284.31 "that represented the balance of Special Account No. 5 that had been maintained by the Jacob, Medinger firm." Shook, Hardy & Bacon deposited the funds in its Special Account "to be used for the activities supported [sic] the SH&B – Special Account." Patrick Sirridge of Shook, Hardy & Bacon recommended, by letter dated August 24, 1989 addressed to Alexander Holtzman, Wayne Juchatz, Josiah Murray, Ernest Pepples, Paul Randour and Arthur Stevens and copied to Janet Brown, Francis Decker, and Michael Nims, that "those companies which supported the final extension of the Brotman/Freedman project (American, Brown & Williamson, Philip Morris, and Reynolds) be given per capita credit in the SH&B Special Account to be applied against the next request for funding." 86002376-2377 (U.S. Ex. 32,044).

(4) Institutional Grants

523. Lawyers' Special Accounts were also used to pay for the institutional grants funded by Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American. Defendants funded projects at Harvard University, University of California Los Angeles ("UCLA"), and Washington University. Defendants used institutional grants to promote self-serving research. This was described in a November 17, 1978 memorandum prepared by Robert Seligman, Vice President of Research and Development of Philip Morris, that detailed a November 15, 1978 meeting that was called to assist the Ad Hoc Committee, and discussed institutional grants. Seligman reported that at the meeting William Shinn had stated: "CTR began to lose their luster in the mid-60's and the tobacco industry looked around for more beneficial ways to spend their research dollars on smoking and health. It was at this time that special projects were instituted at Washington University, Harvard University, and UCLA. . . . [T]he industry received a major public relation 'plus' when monies were given to Harvard Medical School." 2045752106-2110 at 2107 (U.S. Ex. 20,467); 1003718428-8432 at 8429 (U.S. Ex. 35,902).

524. The institutional grants given to Harvard, UCLA, and Washington University were also discussed at an August 8, 1974 meeting of the Industry's Research Support Planning Committee (also known as the Research Liaison Committee) attended by Cyril Hetsko, General Counsel for American; Curtis Judge, President of Lorillard; William Bates, Assistant Director of Research for Liggett; Clifford Goldsmith of Philip Morris; Henry Roemer, General Counsel for R.J. Reynolds; William Kloepfer, Senior Vice President of the Tobacco Institute; Horace Kornegay, President of the Tobacco Institute; William Gardner, CTR's Scientific Director;

Leonard Zahn, public relations consultant for CTR; and David Hardy, attorney with Shook, Hardy & Bacon. The minutes state: "The breadth of coverage of these grants exceeds the areas covered by the CTR-SAB in at least two instances. The duration of support and the flexibility of budgeting and of program are greater than with the CTR program. The staff of CTR has offered to exchange information with two of the institutional grants and has done so with one through several contacts. This is basically to avoid unnecessary or avoidable overlap and determine possible gaps." CTR98CONG01187-1189 at 1188-1189 (U.S. Ex. 21,137).

(a) Washington University

525. Defendants funded an institutional grant at Washington University in St. Louis. The purpose of the study funded by this grant was to research the immunologic aspects of cancer. In a February 2, 1971 memorandum, Frederick Haas urged Milton Harrington and Kenneth McAllister to consider funding this project primarily because it would not result in any damaging findings. Haas wrote, "I do not see how [the study] could ricochet to our detriment since the smoking habit has no part in the study and . . . the project is not involved in finding causation." LG2008401-8403 (U.S. Ex. 86,363).

526. Defendants began funding Lauren Ackerman and Paul Lacy at Washington University in 1971 with an initial $2,000,000 five-year grant. Contributors included Brown & Williamson, Liggett, Lorillard, Philip Morris, R.J. Reynolds, and United States Tobacco. It was recognized that Lacy's "letter to Senator Morse commending the tobacco industry for its support of basic cancer research at Washington University" was beneficial to the industry. 2045752106-2110 at 2107 (U.S. Ex. 20,467); 1003718428-8432 at 8429 (U.S. Ex. 35,902);

01338888-8888 (U.S. Ex. 26,572); 521033382-3383 (U.S. Ex. 30,478); 521033505-3505 (U.S. Ex. 30,480); 1005142952-2952 (U.S. Ex. 36,112); TIMN0144745-4746 (U.S. Ex. 62,703); 521033485-3486 (U.S. Ex. 30,479).

(b) Harvard University

527. The Defendants' institutional grant at Harvard University was under the direction of Gary Huber. Funding began in 1972, and the participating companies were Defendants American, Brown & Williamson, Liggett, Lorillard, Philip Morris, R.J. Reynolds, along with Larus & Brother, Tobacco Associates, and United States Tobacco. Areas of study included host response to environmental influences, isolation of tobacco smoke components, effects of smoke on heart muscle, and some examination of passive smoking. Arnold Henson of American described three reasons for the Harvard project: "(a) our obligation to spend money on research, (b) the value of Huber to the industry; and (c) the PR value of the Harvard name." ZN25950-5956 (U.S. Ex. 64,794); 96101622-6226 (U.S. Ex. 25,853); 955030735-0737 (U.S. Ex. 86,365); BWX0004364-4375 (U.S. Ex. 36,228).

528. The status of the Harvard project was closely monitored by American, Brown & Williamson, Liggett, Lorillard, Philip Morris, R.J. Reynolds, the Tobacco Institute, Ed Jacob, and attorneys from Shook, Hardy & Bacon and Covington & Burling. Huber, along with other researchers, was asked to provide updates through site visits and oral reports instead of written communications. According to David Hardy of Shook, Hardy & Bacon: "[Q]uite often the scientist who has no legal training and who does not fully understand some of our problems and concerns, exercises little care in his form of expression in written communications. For this

reason, it was decided by counsel that site visits and oral reports at such site visits would be preferable to written reports . . . would be more informative and would involve far fewer problems." In 1975, Huber attended a meeting of the Committee of Counsel to discuss a number of issues related to the Harvard project. 968003136-3137 (U.S. Ex. 25,857); 961016507-6508 (U.S. Ex. 25,854); 1000207774-7775 (U.S. Ex. 26,078); 2015057132-7132 (U.S. Ex. 86,366); 980076941-6942 (U.S. Ex. 86,367); BWX0004364-4375 (U.S. Ex. 36,228).

529. In 1977, much to the alarm of Defendants, Huber advised William Shinn of Shook, Hardy & Bacon that the results of an experiment indicated that rats exposed to tobacco smoke developed emphysema and that such information would be released. Alexander Holtzman of Philip Morris recommended that the industry prepare a response through the Tobacco Institute. 1005053856-3856 (U.S. Ex. 20,197); 86001059-1071 (U.S. Ex. 86,369); 968003658-3666 (U.S. Ex. 25,860); 961017594-7594 (U.S. Ex. 86,370).

530. Despite this one finding, as summarized by Janet Brown of Chadbourne & Parke, Huber had assisted the Enterprise in numerous ways. In advocating continuing support for Huber, Janet Brown of Chadbourne & Parke wrote in a memorandum dated January 16, 1979, to Arnold Henson of American that "the CTR is becoming antiquated and enfeebled. Whether it could ever be restaffed – even if that were desirable, which is by no mean clear – is a large question. CTR may collapse. The work CTR is doing is far more dangerous to the industry and the Company [American] than anything Huber is doing." Brown described CTR "falling into oversimplified 'saccharin-type research' of an utterly unrealistic kind." 968003658-3666 at 3665 (U.S. Ex. 25,860).

531. In the late 1970s, issues arose about the adequacy of the facilities at Harvard and whether the project would be renewed. There were extensive meetings between Defendants' representatives, Huber, and Harvard University officials. The Harvard project was ultimately phased out in the early 1980s and Huber ended his affiliation with Harvard. Defendants, however, continued to support Huber's work. 502026481-6487 (U.S. Ex. 29,549); 961017429-7430 (U.S. Ex. 32,399); 2010048605-8606 (U.S. Ex. 36,525); 100371866-8669 (U.S. Ex. 35,905); 2010048831-8834 (U.S. Ex. 36,526); 961017379-7379 (U.S. Ex. 86,371); 680260639-0642 (U.S. Ex. 30,860); 680503434-3439 (U.S. Ex. 30,897); 961000834-0834 (U.S. Ex. 32,366) (U.S. Ex. 75,437) (Confidential); 968003578-3578 (U.S. Ex. 25,858); 01335792-5793 (U.S. Ex. 86,372); 01335777-5778 (U.S. Ex. 26,508); 01335791-5791 (U.S. Ex. 86,373); 01335779-5779 (U.S. Ex. 26,509); 01335794-5794 (U.S. Ex. 86,374); 01335789-5789 (U.S. Ex. 26,510); 01347161-7161 (U.S. Ex. 86,375); 503646200-6200 (U.S. Ex. 29,701); 01335767-5772 (U.S. Ex. 26,506); 01335774-5774 (U.S. Ex. 26,507); 01335761-5764 (U.S. Ex. 26,505); 980078407-8411 (U.S. Ex. 25,865); LWDOJ00089028-9031 (U.S. Ex. 25,952) (Confidential).

532. In 1990, Gary Huber was working on three projects for the industry coordinated through Shook, Hardy & Bacon: The Environmental Tobacco Smoke Project, The Chronic Obstructive Pulmonary Disease Project, and the Gallaher tobacco-asbestos case in Australia. 94349850-9856 (U.S. Ex. 32,293).

(c) UCLA

533. Defendants' institutional grant at UCLA was under the direction of Martin Cline. Funding began in 1974, and the participating companies were Defendants Philip Morris, R.J.

Reynolds, and Brown & Williamson, along with United States Tobacco and Tobacco Associates. Areas of study included proliferative capacity of smokers' and nonsmokers' pulmonary cells; functional response of pulmonary cells to various factors; cell culture systems and specific antigens; and immunotherapy and chemotherapy. ZN25950-5956 (U.S. Ex. 64,794); 01338643-8643 (U.S. Ex. 26,571); TIMN217740-7743 (U.S. Ex. 62,720); TIMN217738-7739 (U.S. Ex. 62,719).

(5) Special Projects at the Tobacco Institute

534. Defendants Philip Morris, R.J. Reynolds, Lorillard, Liggett, and Brown & Williamson also collectively conducted "Special Projects" through the Tobacco Institute. The term "Special Projects" appeared in Tobacco Institute documents as early as 1962; the "Special Projects" were budgeted through the Tobacco Institute's public relations firm, Hill & Knowlton. In 1962, Special Projects were related to the following topics: the British Royal College of Physicians report, the Surgeon General's decision to appoint a special committee, the CBS Reports program, and the development of advertising message proposals. TIMN0070640-0656 (U.S. Ex. 21,299); TIMN0070657-0674 (U.S. Ex. 22,983).

535. In 1963, Tobacco Institute Special Projects "stemmed from activities related to the Surgeon General's special Committee, the NBC proposed program, renewed efforts to develop special paid messages from the industry, and completion of a filmed interview with Doctors Little and Hockett." TIMN0070657-0674 at 0672 (U.S. Ex. 22,983).

536. Throughout the history of the Tobacco Institute, special consultants were consistently paid through Special Projects and Special Accounts. "[T]he most likely area of

requirements for 1964 [Tobacco Institute Special Projects] relates to the aftermath of the report of the Surgeon General's Committee and perhaps the 'Second Phase' study. . . . All staff, **as well as special consultants**" worked on Special Projects. TIMN0070657-0674 at 0672 (U.S. Ex. 22,983) (emphasis added).

537. According to a document dated January 10, 1968, the Tobacco Institute approved, as a Special Project, a pilot study by its public relations firm Tiderock to determine whether the United States Public Health Services smoking and disease survey was refutable. TIMN0016964-6982 at 6975 (U.S. Ex. 21,564).

538. On February 6, 1969, General Counsel of Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and Liggett gave approval, as a Tobacco Institute Special Project, for the running of a copy of a press release by Clarence Cook Little, CTR's Scientific Director, with a headline declaring "How Much is Known about Smoking and Health." The advertisement was run in major newspapers and medical journals across the country. The cost of the project was approximately $68,000 and had not been previously budgeted. Stanley Temko, an attorney with Covington & Burling, was asked about the procedure for billing. He advised that the proposed amendment to the budget could be subject to informal submission to the Executive Committee and that Earle Clements, President of the Tobacco Institute, wanted information prior to the General Counsel meeting on March 3, 1969. 1005153098-3099 (U.S. Ex. 20,227); TIMN253001-3001 (U.S. Ex. 21,348) (U.S. Ex. 62,727); TIMN0081698-1698 (U.S. Ex. 21,309); TIMN0000560-0561 (U.S. Ex. 21,874); TIMN0081695-1696 (U.S. Ex. 21,308).

539. Member companies of the Tobacco Institute also utilized the staff of the Tobacco

Institute for projects that would assist Defendants. In a February 9, 1979 letter from Arthur Stevens of Lorillard to Marvin Kastenbaum, Tobacco Institute Director of Statistics, Stevens enclosed a copy of a newspaper article announcing the results of a "smoking-death" survey. Stevens asked: "Please consider the attachment and let me know if you are in a position to undertake a statistical analysis of the stated conclusions." 70124411-4412 (U.S. Ex. 88,417).

E. Committees

(1) Research Review Committee, Research Liaison Committee, and Industry Research Committee

540. In February 1974, a consensus had developed among Enterprise members that an industry committee should be established to review Defendants' support of medical research and to make recommendations as to the future course Defendants' support should take. In fact, at a CTR meeting, Lorillard, through its President Curtis Judge, only agreed to participate in an increased budget for CTR on the condition that there be a review of industry research. 2015040837-0837 (U.S. Ex. 86,376); http://energycommerce.house.gov/tobacco/docs/bw/0012690847.tif. (U.S. Ex. 86,832); Third Amended Response of Defendant The Council For Tobacco Research - U.S.A., Inc. to Plaintiff's Second Set of Individual Interrogatories, United States v. Philip Morris, et al. (served March 29, 2004), at Interrogatory/Response No. 23 (U.S. Ex..86,773).

541. Judge suggested that the research review committee be composed of two members of the Tobacco Institute Executive Committee; two members of the Committee of Counsel; two company scientific directors; Horace Kornegay, Tobacco Institute President; William Kloepfer, Tobacco Institute Senior Vice President; William Gardner, CTR Scientific Director; Leonard

Zahn, CTR public relations advisor; and David Hardy, Shook, Hardy & Bacon attorney. William Smith, Chairman of R.J. Reynolds, suggested that there be only one representative from each Tobacco Institute member company on the committee. Internal Philip Morris correspondence drafted by Alex Holtzman of Philip Morris reported that Ross Millhiser of Philip Morris was considered for Chairman of the committee. One set of suggested guidelines for an Industry Committee for the Review of Industry's Overall Independent Scientific Research Effort was: (1) to reconsider the CTR research program, both SAB grants and special projects; (2) to reconsider non-CTR research projects undertaken by one or more individual tobacco companies; and (3) to consider the establishment of a means of coordinating the research undertaken in (1) and (2). 2015040937-0938 (U.S. Ex. 20,322); 2015040955-0955 (U.S. Ex. 20,323); TIOK0032723-2724 (U.S. Ex. 63,004); 2015057143-7144 (U.S. Ex. 87,693); 03659038-9039 (U.S. Ex. 29,304); 2015057137-7137 (U.S. Ex. 86,378); 2015057135-7136 (U.S. Ex. 86,379); 2015057134-7134 (U.S. Ex. 86,380); 2010070308-0308 (U.S. Ex. 86,381); 2010070309-0309 (U.S. Ex. 86,382); 2015057142-7142 (U.S. Ex. 86,383); 2015057145-7150 (U.S. Ex. 86,384); 680261981-1986 (U.S. Ex.86,385).

542. William Smith, Chairman of the Tobacco Institute's Executive Committee, wrote to Curtis Judge, President of Lorillard; Clifford Goldsmith, President of Philip Morris; Henry Roemer, General Counsel for R.J. Reynolds; Cyril Hetsko, Senior Vice President and General Counsel for American; I.W. Hughes, Vice President of Defendant Brown & Williamson; and William Bates of Liggett in April 1974, that agreement had been reached with each of the major manufacturers as to their representative on the "committee to study the research programs funded

by our industry, both through CTR and independent projects." Smith reported that David Hardy of Shook, Hardy & Bacon would chair the committee; Horace Kornegay and William Kloepfer would represent the Tobacco Institute; and William Gardner and Leonard Zahn would represent CTR. Smith stated that the members of the committee were charged with the responsibility for studying industry research programs and research projects funded outside of CTR, such as those at Harvard, Washington University, and UCLA, and reporting their recommendations to the chief executives of the six major cigarette companies - American, Brown & Williamson, Liggett, Lorillard, Philip Morris, and R.J. Reynolds. The first meeting of the Industry Research Committee was scheduled for May 7, 1974. CTRMN015328-5329 (U.S. Ex. 21,600) (U.S. Ex. 79,855); ZN22613-2614 (U.S. Ex. 64,796); 03659035-9036 (U.S. Ex. 29,303); 500799741-9742 (U.S. Ex. 86,386); LWODJ9055585-5585 (U.S. Ex. 26,006) (Confidential) (U.S. Ex. 26,019) (Confidential); LWODJ9055586-5587 (U.S. Ex. 26,007) (Confidential).

543. The first meeting of the Industry Review Committee was May 21, 1974 at CTR. At that meeting, Defendants agreed that only company representatives were to vote, while the remaining members were present as consultants to the company members. David Hardy of Shook, Hardy & Bacon was appointed chairman of the committee; William Shinn of Shook, Hardy & Bacon was appointed committee secretary. Shinn was to collect material related to all areas of smoking and health and to distribute it to other members of the committee for review. The committee met several times and, in its October 1974 report, the committee recommended that a Research Liaison Committee be appointed to serve indefinitely to achieve "a coordinated and informed overview of all industry research." LWODJ9055585-5585 (U.S. Ex. 26,006)

(Confidential) (U.S. Ex. 26,019) (Confidential); LWODJ9055586-5587 (U.S. Ex. 26,007) (Confidential); 2015057123-7123 (U.S. Ex. 86,387); http://energycommerce.house.gov/tobacco/docs/bw/0012690847.tif (U.S. Ex. 86,832); 03659013-9016 (U.S. Ex. 29,300); 680261978-1979 (U.S. Ex. 86,388); LWODJ9055779-5781 (U.S. Ex. 26,008) (Confidential); ZN22610-2611 (U.S. Ex. 86,389); 70124495-4496 (U.S. Ex. 31,537); LWODJ9055531-5532 (U.S. Ex. 26,009) (Confidential) (U.S. Ex. 26,017) (Confidential); LWODJ9055533-5534 (U.S. Ex. 86,390); 2015040862-0863 (U.S. Ex. 36,652); ZN22408-2408 (U.S. Ex. 86,391); ZN26111-6111 (U.S. Ex. 86,392); 70124370-4370 (U.S. Ex. 31,488); LWODJ9055564-5565 (U.S. Ex. 26,018); LWODJ9055551-5551 (U.S. Ex. 25,959) (Confidential); LWODJ9055771-5773 (U.S. Ex. 25,962) (Confidential); LWODJ9055531-5552 (U.S. Ex. 26,017) (Confidential); 2015040870-0870 (U.S. Ex. 86,393); 2015040889-0910 (U.S. Ex. 86,394); LWODJ9055508-5529 (U.S. Ex. 86,395) (Confidential); LWODJ9055506-5507 (U.S. Ex. 25,958) (Confidential); LWODJ9055552-5552 (U.S. Ex. 25,960) (Confidential); CTR98CONG01187-1189 (U.S. Ex. 21,137); BWX0002606-2608 (U.S. Ex. 36,164); 03540217-0225 (U.S. Ex. 22,294); LWODJ9055774-5775 (U.S. Ex. 25,963) (Confidential); LWODJ9055776-5778 (U.S. Ex. 86,396) (Confidential); 70050075-0079 (U.S. Ex. 86,397); 03540188-0192 (U.S. Ex. 86,398); LWODJ9055501-5505 (U.S. Ex. 25,957) (Confidential); 2015057127-7131 (U.S. Ex. 86,399); 03659013-9016 (U.S. Ex. 29,300); 70124459-4462 (U.S. Ex. 31,525); 70124462-4464 (U.S. Ex. 31,526).

544. The Research Liaison Committee was approved at a meeting of the Tobacco Institute on October 3, 1974, as a successor to the Research Review Committee which had been

established in April 1974. The aims and functions of Research Liaison Committee were to devise and implement fiscal and peer review for institutional grants, and to consider and make recommendations with respect to proposals for institutional and other research projects in light of total industry and other research effort. Members of the Research Liaison Committee were encouraged to attend CTR report meetings to keep informed of CTR plans and projects. LWODJ9055333-5333 (U.S. Ex. 25,954) (Confidential); LWODJ9055332-5332 (U.S. Ex. 25,953) (Confidential); 503672985-2985 (U.S. Ex. 29,715); http://energycommerce.house.gov/tobacco/docs/bw/0012690847.tif. (U.S. Ex. 86,832).

545. As an example of this review function, the Research Liaison Committee discussed an expanded version of the Colorado-Hawaii research proposal on Genetic and Environmental Bases of Tobacco-Related Behavior, a study designed to test, by elaborate epidemiological and experimental methods, the hypothesis that smoking behavior and increased susceptibility to certain chronic diseases were independently genetically determined; and decided to have Gardner, CTR's Scientific Director, and Sheldon Sommers, member of CTR's Scientific Advisory Board, make a site visit to this project. BWX0002609-2611 (U.S. Ex. 36,165); LG2023832-3834 (U.S. Ex. 34,105) (Confidential); http://energycommerce.house.gov/tobacco/docs/bw/0012690847.tif (U.S. Ex. 86,832); LWODJ9055329-5331 (U.S. Ex. 87,694).

546. In addition to those present at the first meeting, Robert Kersey, researcher at Liggett, and Alexander Holtzman, counsel for Philip Morris, were also members of the Research Liaison Committee as of May 15, 1975. Third Amended Response of Defendant The Council

For Tobacco Research - U.S.A., Inc. to Plaintiff's Second Set of Individual Interrogatories, United States v. Philip Morris, et al. (served March 29, 2004), at Interrogatory/Response No. 23 (U.S. Ex.86,773).

547. At the January 1975 meeting, the Research Liaison Committee decided that the expenses of considering the feasibility of research projects and proposals would be funded through the CTR Special Project fund and funded by those companies agreeing to the research study. The Committee also decided that participating companies would pay for the auditing expenses for the Harvard institutional project, the UCLA institutional project, and the Washington University institutional project. It further discussed problems created by Henry Meadows, attorney for Harvard Medical School, regarding funding obligations for the Harvard/Huber research project.
http://energycommerce.house.gov/tobacco/docs/bw/0012690847.tif (U.S. Ex. 86,832); BWX0002613-2614 (U.S. Ex. 36,166).

548. At its March 1975 meeting, the Research Liaison Committee discussed and then voted to offer Addison Yeaman a one-year position as CTR Chairman and Chief Executive Officer to replace Henry Ramm.
http://energycommerce.house.gov/tobacco/docs/bw/0012690847.tif (U.S. Ex. 86,832); 2015057125-7125 (U.S. Ex. 86,400).

549. At its May 1975 meeting, held jointly with the Committee of Counsel, the Research Liaison Committee listened to Gary Huber explain his problems with the Harvard research grant; voted to continue funding the Harvard project; voted to proceed with the

Colorado-Hawaii genetics study, but made no decision on what entity would fund it (i.e., whether it would be a SAB grant, CTR special project, or institutional project); and discussed nonsmoker exposure research and authorized Hughes to explore the topic further and suggest specific proposals. Prior to the meeting, a memorandum entitled "Environmental Tobacco Smoke – Nonsmoker Research" and a two-page document headed "Suggested Areas of Research" were distributed. The memorandum noted that, if the Research Liaison Committee agreed with company executives and attorneys about an organized approach to an industry research effort with respect to nonsmokers and ETS, then the Research Liaison Committee or some other group should be authorized to suggest priorities and initiate discussions with researchers to develop specific research proposals for consideration by the Research Liaison Committee for funding. http://energycommerce.house.gov/tobacco/docs/bw/0012690847.tif (U.S. Ex. 86,832); 955002251-2251 (U.S. Ex. 32,354); 01404441-4441 (U.S. Ex. 86,401).

550. At its July 1975 meeting, the Research Liaison Committee decided that CTR's expenditures for making site visits related to Research Liaison Committee work would be reimbursed by the participants in the respective projects; rejected the Colorado-Hawaii animal work on the genetics proposal after CTR's Gardner stated that the research could be criticized for its emphasis on nicotine; and, in response to Gardner's assertion that some of the proposed participants did not have the requisite scientific background, and asked Gardner to look into the subject matter and make recommendations for research projects. ZN33612-3648 (U.S. Ex. 86,402), 70124410-4414 (U.S. Ex. 31,512); 70124415-4415 (U.S. Ex. 31,513); 70124416-4416 (U.S. Ex. 31,514); 70124417-4449 (U.S. Ex. 31,516);

http://energycommerce.house.gov/tobacco/docs/bw/0012690847.tif (U.S. Ex. 86,832).

551. At the December 1975 meeting, the Research Liaison Committee discussed a proposal from the Stanford Research Institute for developing a machine to measure carbon monoxide in the work place and public places that would be used for legal and legislative purposes and decided that the Committee of Counsel would decide the manner of funding. It also decided to conduct a site visit to the Harvard University project in March 1976. It further decided that out-of-pocket expenses incurred by CTR staff, their consultants, and SAB members in the investigative phase of a proposed project being considered by Research Liaison Committee would be funded through Special Account No. 4. Moreover, it discussed the nonsmoker exposure proposal from Response Analysis Corp. of Princeton proposing a national survey comparing annoyance about smoking to other daily irritations and saw the survey as one that might develop information (persuasive in regulatory proceedings) that claimed annoyance about smoking is not real and is simply shared by a vocal minority "to develop an advocacy position for legal matters." It approved the survey proposal for $45,000 to be funded through Special Account No. 4. Finally, it discussed a book containing material on the psychological benefits of smoking and decided Shinn should follow up on the subject with the author, and discussed a proposed brochure on industry research efforts to be published by the Tobacco Institute. http://energycommerce.house.gov/tobacco/docs/bw/0012690847.tif (U.S. Ex. 86,832); 1003719192-9192 (U.S. Ex. 35,906); 03532075-2078 (U.S. Ex. 86,403); LG2011501-1503 (U.S. Ex. 86,404); 503673145-3146 (U.S. Ex. 86,405).

552. At the July 1976 meeting, the Research Liaison Committee discussed the FTC's

request for industry cooperation on measuring carbon monoxide - it was noted that William Steele of the Tobacco Institute Testing Laboratory had not taken any action and it was suggested that he not innovate or give guidance to the FTC. It discussed a report from an Australian scientist that an enzyme test had been shown to predict cancer. It discussed polonium-210 and radioactivity and the increasing evidence linking smoking and cancer of the pancreas. It discussed the status of industry environmental smoke projects and of behavioral research projects. It discussed extensions of the Harvard and Washington University projects and the proposal by CTR's Gardner to set up a psychopharmocology planning committee and plan for working conference for 1977 or 1978, which would involve all CTR grantees interested in either drug metabolism, location of nicotine action, effect of nicotine competitors or inhibitors, or psychologists' studies of pH effects. It tabled Gardner's proposal after heated debate between those attendees who believed Gardner's proposal should be "review[ed] by all the lawyers" with "[n]o records of such a review are to be kept" versus those attendees who believed Gardner and the scientists should be allowed to proceed with planning but take no action. Finally, it discussed how information related to smoking and health issues should be exchanged within the industry including through the Tobacco Institute; through Leonard Zahn, public relations consultant for CTR; and through the lawyers groups. 1003712684-2688 (U.S. Ex. 76,277); 1003719175-9179 (U.S. Ex. 86,406); http://energycommerce.house.gov/tobacco/docs/bw/0012690847.tif (U.S. Ex. 86,832); LG2023838-3841 (U.S. Ex. 86,407); PM010430-0437 (U.S. Ex. 86,408); 1003712682-2688 (U.S. Ex. 86,409); 01421571-1572 (U.S. Ex. 86,410); 1005056168-6172 (U.S. Ex. 35,955); BWX000 2579-2583 (U.S. Ex. 36,163); 1000255997-6001 (U.S. Ex. 20,086).

553. A report dated November 19, 1977, written by Janet Brown, attorney for American from Chadbourne & Parke, summarized the activity of the Research Liaison Committee from its inception as the Research Review Committee in April 1974 through 1977. Brown advised that American might wish to consider maintaining representation on the Research Liaison Committee after the departure of Cyril Hetsko, American's representative on the committee. BWX0007549-7588 (U.S. Ex. 20,286).

554. In 1978, the budget and direction of the CTR was again an area of concern to Defendants. It was proposed that a new committee would be convened again "to take up the general question of what kind of research the industry should be into through CTR or elsewhere." In correspondence to Thomas Ahrensfeld, Max Crohn, Joseph Greer, Arnold Henson, Ernest Pepples, and Arthur Stevens, William Shinn of Shook, Hardy & Bacon noted, "The Research Liaison Committee has not had a meeting since July 1976. I have had discussion with individual members of the committee about calling a meeting." The need for the committee was also articulated in a Lorillard document dated April 21, 1978, which stated: "We have again 'abdicated' the scientific research directional management of the Industry to the 'Lawyers' with virtually no involvement on the part of scientific or business management side of the business." Meetings were held by industry representatives and the group reported to the companies' General Counsel. The name of this new committee was the Industry Research Committee, which essentially performed the same functions as the prior Research Liaison Committee. 01346204-6205 (U.S. Ex. 34,532); 95539849-9850 (U.S. Ex. 56,829); TIOK0032721-2722 (U.S. Ex. 63,003); 03537201-7201 (U.S. Ex. 86,411); 680252124-2125 (U.S. Ex. 30,859); 03638976-8979

(U.S. Ex. 20,060) (U.S. Ex. 46,483); BWX0007531-7548 (U.S. Ex. 36,238).

555. An internal Brown & Williamson letter from Ernest Pepples, Vice President and General Counsel, to Joseph E. Edens, Charles I. McCarty, I.W. Hughes and DeBaun Bryant dated April 4, 1978, discussed the new committee. Pepples reported: "That Committee, as you know, has a number of disciplines and attitudes represented including research and development, public relations, legal and one EEO (Curt Judge). It is the proper place to take up the general question of what kind of research the industry should be into through CTR or elsewhere. It can also deal with the issue of contract research versus grant research." 680212421-2423 (U.S. Ex. 54,024); 682338651-8653 (U.S. Ex. 22,899).

556. A meeting of the Industry Research Committee was held on November 6, 1978. In attendance were: Ernest Pepples, Brown & Williamson; Charles Tucker, R.J. Reynolds; Arnold Henson, American; Janet Brown, attorney with Chadbourne & Park; James Bowling, Philip Morris; Edwin Jacob, attorney for CTR; and Donald Hoel, attorney with Shook, Hardy & Bacon. An even larger meeting was held on December 13, 1978, and meetings continued throughout 1979, 1980 and 1981 which were attended by Defendants' representatives and industry attorneys. With respect to the direction and role of CTR, "[i]t was agreed that the CTR role would be one of basic research into the disease areas that have been statistically associated with smoking. CTR would not, however, engage in research designed to test the effects of tobacco smoke or tobacco products in animal or human systems." It is clear that coordination of oversight and the direction of industry research was a constant and consistent concern for members of the Enterprise for decades. 01347203-7209 (U.S. Ex. 86,413); 2075318262-8268

(U.S. Ex. 43,667); 1000041870-1876 (U.S. Ex. 35,102); 03677101-7103 (U.S. Ex. 29,313); 2015015670-5675 (U.S. Ex. 36,619); 503673386-3387 (U.S. Ex. 29,718); 03754196-4198 (U.S. Ex. 29,342); 2015027357-7358 (U.S. Ex. 36,635); 521032356-2357 (U.S. Ex. 31,474); 01346193-6196 (U.S. Ex. 20,046); 01346881-6883 (U.S. Ex. 86,414); 11330072-0072 (U.S. Ex. 86,415); 03019566-9566 (U.S. Ex. 28,174); 01346186-6186 (U.S. Ex. 26,578); 01346656-6656 (U.S. Ex. 86,416); 80419203-9203 (U.S. Ex. 21,062).

(2) Industry Technical Committee

557. TIRC designated the research directors of its tobacco company members as the Industry Technical Committee in January 1954. The research directors on the first Industry Technical Committee were H.R. Hanmer of Defendant American; Irwin W. Tucker of Defendant Brown & Williamson; H.B. Parmele of Defendant Lorillard; Robert N. DuPuis of Defendant Philip Morris; Grant Clarke of Defendant R.J. Reynolds; Hugh Cullman of Benson & Hedges; Clinton Baber of Larus & Brother; C.S. Stephano of Stephano Brothers; and Ward B. Bennett of United States Tobacco. CTRMIN-ITC000003-0004 (U.S. Ex. 21,142); JH000395-0400 (U.S. Ex. 21,178); TLT0901400-1410 (U.S. Ex. 88,418); TLT0901057-1059 at 1059 (U.S. Ex. 88,419).

558. When TIRC was first created, the Industry Technical Committee assisted the TIRC Law Committee and the public relations firm of Hill & Knowlton in screening and selecting potential members for the TIRC Scientific Advisory Board and in retaining a Scientific Research Director for TIRC. 514804083-4086 (U.S. Ex. 20,859); CTRMIN-ITC000003-0004 (U.S. Ex. 21,142); CTRMIN-000005-0006 (U.S. Ex. 21,143); CTRMIN-ITC000007-0008 (U.S.

Ex. 21,144); TLT0903186-3188 (U.S. Ex. 88,420); TLT0903149-3150 (U.S. Ex. 88,421); TLT0903151-3152 (U.S. Ex. 88,422); TLT0903153-3156 (U.S. Ex. 88,423).

559. After the TIRC Scientific Advisory Board was in place, the Industry Technical Committee provided technical information to the SAB concerning tobacco, its constituents, and other matters. The chairman of the Industry Technical Committee was invited to sit in on all SAB meetings in order to make sure that the SAB and the Industry Technical Committee were coordinated. Members of the Industry Technical Committee attended SAB meetings and answered questions from the SAB. CTRMIN-SAB000001-1061 at 0002 (U.S. Ex. 21,146); HT0128002-8023 (U.S. Ex. 21,176); CTRMIN-ITC000009-0011 (U.S. Ex. 21,445); CTRMIN-ITC000012-0013 (U.S. Ex. 21,446); CTRMIN-ITC000014-0016 (U.S. Ex. 21,447); CTRMIN-ITC000017-0019 (U.S. Ex. 21,448); 500500370-0373 (U.S. Ex. 21,768); ATX30 0000015-0017 (U.S. Ex. 21,129).

560. On May 5, 1958, members of the Industry Technical Committee, including H.R. Hanmer of American; Robert DuPuis and O'Keefe of Philip Morris; Alan Rodgman of R.J. Reynolds; C.S. Stephano of Stephano Brothers; Ward Bennett of United States Tobacco; George Shelton of Larus & Brother; Robert Hockett and Tom Hoyt of TIRC; and Coulson of Imperial Tobacco, met with members of the United Kingdom's Tobacco Manufacturers Standing Committee, including H.R. (Herbert) Bentley of Imperial Tobacco; David Felton of BATCo; and W.W. Reid of Carreras. Hanmer had called the meeting "to learn what new information had been gleaned and what the present feeling of the party was in regard to animal testing of cigarette smoke fractions. It would also afford an opportunity for a general interchange of opinions on the

general question of health." 100175817-5820 (U.S. Ex. 76,152); 500500366-0369 (U.S. Ex. 86,417).

561. On September 25, 1967, a meeting was held at CTR with the following people present: Wilson Thomas ("Tom") Hoyt, Robert Hockett, John Kreisher, James M. Brady, Clarence C. Little, and Vincent Lisanti from CTR; Janet Brown from Chadbourne & Parke; William W. Bates from Liggett; Edward S. Harlow from American; Robert B. Griffith and Robert A. Sanford from Brown & Williamson; Arthur Burke from American; Murray Senkus and Ed Nielsen from R.J. Reynolds; Alexander Spears from Lorillard; Thomas Osdene from Philip Morris; and George Shelton from Larus & Brother. Osdene reported that "Dr. Hockett stated that CTR is moving into an era of active collaboration with the industry and they wish to make the technical committee more effective by including biologists. . . . Programs will be developed in which Hockett wishes to use the industry technical committee people to give advice which will go into the development of plans for submission to the SAB. C.C. Little would like to meet with this committee either before or after the SAB meeting. He feels that this would be an opportunity to build a creative future and that CTR would move with more speed." 682011463-1466 (U.S. Ex. 86,418); 1001609316-9320 (U.S. Ex. 86,419).

562. On December 8, 1967, a meeting was called to "organize the Industry Technical Committee." Present at the meeting were James Brady, Tom Hoyt, Robert Hockett, John Kreisher, Clarence Little, and Vincent Lisanti of CTR; Robert Griffith of Brown & Williamson; Murray Senkus of R.J. Reynolds; Clifford Jensen of Lorillard; William Bates of Liggett; Thomas Osdene of Philip Morris; Ed Harlow of American; Ward Bennett of United States Tobacco;

Coulson of Imperial Tobacco; Janet Brown of Chadbourne & Parke; and Forsyth of United States Tobacco. "It was stated that the Scientific Advisory Board and the C.T.R. staff [were] desirous of obtaining the regular and organized assistance of the industry technical group. Functions of the ITC [were]: 1. To bring its technical know-how to bear on problems in which it is desired. 2. To assist the staff. 3. Make suggestions. . . . While the makeup of the I.T.C. has usually consisted of the Research Directors of the various participating companies, it was recognized that any company could designate whomever it wished as I.T.C. member." The need for a representative cigarette sample which could be used as a standard in biological studies was discussed and a subcommittee was appointed to make recommendations. ATX300008549-8551 (U.S. Ex. 58,614).

563. In 1967, there was also some discussion about establishing a Scientific Task Force within the Tobacco Institute that would be comprised of the Defendants' scientific directors. William W. Bates of Lorillard sent a memorandum to Earle Clements, President of the Tobacco Institute, dated November 9, 1967, which opined that "the tobacco industry has a very serious problem in the current tobacco-health controversy and it is rapidly becoming worse." Bates determined that the program at CTR was faulty because it had "only a peripheral connection to tobacco use." Bates suggested that "a Scientific Task Force should be established in the Tobacco Institute. This Task Force should be composed of the Research Directors of the members of the Institute, with one of the group appointed chairman. This Task Force should attempt to establish liaison with all groups doing research on tobacco, with special attention being given to the Lung Cancer Task Force and other groups in PHS and USDA. The industry should demand a seat for

this Task Force on all committees and councils which plan and interpret research. Provisions for modest funds should be made so that certain worthwhile projects may be jointly supported." LG0208295-8299 (U.S. Ex. 21,193); LWDOJ8020110-0114 (U.S. Ex. 34,120) (Confidential); LWDOJ8020115-0115 (U.S. Ex. 34,121) (Confidential); LWDOJ8020101-0101 (U.S. Ex. 34,116) (Confidential); LWDOJ8020102-0102 (U.S. Ex. 34,117) (Confidential); LWDOJ8020103-0103 (U.S. Ex. 34,118) (Confidential); LWDOJ8020104-0104 (U.S. Ex. 34,119) (Confidential).

564. In a 1968 meeting of the General Counsel, the Defendants' influence – through the Industry Technical Committee – on CTR was discussed. A February 21, 1968 memorandum written by Cyril Hetsko of American reported that Janet Brown "questioned meetings of the Industry Technical Committee before SAB meeting as giving rise to inference of control of CTR Advisory Board" and that Brown advocated that "ITC [should be] only an informal advisory group on purely technical matters to the CTR staff 'when asked'. Any change in this policy raises problems of (1) company research in health (2) destruction of CTR independence." BWX0002763-2763 (U.S. Ex. 36,170).

565. At a February 14-16, 1968 meeting of the Defendants' Directors of Research, including William Bates, Liggett; Robert Griffith, Brown & Williamson; Ed Harlow, American; Murray Senkus, R.J. Reynolds; Alexander Spears, Lorillard; and Helmut Wakeham, Philip Morris, which was also attended by Allan Topol, an attorney from Covington & Burling, the research directors discussed smoking machines and acknowledged that the results from the machines currently in use such as "nicotine and solids determined by these means do not really

represent the amount of smoke and nicotine which are inhaled by a smoker." The directors also discussed areas for "mutual cooperation," including the possible recommendation of a cigarette research institute to be established by Defendants. 500500320-0323 (U.S. Ex. 20,633).

566. Another meeting of the company research directors was held on April 2, 1968. Items discussed included the Tobacco Institute Testing Laboratory; a report on the tar and nicotine content of fifty-nine varieties of cigarettes; an update on the development of a 'reference' cigarette; the Mason Laboratory Project by CTR; and a proposed joint study on pesticides and agricultural residues. 955009960-9963 (U.S. Ex. 32,361).

567. A meeting of the Industry Technical Committee was held on April 26, 1968, at the CTR office in New York and was called specifically by W.T. Hoyt of CTR on behalf of the CTR staff. Present at the meeting were: W.T. Hoyt, Robert Hockett, James M. Brady, Vincent Lisanti, and John Kreisher of CTR; Robert Griffith of Brown & Williamson; George Shelton of Larus & Brother; Alex Spears of Lorillard; Tom Osdene and Alex Holtzman of Philip Morris; Murray Senkus of R.J. Reynolds; Ward Bennett of United States Tobacco; Ed Harlow and Arthur Burke of American. The meeting was called "to hear presentations by the CTR-staff of the contract research program being proposed by Mason Research Institute," which was to involve large-scale, long-term mouse inhalation experiments. 955033996-4012 (U.S. Ex.). It was noted that "a) the contract status as proposed represents a significant change of 'tact'. b) the proposed program represents very considerable increase in costs and outlay. c) and therefore, this entire program may represent a significant 'departure from CTR plans and policy.'" 955033996-4012 (U.S. Ex. 32,363).

568. In describing the background for the Mason contract, Arthur W. Burke of American reported that the CTR staff had taken an interest in inhalation toxicology ten years prior. "About this time the CTR-staff began to visit the various grantees to learn what was forthcoming from their studies, and on a visit to the Leuchtenbergers' laboratory learned that evidence was accumulating that adenocarcinomas of mouse lung were occurring with smoke inhalations. . . . 'Since foes of Industry might snatch-up such preliminary findings and misuse the information, the CTR-staff entertained a limited project at Mason Research Institute, the purpose of which would be to set-up and compare the operation of several animal exposure-smoking machines in one place and at one time, using the same mouse strain, etc. – in short to study the smoking machines per se. This work was initiated at Mason about one year ago.' In the course of these machine evaluations, Mason noted some deficiencies in some of these machines, and the 'CTR recognized that they were piddling in some dangerous areas.'" 955033996-4012 (U.S. Ex. 32,363).

569. Burke further reported that: "Griffith asked, 'Why does the CTR-staff think we should consider this as a project, and is it important?' Dr. Hockett responded that Auerbach claims premalignant changes are associated with cigarette smoke in his smoking dogs experiments; therefore, 'we need to know to evaluate and or rebut this and, or other claims.' 'The CTR needs to be able to attribute any such observed changes to specific smoke constituents.'" 955033996-4012 (U.S. Ex. 32,363).

570. The Industry Technical Committee debated whether the proposed study at Mason Laboratories was justifiable to the tobacco companies. Lisanti stated that "'My philosophy is to

be there first before enemies - who won't want the details.' . . . Dr. Osdene asked, 'Why be first - for what purpose? – Propaganda - or to get the facts? Dr. Lisanti argues that this was a prime project - 'a special project – with top priority.' Hoyt corrected this statement. . . . 'This proposal is not a Special Project in our ordinary sense or usage of the word.'" 955033996-4012 (U.S. Ex. 32,363).

571. The Industry Technical Committee met again at the offices of CTR on October 25, 1968. Present at the meeting were: Robert B. Griffith of Brown & Williamson; Murray Senkus of R.J. Reynolds; Alex Spears of Lorillard; Helmut Wakeham of Philip Morris; George Shelton of Larus & Brother; Ward Bennet of United States Tobacco; Ed Harlow and Arthur Burke of American; Campbell of Imperial Tobacco (United Kingdom); W.T. Hoyt, Robert Hockett, and Vincent Lisanti of CTR; and Janet Brown of Chadbourne & Parke. Arthur Burke's report of this meeting discussed the development of a "reference" cigarette and noted that the University of Kentucky undertook this project "[w]ith technical assistance from the I.T.C." The report also disclosed that the "I.T.C. had expressed the opinion to [CTR's] SAB that the Mason [smoking] machine was inadequate." Consequently, the SAB requested that the Industry Technical Committee assist in developing a smoking machine and in developing procedures "for the determination of the extent of smoke exposure (e.g. to lung) of animals)." In addition, a discussion of the activities of the Tobacco Working Group (further discussion at U.S. FPFF § I.E(3), infra) ensued. 955036231-6240 (U.S. Ex. 32,364).

572. At the October 25, 1968 meeting, there was also a discussion of the relationship between the Industry Technical Committee and the CTR Scientific Advisory Board. "Hoyt

voiced the opinion that the SAB is considering 'more targeted research with closer CTR staff monitoring which would be in a) academia by grants, and b) other places by contract - where necessary'." 955036231-6240 (U.S. Ex. 32,364).

573. At the same meeting, Robert Griffith of Brown & Williamson was re-elected as Chairman of the Industry Technical Committee. Campbell of Imperial Tobacco (United Kingdom) noted that "'a very great change is taking place in the English setup', while the whole tobacco industry - as located in England, Germany, the U.S.A., and elsewhere - should come together more and more for exchange of information. In this connection, Campbell noted that 'Griffith is uniquely qualified'. Hoyt noted that the United States tobacco industry has difficult and different problems to face (than the others). Wakeham agreed and said - 'they should all join CORESTA.'" 955036231-6240 (U.S. Ex. 32,364).

574. In a 1970 report, the Defendants' research directors – Helmut Wakeham of Philip Morris; Preston Leake of American; Alexander Spears of Lorillard; Murray Senkus of R.J. Reynolds; William W. Bates of Liggett; and I.W. Hughes of Brown & Williamson – expressed their displeasure with CTR's research program, CTR's focus on studies of diseases that were associated with smoking, CTR's defensive posture, and CTR's lack of guidance for future strategy of the tobacco industry in the area of smoking and health. The report offered opinions as to how CTR might become more effective as an instrument for the good of the tobacco industry. 1002636362-6365 (U.S. Ex. 22,998).

575. In the 1960s, the Industry Technical Committee did assist the Tobacco Institute, and Industry Technical Committee members were encouraged to attend meetings at the Tobacco

Institute. TIOK0032725-2726 (U.S. Ex. 63,005); 1001880732-0733 (U.S. Ex. 86,421). An Industry Technical Committee meeting at the Tobacco Institute was called "to discuss the possible implications of a $50,000 grant from National Institutes of Health to the F.T.C. laboratory to develop a smoking machine capable of carbon monoxide analysis." Present at the meeting were Robert Kersey and James Mold of Liggett; Preston Leake of American; Murray Senkus of R.J. Reynolds; Alexander Spears of Lorillard; Helmut Wakeham of Philip Morris; C.J. Rosen and I.W. Hughes of Brown & Williamson; J.M. Weigsall of Covington & Burling; and Marvin Kastenbaum of the Tobacco Institute. There was much concern over the possibility that the FTC intended to publish brand carbon monoxide levels. The attendees suggested that Defendants be ready to demand public hearings on methodology and be prepared to "counteract the increasingly irrational public image being drawn by anti-smoking forces" on carbon monoxide hazard. TIMN0134876-4877 (U.S. Ex. 65,574); 950148089-8091 (U.S. Ex. 32,348); 950148092-8093 (U.S. Ex. 32,349).

576. I.W. Hughes, Brown & Williamson Senior Vice President of Manufacturing, Research, and Development, circulated the minutes of the October 17, 1975 Industry Technical Committee meeting to Robert L. Kersey; James Mold; Preston H. Leake; Murray Senkus; Alexander Spears; Helmut Wakeham; J.M. Weisgall; Marvin Kastenbaum; Horace Kornegay; and Allan J. Topol of Covington & Burling. Hughes stated that "I now propose to get the minutes before the lawyer group, and will use DeBaun Bryant of our Law Department to do this." 950148087-8088 (U.S. Ex. 32,347).

577. On May 14, 1976, there was another meeting of the Industry Technical Committee

at the Tobacco Institute regarding the Tobacco Institute Testing Laboratory. Present at the meeting were: I.W. Hughes and J.L. Knoop of Brown & Williamson; P.H. Leake of American; Allan J. Topol, Covington & Burling attorney; Robert L. Kersey of Liggett; Fred J. Schultz of Lorillard; Robert B. Seligman of Philip Morris; and Murray Senkus of R.J. Reynolds. The discussion included: "(1) gas chromatographic measurement of nicotine in cigarette smoke; (2) the possibility of using a second monitor and (3) carbon monoxide determination in cigarette smoke." ATX090001047-1048 (U.S. Ex. 32,504); 950148084-8085 (U.S. Ex. 32,345); 950148086-8086 (U.S. Ex. 32,346); 950148076-8078 (U.S. Ex. 32,341); 950148079-8079 (U.S. Ex. 32,343); 950148080-950148083 (U.S. Ex. 32,344); 680241903-1904 (U.S. Ex. 87,696).

578. On October 15, 1986, the Industry Technical Committee met at Knoxville, Tennessee, during the 40th Tobacco Chemists' Research Conference. Present at the meeting were Preston Leake and Everette Cogbill of American; Roy Hilliard of Liggett; Gil Esterle of Brown & Williamson; Leo Meyer of Philip Morris; Richard Manning of United States Tobacco; John Campbell of John S. Campbell Ltd.; Larry Lyerly of R.J. Reynolds; Fred Schultz of Lorillard; and John Rupp of Covington & Burling. The status and viability of the FTC laboratory was discussed and also the "further operation of the Tobacco Institute Testing Laboratory." Rupp advised that the Tobacco Institute "will seek the acceptance of TITL data for submission to the FTC (assuming discontinuance of the FTC lab)." 507079688-9689 (U.S. Ex. 29,831).

(3) Tobacco Working Group

(a) Defendants' Participation in the Tobacco Working Group

579. Although representatives from Defendants Philip Morris, R.J. Reynolds, Lorillard,

Brown & Williamson, and Liggett were members of the Tobacco Working Group ("TWG"), a federally appointed group within the National Cancer Institute, their participation was far from altruistic. Their participation allowed the industry to keep abreast of what the United States Government was doing with respect to smoking and health issues and provided a mechanism by which Defendants could try to influence the United States Government's activities in the smoking and health arena. Thus, far from being a "partnership," Defendants' participation was vital to their continued individual and collective livelihood and the Enterprise.

580. The National Cancer Institute ("NCI") Lung Cancer Task Force was appointed in July 1967, and the TWG, which initially was the Less Hazardous Cigarette Subcommittee of the Lung Cancer Task Force, was appointed in March 1968. The name changed from the Less Hazardous Cigarette Working Group to the TWG in order to facilitate Defendants' participation. 11300905-0905 (U.S. Ex. 87,697).

581. The TWG in various forms existed from 1968 through 1977, when it was dissolved – along with three other NCI advisory groups – as a cost cutting measure. 680142974-2974 (U.S. Ex. 22,254); 680142966-2966 (U.S. Ex. 30,817); 680142967-2967 (U.S. Ex. 54,018); "Diet & Nutrition, Carcinogenesis, Virus, Tobacco Committees Proposed for Elimination," *The Cancer Letter*, Vol. 3, No. 18, May 6, 1977, pp. 1-2 (U.S. Ex. 86,842). Funding for TWG projects, however, continued until 1980. "Smoking Program May Have Succeeded, Rauscher Says, Looking At Its Budget," *The Cancer Letter*, Vol. 2, No. 30, July 23, 1976, pp. 4-5 (U.S. Ex. 86,843).

582. The TWG and its Defendant participants were not actually conducting the work of

researching and testing potentially less hazardous cigarette products. Rather, the TWG functioned solely as an advisory group to the NCI's Smoking and Health Program staff and its director who, for most of the duration of the TWG, was Gio B. Gori. The TWG met quarterly, and its members served on subcommittees, advising Gori and his staff as to "overall program approaches and priorities; interpretation and publication of . . . data . . . ; experimental methods and design; and design of less hazardous cigarette models and definition of other experimental approaches, devices or processes." 87754028-4373 (U.S. Ex. 22,259).

583. Initial Defendant membership included Murray Senkus, Director of Research for R.J. Reynolds; Alexander Spears, Director of R&D for Lorillard; and Helmut Wakeham, Vice President of Corporate Research & Development for Philip Morris. Charles Kensler was also an initial member; Kensler, who worked for Arthur D. Little, Inc., had strong ties to and performed research for Liggett. By 1969, William Bates of Liggett attended TWG meetings, and, by 1974, Bates had accepted membership on the TWG. John Bugard of Brown & Williamson, and Ed Harlow of American, were invited to attend the October 16, 1969 special TWG meeting and, by 1971, I.W. Hughes of Brown & Williamson had accepted membership on the TWG. HHA6060033-0036 (U.S. Ex. 86,422); 501555964-5966 (U.S. Ex. 22,284); LDOJ3002797-2803 (U.S. Ex. 86,423); LG0267405-7405 (U.S. Ex. 59,094); 680231778-1778 (U.S. Ex. 86,424).

584. An undated Brown & Williamson document ,discussing United States Department of Health, Education and Welfare activity in the 1960s, clearly articulated the reasons for Defendants' participation on the TWG:

> Of these four actions [taken by the United States Department of Health, Education and Welfare with respect to smoking and health

> issues], the first three [developing epidemiological evidence linking smoking and certain diseases; launching a program to alert the public about the dangers of smoking; and pushing for legislation which would reduce cigarette consumption] have been of such immediate concern that they have received most of the attention of the tobacco industry. **However, the later [initiating a research program designed to produce a "less hazardous cigarette"] is probably as important, or perhaps more important for the long-term future of the industry**. Although work in this area is in its initial stages, the direction of this work seems clearly indicated and should be evaluated.
> . . .
> One can logically expect that any reluctance on the part of industry to voluntarily produce commercial cigarettes on the basis of positive results from this program would result in legislation to force adoption. In all probability, little attention is likely to be given to the commercial acceptability of the [unreadable] from this program.
> . . .
> **Since industry has representatives on this committee, it should be possible to remain completely aware of all actions taken and to have at least some influence on these actions**. If one assumes complete and frank interchange of information arising from within this committee among all companies, the companies should then operate from a common base.

HHS1330992-0998 (U.S. Ex. 76,082) (emphasis added).

585. Defendants' conduct in connection with the TWG demonstrates the extraordinary extent to which Defendants coordinated their actions in the area of smoking and health, and in particular, coordinated their approach to the issue of less hazardous cigarette design, development, and marketing. Defendants' approach to the TWG and all Defendants' related activities were jointly formulated and closely monitored by committees of industry lawyers and executives to ensure that such "participation" in the TWG did not threaten – and indeed served – Defendants' common purposes. Defendants' representatives to the TWG regularly reported to

their counsel, who kept company executives, CTR, the Tobacco Institute, and one another abreast of TWG activities. 501556259-6263 (U.S. Ex. 22,283); 501555964-5966 (U.S. Ex.22,284); 500502060-2063 (U.S. Ex.22,286); 501990370-0374 (U.S. Ex.22,287); 1005070117-0121 (U.S. Ex. 22,288); 1005070122-0122 (U.S. Ex. 22,903); 680142648-2648 (U.S. Ex. 22,374); 2015040862-0863 (U.S. Ex. 36,652); LG0208389-8389 (U.S. Ex. 59,040); 680143084-3084 (U.S. Ex. 22,293); 03540217-0225 (U.S. Ex.22,294); BWX0003934-3938 (U.S. Ex. 86,425); 03753993-3994 (U.S. Ex. 22,295); 03646227-6228 (U.S. Ex. 22,296).

586. Murray Senkus, R.J. Reynolds's longtime representative to the TWG, admitted that Defendants' attorneys encouraged Defendants' participation in the TWG; he recalled that Defendant lawyers conceived of the project because it would enhance their public image and "might be useful in anticipated litigation." 515872408-2456 at 2416-2417 (U.S. Ex. 22,261).

587. A March 9, 1972 document drafted by Alexander W. Spears of Lorillard recognized: "If I were to withdraw [from the TWG], Lorillard would lose considerable insight into the workings of the National Cancer Institute program with respect to cigarettes. There is a very real possibility that this program is going to have a profound effect on the cigarette industry, and I believe that we should be aware of these effects as soon as they become clear. **We also have some significant influence on the course of the detailed activities and, therefore, some effect on ultimate results.**" 01240178-0178 (U.S. Ex. 22,282) (emphasis added).

588. Defendants' employees who "participated" in the TWG repeatedly: (1) informed the TWG that their participation was in their individual capacities, not as representatives of a tobacco company; and (2) disclaimed that such participation represented acceptance that any

cigarettes were unsafe. In fact, letters echoing this view – some of which are nearly verbatim – were drafted by Defendants' lawyers after their discussion with Defendants' executives, and were sent according to the timing decided upon by the Defendants' Committee of Counsel. For example:

- On March 27, 1968, R.J. Reynolds's Murray Senkus stated in his acceptance letter that, by agreeing to serve on the TWG, "I am in no manner accepting the view (1) that present cigarettes are hazardous or (2) that the smoke of such cigarettes causes or contributes to the development of human lung cancer." 501990061-0062 (U.S. Ex. 88,489); 500502337-2338 (U.S. Ex. 67,920) (draft of Senkus letter prepared by R.J. Reynolds's counsel Henry H. Ramm).

- On March 28, 1968, Lorillard's Director of Research and Development, Alexander Spears, wrote in his acceptance letter to TWG Director Endicott that he agreed to serve as a scientific advisor to the group in his "individual capacity, and not as a representative either of my company or of the tobacco industry and, accordingly, it should not be stated or implied that the tobacco industry or my company is represented." 03645686-5686 (U.S. Ex. 22,263).

- On March 28, 1968, Philip Morris's Helmut Wakeham agreed to serve on the TWG, writing: "as a scientific advisor to the group, I understand that I will be serving in my individual capacity and not as a representative either of my company or of the tobacco industry and, accordingly, it will not be stated or implied that the tobacco industry or my company is represented." Wakeham also stressed that his participation did not imply "acceptance by any of us [Wakeham himself, his company, or his industry] of the premise that cigarettes presently manufactured are hazardous or that there is a scientifically demonstrated causal relationship between cigarette smoking and human disease." 1003729890-9890 (U.S. Ex. 69,276).

589. Four years later, at a March 10, 1972 meeting of Defendants' counsel and scientific directors at the Tobacco Institute, the attendees formulated a course of action to respond to congressional testimony by the head of the TWG who had testified that the recommended animal inhalation tests the TWG was considering represented the joint understanding of United States Government and tobacco industry scientists as the best way to

proceed. Defendants' lawyers discussed the need to "correct that impression . . . for the purpose of . . . litigation" that the scientific directors concurred in the type of animal tests which were being sponsored by the TWG: "After discussion it was agreed that the three original members of the Working Group (Wakeham [of Philip Morris], Senkus [of R.J. Reynolds], and Spears [of Lorillard]) would write separate letters to [Director] Gori correcting his statement. [Outside industry counsel David] Hardy was requested by [B&W general counsel and later CTR president Addison] Yeaman to draft the substance of such a letter." 1005055229-5230 (U.S. Ex. 26,186).

590. That very day, attorney David Hardy of Shook, Hardy & Bacon wrote to Tobacco Institute Executive Committee member Thomas Ahrensfeld and lawyers for Defendant Cigarette Companies, enclosing "a draft of the type of letter that should go to Dr. Gori from Doctors Helmut Wakeham, Murray Senkus and Alexander Spears, the three initial members of the Tobacco Working Group. . . . The enclosed draft is not being sent directly to the research directors because I thought that in each instance counsel would want to take it up with their own director." 03645691-5692 (U.S. Ex. 22,265).

591. The scientific directors dutifully sent to Gori the letters drafted for them by Hardy:

- On March 29, 1972, Senkus reiterated his 1968 position upon accepting the invitation to participate on the TWG: "I am in no manner accepting the view (1) that present cigarettes are hazardous or (2) that the smoke of such cigarettes causes or contributes to the development of human lung cancer." 501990268-0269 (U.S. Ex. 22,266).

- On March 28, 1972, Brown & Williamson's representative on the TWG, I.W. Hughes, wrote to Gori also using disclaimer language taken verbatim from Wakeham's 1968 letter:

  Although I am Research and Development Director for Brown & Williamson Tobacco Corporation, I am not purporting to serve on the Tobacco Working

> Group as an official representative of my company or of the tobacco industry. Further, my participation is not to be construed as concurring with **the premise that cigarettes presently manufactured are hazardous or that there is any scientifically demonstrated causal relationship between cigarette smoking and human disease**. 680231759-1760 at 1759 (U.S. Ex. 22,269) (emphasis added).

- On May 26, 1972, Spears also repeated the position in language nearly identical to Wakeham's 1968 letter:

> I am sure it has been understood and should be understood in the future that I am not serving on the Tobacco Working Group as an official representative or spokesman for my company or the tobacco industry. I do not agree with the premise that cigarettes as presently manufactured are hazardous, or that a causal relationship between smoking and human disease has been established. 03645684-5685 (U.S. Ex. 26,069).

592. Similarly, at the Committee of Counsel meeting held at the Tobacco Institute on March 14, 1973, Defendants' lawyers and research directors discussed Defendants' participation in the TWG. The minutes reflect that during the afternoon session of the meeting, they

> consider[ed] an appropriate response to the letter dated March 9, 1973, from Dr. Gori to the Research Directors in their capacity as members of the Tobacco Working Group. . . . After careful consideration of the views of the members of the Tobacco Institute staff with regard to the public relations and political effects of the public withdrawal from the TWG, it was concluded that the research directors cannot withdraw. We should take steps to give the industry as much protection as is possible and at the same time remain in the Tobacco Working Group.

680143026-3027 (U.S. Ex. 22,902). The Committee adopted a three-point proposal whereby Defendants' scientific directors would decline to concur with or comment on Gori's recommendations. 680143026-3027 (U.S. Ex. 22,902).

593. Defendants' research directors subsequently mailed new reservation and disclaimer letters prepared or outlined by counsel. On May 14, 1973, Liggett's counsel Joseph

Greer wrote to his colleague Frederick Haas advising that Jack Roemer, Chairman of the Committee of Counsel, scheduled a CTR meeting for May 15, 1973, to discuss whether the scientific directors should send a disclaimer letter to Gori concerning their participation on the TWG and whether CTR should participate in the TWG. LG2000466-0467 (U.S. Ex. 22,270). Philip Morris's scientific representative Hugh Wakeham wrote to Associate General Counsel Alex Holtzman recalling that it had been decided at the CTR meeting on May 15th that the research directors should write another letter to NCI and that, "[a]s I recall it, you were going to prepare such a letter from me." 1004863309-3309 (U.S. Ex. 22,271). Senkus subsequently wrote to Gori stating that "my role in the TWG is that of a scientific advisor. . . this role is confined to areas of chemical, analytical, physical and manufacturing problems related to cigarette smoke, tobacco composition, and physical and manufacturing characteristics of cigarettes." Senkus then informed his supervisor, William D. Hobbs, that "the other Research Directors will respond in the same vein." 501990170-0171 (U.S. Ex. 22,264); 500081721-1721 (U.S. Ex. 22,274); 501555598-5598 (U.S. Ex. 22,273).

594. When Liggett Research Department Director William Bates accepted formal membership on the TWG, he too carefully prefaced his acceptance with similar disclaimer language. Bates' July 12, 1974 letter to James Peters of NCI stated:

> As a scientist who is extremely interested in ascertaining the facts about the areas of work with which the Tobacco Working Group is concerned, I am pleased to accept the invitation in your letter referred to above. Needless to say, however, you should understand that my services on the Group will be totally in my capacity as an individual and not as an employee or representative of Liggett and Myers Incorporated.

LG0267405-7405 (U.S. Ex. 59,094).

(b) Defendants Received Access to Information Through the Tobacco Working Group

595. Information gathering was a critical aspect of Defendants' involvement with the TWG. Defendants' scientific representatives on the TWG reported directly to their respective company counsel. For instance, over a number of years, R.J. Reynolds's Murray Senkus sent regular "Confidential – For Legal Counsel" summaries of TWG activity to R.J. Reynolds counsel Henry Ramm. E.g., 501556259-6263 (U.S. Ex. 22,283); 501555964-5966 (U.S. Ex. 22,284); 500502060-2063 (U.S. Ex. 22,286); 501990370-0374 (U.S. Ex. 22,287). Philip Morris's Osdene and Wakeham did the same for their counsel, Alex Holtzman. 1005070117-0121 (U.S. Ex. 22,288); 1005070122-0122 (U.S. Ex. 22,903).

596. The Tobacco Institute was kept informed of the activities of the TWG. On February 22, 1973, Alexander Holtzman, counsel for Philip Morris, wrote to Horace Kornegay, President of the Tobacco Institute, advising that Philip Morris scientist Wakeham had been invited to a meeting of two subcommittees of the TWG on March 8, 1973. Holtzman also advised that the letter of invitation had advised that Gori would "set forth his ideas for future projects of the Tobacco Working Group and present a proposed budget for those budgets" at a meeting on March 25, 1973. 680142648-2648 (U.S. Ex. 22,374). Holtzman stated: "Perhaps Dr. Wakeham and others who may attend the meetings on March 8 will get some additional information about Gori's plans at that time." 680142648-2648 (U.S. Ex. 22,374). Representatives of the Tobacco Institute also met directly with Gori in 1973. 690020214-0255 (U.S. Ex. 31,061).

597. Like the Tobacco Institute, CTR similarly was informed about TWG activities. On May 31, 1974, Defendants' outside counsel, David Hardy of Shook, Hardy & Bacon, wrote to members of the CTR Research Review Committee and the Industry Research Committee advising that summaries were "to be prepared with, if applicable to the topic, an emphasis on objectives (or relevancy), cost, source of funds, and supervisory information" on the TWG. William Bates, Liggett's TWG representative, was assigned responsibility for the TWG summaries. 2015040862-0863 (U.S. Ex. 36,652). Bates provided the requested material for the CTR Research Review Committee and Industry Research Committee related to the TWG to David Hardy by letter dated July 30, 1974. Among the material Bates included was "a draft copy of the annual report for the Tobacco Working Group," which he indicated "should be used only for information purposes for members of the committee" because of the draft nature of the report. LG0208389-8389 (U.S. Ex. 59,040); 680143084-3084 (U.S. Ex. 22,293). The draft annual report of the TWG was discussed at a subsequent research committee meeting at which there was a question by one of the participants asking, "Do we **disassociate** ourselves with this document? If so, should we reaffirm this or is this necessary? . . . Co's R&R Directors can submit written reservations?" 03540217-0225 (U.S. Ex. 22,294) (emphasis added). That same participant attributed a comment by Brown & Williamson's Wally Hughes that the "'Experimental Cigarette Report' to be presented at [the] Sept[ember] TWG [meeting is] going to be **much** more dangerous." 03540217-0225 at 0218 (U.S. Ex. 22,294) (emphasis added).

598. A letter dated August 30, 1974 letter from David Hardy to DeBaun Bryant, Vice President and General Counsel of Brown & Williamson, enclosed a copy of the draft TWG

annual report, and stated: "As I indicated on the telephone, no one on the Industry Research Committee had ever seen it except the company research directors . . . . I was under the impression that you and I were both receiving all of the Tobacco Working Group material." 680143084-3084 (U.S. Ex. 22,293). As a result, CTR was able to regularly monitor and discuss TWG activity.

599. Lorillard counsel Arthur Stevens similarly kept Defendants' outside counsel, William Shinn of Shook, Hardy & Bacon, informed about TWG activity. In an April 23, 1975 letter, Shinn thanked Stevens for material Stevens sent him on the TWG: "The status report on the smoking and health program and policies and procedures manual were most welcome. I have been trying to keep abreast of the Tobacco Working Group projects and found the material very helpful." 03753993-3994 (U.S. Ex. 22,295). In a March 25, 1977 letter, Shinn noted further, "I think you sent [these documents] to me in the first place" and that "I do . . . try to review the TWG material and very much appreciate receiving any relevant material available. It would probably be useful to have a list of the meetings held over the past year so that we can determine whether or not we have received reports on all of them." 03646227-6228 at 6227 (U.S. Ex. 22,296).

(c) Defendants' Interference With the Work of the Tobacco Working Group

600. Defendants' approach to the TWG was based primarily on legal, not scientific, considerations. Thus, the actions – even of a scientific nature – of Defendants' scientific representatives on the TWG were proposed, discussed, and decided upon at meetings of the Committee of Counsel, often with the scientific representatives present. As documented below,

the Enterprise engaged in a concerted effort to prevent, curtail, and ultimately to neutralize the TWG's efforts to evaluate cigarettes' effects using an animal inhalation bioassay.

601. Defendants were quite alarmed when it was reported in a 1970 news conference in New York City that animal inhalation experiments conducted by Oscar Auerbach and E. Cuyler Hammond produced lung cancer in the animals. A February 5, 1970 memorandum from R.N. Seleeby of Philip Morris to J.T. Lauduy of Philip Morris advised that: "This [Auerbach] report describes the study in which Beagle dogs smoked cigarettes for up to 2.3 years through a throat opening to their windpipes. The important finding is that two of the eighty-six dogs which started the test developed 'early squamous cell bronchial carcinoma', i.e., the most common lung cancer occurring in man. This is the first time that cigarette smoke as a direct agent has produced lung cancer in an animal in any reliably conducted experiment." Philip Morris gathered as much information about the Auerbach study as possible. 1000298389-8392 (U.S. Ex. 26,082); 1005086254-6254 (U.S. Ex. 86,426); 1002906624-6625 (U.S. Ex. 86,427).

602. The Tobacco Institute immediately responded to the 1970 news conference. A February 5, 1970 Tobacco Institute Informational Memorandum drafted by Fred Panzer of the Tobacco Institute distributed to the "TI Mailing List" reported the Tobacco Institute's response:

> We are naturally interested in the reported results of Dr. Auerbach's experiment in which he used dogs forced to "smoke" through holes cut in their throats.
>
> It is impossible, however, to draw a meaningful parallel between human smoking and dogs subjected to these most stressful laboratory conditions.
>
> We will review all data which can be obtained about this experiment, in keeping with our policy to explore every avenue

> which may be significant in terms of smoking and health.
>
> There is a wide agreement reported to us from the scientific community, including government research agencies, that there is no satisfactory animal model for smoking experiments, and further agreement that the development of such a model is a basic research need.
>
> We hope this current report will not serve to discourage work now in progress to develop animal smoking systems which might approximate human smoking.

500006051-6051 (U.S. Ex. 86,428).

603. In a February 6, 1970 memorandum to William Kloepfer, Vice President of the Tobacco Institute, Fred Panzer recounted a conversation between Robert Hockett, Associate Scientific Director of CTR, and Lee Steglmeyer of the *Tobacco Reporter*. According to Steglmeyer, Hockett believed "that the tissue produced from the [Auerbach-Hammond] experiment was actually cancerous[.]" TIMN0109576-9576 (U.S. Ex. 87,644).

604. Brown & Williamson's I.W. Hughes admitted in notes dated February 11, 1970, that "[a]lthough open to criticism on several counts, the general standard of the paper is good. I am of the view that this shows it is now possible to produce tumors in the respiratory system of an animal by direct inhalation." Hughes suggested that "it would seem pertinent for a pathologist from C.T.R. (Dr. Sommers) to visit Auerbach for discussion of the paper and the pathology." 690004474-4476 (U.S. Ex. 54,319); TIOK0034461-4462 (U.S. Ex. 86,429). J.K. Kennedy of Brown & Williamson also acknowledged in internal correspondence dated February 12, 1970, that "[t]here appears to be no question that Auerbach has indeed produced an effect identical to emphysema in his studies." 680265055-5056 (U.S. Ex. 86,430).

605. Others in the tobacco industry also acknowledged the importance and significance of Auerbach's study. A Gallahers' (United Kingdom tobacco manufacturer) report, which was circulated among Defendants, dated April 3, 1970, stated that "we believe that the Auerbach work proves beyond reasonable doubt that fresh whole cigarette smoke is carcinogenic to dog lungs and therefore it is highly likely that it is carcinogenic to human lungs." The report further noted that "perseverance with rodent inhalation is vital to the industry since this would provide us with a relatively economic and effective way of testing our product modifications." The report concluded: "Apart from Auerbach's work, Dontenmill's work and the preliminary results from Harrogate [a biological research facility opened by Britain's Tobacco Manufacturers' Standing Committee in September 1962] all point to the fact that under suitable conditions fresh whole smoke inhalation in animals will produce pre-cancerous changes and, in certain, instances, true cancers which are similar to those found in human smokers. It therefore seems to us that it is more than coincidence that experimental evidence is building up in this direction from several independent research organizations, each of which is of a very high caliber." 321993992-3995 (U.S. Ex. 21,688).

606. The Tobacco Institute carefully researched Auerbach and his past research projects and shared information gleaned with its member companies on behalf of the Enterprise. 2015047506-7506 (U.S. Ex. 86,431); 508775596-5596 (U.S. Ex. 86,432); 500006028-6028 (U.S. Ex. 86,433); 1005086194-6194 (U.S. Ex. 86,434); 1005086196-6196 (U.S. Ex. 86,435); 1005086198-6198 (U.S. Ex. 86,436); 03758481-8482 (U.S. Ex. 86,437); 1005086201-6201 (U.S. Ex. 86,438); 2024991017-1017 (U.S. Ex. 86,439); TIMN221636-1636 (U.S. Ex. 86,440).

Individual companies continued to carefully monitor the Auerbach study and related material as well. 1005086197-6197 (U.S. Ex. 86,441); 2015046703-6703 (U.S. Ex. 86,442); 1002616118-6118 (U.S. Ex. 86,443); 2016001661-1661 (U.S. Ex. 86,444) (Philip Morris); ATC2773324-3329 (U.S. Ex. 86,445); BWX0011936-1936 (U.S. Ex. 86,446) (American); 91017161-7161 (U.S. Ex. 86,447) (Lorillard); LATH00215897-5897 (U.S. Ex. 86,448) (Liggett); 504344618-4623 (U.S. Ex. 86,449) (R.J. Reynolds).

607. Despite the findings of Defendants' scientists, which affirmed the significance of the Auerbach study, the Tobacco Institute publically questioned the results on behalf of the Enterprise. A 1970 Tobacco Institute press release stated, "We have good reason to question whether lung cancer experts in this review group were able to confirm any finding of lung cancer[.]" TIMN0109556-9560 (U.S. Ex. 87,698).

608. Defendants also sent a letter dated February 27, 1970 to the American Cancer Society requesting that the industry be allowed access to relevant materials and data related to Auerbach's study so that industry scientists could study the material. Joseph F. Cullman, III, sent the letter on Philip Morris letterhead and signed it as Chairman of the Executive Committee of the Tobacco Institute; Joseph F. Cullman, III was also Chairman of the Board of Philip Morris. LATH00215951-5951 (U.S. Ex. 86,450); LATH00215952-5952 (U.S. Ex. 86,451).

609. Cullman wrote a follow-up letter dated March 20, 1970, also on Philip Morris letterhead and signed as the Chairman of the Executive Committee of the Tobacco Institute. In this letter, Cullman repeated his request for access to the underlying data and material. Cullman threatened: "If the Cancer Society does not accede to my request, we plan to use every means at

our disposal to see to it that the medical and lay public are made aware of our respective positions in this matter." LATH00215953-5953 (U.S. Ex. 86,452); LATH00215954-5954 (U.S. Ex. 86,453).

610. Cullman repeated his threats in another letter dated April 29, 1970, also on Philip Morris letterhead. LATH00215955-5955 (U.S. Ex. 86,454); 500004588-4594 (U.S. Ex. 86,455); 502136771-6771 (U.S. Ex. 86,456). In a statement before the Overseas Press Club on April 30, 1970, Cullman reported on his interactions with the American Cancer Society and issued a press release stating that "The Tobacco Institute believes the American public is entitled to complete, authenticated information about cigarette smoking and health. The American Cancer Society does not seem to agree." 500006056-6065 (U.S. Ex. 47,760); TIMN0081949-1949 (U.S. Ex. 21,686).

611. Defendants also tried to persuade the American Medical Association to provide information related to the Auerbach/Hammond study. 508775475-5476 (U.S. Ex. 86,457); TIMN0001072-1077 (U.S. Ex. 86,458).

612. The Tobacco Institute mailed letters to all United States physicians discrediting the research by Auerbach and Hammond. In a June 19, 1970 memorandum to industry executives, counsel, and scientists, William Kloepfer, Vice President of the Tobacco Institute described the mailing and commented that "we had done the mailing to physicians because most major medical periodicals had refused the advertisement which we had offered to them on this subject." HK0431550-1550 (U.S. Ex. 87,699); TIOK003449-3449 (U.S. Ex. 87,700).

613. Auerbach invited industry pathologists – including CTR Research Director

Sheldon Sommers – to come to his lab and review his work. 01246488-6489 at 6489 (U.S. Ex. 22,299). Indeed, Sommers had prepared an analysis of some of Auerbach's articles for David Hardy of Shook, Hardy & Bacon. 1005086446-6448 (U.S. Ex. 86,466); 10072395-2396 (U.S. Ex. 26,211); HK0429004-9005 (U.S. Ex. 26,211).

614. Philip Morris did send one of its scientists to Auerbach's laboratory. Raymond Fagan of Philip Morris visited Auerbach's laboratory in February 1970. Fagan's February 25, 1970 notes to Helmut Wakeham of Philip Morris stated: "As a farewell remark, Dr. Auerbach wanted to know that he welcomes any bona fide scientist who wants to visit his laboratory to see what he is doing and how he is doing it. He says he has nothing to hide." Fagan continued to monitor the Auerbach matter for Philip Morris. 1000298368-8369 (U.S. Ex. 86,459); 1000837394-7394 (U.S. Ex. 86,460); 1000298293-8294 (U.S. Ex. 86,461).

615. On November 3, 1970, a meeting was held at the offices of CTR "to discuss results of experiments with smoking dogs conducted by Dr. Oscar Auerbach." Present at the meeting were: Charles Kensler, member of the Tobacco Working Group; Alex Spears, Lorillard and member of the Tobacco Working Group; Helmut Wakeham, Philip Morris and member of the Tobacco Working Group; Murray Senkus, R.J. Reynolds and member of the Tobacco Working Group; Raymond Fagan, Philip Morris; Alex Holtzman and Mr. Hall, Philip Morris Legal Department; William Shinn, Shook, Hardy & Bacon; John Kreisher, CTR; Vincent Lisanti, CTR; Robert Hockett, CTR; W.T. Hoyt, CTR; and Sheldon Sommers, CTR. The medical attendees discussed points to be raised with Auerbach after his presentation at NCI on November 9, 1970. CTRMN043277-3279 (U.S. Ex. 86,462); 501990368-0369 (U.S. Ex. 64,004).

616. Auerbach gave a presentation of his work at the November 9-10, 1970 meeting of the Tobacco Working Group. 501990296-0306 at 0299-0301 (U.S. Ex. 29,546); 01412382-2389 (U.S. Ex. 22,298); 01246488-6489 (U.S. Ex. 22,299); 110317791-7793 (U.S. Ex. 86,463). A November 13, 1970 memorandum from R.J. Reynolds's Murray Senkus to E.A. Vassallo reported the TWG minutes of this presentation. 501990296-0306 (U.S. Ex. 29,546). Senkus acknowledged that the "slides [Dr. Auerbach] now has in hand are of excellent quality." 501990296-0306 at 0300 (U.S. Ex. 29,546). In a separate memorandum, Alexander Spears remarked to Lorillard's Curtis Judge and Arthur Stevens on Auerbach's presentation: "To the writer, the slides represented obvious lung pathology with increased cellular proliferation with smoke exposure." Spears noted further that a clinical pathologist present at the meeting observed that, "if he had seen similar slides on patients, he would have ordered the lung removed." 01246488-6489 (U.S. Ex. 22,299); TIMN419023-9024 (U.S. Ex. 21,699).

617. In an internal Brown & Williamson memorandum from I.W. Hughes to Edwin Finch, John Bugard, and Addison Yeaman, Hughes updated senior Brown & Williamson management about the Auerbach presentation based upon his discussion with Murray Senkus of R.J. Reynolds. Hughes also forwarded information about Auerbach to Sydney J. Green and David Felton of BATCo. 110317791-7793 (U.S. Ex. 86,463); 110317790-7790 (U.S. Ex. 86,464); 110317789-7789 (U.S. Ex. 86,465).

618. Members of the Enterprise continued to monitor the Auerbach matter and to share information. On November 19, 1970, Alex Holtzman of Philip Morris advised Philip Morris executive James Bowling that the Tobacco Institute's William Kloepfer had telephoned him "to

ask if we [Philip Morris] had any intelligence concerning the Tobacco Working Group's session with Dr. Auerbach. I told him that Wakeham had made a report covering the meeting. Kloepfer asked if we could 'declassify' the portion of the report dealing with Auerbach and send him a copy. Do you have any objection to sending Kloepfer this information?" 1005070141-0141 (U.S. Ex. 22,289).

619. Members of the Enterprise also decided to try to block the TWG from replicating Auerbach's research. Edwin Jacob, counsel to CTR and R.J. Reynolds, instructed R.J. Reynolds's scientists Murray Senkus and Alan Rodgman, as well as other Defendants' scientists, to prevent the TWG from performing dog inhalation studies such as those deemed necessary to develop new products. Jacob argued against such studies on the grounds that would be an admission by Defendants that existing cigarette products were harmful. Moreover, Jacob – an attorney, not a scientist – feared that these experiments might show proof of nicotine habituation. 515872408-2456 at 2424-2429 (U.S. Ex. 22,261); 501555624-5625 (U.S. Ex. 20,683).

620. After TWG Director Gori had sent Wakeham an advance copy of Auerbach's proposed experiments for NCI funding, a meeting was then held at CTR on December 21, 1971, to discuss Defendants' collective response. Edwin Jacob sent a letter to Brown & Williamson's DeBaun Bryant enclosing his notes from the meeting. Jacob reported that Alex Holtzman of Philip Morris had called the meeting and that Wakeham, another Philip Morris scientist, R.J. Reynolds's counsel Henry Roemer, Murray Senkus, as well as CTR's W.T. Hoyt, Robert Hockett, and Vincent Lisanti had attended. Jacob stated that the following points were agreed upon:

> 1. CTR could provide scientific points, but should not present to the government objections to the work being done.

> 2. If objections were to be presented, it was probably best that they be presented to [Director] Gori, rather than at a higher (political) level. This would indicate that they should be presented by the scientists who were members of the Tobacco Working Group.
>
> 3. The objections should not be directed to specific points of the protocol that could be "cured" (e.g., which tobaccos to use, whether to incorporate a substitute larynx, etc.). Rather, they should be objections which went to and emphasized the invalidity of the entire experiment.

680264518-4520 at 4519 (U.S. Ex. 22,301); 500500668-0669 (U.S. Ex. 48,295).

621. "[A]fter ascertaining by a phone call from Wakeham to [TWG Director] Gori that Gori planned to make his decision on the matter by late January so that views presented after mid-January would be of little effect," Defendants decided that there would be a meeting of Defendants' scientists on the TWG at CTR on January 17, 1972, and that the scientists would then meet with Gori on January 18, 1972. 680264518-4520 (U.S. Ex. 22,301). In advance of that meeting, the Defendants' scientific directors sent a letter to Gori urging him not to support Auerbach's proposed experiments. 515872408-2456 at 2429 (U.S. Ex. 22,261). Though signed by the Defendants' scientific directors, attorney Edwin Jacob drafted this letter on behalf of the Enterprise. 515872408-2456 at 2429 (U.S. Ex. 22,261).

622. In his report to the Tobacco Institute Annual Meeting on January 28, 1971, William Kloepfer boasted that "[o]ur constant pressure on Hammond's and Auerbach's shaggy – or shabby – dog story has put that work as reported so far into a permanent file marked controversy – especially among scientists. It did more than that. It demonstrated our counterattack capability as a team. During the rest of the year we missed no event worth talking about in which our comment wasn't issued – and printed and broadcast – the same day."

TIMN0081403-1405 (U.S. Ex. 77,050).

623. On December 22, 1971, Helmut Wakeham of Philip Morris sent a letter to William Bates of Liggett; Murray Senkus of R.J. Reynolds; Alexander Spears of Lorillard; and I.W. Hughes of Brown & Williamson, enclosing "the preliminary proposal from Drs. Auerbach and Hammond to the National Cancer Institute for a 'proposed experiment to test the effects of three different types of cigarettes on male beagle dogs.' The very great probability that this proposal will be accepted and funded by the N.C.I. is a matter of considerable concern to the tobacco industry. This concern was discussed informally by a number of scientific and legal people at the Council for Tobacco Research yesterday . . . ." 1000299103-9104 at 9103 (U.S. Ex. 21,735). Wakeham advised that Defendants planned to have their research scientists meet "with both legal and scientific people" at CTR on January 17, 1972, "to clarify the points which would be made to Dr. Gori and then visit Dr. Gori on the following day in Washington D.C. for the discussion with him." 1000299103-9104 at 9103 (U.S. Ex. 21,735). Wakeham concluded, "I feel that if we make a strong presentation he may downgrade the priority of this proposed test sufficiently so that there may not be more than a 50% chance of the proposal being funded." 1000299103-9104 at 9104 (U.S. Ex. 21,735).

624. If that presentation failed, CTR had determined that "CTR's public relations counsel" Leonard Zahn would be tasked with preparing a document setting out the "shortcomings of the experiment." 501990307-0308 at 0308 (U.S. Ex. 49,013). Following the December 22, 1971 meeting at CTR, Robert Hockett of CTR prepared an outline of possible attacks on the proposed Auerbach study. CTRMN014958-4960 (U.S. Ex. 88,490). Subsequently, Shinn of

Shook, Hardy & Bacon asked the Tobacco Institute to assist as well. 70124410-4411,CTC0190164-0165 (U.S. Ex. 87,218); ZN61577-1578 (U.S. Ex. 86,468); 70124410-4414, 70124410-4414 (U.S. Ex. 31,512); ZN61605-1606 (U.S. Ex. 86,469).

625. A Lorillard document entitled "Minutes, Meeting in Dr. Gio B. Gori's Office National Cancer Institute Bethesda, Maryland January 18, 1972" confirmed that the meeting between Gori and Defendants' research scientists did indeed take place. 01412335-2338 (U.S. Ex. 22,305); 01246351-6355 (U.S. Ex. 86,470). Those present at the meeting included Helmut Wakeham, Murray Senkus, I.W. (Ivor Wallace) Hughes, William Bates, Alexander Spears, Gio Gori, and Owen. Gori explained that the purpose of the proposed experiment was "to determine the effect of nicotine on cardiovascular disease in the dog, in a chronic fashion, in a smoking environment." 01412335-2338 at 2335 (U.S. Ex. 22,305). Gori concluded that, despite the Defendants' research scientists' objections, "the experiment would proceed." 01412335-2338 at 2337 (U.S. Ex. 22,305). A report by Helmut Wakeham of Philip Morris also memorialized the meeting. 1000299089-9093 (U.S. Ex. 86,472).

626. The Enterprise engaged in a coordinated effort to prevent Auerbach's proposed inhalation experiment from yielding meaningful results. A report by Brown & Williamson's I.W. Hughes on the same January 18, 1972 meeting, contained the notation in the top left-hand corner: "**Note to be destroyed after reading**" and a handwritten notation: "sent Shook Hardy 3-6-72." The report stated that "[a]s best as I can judge, **if he [Gori] is able to accommodate our criticisms, the experiment is not likely to show any significant differences, since most of our criticisms will tend to dilute the experiment.**" 680142682-2683 (U.S. Ex. 22,308) (emphasis

added); 680231776-1777 (U.S. Ex. 86,471).

627. Wakeham reported that Auerbach's experiment was to proceed. In a February 8, 1972 memorandum to Alexander Holtzman of Philip Morris and copied to Murray Senkus, R.J. Reynolds; Alexander Spears, Lorillard; and Clifford Goldsmith, Philip Morris, Wakeham advised: "On the pretense of needing to schedule our cigaret making operations, I have spoken informally with Dr. G. Gori about the proposed Auerbach smoking dog inhalation test. He confirmed that they are planning to go ahead with the test. . . . I think we must consider almost immediately whether the industry should do a parallel experiment. . . . I would appreciate it if Dr. Murray Senkus would discuss this informally with people in CTR who have expressed an interest in a parallel experiment and advise me whether I should go ahead and attempt to get a split sample arrangement." 1000299100-9100 (U.S. Ex. 86,473). A handwritten notation by Wakeham following a telephone call with Murray Senkus on February 10, 1972, indicated that a parallel test was unlikely. 1000299089-9093 (U.S. Ex. 86,472).

628. In a February 21, 1972 letter from William Shinn of Shook, Hardy & Bacon to Defendants' counsel, Shinn further discussed the Auerbach matter. Shinn reported that:

> Dave Hardy hopes that you are considering the implications of NCI approval of the second Auerbach dog project. We understand that the project either has been given the go-ahead by Dr. Gori or is likely to receive it. What will the industry's position be in the event this receives considerable publicity? Should the research directors who serve on the Tobacco Working Group send a letter setting forth their position? If no response is made, would the industry's silence confer approval?

680041440-1441 (U.S. Ex. 22,311).

629. In March 1972, Wakeham further expressed his dissatisfaction with the Auerbach

study in a communication to Alex Holtzman of Philip Morris and William Shinn of Shook, Hardy & Bacon. 1000299085-9085 (U.S. Ex. 86,474); 1000299086-9086 (U.S. Ex. 86,475); 1000299087-9088 (U.S. Ex. 86,476).

630. A March 14, 1972 Philip Morris interoffice correspondence from Alexander Holtzman to Thomas Ahrensfeld described a "Meeting of Counsel at Tobacco Institute, March 10, 1972." At the meeting, Brown & Williamson's counsel Yeaman proposed, and the attendees agreed, that "the research directors should write a letter to Dr. Gori recording their objections to the repetition of the Auerbach/Hammond study." 1005055229-5230 (U.S. Ex. 26,186). A draft letter was circulated by Wakeham to William Bates, I.W. Hughes, Murray Senkus, and Alexander Spears. 1000299075-9075 (U.S. Ex. 86,477); 1000299078-9079 (U.S. Ex. 86,478); 1000299095-9095 (U.S. Ex. 86,479); 1000299082-9084 (U.S. Ex. 86,480).

631. On March 24, 1972, a joint letter was sent from Defendants' TWG representatives William Bates, I.W. Hughes, Murray Senkus, Alexander Spears, and Helmut Wakeham to Gio Gori "to express in writing [their] major objections" to the Auerbach study on behalf of the Enterprise. 680231761-1762 (U.S. Ex. 22,313); 1000299076-9077 (U.S. Ex. 86,481).

(d) Defendants Never Intended to Make Any Affirmative Contributions To the Work of the Tobacco Working Group

632. In the early 1970s, Defendants' lawyers and executives determined that their scientist representatives on the TWG would not offer suggestions to the TWG about the experiments to conduct or projects to pursue in the search for a less hazardous cigarette. Defendants' outside counsel David Hardy of Shook, Hardy & Bacon wrote company counsel and executives on August 7, 1973, that:

> I have gotten from [CTR Scientific Director] Dr. Sheldon Sommers a list of suggested projects for the Tobacco Working Group. . . . If you will arrange through Dr. Spears to find out which of this list of suggestions might be favorably considered by the Tobacco Working Group, Dr. Sommers will supply a proposed detailed protocol. . . . You will notice that a copy of this letter, as well as a copy of the suggested projects, is going to each General Counsel of the Institute members, who can take it up with their respective Scientific Directors, keeping in mind the stated limitations on the function of company scientists in connection with the Tobacco Working Group.

1005056343-6343 at 6343 (U.S. Ex. 22,272).

633. Philip Morris counsel Alexander Holtzman forwarded Hardy's list to Philip Morris scientist Helmut Wakeham on August 10, 1973. 2021016081-6085 (U.S. Ex. 22,276). Defendants' scientists marked up the list for potential priorities and circulated it to the scientific representatives on the TWG from the various cigarette companies. 000240215-0215 (U.S. Ex. 26,067); 2021016079-6080 (U.S. Ex. 22,277).

LWDOJ00095517-5517 (U.S. Ex. 34,114) (Confidential); LWDOJ0095518-5519 (U.S. Ex. 88,792).

634. On August 30, 1973, Wakeham wrote to his fellow TWG Defendants' scientific representatives William Bates, I.W. Hughes, Murray Senkus, and Alexander Spears confirming the substance of their conference call and advised that a meeting of lawyers and scientists was to take place on September 6, 1973. 000240213-0214 (U.S. Ex. 26,066).

635. The "meeting of lawyers and scientists" to which Wakeham referred was the

September 6, 1973 meeting of the Committee of Counsel at 100 Park Avenue in New York. Those present included Henry Roemer, R.J. Reynolds counsel; Frederick Haas, Liggett counsel; Art Stevens, Lorillard counsel; Alexander Holtzman, Philip Morris counsel; Thomas Ahrensfeld, Tobacco Institute; DeBaun Bryant, Brown & Williamson attorney; Horace Kornegay, Tobacco Institute; Thomas Austern, outside counsel; Fred Panzer, Tobacco Institute; Allan Topol, outside counsel; Ed Jacob, outside counsel; Murray Senkus, R.J. Reynolds scientist; Alexander Spears, Lorillard scientist; Marvin Kastenbaum, Tobacco Institute; Helmut Wakeham, Philip Morris scientist; David Hardy, outside counsel; William Shinn, outside counsel; Michael Gastman, Lorillard; Joseph Greer, Liggett counsel; and Cyril Hetsko, American Tobacco counsel. At this meeting, Defendants decided **not to submit any of Sommers' proposals or make any additional research recommendations at all to the TWG**. 1000255835-5836 (U.S. Ex. 26,068); 680215434-5435 (U.S. Ex. 22,279).

636. Haas' and Greer's notes from the September 6, 1973 meeting shed light on Defendants' real motivation for their participation in the TWG:

LWDOJ00095539-5542 (U.S. Ex. 34,115) (Confidential) (emphasis added); see also 1000255835-5836.

637. Individual company research directors also withheld potentially useful information from the TWG. Instead, Defendants let the TWG use its resources to investigate questions that Defendants had already explored in the mid to late 1960s. A December 3, 1975 Philip Morris interoffice correspondence from Thomas S. Osdene to "File," and copied to Helmut Wakeham, Frank E. Resnik, Robert B. Seligman, W.F. Cannon, and R.G. Carpenter, discussed the "Reconstituted Tobacco Sheet Workshop, Bethesda, Maryland, November 24, 1975." Osdene reported that Gori was exploring possibilities for a fifth NCI biological testing series and discussing variations of a prototype for testing. Osdene commented: "In summary, the meeting was of great interest. Thus far, it appears that Gori is going down the road on which the tobacco manufacturers found themselves some 5 to 10 years ago." 1003729912-9914 at 9914 (U.S. Ex. 22,280).

638. Not only did Defendants never correct the path Gori was taking, but they never intended to work cooperatively with the TWG at all. For instance, Philip Morris scientist T.S. Osdene attended an October 1973 TWG meeting during which "Gori asked who should recommend 'a less hazardous cigarette', Gori or the industry? There was no reply from any industry representatives." 1000051661-1665 at 1664 (U.S. Ex. 22,281). As described by Tom Osdene, NCI TWG member Dr. Marvin Schneiderman told the TWG subcommittee at a April 2, 1974 meeting, "'We have found a less hazardous cigarette but it is not marketable or practical. We need more input from the tobacco companies: what can they market? I am tired of bull[deleted].' There were no comments from the members of the tobacco companies." 1003102962-2968 at 2965 (U.S. Ex. 22,443). In sum, the apparent goal of Defendants was to use

the TWG as a cover for their inactivity, as well to ensure that the TWG did not make any significant advances.

(e) Defendants Benefitted From Their Involvement with the Tobacco Working Group

639. Defendants utilized the connections made with certain government scientists through the TWG and retained two members of the TWG as consultants. Following the termination of the TWG, Gori left shortly thereafter to begin working at the Franklin Institute, thanks to a large grant by Brown & Williamson; he was not forced out of NCI. Deposition of Michelle Bloch, United States v. Philip Morris, et al., February 14, 2002, 1815:20-1819:20; HHS1091046-1048 (U.S. Ex. 88,738). Gori has been a spokesperson and consultant for the industry ever since the 1980s. 680900035-0045 (U.S. Ex. 21,013); 1005082903-2903 (U.S. Ex. 21,529); TIMN435245-5245 (U.S. Ex. 22,487); 2050986280-6281 (U.S. Ex. 27,064).

640. Another government employee who participated in the TWG, was T.C. Tso of the Agricultural Research Service of the United States Department of Agriculture. Tso covertly shared information with Defendants about the TWG's activities. In a March 10, 1975 letter from BATCo scientist David G. Felton to various industry personnel worldwide, Felton enclosed material on the TWG that he had received from Tso. Felton advised:

> Following the meeting of the TWG held at Bethesda on February 18-19th, I have received, from Dr. T.C. Tso, a confidential copy of his internal report on the proceedings and, in accordance with my usual practice, I enclose a photocopy for your personal information. To preserve the confidentiality of the source, please do not discuss this report with outsiders.

105366949-6955 (U.S. Ex. 22,317). Tso also had a meeting with J.C.B. Ehringhaus of the

Tobacco Institute on July 23, 1975, in which he provided a status report on the TWG. TIMN449671-9671 (U.S. Ex. 22,391).

641. Philip Morris secured the services of Tso upon his retirement in 1983. Philip Morris, along with two other companies with whom he had worked at the TWG, approached Tso **prior to** his retirement from the Federal government; he was persuaded to join Philip Morris by Tom Osdene, who had regularly participated in TWG activities for that company. 2023799642-9642 (U.S. Ex. 87,701); 2000631334-1337 (U.S. Ex. 87,702); 2000511301-1302 (U.S. Ex. 87,703); 2000596045-6045 (U.S. Ex. 87,704); 2001202319-2319 (U.S. Ex. 87,705).

F. <u>Coordinated Smoking and Health Literature Collection and Retrieval</u>

642. A shared objective of the members of the Enterprise has been to avoid liability findings that could result both in large damage awards and in increased public recognition of the harmful effects of smoking. As detailed below, as members of the Enterprise, Defendants collectively gathered, organized, stored, and eventually automated medical and scientific literature related to smoking and health research for this common purpose.

643. According to a February 1969 Lorillard memorandum, Defendants' "Central File" was started in the late 1950s, was supported financially by all members of the industry and was supervised by the Ad Hoc Committee. It was eventually consolidated and put under the direct supervision of Defendants' attorney Edwin Jacob. The "Central File" was a collection of every document which could be found relating to the smoking and health controversy. Beginning in or about 1967, the major tobacco companies with the exception of Lorillard also joined together and established an "Information Center" for the collection, summarizing, and computerization of all

information and documents concerning smoking and health. The purpose of the information center was to have information readily available to the industry for litigation and congressional hearings. 044227839-7844 (U.S. Ex. 20,066).

644. In 1958, Frederick P. Haas of Liggett sent a memorandum to Freeman Daniels of Perkins, Daniels & Perkins; John Vance Hewitt of Conboy, Hewitt, O'Brien & Boardman; Horace Hitchcock of Chadbourne &, Parke; Frances Horan, Liggett General Counsel; Porter Chandler of Davis Polk; and Mr. Johnston that stated: "As you know, thought has been given to the development of a central file of cancer literature which would be helpful to counsel for all companies in defending claims against them, individually or collectively. . . . Despite the fact that a good deal of bibliographic material has already been assembled in Richmond under T.I.R.C., I believe it important that the future literature be collected and analyzed 'under the wing' of counsel." Haas advised that there was space available under the lease to Webster, Sheffield & Chrystie, one of Defendants' law firms, where a person hired to gather literature, and an assistant, could be situated. LG2017032-7034 (U.S. Ex. 34,100). For a period of time, Webster, Sheffield & Chrystie handled what was known as the Defendants' "Central File" account. LG2023462-3462 (U.S. Ex. 34,103).

645. By 1964, indices of scientific literature were also being compiled by Defendants and their agents for litigation purposes. Edwin Jacob, attorney for CTR, R.J. Reynolds, and Brown & Williamson, employed a supervisor and three other employees to abstract and catalogue current medical and scientific literature by subject and author for litigation purposes. Henry Ramm, attorney for R.J. Reynolds, kept a similar but larger index, containing over 20,000

documents in eight volumes. In addition, Kenneth Austin and three other CTR staff members compiled indices of scientific literature for litigation purposes. Litigation indices were also kept by Janet Brown, attorney for American Tobacco and CTR, and Alexander Holtzman, attorney for Philip Morris. 1003119099-9135 (U.S. Ex. 20,152) (U.S. Ex. 35,649).

646. In the mid-1960s report, Lorillard stated, "Because of the continued attacks on the industry . . . it is in the best interests of Lorillard to join forces with all other members of the industry concerning the health controversy." Although each cigarette company handled its own litigation through various trial attorneys, "there is a high degree of cooperation between the companies through . . . the 'Ad Hoc Committee' which finds medical witnesses and prepares testimony. Lorillard's representative on this Committee is Mr. David Hardy. The Committee supervises the Central File which is a collection of every document which can be found relating to the smoking and health controversy. This cooperation must be continued. An adverse decision against any member of the industry would be disastrous to all." 80684691-4695 (U.S. Ex. 21,067).

647. In 1967, Edwin Jacob continued to request contributions from each of the companies for the expenses of the Central File, in the form of checks payable to Cabell, Medinger, Forsyth & Decker – Special Account No. 3. LG2023460-3460 (U.S. Ex. 21,210). In this way, expenses for the Central File were handled out of one of the Defendants' Lawyers Special Accounts.

648. According to a February 28, 1968 letter from Janet Brown of Chadbourne, Parke, Whiteside & Wolff to Cyril Hetsko, Vice President and General Counsel of American, the cost of

the bibliographic services and analysis performed for the Central File were approximately $60,000 per year in the 1967/1968 time frame; this expense was shared by six companies. Charged to this account were also expenses of approximately $8,000 per year for "Dr. Berkson's consultation fee," which "continue[d] to be charged though Special Account No. 3, according to Jacob, his instruction being that Dr. Berkson is a litigation consultant to all of the six companies." Other expenses included a fee for Taylor and Lynch Co. for work done under "Special Project 110." However, Brown noted that "no further 'consultants' fees' of this type will appear under Special Account No. 3, Mr. Jacobs tells me, since his subsequent instructions from the General Counsel are to bill everything having any on-going connection with Congressional preparation through Central File Special Account No. 4." XBW0010893-0896 (U.S. Ex. 26,456).

649. The collection services supported under the Central File were in addition to the services performed by the Information Center. Back in 1966, Covington & Burling contracted with International Information Institute, later known as Information Interscience Incorporated, also known as "3i," to provide confidential, automated litigation support services to the law firms representing cigarette manufacturers in products liability litigation. LG2018129-8132 (U.S. Ex. 20,145); LG2018124-8126 (U.S. Ex. 20,148); LG2018123-8123 (U.S. Ex. 20,150); 1005077723-7724 (U.S. Ex. 86,482); 1005077664-7664 (U.S. Ex. 86,483); 1005077657-7657 (U.S. Ex. 86,484); 1005077719-7719 (U.S. Ex. 86,485); 1005077676-7677 (U.S. Ex. 86,486); 1005078101-8101 (U.S. Ex. 86,487); 500290898-0898 (U.S. Ex. 86,488). In Brown's February 28, 1968 letter, she noted that the issue of whether there was duplication between the work

performed through the Central File and Information Center had been discussed at the last Ad Hoc Committee meeting. XBW0010893-0896 (U.S. Ex. 26,456).

650. In 1968, an Evaluation Committee was appointed to review the work performed under the Central File and the Information Center. The Evaluation Committee recommended that "the computerized information storage and retrieval System [3i] should be continued in substantially its present form. . . . [i]n order to prepare adequately for the defense of the more than 50 suits now pending against the industry . . . relevant scientific literature must be exhaustively scanned, thoroughly indexed, and made rapidly retrievable. . . . [t]he System is also extremely important in preparing testimony or other submission to Congress or to the executive agencies[.]" It was encouraged that the General Counsel make a permanent commitment to the System so as to phase out other methods for "gathering and filing relevant documents." The Evaluation Committee also recommended greater coordination with efforts by the CTR and the Tobacco Institute. 500289382-9398 (U.S. Ex. 29,453).

651. A February 1969 Lorillard memorandum reported that there was a feeling by some Defendants that as the Information Center expanded, the industry's Central File and much of the library maintained by CTR could be eliminated. 044227839-7844 (U.S. Ex. 20,066).

652. However, efforts by the Evaluation Committee continued through 1969 as evidenced by a March 28, 1969 letter from Francis Decker, attorney at Webster, Sheffield, Fleischmann, Hitchcock & Brookfield, to Donald Hoel, Shook, Hardy & Bacon. Members of the Evaluation Committee included Francis Decker, Preston Leake, Arthur Burke, and Frank Colby with guidance from company General Counsel. The letter stated that it had been decided once

again that an evaluation of the efforts by CTR, the Tobacco Institute, the Central Files, and the 3i system was necessary. 500289915-9918 (U.S. Ex. 29,454).

653. In December 1970, Hardy of Shook, Hardy & Bacon wrote that it was "impossible for anyone at this stage of the game to be exact as to any savings by the consolidation of library functions. It is presently contemplated that the retrieval system will be a special project and division of CTR and as such would be under the jurisdiction of Henry Ramm after he assumes his new responsibilities" as CTR Chairman and President. Hardy thought that "the consolidation of libraries of Central File, CTR, etc. would result in greater efficiency and less total expense." 01422304-2304 (U.S. Ex. 20,288).

654. In 1970, the Central File was moved to 110 East 59th Street, 14th floor, New York, New York. It was advised that all mail to the Central File was to be addressed to Gisella Cahnman or to Lauterstein & Lauterstein, the law firm that Edwin Jacob was with at that time. 80680314-0315 (U.S. Ex. 86,489).

655. A 1971 memorandum described the Central File as an information gathering and library service conducted by and for the tobacco industry:

> Established in 1958 in connection with the defense by cigarette manufacturers of health litigation (cases alleging cancer and other diseases contracted from cigarette smoking), the Central File is a continuing collection and maintenance of documents and information relating to the smoking and health controversy. It is a work tool and source of information for the tobacco companies and their counsel in conjunction with litigation, and in recent years has also been utilized in connection with the industry's preparation of materials for response to Government and private reports with respect to smoking and health, as well as for the preparation of testimony and documents given before and submitted to Congressional committees and regulatory agencies. The financial

> support of the Central File is borne equally by the six major cigarette manufacturers.

85649920-9920 (U.S. Ex. 21,080).

656. Similarly, in a 1969 letter from Edwin Jacob to Arthur Stevens of Lorillard, Jacob confirmed that the Central File pertained "to the litigation expenses which are shared by the participants." 80680317-0318 (U.S. Ex. 86,490). A May 18, 1971 memorandum by Stevens explained to Lester Pollack of Lorillard that the "Central File accounts, relating to litigation and doctors' expenses, are not maintained at high levels, and are, in Jacob's words, largely self-liquidating." 80680229-0229 (U.S. Ex. 31,967).

657. In 1971, the operations of 3i were transferred to CTR. A document dated December 28, 1970, memorialized the agreement between CTR and Defendants American, Brown & Williamson, Liggett, Philip Morris, and R.J. Reynolds regarding "the operation of an information storage and retrieval system for the lawyers of these five companies." The document, signed by Wilson Thomas Hoyt of CTR, stated that: "We understand that the Committee of Counsel of the five participating companies, at its meeting on December 18, 1970, authorized with respect to this system a capital budget of approximately $220,400.00 and an operating budget for 1971 of $750,000.00." The document outlined how the Defendants were going to advance funds to Edwin Jacobs' law firm, Lauterstein & Lauterstein at the time, for certain capital expenditures; the remaining funds would be transferred to CTR at the time CTR assumed full responsibility of the project. 680300736-0738 (U.S. Ex. 54,044); 2015021479-1481 (U.S. Ex. 20,312).

658. At the first meeting of CTR's Board of Directors after CTR had incorporated in

1971, the Board gave approval to CTR to take over and operate, as a CTR Special Project, an information and retrieval system and to computerize medical literature, articles, and other published documents relating to tobacco and health, the expenses to be borne by the participating companies. At the first annual meeting of CTR members after incorporation, the members approved the name Information Systems for this special project. Information Systems became a division of CTR performing the function of analyzing, summarizing, indexing, and retrieving scientific and medical literature at the direction of Defendants' attorneys. Defendants relied on this division of CTR to review the medical literature relating to smoking and health even though they continued to monitor literature in-house. CTRMIN-BD000001-0009 (U.S. Ex. 21,141); CTRMIN-MOM000001-0015 (U.S. Ex. 21,145).

659. The Report of the Chairman to the Second Annual Meeting of CTR Members held on January 28, 1972, revealed that the name of the operation had been changed to Information Retrieval Division. The division was staffed by a group of twenty-six people and financed separately from the general budget; its name was eventually changed to the Literature Retrieval Division ("LRD"). CTRMIN-MOM000016-0034 (U.S. Ex. 21,170); Response of Defendant The Council For Tobacco Research - U.S.A., Inc. to Plaintiff's First Set of Interrogatories, United States v. Philip Morris, et al. (served February 6, 2001), at Interrogatory/Response No. 26 (U.S. Ex. 75,927).

660. CTR maintained a separate checking account called CTR Special Account No. 1 for the Literature Retrieval Division. CTR requested, received, and deposited monies from its sponsor companies for the Literature Retrieval Division. Deposition of Lorraine Pollice, United

States v. Philip Morris, et al., June 27, 2002, 24:11-30:5.

661. In addition to the CTR LRD division, Defendants American, Brown & Williamson, Liggett, Lorillard, Philip Morris, and R.J. Reynolds also continued to fund Special Account No. 3 through Edwin Jacob's firm. The account was designated as a "File for Litigation" and was "used to maintain an office where several doctors work on an analysis of medical literature." 682150942-0942 (U.S. Ex. 86,491).

662. A January 1975 memorandum described Special Account No. 3 as the Central File, a library available to company and litigating counsel and operated under the direction of staff who analyzed scientific articles in the area of smoking and health for counsel. Defendants considered Special Account No. 3 as lawyers' work product not subject to subpoena, which is why it was separated from Special Account No. 4, the account utilized to obtain the services of doctors and scientists who could be available for Congressional hearings and litigation. Frederick Haas, attorney for Defendant Liggett, felt that the work done from funds generated from both accounts had been "extremely important in defending lung cancer and related cases." An April 1975 memorandum written by Haas to James Scott Hill of Liggett reported that "[t]he law firm of Jacob and Medinger handles the expenses [of the Central File] through equal payments by all six companies." LG2021550-1550 (U.S. Ex. 21,209); LG2023420-3421 (U.S. Ex. 23,014); 682069946-9946 (U.S. Ex. 20,009); LG2000526-0531 (U.S. Ex. 34,072).

663. Informal and formal reviews of the CTR Literature Retrieval Division operations were undertaken in 1975. The formal review was prepared by Frank Colby, Director of Scientific Affairs for R.J. Reynolds; Fred Giller, Director of CTR's Literature Retrieval Division;

and William Benbow, a systems analyst for R.J. Reynolds. The formal review report opined that "[t]he quality of the abstracting and indexing has improved substantially since the 3i [Information Interscience Incorporated] and O'Shea eras, especially since the abstracts have been structured . . . the quality of the abstracting and indexing is much better than that provided by any information service in the public domain." The formal review of LRD also recommended that Frank Colby continue to make available to LRD the results of his scanning and selection from approximately twenty primary journals and a few secondary sources. LG2024393-4400 (U.S. Ex. 21,213); 70124419-4421, CTRLRD004070-4072 (U.S. Ex. 31,518); 11275289-5289, CTRLRD004069-4069 (U.S. Ex. 26,401).

664. In 1979, W.T. Hoyt, Executive Vice President of CTR, advised Thomas Ahrensfeld, Philip Morris; Max Crohn, Jr., R.J. Reynolds; Joseph Greer, Liggett; Arnold Henson, American; Ernest Pepples, Brown & Williamson; and Arthur Stevens, Lorillard, that anticipated expenditures for the Literature Retrieval Division for 1979, would exceed the budgeted amount by $225,000. All agreed to the increased amount. 70124547-4547, CTRLRD004193-4193 (U.S. Ex. 31,557); 70124546-4546, CTRLRD004192-4192 (U.S. Ex. 31,556); 70124548-4548, CTRLRD004233-4233 (U.S. Ex. 31,558); 70124544-4544, CTRLRD004190-4190 (U.S. Ex. 31,554); 70124545-4545, CTRLRD004191-4191 (U.S. Ex. 31,555); 11275453-5453, CTRLRD004232-4232 (U.S. Ex. 26,402).

665. An informal review of CTR's Literature Retrieval Division was also done by Lorillard's Research Director Alexander Spears and covered methods of handling the literature and the computer process. The data source for the LRD system consisted of approximately 400

medically-oriented journals, ten abstracting publications, and various United States Government publications. There were approximately 75,000 entries in the system. Computer searches (by author, journal, year, title, author affiliations, accession number, category of document, or key word descriptors) of the articles stored in the data bank could be reported as either a list of accession numbers of documents or as a full report of all information stored in the data bank for each document. However, the abstract of the article was not stored in the data bank and did not appear in the full report. The final stage of a search required pulling aperture cards on which appeared a printed abstract of the article and/or pulling the microfilm of an article. LG2024393-4400 (U.S. Ex. 21,213).

666. During her tenure in the Public Affairs Division of the Tobacco Institute, Anne Duffin used material from the LRD to write articles, pamphlets, handouts, and other publications. Examples include "Smoking and Health 1964-1979, The Continuing Controversy," "Cigarette Smoking and Cancer: A Scientific Perspective, 1982," and "Cigarette Smoking and Heart Disease, 1983." Deposition of Anne Duffin, Munn v. Philip Morris, January 7, 1987, 164:23-166:23, 168:13-169:16, 171:7-172:13, 173:2-175:1, 176:18-22; Deposition of Anne Duffin, Munn v. Philip Morris, January 8, 1987, 214:4-20, 224:1-22; 519838352-8517 (U.S. Ex. 87,707); 519838518-8621 (U.S. Ex. 87,708); 519838622-8674 (U.S. Ex. 87,709).

667. Alexander Spears' informal review report described the LRD operation as "nearly complete coverage of the world medical literature on tobacco and health available at each user location with essentially state of art information search and retrieval capability." According to Spears, the LRD system served relatively little purpose to Lorillard "except in the area of tobacco

and health related to litigation and governmental regulatory proceedings;" therefore Spears supported the decision by Lorillard to fund the LRD "since it seems an integral part of defending the industry and this company in the defined area." Lorillard eventually did fund the LRD from 1980 through 1983. 01422327-2328 (U.S. Ex. 20,050); Response of Defendant The Council for Tobacco Research - U.S.A., Inc. to Plaintiff's First Set of Interrogatories, United States v. Philip Morris, et al. (served February 6, 2001), at Schedule C (U.S. Ex. 75,927).

668. In September 1981, the Ad Hoc Committee – William Shinn and Robert Northrip from Shook, Hardy & Bacon; Francis Decker, Jr., from Webster & Sheffield; Ed Jacob and Timothy Finnegan from Jacob, Medinger & Finnegan; and Janet Brown and Thomas Bezanson from Chadbourne, Parke, Whiteside & Wolff – met and discussed a proposal to sever LRD from CTR and reorganize it, along with the Central File (sometimes referred to as the Tobacco Litigation File), as a corporation providing litigation support services to counsel defending smoking and health actions. In order to provide work product protection for LRD's microfilmed, computerized database and abstracts on smoking and health information, the proposal recommended that LRD would be removed to the custody of defense counsel into a new business corporation to be formed called LS, Inc., the stock of which would be owned by the four law firms; payments to LS, Inc. by the law firms would be on a per client market share basis for all functions; the only users of the system would be the four law firms plus Covington & Burling, representing the Tobacco Institute; the only use of the system would be for litigation, which would be defined to include administrative proceedings and legislative hearings, at which proceedings and hearings the law firms were representing their clients; and Fred Giller, then-

Director of CTR's LRD, would be President and CEO of LS, Inc. ATX9275490271-0280 (U.S. Ex. 36,231); ATX9275490282-0286 (U.S. Ex. 21,133); LG2000741-0750 (U.S. Ex. 36,269); 515848825-8830 (U.S. Ex.21,583).

669. The organization and incorporation of LS, Inc. (Legal Services Corporation for Cigarette Industry Litigation Support) and its removal from LRD was the subject of extensive study, review, and evaluation for a considerable period of time in the early 1980s. In 1982, W.T. Hoyt, President of CTR, sent a number of requests to Thomas Ahrensfeld, Philip Morris; Joseph Greer, Liggett; Arnold Henson, American; Ernest Pepples, Brown & Williamson; Arthur Stevens, Lorillard; and Samuel B. Witt, III, R.J. Reynolds, requesting approval for interim funding to cover expenses for the Literature Retrieval Division. 2015020054-0054 (U.S. Ex. 36,628); 2015020046-0046 (U.S. Ex. 36,627); 2015020038-0038 (U.S. Ex. 36,626); 2015020032-0032 (U.S. Ex. 36,625); 2015020021-0021 (U.S. Ex. 36,624).

670. In March 1983, the Committee of Counsel approved the implementation and incorporation of LS, Inc. On November 9, 1983, CTR drew a check for the $4,739.60 remaining in CTR Special Account No. 1 at Citibank, closed the account, and transferred the monies to LS, Inc. LG2000823-0832 (U.S. Ex. 21,544); 2047663658-3695 (U.S. Ex. 20,481); CTRLRD004451-4451 (U.S. Ex. 21,140); CTRLRD000171-0171 (U.S. Ex. 21,139); 640000135-0136 (U.S. Ex. 86,500); 508371652-1652 (U.S. Ex. 29,971); Deposition of Lorraine Pollice, United States v. Philip Morris, et al., June 27, 2002, 29:14-30:5.

671. According to a 1998 brochure, LS, Inc. was a lawyers' assistance corporation that provides litigation support services to certain law firms engaged in the defense of tobacco project

liability lawsuits. LS, Inc. or its predecessor organizations have provided litigation support services to Defendants since 1966. The Board of Directors was comprised of representatives from Chadbourne & Parke, attorneys for Defendants American Tobacco and Brown & Williamson; Shook, Hardy & Bacon, attorneys for Defendants Lorillard and Philip Morris; and Jones Day Reavis & Pogue, attorneys for R.J. Reynolds. 190204278-4284 (U.S. Ex. 20,294).

G. Center for Indoor Air Research (CIAR)

672. Members of the Enterprise, specifically Philip Morris, R.J. Reynolds, Lorillard, and the Tobacco Institute on behalf of its member companies, pooled their resources and coordinated their activities with respect to environmental tobacco smoke ("ETS") issues through a variety of mechanisms and committees. The purpose of the various industry ETS committees was to fund research to benefit litigation defending the Enterprise. Although Defendants claimed that CIAR existed to conduct "sound science" on ETS, its actual purpose was to fund projects that would counter the public's concern over the harmful nature of ETS, a concern a growing – and real – concern. See U.S. FPFF § IV.C., infra.

(1) Formation

673. The first industry committee dedicated specifically to address ETS concerns was formed as early as 1975. This informal committee met for the first time on April 25, 1975. The name of this committee changed frequently but participants remained almost constant. Those present at the first gathering included: Pat Sirridge, Shook, Hardy & Bacon; Frank Colby, R.J. Reynolds; I.W. Hughes, Brown & Williamson; Edwin Jacob, Jacob, Medinger & Finnegan; William Dunn, Philip Morris; and Raymond Fagan, Philip Morris. Donald Hoel, an attorney

with Shook, Hardy & Bacon, was also an early member of the committee. The group discussed the "environmental tobacco smoke-nonsmoker" research situation and it was "the unanimous opinion of the group that there appeared to be a pressing need for industry-sponsored research in this general area to produce objective and high quality scientific data to meet current legislative and scientific challenges. . ." The group devised specific research proposals to be submitted to the Research Liaison Committee for approval and funding. 50294827-4827 (U.S. Ex. 86,501); 1003293764-3764 (U.S. Ex. 23,390); 1003293761-3763 (U.S. Ex. 86,502).

674. The Hoel committee, an informal name given to the group, worked closely with the Research Liaison Committee ("RLC") (further discussion at U.S. FPFF § I.E(1), supra). David Hardy acted as the liaison between the two groups. Hoel's committee initially referred to itself as the "Special Subcommittee on Environmental Tobacco Smoke," although it appears that certain people were not comfortable with that designation. According to a memorandum from Raymond Fagan and William Dunn, "[t]he RLC under the urging of Hetzko [sic] wanted to be sure that we did not consider ourselves a committee of any sort. We were not to consider ourselves a subcommittee of the RLC. We are to report to Dave Hardy who will in turn convey our findings, suggestions and recommendations to the RLC." Nevertheless, Hoel's committee continued to submit recommendations to the Research Liaison Committee for consideration. 1003186183-6184 (U.S. Ex. 86,503); 504126505-6507 (U.S. Ex. 24,216); 1003293752-3753 at 3752 (U.S. Ex. 20,169) (U.S. Ex. 75,204); 500294698-4698 (U.S. Ex. 24,145); 5002944700-4701 (U.S. Ex. 88,834).

675. As the years progressed, the Hoel committee continued to recommend studies on

ETS. However, by 1978, the name of the group changed to the Public Smoking Advisory Group ("PSAG"). Funding for the group came from Special Account No. 4. In 1982, members of the Advisory Group met at CTR. Present were: Frank Colby, R.J. Reynolds; J.G. (Gil) Esterle, Brown & Williamson; Timothy Finnegan, Jacob, Medinger & Finnegan; Thomas Osdene, Philip Morris; Murray Senkus, R.J. Reynolds; Pat Sirridge, Shook, Hardy & Bacon; and Alexander Spears, Lorillard. The PSAG continued to meet regularly until 1983. 03638976-8982 at 8981 (U.S. Ex. 46,483); 01337388-7388 (U.S. Ex. 86,504); 1000125386-5386 (U.S. Ex. 86,505); 504339411-9412 (U.S. Ex. 86,506); 501627024-7024 (U.S. Ex. 86,507).

676. According to a September 13, 1984 letter written by Hoel, the Committee of Counsel suggested that the PSAG be reactivated. Hoel reorganized the committee, which became known as the Tobacco Institute ETS Advisory Group. The purpose of the group was to provide advice, solicit, and review proposals on ETS and recommend to the Committee of Counsel which projects should be funded as Special Projects. Participating Defendants included Brown & Williamson, R.J. Reynolds, Lorillard, and Philip Morris. Hoel chaired the committee. Attorneys from Covington & Burling and the Tobacco Institute staff also attended the group's meetings. According to an industry document on the ETS Advisory Group, "[w]hile neither Liggett or American directly participate in the group both are participating with the funding of approved projects." 2021004058-4064 at 4058 (U.S. Ex. 20,339); Response of Defendant The Tobacco Institute to Plaintiff's Second Set of Interrogatories, United States v. Philip Morris, et al. (served March 15, 2002), at Interrogatory/Answer No. 3 (U.S. Ex. 87,710); Response of Defendant R.J. Reynolds Tobacco Company to Plaintiffs' Second Set of Interrogatories, Dunn v.

R.J. Reynolds (filed January 18, 1996), at Interrogatory/Response No. 10 (U.S. Ex. 87,711); 516765394-5431 (U.S. Ex. 87,712).

677. In 1987, a new organization dedicated to ETS research was organized. The organization came about through the joint efforts of the various Tobacco Institute committees, the ETS Advisory Group and a subcommittee regarding indoor air research led by Mary Ward, counsel for R.J. Reynolds. A June 15, 1987 memorandum from Peter Sparber, Vice President of Public Relations for the Tobacco Institute, to Sam Chilcote, Jr., President of the Tobacco Institute, and William Kloepfer, Jr., Tobacco Institute Senior Vice President for Public Relations, stated that Ward's subcommittee (related to the new organization) was in its final stages and that the ETS Advisory Group was one of the groups responsible for approving the inception of this new organization. TI10411343-1343 (U.S. Ex. 21,251).

678. In its recommendation for the establishment of the Center for Indoor Air Research ("CIAR"), the ETS Advisory Group explained the Defendants' motives in creating the new organization:

> Tobacco industry scientists agree with other scientists who maintain that there is no persuasive evidence that ETS might constitute a health hazard to nonsmokers. The tobacco industry is not content, however, to merely debate the inadequacies of existing research; the TI-ETS Advisory Group recommends that the industry renew and strengthen its commitment to foster and support research on this issue though establishment of an Institute to develop and oversee such research.

The ETS Advisory Group recommended that the projects they currently monitored (primarily CTR Special Projects) be assumed by the new organization. The Tobacco Institute ETS Advisory Group clearly stated that they envisioned the purpose of the new organization was "to

provide a more efficient mechanism for identifying, funding, and coordinating specific research to gain understanding of the ways in which particular components of indoor air - with an emphasis on ETS - may affect human health and well being." TI00610469-0477 at 0469, 0470, 0477 (U.S. Ex. 62,068).

679. In March 1988, Defendants Philip Morris, R.J. Reynolds, and Lorillard formed CIAR in an effort to pool their efforts on ETS research and to disassociate that research from the Tobacco Institute. The Tobacco Institute assisted with the initial organization of CIAR. 321141105-1144 at 1142 (U.S. Ex. 20,588); 506300804-0814 at 0804 (U.S. Ex. 20,756); 506647151-7156 at 7151 (U.S. Ex. 20,761); 2071412978-3143 at 3082-3096 (U.S. Ex. 23,061); 506662315-2316 (U.S. Ex. 20,762) (U.S. Ex. 75,277); Deposition of Brennan Dawson, United States v. Philip Morris, et al., July 1, 2002, 116:11-117:2; Response of Defendant The Tobacco Institute to Plaintiff's Second Set of Interrogatories, United States v. Philip Morris, et al. (served March 15, 2002), at Request/Response No. 11 (U.S. Ex. 87,710).

680. As set forth below, CIAR furthered the unlawful goals of the Enterprise by (1) coordinating and funding Defendants' efforts to generate evidence to support its position that there remained an "open controversy" as to the health implications of exposure to ETS; (2) leading the attack on United States efforts to act on evidence linking ETS to disease; and, (3) acting as a "front" organization for tobacco funds so that CIAR appeared to be an independent research funding organization.

681. According to CIAR's proposed bylaws, its mission was to "exist to encourage scientific inquiry and appropriate public policy related to the composition and possible health

effects of indoor air." By May 1989, CIAR had re-written its stated mission: "[T]o create a focal point organization of the highest scientific caliber to sponsor and foster quality, objective research in indoor air issues including environmental tobacco smoke and to effectively communicate research findings to the broad scientific community." In 1994, CIAR's stated mission was to "sponsor high quality research on indoor air issues and to facilitate communication of research findings to the broad scientific community." TI10630369-0369 (U.S. Ex. 21,861); 321141105-1144 at 1106 (U.S. Ex. 20,588); 515928375-8378 at 8375 (U.S. Ex. 30,290).

682. In 1988, the first members of the CIAR Board of Directors included Gary T. Burger, Vice President of R.J. Reynolds; Charles R. Green, R.J. Reynolds scientist; Vello Norman, Lorillard scientist; Thomas S. Osdene, Philip Morris Director of Research; Robert A. Pages, Philip Morris scientist; and Alexander W. Spears, President of Lorillard. TI01900211-0214 at 0211 (U.S. Ex. 21,241).

683. Defendants Philip Morris, R.J. Reynolds, and Lorillard were CIAR's charter members and provided CIAR with the majority of its funding. According to a May 3, 1995 CIAR memorandum from Max Eisenberg, Executive Director of CIAR, to board members Charles Green of R.J. Reynolds, Richard Carchman of Philip Morris, and Alexander Spears of Lorillard, the annual contributions to CIAR for that year by these three companies were $1,966,049, $3,505,010, and $539,937 respectively. 2050764508-4508 (U.S. Ex. 20,492) (U.S. Ex. 75,540); Response of Defendant R.J. Reynolds Tobacco Company to Plaintiffs' Second Set of Interrogatories, Dunn v. R.J. Reynolds (filed January 18, 1996), at Interrogatory/Response No.

10 (U.S. Ex. 87,711).

684. In addition to these three charter members, CIAR also had regular and associate members who were people or organizations allegedly interested in indoor air quality research, but who were not founding members. These members included, among others, Consolidated Safety Services, ENV Services, Inc., Meckler Engineers Group, and Universal Corporation. 321141105-1144 at 1142 (U.S. Ex. 20,588).

685. Ultimately, the Board of Directors was responsible for all aspects of CIAR's operations. CIAR's bylaws guaranteed that the Charter Members would have a voting majority on all matters coming to the Board. According to the CIAR charter membership proposal, each charter member was entitled to elect two people to serve on CIAR's Board of Directors. Regular members, at the discretion of the Board of Directors, could elect up to five directors. Associate Members had no right to representation on the board. 300519669-9672 (U.S. Ex. 86,508).

686. A CIAR Science Advisory Board ("SAB") was created upon the CIAR's establishment. The CIAR SAB consisted of a number of scientists from varying fields, and was "assembled to assist in the formation and review of the research program." In May 1989, the CIAR SAB consisted of Jared Cohon, James Crapo, Gareth Green, Irving Kessler, Morton Lippman, Demetrios Moschandreas, and Alfred Wolf. TI01900167-0167 (U.S. Ex. 62,140); 321141105-1144 at 1106 (U.S. Ex. 20,588).

687. CIAR's decisions with respect to funding research were very similar to CTR's. CIAR had two methods of funding research on ETS. The first was to have research proposals submitted to and reviewed by peer reviewers and then by the CIAR SAB. The CIAR SAB then

made recommendations for research project funding. These recommendations were evaluated and put to a final vote by the CIAR Board of Directors. The second was to have projects proposed and funded by the CIAR board directly without the review of the CIAR SAB. 321141105-1144 at 1112 (U.S. Ex. 20,588); 86205370-0370 (U.S. Ex. 32,050) (U.S. Ex. 81,247); Deposition of Steven Parrish, United States v. Philip Morris, et al., June 25, 2002, 110:20-111:25.

688. An April 25, 1988 letter from Tom Osdene, a member of CIAR Board of Directors, to Samuel Chilcote, President of the Tobacco Institute, articulated the Enterprise's use of CIAR. Osdene wrote, "I think many of us have conceptualized the ETS issue as a battlefield in which the arena is dominated by public relations and legal issues while the ammunition which is used happens to be science. It has been the purpose of CIAR, as well as its precursor, the ETS Advisory Committee, to provide ammunition for this fight." In the letter, Osdene described the scope of CIAR research in overall air quality and acknowledged that CIAR was restricted to funding research that specifically dealt with the alleged health affects of ETS. Osdene concluded the letter advising that, "it is vital that there be a unified position and an appreciation of the role that science and therefore CIAR can play in this [ETS] controversy." TI11130138-0144 at 0138, 0140, 0444 (U.S. Ex. 62,287).

689. A confidential memorandum on the January 29, 1988 meeting between the ETS Advisory Group of the United Kingdom's Tobacco Advisory Council (discussed further at U.S. FPFF § I.H(3), infra) and R.J. Reynolds – with BATCo and Brown & Williamson present – discussed the activities of CIAR. It was noted that CIAR would "try to broaden the issue by

focusing not simply on ETS." BWBU242341-2343 at 2342 (U.S. Ex. 21,136).

690. CIAR was also used by the Enterprise as a front to conceal industry participation in certain studies. In an April 15, 1991 memorandum to Steve Parrish, Robert Pages, a Philip Morris Researcher, recommended that Philip Morris fund an ETS exposure assessment study in Japan. Pages also recommended, "This is NOT a project that should be funded by CIAR, although there MAY be (I'm not convinced yet) a reason to say it was sponsored by CIAR so as to 'hide' industry involvement (as was done in Rupp's 'Asia Project')." 2023544456-4456 (U.S. Ex. 22,816) (U.S. Ex. 75,342).

691. Liggett participated in meetings involving the organization of CIAR though it was not a formal member. For example, the formation of and financing for CIAR were discussed at meetings of the Tobacco Institute Executive Committee on June 18, 1987, and August 20, 1987, at which committee member Kinsley R. Dey of Liggett was present. 2025856068-6073 (U.S. Ex. 86,509); 2023723951-3955 (U.S. Ex. 86,510).

692. On January 19, 1993, Dennis Dietz, Manager of Scientific Issues for Liggett, attended a CIAR meeting in London, which was also attended by scientific personnel from Defendants Philip Morris, Lorillard, R.J. Reynolds, BATCo, and Brown & Williamson. According to the meeting notes, the attendees reviewed several "major on-going or planned" studies sponsored by CIAR and "seemed cautiously interested in a collaborative approach such as CIAR to proactively address the ETS issue with good, solid science." 87802763-2763 (U.S. Ex. 23,536); 20230537331-7331 (U.S. Ex. 86,513); 89259462-9465 (U.S. Ex. 86,512).

693. Brown & Williamson was not an charter member of CIAR due to the dominating

leadership of Defendants R.J. Reynolds and Philip Morris. However, Brown & Williamson worked closely with the members during the conceptualization and establishment of CIAR. Moreover, in 1995, Brown & Williamson officially joined CIAR. 401104890-401104890 at 4890 (U.S. Ex. 47,545); 620002505-2506 (U.S. Ex. 53,330); 800105506-5506 (U.S. Ex. 31,679); 2063650456-0456 (U.S. Ex. 39,805).

694. Though BATCo never became a direct member of CIAR, it played a cooperative role with that organization to advance the Enterprise. In a May 24, 1988 memorandum to BATCo's Richard Baker, Chris Proctor, then-Head of Science at BATCo, described the purpose and activities of CIAR. According to Proctor, Philip Morris was very interested in obtaining associate memberships from tobacco companies based outside the Unites States. Baker then wrote a memorandum recommending that BATCo join CIAR. Baker wrote, "BAT is on the way to becoming an important industry centre for ETS. To enhance this, it would be desirable to become an associate member of the US Center for Indoor Air Research." Although it did not officially become a member, BATCo participated in some of the studies conducted by CIAR. 401104890-4890 (U.S. Ex. 47,545); 800105506-5506 (U.S. Ex. 31,679).

695. An August 17, 1988 memorandum, written by Christopher Proctor when he served as a research scientist at BATCo's Southampton (England) laboratories, discussed CIAR and its articles of incorporation. This memorandum stated, in part:

> Meetings of the board are held every five weeks in Washington and, in addition to the board members, John Rupp (Covington & Burling), Don Hoel (Shook Hardy & Bacon), Mary Ward (RJ Reynolds) and a TI representative attend to observe. Rupp and Hoel comment on product liability aspects. **In terms of scientific acceptability, CIAR provides a further buffer between the**

> **Company and the third party, yet allows strong control of projects without major in house effort.**

400974598-4600 at 4598, 4600 (U.S. Ex. 47,526) (emphasis added).

696. A series of slides from a 1995 R.J. Reynolds Tobacco International Inc. presentation, entitled "ETS: a global offensive and defensive strategy" and produced from BATCo's files, reveals that the two Defendant Cigarette Companies coordinated their efforts to use CIAR to preempt an upcoming International Agency for Research on Cancer ("IARC") study, which was to be the largest epidemiological study of ETS. These slides stated, in part:

> ETS Objectives: Pre-empt IARC with CIAR exposure studies . . .
> Counter directly with misclassification & confounder data . . .
> Build positive approach on IAQ – ventilation/ accommodation.
> ETS key messages: Threats related to ETS exposure grossly exaggerated . . . Adults have the right to be properly informed about smoking . . . Consumers favor separation and accommodation, not total bans . . . Tobacco industry will take lead on encouraging 'equal' accommodation.

502558482-8497 at 8489, 8491, 8493, 8496 (U.S. Ex. 29,562).

697. CIAR's principal offices were located in Linthicum, Maryland. 321141104-1104 (U.S. Ex. 20,587).

698. The dissolution of CIAR was authorized by its voting members on October 7, 1999. See U.S. FPFF § I.I(3), infra. 86205205-5206 (U.S. Ex. 21,091) (U.S. Ex. 75,411); 520936046-6049 (U.S. Ex. 86,631).

(2) CIAR Special Projects

699. Lorillard, Philip Morris, and Brown & Williamson also conducted "special projects" through CIAR similar to CTR Special Projects. In addition to scientific grants

approved through the CIAR SAB, CIAR also had an "applied research" program through which it approved projects requested by the funding entities, which were used to develop evidence to support Defendants' litigation positions on ETS issues. Deposition of Steven Parrish, United States v. Philip Morris, et al., June 25, 2002, 110:20-111:25.

700. These projects were approved by CIAR's Board of Directors and not vetted through the scientists on the CIAR SAB. For example, on November 13, 1996, CIAR's Board of Directors considered Edward Domino's proposal entitled "Dietary Nicotine: A Possible Source of Blood, Salivary, and Urinary Cotinine." 517577761-7761 (U.S. Ex. 20,867); 86617703-7703 (U.S. Ex. 21,094).

701. "Applied" or special project research done for CIAR also sometimes entailed an initial pilot study on the ETS-related topic to see what the results a full proposed "applied" project might be, such as the 1993 ETS cross-contamination field study. This procedure allowed Defendants the opportunity to not continue to fund a study, which might have an adverse outcome to the one desired by Defendants. 89259467-9468 (U.S. Ex. 22,982).

702. Defendants Lorillard, Philip Morris, and Brown & Williamson agreed to continue to fund nine of the twenty-three CIAR projects after dissolution of CIAR. The agreed upon participation in the cost of the work was 66% for Philip Morris, 22% for Brown & Williamson, and 12% for Lorillard. The single year cost for the nine proposals was $320,000. 83499144-9145 (U.S. Ex. 55,852); 2063908736-8736 (U.S. Ex. 20,514) (U.S. Ex. 75,364).

H. International Organizations, Committees, and Groups

703. Defendants believed that global coordination and action were critical to protecting

and enhancing tobacco companies' positions in their respective countries and that their economic interests would be best served by pursuing a united front on smoking and health issues. To further the shared objectives of the Enterprise, the alleged conspiracy and the scheme to defraud, Defendants worked together over a period of time to form, control, use, and participate in overseas entities, including but not limited to, the Tobacco Manufacturers' Standing Committee ("TMSC"), which became the Tobacco Advisory Council ("TAC") and then the Tobacco Research Council ("TRC"); the International Committee on Smoking Issues ("ICOSI"), which became the International Tobacco Information Inc. ("INFOTAB") and then the International Tobacco Documentation Center ("TDC"); and Centre for Cooperation in Scientific Research Relative to Tobacco/Centre de Coopération pour les Recherches Scientifiques Relatives au Tabac ("CORESTA").

(1) TMSC - Tobacco Manufacturers' Standing Committee

704. On February 12, 1954, the British Minister of Health made a statement before the House of Parliament regarding the report of a special committee appointed by the British Health Ministry which had found a strong presumption that the relationship between smoking and lung cancer was causal. The British tobacco manufacturers "decided that the best way to deal with the matter was on an industry rather than on a individual company basis, following the lead of the industry in the U.S.A., who formed the Tobacco Industry Research Committee in December 1953." Shortly before the report was made public, the tobacco manufacturers in the United Kingdom approached the Minister of Health, and, on his advice, agreed to donate £250,000, to be spread over seven years, to the Medical Research Council for research into smoking and lung

cancer. TLT0900916-0916 (U.S. Ex. 87,968); TLT0900150-0153 (U.S. Ex. 88,780); TLT0900943-0943 (U.S. Ex. 88,491); 110070785-0842 at 0788 (U.S. Ex. 20,270).

705. In March 1954, John Hill of Hill & Knowlton, TIRC's public relations counsel, and Alan Campbell-Johnson, the London associate of Hill & Knowlton, met with D.M. Oppenheim, BATCo Chairman; Robert Sinclair, Imperial Tobacco Chairman; and E.P. Partridge, Imperial Tobacco Director and Secretary, to discuss the newly-formed TIRC and a possible relationship between TIRC and the tobacco manufacturers in the United Kingdom. Hill outlined proposed plans, policies, functions, and responsibilities for TIRC, the TIRC Scientific Advisory Board, and the TIRC Research Director, and showed the group the proofs of the about-to-be published white paper. See U.S. FPFF § I._, supra, discussing the Hill & Knowlton white paper released April 14, 1954, entitled "A Scientific Perspective on the Cigarette Controversy." The British executives offered suggestions for changes to the white paper because "[q]uite naturally the British Tobacco group is vitally interested in what we do because the repercussions of what happens in the United States will affect Great Britain and vice versa." Timothy Hartnett, President of Brown & Williamson, and other members of the TIRC Board "had asked [Hill] to discuss with [the BATCo and Imperial Tobacco executives] the possibility of some form of liaison between the two groups" and to suggest "that this could be worked through Hill & Knowlton, Inc. and our London Associate Campbell-Johnson, or in any other way they might suggest. The reaction to the idea of liaison was most favourable." TLT0900159-0161 (U.S. Ex. 87,720).

706. In April 1956, TIRC's Clarence Cook Little, TIRC Scientific Director, traveled to

London and met with representatives of the British tobacco industry, including D.M. Oppenheim and Anthony D. McCormick of BATCo. According to Alan Campbell-Johnson, Hill & Knowlton's London associate, "the British tobacco manufacturers [were] increasingly alive to the benefits conferred by the T.I.R.C. and would like to see a similar body set up in [England] both as a source of objective information on the whole problem and as a co-ordinating centre for research." TLT0900794-0798 (U.S. Ex. 87,721). Likewise, the Defendants in the United States and their public relations counsel were "much concerned over the apparent seriousness of the threats posed to TIRC's position by recent and continuing attacks on smoking overseas." They realized that official government statements in the United Kingdom and other European countries regarding the connection between smoking and lung cancer "further complicate[d] the handling of serious problems of domestic origin which may be faced in the period ahead." TLT0900324-0324 (U.S. Ex. 88,492).

707. In June 1956, the Tobacco Manufacturers' Standing Committee ("TMSC") was formed by BATCo and other United Kingdom tobacco manufacturers, giving "formal status to the co-operation in research of the group of manufacturers who in 1954 made a donation of £250,000 to the Medical Research Council for investigation into the causes of lung cancer." Its stated purpose was "to assist research into questions concerned with the relationship between smoking and health, to keep in touch with scientists and others working on this subject in the United Kingdom and abroad, and to make information available to scientific workers and the public." Geoffrey F. Todd was appointed Director of TMSC. Alan Campbell-Johnson, Hill & Knowlton's London associate, was appointed public relations consultant to the TMSC.

105610912-0949 at 0914 (U.S. Ex. 20,245); 100276405-6411 (U.S. Ex. 67,689); 110070785-0842 at 0788-0789 (U.S. Ex. 20,270); TLT0900802-0803 (U.S. Ex. 87,722); TLT0900804-0804 (U.S. Ex. 87,723); TLT0900808-0808 (U.S. Ex. 87,724); TLT0900822-0825 (U.S. Ex. 87,725).

708. TMSC member companies in the United Kingdom and TIRC member companies in the United States coordinated their efforts to promote the open question on the relationship between smoking and disease and to deny causation.

709. After Timothy Hartnett, TIRC Chairman, traveled to England to meet with TMSC members in June 1956, Campbell-Johnson wrote to John Hill that Hartnett's "presence at that particular moment should do much materially to help to get relations between TIRC and the new committee [TMSC] off to a good start." Campbell-Johnson ended the letter by counseling that: "Close thought is needed on the relationship between TIRC and TMSC and the public relations implications of this are clearly left to our discretion to consider. While it is fully appreciated that the operations are, in fact, and should appear to be entirely separate, there clearly will be occasions when pronouncements emanating from one or other side of the Atlantic, from our respective authorities, can be usefully promoted at both ends. There now exists a potential interest in TIRC dicta on this side of the Atlantic and perhaps in TMSC statements on your side." TLT0900822-0825 (U.S. Ex. 87,725); TLT0900811-0811 (U.S. Ex. 87,726); TLT0900341-0341 (U.S. Ex. 87,727); TLT0900323-0323 (U.S. Ex. 87,728).

710. During the summer of 1957, John Hill traveled to Europe and in London "spent a great deal of time with the [Tobacco Manufacturers' Standing] Committee in connection with the issuance of its Annual Report." John Hill wrote to Timothy Hartnett, TIRC Chairman, that as a

result of comments by Robert Hockett, TIRC scientific staff, Appendix II of the TSMC Annual Report had been rewritten because the TSMC members "seemed anxious to go as far as possible in meeting your wishes." TLT0900348-0349 (U.S. Ex. 87,729); TLT0900347-0347 (U.S. Ex. 87,730).

711. In June 1957, the Medical Research Council in England issued a statement which was supplemented by a statement by the Minister of Health condemning tobacco as a major cause of lung cancer and calling for a program by local health authorities and their education departments that would inform the general public of the risks of smoking. 501941569-1572 at 1569 (U.S. Ex. 49,007).

712. In an August 14, 1957 letter to Clarence Cook Little, TIRC Scientific Director, John Hill wrote that TSMC "has decided to conduct its own research henceforth, and a scientific board will be appointed - although probably not with the same status as has the [TIRC] SAB." TLT0900343-0343 (U.S. Ex. 87,731); TLT0900342-0342 (U.S. Ex. 87,732).

713. In a letter dated April 23, 1958, to John Hill regarding the "forthcoming Cancer Congress," Alan Campbell-Johnson wrote that he was glad that someone from Hill & Knowlton representing TIRC would be in Britain during the Congress so that "we can co-ordinate PR procedures as they arise on the spot." Campbell-Johnson believed that it was vital that TMSC and TIRC "in spite of their differing structures and scientific status should march in step." TLT0900879-0884 (U.S. Ex. 88,493).

714. Representatives from the TMSC came to the United States in 1958, and met with representatives from Defendants TIRC, American, Liggett, and Philip Morris among others. A

report by the TMSC representatives from those meetings noted, "With one exception . . . the individuals who we met believed that smoking causes lung cancer if by 'causation' we mean any chain of events which leads finally to lung cancer and which involves smoking as an indispensable link." TINY0003106-3116 at 3108 (U.S. Ex. 21,369); 105408490-8499 at 8492 (U.S. Ex. 21,135) (U.S. Ex. 76,169).

715. On May 5, 1958, members of the TMSC met in Richmond, Virginia, with members of the Industry Technical Committee. See U.S. FPFF § I.E(2), supra. H.R. Hanmer of American Tobacco had called the meeting "to learn what new information had been gleaned and what the present feeling of the party was in regard to animal testing of cigarette smoke fractions. It would also afford an opportunity for a general interchange of opinions on the general question of health." 100175817-5820 (U.S. Ex. 76,152); 500500366-0369 (U.S. Ex. 86,417).

716. As of August 31, 1959, the members of the TMSC were Anthony McCormick and D.M. Oppenheim of BATCo; Alexander H. Maxwell, Chairman; E.R. Adler of Carreras; R.S.W. Clark and E.J. Partidge of Imperial Tobacco; E.J. Foord of Gallahers; P.A.G. Phillips of Godfrey Phillips, Ltd.; J. Wallington of Ardath Tobacco Co., Ltd.; and F.H. Wright of J. Wix & Sons, Ltd. TMSC also had a Technical Subcommittee which was comprised of members from the various United Kingdom tobacco manufacturers. 322117427-7432 (U.S. Ex. 47,043).

717. A 1959 TMSC report stated that the main fields of research with which the committee was concerned were: "1. Factors affecting smoking habits. 2. The chemical and physical properties of tobacco and tobacco smoke. 3. The principles of the smouldering process applicable to tobacco. 4. Biological activity of tobacco smoke. 5. Factors affecting the incidence

of lung cancer and certain other diseases. 6. The physiological and psychological effects of human smoking." 322117427-7432 at 7430 (U.S. Ex. 47,043).

718. According to a June 14, 1961 report entitled "Visit to U.S.A. and Canada by G.F. Todd, Report to T.M.S.C.," Todd, then-Director of TMSC, met with George W. Allen and Ed Ragland of the Tobacco Institute and attended a TIRC Scientific Advisory Board meeting. Todd outlined the situation in the United Kingdom to his hosts and explained that, in considering TMSC's response to a United Kingdom government report, TMSC's main concern was "to prevent the report leading to a change in government policy" in the United Kingdom. He further noted that, "If a change occurred, this could spark off similar changes in U.S.A. and Canada, so that we were fighting their battle also to some extent." Finally, he concluded with a concern that "there should be more exchange of views and better understanding of each other's difficulties than in the past, but it is a situation that calls for frequent and informal exchange of information and opinion." 105367082-7098 at 7091 (U.S. Ex. 26,267).

719. In September 1962, the TMSC opened a biological research facility at Harrogate, England, for smoking and health research, under the leadership of Dr. T.D. Day. Harrogate's TMSC research involved developing tests for measuring the biological effects of tobacco smoke and included: irritation/inhalation research, mouse skin painting experiments, bioassay research on carbon monoxide and nitrogen monoxide, and measurement of cigarette smoke. The TMSC also provided grants to external researchers, in such areas as physiological response of animals exposed to cigarette smoke, regression of chemically induced tumors, comparison of effects of inducing epidermal cancer by injection and skin painting, effects of smoking on human behavior,

personality factors in smoking and lung cancer, and epidemiological studies of lung cancer and bronchitis. The TMSC published four annual reports, from 1957 through 1960, outlining the group's objectives and summarizing the year's research. Second Supplemental Responses by Brown & Williamson Tobacco Corporation (as Successor by Merger to the American Tobacco Company) to The Court's Questions, Minnesota v. Philip Morris (filed January 19, 1998), at 20-24, MPL0010690-0718 (U.S. Ex. 88,494).

720. A 1962 BATCo report stated that the TIRC in the United States occupied a position analogous to the TMSC in the United Kingdom. 110070785-0842 at 0793 (U.S. Ex. 20,270).

721. In a February 21, 1962 memorandum to Freeman Daniels of Perkins, Daniels & Perkins, John C. Russell, counsel for Lorillard, relayed that Dick Darrow of Hill & Knowlton reported that the TMSC in England planned to informally approach the Minister of Health and concede that tobacco was in some way implicated in the cancer problem. 01138122-8123 (U.S. Ex. 20,035).

722. In 1963, TMSC decided to conduct and be directly involved in its own smoking and health research program at its laboratories at Harrogate. To reflect that fact, TMSC was renamed the Tobacco Research Council in January, but maintained the same purpose and mission as its predecessor. 105610912-0949 (U.S. Ex. 20,245); 100240241-0241 (U.S. Ex. 86,889); 325298554-8579 at 8554-8561 (U.S. Ex. 67,847).

(2) TRC - Tobacco Research Council

723. When TMSC changed its name to the Tobacco Research Council ("TRC") in

1963, TRC continued to be funded by BATCo and other United Kingdom tobacco manufacturers. TRC published four reviews of its research activities between 1963 and 1974, setting forth the main conclusions of research funded or conducted by TRC. Research was conducted at the TRC laboratories in Harrogate from 1962 through 1974, when Harrogate was sold, and included mouse skin painting, inhalation studies, other biological assays, and nicotine pharmacology. Second Supplemental Responses by Brown & Williamson Tobacco Corporation (as Successor by Merger to the American Tobacco Company) to The Court's Questions, Minnesota v. Philip Morris (filed January 19, 1998), at 20-24, MPL0010690-0718 (U.S. Ex. 88,494); 100240241 (U.S. Ex. 86,889); 100392227-2251 at 2232 (U.S. Ex. 67,691); 325298554-8579 (U.S. Ex. 67,847).

724. Frequent communications kept Defendants and tobacco research organizations throughout the world apprised of each other's decisions and activities. A TRC confidential document entitled "Tobacco Research Council Review of Research Activities, 1963-64" stated that TRC "is in close touch with research being carried out in other parts of the world, and has particularly close working links with similar organizations in U.S.A. and Germany." 105610912-0949 at 0914 (U.S. Ex. 20,245).

725. An October 1964 TRC trip report confirmed that Sir Philip J. Rogers, TRC Chairman, and Geoffrey F. Todd, TRC Director, had visited the United States and met with representatives of Defendants R.J. Reynolds, American, Brown & Williamson, Philip Morris, Liggett, Lorillard, CTR, and the Tobacco Institute, as well as Hill & Knowlton executives and attorney Edwin Jacob in a series of meetings. The United States' manufacturers' main criticism

of TRC's bio-assay research at Harrogate was that the research was an "implied admission that cigarettes are harmful." Brown &Williamson considered TRC's research policy "particularly prejudicial to them through their association with B.A.T. The TRC representatives agreed that Harrogate bio-assay research might be seen as an implied admission, but pointed out that "TRC constantly bore in mind the possible repercussions of its actions in U.S.A. and the T.R.C. research was based on the needs of the situation in the U.K., including a need from the legal point of view to give no grounds for an accusation of negligence against the manufacturers." At one of the meetings with Philip Morris, "[t]he informal agreement between TRC members not to make health claims was explained. 1003119099-9135 at 9106, 9108, 9115 (U.S. Ex. 20,152) (U.S. Ex. 35,649).

726. In October 1965, Addison Yeaman of Brown & Williamson wrote that he planned to meet with lawyers Edwin Jacob from Jacob & Medinger and David Hardy from Shook, Hardy & Bacon, as well as representatives from CTR to discuss the report on mouse skin paintings, which was soon to be published by TRC's laboratories in Harrogate. Jacob and Yeaman felt it "highly desirable that there be a full exchange between T.R.C." and a small group from the United States prior to commencing preparation of the Harrogate report because "it would be far easier to influence the tone and even the context of the report . . . before it is written, than it would be to 'rewrite' a completed report." 680204121-4122 (U.S. Ex. 30,825).

727. Correspondence between Brown & Williamson and BATCo in February 1966 arranged for a visit by a delegation from the Tobacco Institute with members of the TRC. In a letter to Anthony D. McCormick of BATCo, Addison Yeaman of Brown & Williamson

discussed (a) developing a closer liaison between England's Harrogate facility, Germany's Hamburg research facility, and CTR in the United States, and (b) organizing a small group to coordinate the research efforts of the tobacco industries of England, Germany, and the United States, with Ed Finch, Brown & Williamson CEO and Chairman of the Tobacco Institute Executive Committee, as its head. 680204115-4117 (U.S. Ex. 20,990). In a February 14, 1966 letter to Edwin Finch, Anthony McCormick surmised, "I am assuming that the visit will not be a formal one between representatives of the Tobacco Institute and T.R.C. but rather an informal get together of those members of both bodies who determine industry policy in each country." 680204118-4118 (U.S. Ex. 30,824).

728. The TRC and CTR shared and coordinated research. A June 6, 1966 letter to W.T. Hoyt, Executive Director of CTR, from Geoffrey F. Todd, Director of TRC, enclosed a table showing the number of lung cancer deaths and mortality rate in the United Kingdom. Todd also offered for TRC to follow-up on the research if CTR so desired: "We have not attempted to analyse the figures by age-groups as this would be a rather lengthy operation but if you would like us to do this we should be pleased to put it in hand." CTRSP-FILES001103-1103 (U.S. Ex. 86,530); CTRSP-FILES001104-1104 (U.S. Ex.88,776). On October 6, 1966, Todd sent Hoyt a letter and enclosed a copy of a pre-publication "highly confidential" research paper reporting on the first main experiment at Harrogate. ATC2637891-7935 (U.S. Ex. 88,777).

729. A channel of communication existed between Geoffrey Todd of TRC and Addison Yeaman of Brown & Williamson by which information could be passed "on a highly confidential basis." After Yeaman received a confidential report Todd had written about "a

meeting between 'the U.K. domestic manufacturers and Todd, as Director of T.R.C.', and the [British] Minister on Health on 27th April [1967]," Yeaman wrote to Frederick Haas, attorney for Liggett; Cyril Hetsko, American Tobacco Vice President and General Counsel; Henry Ramm, R.J. Reynolds General Counsel; Paul Smith, Philip Morris General Counsel; and Earle Clements, President of the Tobacco Institute that: "I have reason to hope that the Minister of Health indicated considerable reserve as to publishing tar figures on the ground that such disclosure might give unwarranted reassurance . . . . I am more than ever persuaded that the present condition of affairs in England justifies a meeting between counsel for the U.S. companies and representatives of the industry in the U.K." LG2000185-0186 (U.S. Ex. 88,495).

730. On February 14, 1967, A.W.H. Stewart-Moore, a member of the TRC Executive Committee, sent a letter to Virgil D. Heger, Executive Vice President of American Tobacco, notifying him that TRC would be sending a delegation of scientists to the United States in March to discuss nicotine with scientists designated by CTR. Despite the scientific nature of the meetings, Stewart-Moore indicated that the meetings would include "the lawyers from the major American tobacco manufacturers." 0060293378-3378 (U.S. Ex. 85,326).

731. In July 1967, counsel from R.J. Reynolds, Philip Morris, Brown & Williamson, and BATCo visited TRC to discuss a variety of issues such as research objectives, the status of pending legislation in the United States, and the implications of British research in the United States. In terms of communication between the United States and the United Kingdom, it was noted that

> [t]he private channel of communication between Mr. Todd and Mr. Yeaman [Brown & Williamson Vice President and General

> Counsel] has proved valuable and all three visitors have expressed appreciation of information conveyed in this way. The representatives of the other companies are perfectly satisfied with this link through Brown & Williamson. They all hope that this channel of communications will be continued and developed.

At the end of the meeting, the United States visitors from R.J. Reynolds, Philip Morris and Brown & Williamson "expressed the hope that the present close liaison would be maintained in the future. " LG0298922-8924 at 8922, 8924 (U.S. Ex. 36,266).

(3) TAC - Tobacco Advisory Council

732. The TRC was re-named the Tobacco Advisory Council ("TAC") on August 31, 1978. In a letter to D. Jones of BATCo, Clifford Jarrett, TRC Chairman, explained that TAC would have an Executive Committee which would be a top level of control over the research activities of TAC. According to Jarrett, the membership of TAC would remain the same as the TRC after the name change, and "[a]ll the outstanding commitments of TRC, to contractors and grantees, will be taken over and honoured in full by TAC." 100142494-2495 (U.S. Ex. 21,489); 109840381-0383 at 0383 (U.S. Ex. 20,261).

733. At a November 16-17, 1983 meeting, the TAC member company tobacco research directors agreed to modify a TAC publication, "Review of Research Activities," in response to "the eleventh hour intervention by BAT lawyers on many aspects of the galley proof of the publication [because of] the extreme sensitivity of many of the issues, and of the vital need to be safe rather than sorry." The participants agreed to replace summaries of the results of grantees' research – which the researchers had written – with "much shorter statements of results prepared by TAC and agreed by the grantees." 109840381-0383 at 0383 (U.S. Ex. 20,261).

734. These modifications to the TAC publication that were recommended by BATCo attorney Anne Johnson also included removing the historical perspective and general summary sections of the publication based on a rationale that TAC was meant to sponsor "independent research, which is carried out at arms length with no interference or control from TAC or the industry. . . . Both the existence and particularly the general tone of the Historical Perspective and the general survey were contrary to this position." Johnson's comments also promoted the idea that "it would be better to follow the pattern of the CTR reports . . . which simply present the research without comment." 107317780-7795 (U.S. Ex. 86,532).

735. In 1983 and 1984, TAC research directors met to discuss "the industry response" to the Third Report of the Independent Scientific Committee on Smoking and Health ("ISC"). They decided not to inform the ISC that there was "little scientific opportunity to identify and then selectively eliminate any specific components [of 'other noxa' found in the vapor phase of smoke] that could be unequivocally linked with the alleged smoking associated diseases." This decision was made in part because "the Committee might press industry to undertake or fund research on 'the quality of tar,' ie on the specific biological activity of tobacco types and commercial products" – a "possibilit[y not] welcome to the industry." Each TAC member company prepared and exchanged draft position papers on one of "the six main areas of 'other noxa' identified by the ISC. . . . We agreed that the draft position papers should not be revealed to the ISC but that individual Research Directors would be responsible for introducing any discussion that arose on a particular subject." 101003866-3870 at 3866-3867 (U.S. Ex. 20,232).

736. TAC continued the British tobacco industry's relationship with public relations

and research entities in the United States, especially on environmental tobacco smoke ("ETS") issues.

737. For example, TAC met with the Tobacco Institute, Germany's Verband der Cigarettenindustrie ("Verband"), and Japan Tobacco International in Washington, D.C. on March 18-19, 1987, to address the need for "increased cooperation among the participating countries and on an international level." The meeting was designed to be "a show-and-tell, with specific emphasis on the current status of ETS scientific research, public affairs, and political nuances in each of the countries." TI00682162-2163 (U.S. Ex. 21,240); TI00612460-2461 (U.S. Ex. 62,070).

738. A February 24, 1986 R.J. Reynolds interoffice memorandum from Charles Green, R.J. Reynolds scientist, to Alan Rodgman, another R.J. Reynolds scientist, concerning the International ETS Working Committee stated: "A proposal has been made to Mr. Don Hoel, an attorney for Shook, Hardy & Bacon and chairman of the TI-ETS Working Committee, that more formal cooperation be established between the scientific committees concerned with ETS." The memorandum further pointed out that members of Britains' TAC, which included BATCo, and Germany's Verband were "prepared to meet with representatives of the U.S. Tobacco Institute ETS Working Committee in London on April 8th. Mr. Hoel has requested that Dr. Tom Osdene of Philip Morris and I accompany him to this meeting. It is expected that this will be the first of two or three meetings per year where the various committees will exchange scientific information and coordinate proposed studies." Green requested permission from R.J. Reynolds to attend the meetings as "the value of our participation in these meetings should be obvious."

Handwritten comments on the typed memorandum read: "Bob: Neither legal nor I have a problem with this. In fact, Mary Ward thinks it's a great idea. May we have your approval for Dr. Green to participate? -Alan 2/24/86; Approved! Bob 2/26/86." 508192982-2982 (U.S. Ex. 86,533).

739. According to an April 15, 1986 R.J. Reynolds memorandum from Charles Green to Alan Rodgman, a "joint meeting of the ETS advisory groups from West Germany, the United Kingdom, and the United States as well as the INFOTAB Board of Directors" was in fact held on April 8, 1986, at the TAC's London office to discuss "scientific and public relations problems related to environmental tobacco smoke." The meeting included representatives from Defendants Philip Morris, BATCo, R.J. Reynolds, and the Tobacco Institute, as well as Imperial Tobacco, Reemtsma, Rothmans International, and the law firm of Shook, Hardy & Bacon. The attendees discussed various research projects which could be used to address proposed regulations with respect to ETS, including projects and programs sponsored by the Tobacco Institute and the "cooperative [United States] industry study to measure carbon monoxide, nicotine, and particulate matter in restaurants." 505347172-7174 at 7172-7173 (U.S. Ex. 20,739) (U.S. Ex. 75,274); 2022932502-2506 (U.S. Ex. 22,828); (U.S. Ex. 75,125); (U.S. Ex. 75,333).

740. A fall 1987 report described ETS research activities in the United Kingdom by several entities, including TAC, CORESTA, and BATUKE. The section on TAC research activities stated that: "The overall strategy with TAC relating to ETS is to promote the 'no consensus' argument and to seek third party endorsement. The activities are aimed at - (a) Maintaining doubt, (b) Placing ETS into perspective, (c) Determine public opinion on ETS."

321091680-1729 at 1685 (U.S. Ex. 28,271).

741. Defendant Cigarette Companies circulated revised versions of TAC publications. According to a March 10, 1987 internal memorandum, Philip Morris planned to distribute the TAC publication "Tobacco Smoke and the Non-Smoker" to industrial organizations on behalf of the Enterprise once the document had met industry attorneys' approval. 2501009269-9269 (U.S. Ex. 27,917).

742. In a May 27, 1987 memorandum to Samuel Chilcote, Tobacco Institute President, William Kloepfer, Tobacco Institute Vice President, reported on his meetings with TAC in London. During the meeting, Kloepfer gave the TAC public relations committee an overview of Tobacco Institute issues and management. According to Kloepfer, TAC recognized ETS as its primary issue and wanted to adapt Tobacco Institute consultant Gray Robertson's video for TAC's use. TI05261937-1938 (U.S. Ex. 62,213); TI12260544-0545 (U.S. Ex. 62,328); TIDN0012090-2091 (U.S. Ex. 77,023).

743. According to a March 17, 1987 letter to Hans Verkerk of INFOTAB, William Kloepfer planned to "compare notes on the ETS issue" with his colleagues at TAC before attending a steering committee meeting in connection with the Sixth World Conference on Smoking and Health. TI12261173-1173 (U.S. Ex. 62,338).

744. TAC and the Tobacco Institute shared information on how to confront the ETS issue publically. For example, on August 23, 1989, Clive Turner, TAC Deputy Chief Executive, wrote to Sam Chilcote, Tobacco Institute President, requesting an ETS publication kit prepared by the Tobacco Institute. TI12240317-0317 (U.S. Ex. 86,537).

745. In July 1993, Andrew Foyle, a solicitor at Lovell, White & Durrant, outside counsel for BATCo, expressed concerns about statements on ETS made by TAC's Clive Turner. The letter indicated that there were "legal reasons why he [Turner] should exercise care in making statements. . . . There is a view that the Industry now finds itself in the same position in relation to ETS that it was thirty to forty years ago in relation to active smoking. . . . Statements made by the TAC should, therefore, be consistent with the positions adopted by the individual Companies. On scientific matters relating to ETS, a common position has been agreed to by all the Companies. . . . We will be contacting each of you shortly to see if you consider that there are any other legal reasons as to why the TAC needs to exercise care in making public statements." 503055325-5326 (U.S. Ex. 20,712).

746. In January 1994, TAC changed its name to the Tobacco Manufacturers Association ("TMA") because "the name TAC did not clearly reflect the change of focus in its role to that of a trade association for the UK companies." TMA had become "an unincorporated trade association representing the tobacco companies participating in the UK market," and its prime function was to "represent the UK tobacco companies in negotiations and dealings with the UK Government and other authorities on issues of concern and interest to its members." It also provided information services to its members and, on request, to the public. TMA members include Defendant BATCo and R.J. Reynolds, as well as Gallahers, Rothmans International, and Imperial Tobacco. 325298554-8579 (U.S. Ex. 67,847); 503055247-5247 (U.S. Ex. 66,405); 321103764-3771 at 3764 (U.S. Ex. 67,807); 321103761-3761 (U.S. Ex. 28,286).

(4) ICOSI - International Committee on Smoking Issues

747. On December 3, 1976, Hugh Cullman, Executive Vice President of Philip Morris, memorialized a phone call from R.A. (Tony) Garrett, Chairman of Imperial Tobacco, during which Garrett explained that he had been exploring, with a number of major tobacco companies, including Defendants BATCo and R.J. Reynolds, as well as Rothmans International and Reemtsma (Germany), whether company heads might be prepared "to meet discreetly to develop a defensive smoking and health strategy, to avoid our countries and/or companies being picked off one by one, with a resultant domino effect." The initial objective of this group would be "to develop a smoking and health strategy which would include a voluntary agreement that no concessions beyond a certain point would be voluntarily made by the members [to their governments] and, if further concessions were required by respective governments, that these not be agreed to and that governments be forced to legislate." The proposed agenda for the meeting included "Consideration of the international dimension to smoking and health. This might include such matters as . . . how do developments in one country affect others. . . ." Defendants' effort was ultimately termed "Operation Berkshire." 2025025286-5286 (U.S. Ex. 20,407) (U.S. Ex. 75,142) (U.S. Ex. 78,987); 2025025290-5291 (U.S. Ex. 22,980) (U.S. Ex. 75,144) (U.S. Ex. 75,145); 2025025347-5348 (U.S. Ex. 20,410) (U.S. Ex. 75,149); 501479772-9773 (U.S. Ex. 86,514).

748. On March 24, 1977, R.A. Garrett of Imperial Tobacco wrote to Alexander Holtzman, Associate General Counsel for Philip Morris, regarding "Operation Berkshire," an upcoming meeting between the executives of certain tobacco companies. Participants included representatives from Defendants BATCo, Philip Morris, and R.J. Reynolds, as well as

Reemstma, Rothmans International, and Imperial Tobacco. The purpose of the meeting was to form a group to develop a common international position on smoking and health issues. The group formed was called the International Committee on Smoking Issues ("ICOSI"). The "open controversy" strategy (see U.S. FPFF § IV.A, infra) was made the key topic of this meeting, and the position paper embodying this strategy was reviewed and edited by the law firm of Jacob & Medinger, which represented R.J. Reynolds, Brown & Williamson, and CTR. 2025025288-5289 (U.S. Ex. 20,408); 2025025313-5318 (U.S. Ex. 23,741); 2025025341-5343 (U.S. Ex. 20,409); 2025025347-5348 (U.S. Ex. 20,410) (U.S. Ex. 75,149); 2025025369-5369 (U.S. Ex. 20,411); 500269225-9228 (U.S. Ex. 20,622) (U.S. Ex. 75,188); 2025024797-4803 (U.S. Ex. 20,406); 2501020298-0303 (U.S. Ex. 75,180); 2501024103-4107 (U.S. Ex. 21,909) (U.S. Ex. 75,181); 2501024571-4575 (U.S. Ex. 21,904); 502948580-8591 (U.S. Ex. 21,908) (U.S. Ex. 75,189).

749. ICOSI was formally registered as a non-profit association in Geneva, Switzerland, on December 1, 1978. The seven founding members of ICOSI were Defendants BATCo, Philip Morris, and R.J. Reynolds, as well as Gallahers, Imperial Tobacco, Reemstma, and Rothmans International. Each member had one vote, and expenditures were shared equally. In 1980, ICOSI had an annual budget of over a million dollars. TIMN257288-7303 (U.S. Ex. 21,343) (U.S. Ex. 75,202); 500549436-9444 (U.S. Ex. 23,008); 502120799-0805 (U.S. Ex. 20,696); 321588692-8692 (U.S. Ex. 28,544); 2501017241-7256 at 7253 (U.S. Ex. 27,922).

750. The purpose and objectives of ICOSI, as set forth in its charter, were:

> . . . the establishment of a forum for exchange of views and information on international smoking issues (to include tobacco and health) by the coordination of data and information in economic, scientific, and technical areas. The general objectives

> are to broaden the knowledge of its members, of consumers, and of appropriate authorities. In large part accomplishment of these objectives will be sought by providing information to various national and other tobacco trade associations and by serving as a resource of expertise, data analysis and opinion on these subjects of interest to the industry and its publics. The dissemination of the generality of this information will be made in the form of bulletins, reports, articles, surveys, pamphlets, and other analogous means.

2025048998-9014 at 8999 (U.S. Ex. 20,412).

751. According to notes in BATCo's files from a March 1978 meeting at the Menzies Hotel, in Sydney, Australia, however, the objective of ICOSI was "defensive research aimed at throwing up a smoke screen and to throw doubts on smoking research findings which show smoke causes deceases [sic]." 321588692-8692 (U.S. Ex. 28,544).

752. Attendees at the November 1981 Tobacco Institute College of Tobacco Knowledge were told that the organization (first named ICOSI and later named INFOTAB) was founded by BATCo, Imperial Tobacco, Philip Morris, Reemtsma, R.J. Reynolds, and Rothmans International in 1978, to perform internationally the functions that the Tobacco Institute performed for the domestic industry in the United States: "From the outset, the members recognized that the social acceptability of smoking, including the public smoking issue was a subject on which attention should be focused (sic)." 2501029891-9901 at 9896 (U.S. Ex. 20,557); see also TI04962210-2210 (U.S. Ex. 67,250).

753. ICOSI's key officers included the chairmen and other principals of the member companies who attended the Operation Berkshire meeting. They included: Patrick Sheehy, BATCo Chairman; Kit Stuart Lockhart, BATCo Deputy Chairman; William Hobbs, R.J. Reynolds Chairman; William Murray, President of Philip Morris Europe; Alexander Holtzman,

Associate General Counsel for Philip Morris; and Andrew Whist, Director Corporate Affairs of Philip Morris (Australia) Ltd. 2025025341-5343 (U.S. Ex. 20,409); 2025025369-5369 (U.S. Ex. 20,411).

754. There were two governing groups of ICOSI. The Board of Governors was responsible for establishing policy; included one principal from each member company; and met at least annually. The Executive Committee was responsible for implementing the policies of ICOSI in those areas where decision-making powers had been delegated to the Committee by the Board of Governors. It was comprised of one representative from each company represented on the Board of Governors. The frequency of Committee meetings was determined by its members. A Secretariat was also established in a centrally-located European city, Brussels, under the direction of a Secretary General. Its tasks included handling administrative functions for ICOSI; monitoring developments in international organizations; and acting as a clearing-house to provide information relative to tobacco issues to members of the industry, tobacco trade associations, and other interested groups. 2501020298-0303 (U.S. Ex. 75,180); 2501029902-9918 (U.S. Ex. 20,558).

755. Representatives of the participating Defendants attended ICOSI meetings of several working groups and task forces. The names of some of these initial working groups and task forces were the Social Acceptability Working Group, which dealt with ETS issues, the Medical and Behavioral Research Group, the EEC Task Force, the Product Liability Task Force, and the Swiss Referendum Task Force. 2501020298-0303 (U.S. Ex. 75,180); 321588692-8692 (U.S. Ex. 28,544).

756. At an ICOSI inaugural meeting held in the United Kingdom in June 1977, "a single company was chosen to be the 'lead company'" for each working group and was "charged to produce a report acceptable to the full ICOSI": R.J. Reynolds for Social Acceptability of Smoking; BATCo for Smoking Behavior; and Imperial Tobacco for Medical Research. Richard Haddon, BATCo Director of Public Relations, was a member of ICOSI's Social Acceptability Working Group. The first meeting of the Social Acceptability Working Group was to be held in the United States on July 27-29, 1977, with lead company R.J. Reynolds presenting a case history of the evolution of the Social Acceptability issue in the United States and proposing an assessment framework. 2025025294-5294 (U.S. Ex. 23,738); 2025025295-5300 (U.S. Ex. 75,146).

757. Frank Colby, R.J. Reynolds Scientific Information Division Manager, prepared notes dated July 28, 1977, on a "Meeting of the Working Party on Medical Research of the ICOSI, Shockerwick House, July 21 and 22, 1977," in which he remarked that R.J. Reynolds's objectives were mostly successfully met. 500943004-3011 (U.S. Ex. 20,662); see also 2025025145-5150 (U.S. Ex. 87,714).

758. Colby also sent an R.J. Reynolds inter-office memorandum dated October 6, 1977, to J.R. Peterson, R.J. Reynolds Vice President, William D. Hobbs, R.J. Reynolds President, and Samuel Witt, General Counsel for R.J. Reynolds, regarding a meeting of the ICOSI Working Party on Medical Research to propose research topics on non-smokers' issues. 500298379-8379 (U.S. Ex. 20,625).

759. On October 14, 1977, Dennis Durden, Vice President of R.J. Reynolds and then-

Chairman of ICOSI's Working Party on the Social Acceptability of Smoking, forwarded a report to the members of ICOSI regarding the research and analysis activities that would be conducted by the working party. Members of the working party listed in the summary included representatives of Defendants R.J. Reynolds (Durden and James Hind, R.J. Reynolds Vice President of Planning); BATCo (Richard Haddon, BATCo Public Relations Manager); and Philip Morris (John T. Landry, Senior Vice President). 501472756-2794 at 2758, 2759 (U.S. Ex. 66,342).

760. The report noted, in its Summary of General Conclusions, that the area of greatest need for industry action was "at the passive smoker level" and suggested that although "[a]vailable research indicates that smoking does not harm the health of others who are nearby[,] [t]his must be sustained and firmly established as a 'fact' in all public discussion of the issue." The report added, on the issue of passive smoking, that "[u]ntil society believes that smoking does not harm the health of nearby smokers, the industry will continue to run grave risks of further reverses on social acceptability issues. For example, the industry's critical 'freedom of choice' position cannot be maintained if people believe they are harmed simply by being near a smoker." Indeed, the Working Party concluded that in order for the tobacco industry to survive on a "social acceptability" level, all tobacco companies must work together globally to promote the open question doctrine and deny the harmful effects of ETS. 501472756-2794 at 2762 (U.S. Ex. 66,342).

761. An ICOSI meeting was held in Lausanne, Switzerland, on November 10-12, 1977. Participants included Patrick Sheehy, BATCo Chairman; Sydney J. Green, Director of BATCo

R&D; Richard Haddon, BATCo Marketing Consultant; Stewart Lockhart, BATCo Managing Director; Frank Colby, Dennis Durden, Samuel Witt, and William Hobbs of R.J. Reynolds; Alexander Holtzman of Philip Morris; and Helmut Gaisch and R.W. Murray of Phillip Morris Europe. Participants discussed position papers, activities and reports of the working parties, and proposed action recommendations. 502330543-0563 (U.S. Ex. 22,952); 2025025139-5142 (U.S. Ex. 23,736); 500298609-8611 (U.S. Ex. 20,626).

762. Suggestions for future ICOSI activities discussed at the November 1977 ICOSI meeting in Lausanne included the following: establishing a formula for continuing communication and cooperation within the industry and for monitoring industry behavior on all activity which might touch directly or indirectly on the smoking and health issue; initiating an executive orientation program for company executives to stimulate understanding and decision making on the issue; developing the means to neutralize and diminish the influence of the anti-smoking organizations; and considering the establishment of a suitable centralized European information and service center to service member tobacco companies so that a common approach to the smoking and health issue might be adopted. 502330543-0563 (U.S. Ex. 22,952); 2025025139-5142 (U.S. Ex. 23,736).

763. After the Lausanne meeting, Frank Colby received from "Herbert" at Imperial Tobacco an ICOSI directive regarding work assignments for the newly combined Medical/Behavioral Research Group and a letter regarding decisions reached by ICOSI principals in Lausanne. The letter indicated that additional meetings of the working party were scheduled for December 4, 1977, in Neuchatel, Switzerland, and for January 9-10, 1978, in Cologne,

Germany. 500298609-8611 (U.S. Ex. 20,626).

764. ICOSI member companies agreed to act together via the Enterprise to respond to smoking and health risk challenges worldwide by promoting the "open question" controversy and the myth of independent research. In an April 21, 1978, P. Isenring distributed a letter to several people including Alexander Holtzman, Philip Morris Vice President and General Counsel, about the ICOSI EEC Task Force on Consumerism. Isenring urged cooperation and coordination between Philip Morris and R.J. Reynolds concerning the involvement of the law firms of Jacob & Medinger and Shook, Hardy & Bacon, both of which represented several Defendants. Specifically, Isenring discussed the fact that the ICOSI EEC Task Force on Consumerism had to prepare an industry response to the EEC Consumer Consultative Committee's anti-smoking paper "Tobacco and the Health of the Consumer" and suggested that ICOSI members and their respective law firms work together on a common approach to the response, given their exposure to the situation in Europe over the years. 2501025098-5099 (U.S. Ex. 86,515); 2501025100-5100 (U.S. Ex. 86,516); 2501025108-5108 (U.S. Ex. 86,517).

765. In order to coordinate the Defendants' positions, the members of an ICOSI task force on the World Health Organization's Fourth World Conference on Smoking and Health met in Kansas City, Missouri, on November 20-21, 1978. Attendees included Gwynn Hargrove of Defendant BATCo; Murray Senkus of Defendant R.J. Reynolds; William Kloepfer of Defendant Tobacco Institute; Leonard Zahn, public relations counsel for Defendant CTR; Tim Finnegan of CTR's lawyers Jacob & Medinger; Hugh Grice of TAC; and Donald Hoel of Shook, Hardy & Bacon. 2501015475-5480 (U.S. Ex. 27,921)

766. In a December 1978 memorandum, Jules M. Hartogh of Philip Morris Europe vigorously argued that the effectiveness of ICOSI required coordination with and input from the Tobacco Institute and Shook, Hardy & Bacon because of their resources and experiences. 2501018326-8327 (U.S. Ex. 21,505) (U.S. Ex. 75,179).

767. According to a January 1979 action plan that was proposed by the ICOSI Task Force covering the Fourth World Conference on Smoking and Health of which Leonard Zahn was a participant, the ICOSI coverage of the conference was to be low profile. The ICOSI task force appointed a Stockholm-based public relations agency to handle logistical matters without a public profile and under "strict" control of the task force. 2501015328-5331 (U.S. Ex. 86,519); 70049849-9853 (U.S. Ex. 86,520); Deposition of Leonard Zahn, Richardson v. Philip Morris, December 16, 1998, 537:1-538:18.

768. An April 1979 document listed, under the heading "Philip Morris Representation within ICOSI," Hugh Cullman on the ICOSI Board of Governors and Leonard Zahn, CTR's public relations advisor, as a consultant-scientific journalist on the Task Force covering the Fourth World Conference on Smoking and Health. 1003717317-7330 (U.S. Ex. 86,518); Deposition of Leonard Zahn, Richardson v. Philip Morris, December 16, 1998, 505:6-505:17.

769. Helmut Wakeham, Philip Morris Vice President of Research and Development, sent an August 7, 1979 memorandum to Hugh Cullman on Gio Gori, a former National Cancer Institute scientist. Wakeham asked if Gori might be "useful to ICOSI" and stated that Gori, was well-qualified, was looking for a job, could be helpful to the tobacco industry in the smoking and health field, and had international connections. 1005082903-2903 (U.S. Ex. 21,529).

770. ICOSI developed and ran international smoking conferences. For example, in a November 28, 1979 memorandum regarding the "ICOSI International Public Smoking Symposium," Richard Marcotullio of R.J. Reynolds espoused the view that the symposium should be an industry show, should raise issues and present testimony to discredit the other side, and should use individuals solely supportive of the industry with the goal of producing a book that could be used to persuade legislators. The symposium was intended to "establish witnesses, international sociologists, lawyers and scientists that the industry could count on in other areas. It was intended to present the industry side of the public smoking issue, not the other side." The memorandum discussed whether or not ICOSI's or tobacco's sponsorship of the symposium should be made public because it could hinder the ability to attract certain participants. The symposium was not intended to create any kind of debate, and any debate that did occur would be "controllable and therefore not a real debate." 502122792-2797 (U.S. Ex. 20,697); 502122792-2797 (U.S. Ex. 66,389).

771. In March 1980, the Executive Committee of ICOSI was disbanded. At this time, the Board of Governors consisted of two named representatives of each member company who met at least twice a year, including one meeting which the Defendants' CEOs were to attend. Each member company was to have one vote at the meetings of the Board of Governors. Chairmanship was held in rotation by each member company. William D. Hobbs, Chairman of R.J. Reynolds, was Chairman of the Board of Governors in 1979, until March 31, 1980. 2501020298-0303 (U.S. Ex. 75,180).

772. In 1981, ICOSI discarded its old name "and started operating under [its] new

name: International Tobacco Information Center/Centre International d'Information Du Tabac - INFOTAB. We dropped the old name and adopted this new one for strategic reasons. The original name stated too aggressively and in a somewhat negative tone our objective. The new name is more neutral. The old name tended to draw attention to the members. The new name focuses attention on a neutral center, the Secretariat." 2501029902-9918 (U.S. Ex. 20,558).

(5) INFOTAB - International Tobacco Information Center

773. ICOSI was renamed the International Tobacco Information Center/Centre International d'Information Du Tabac ("INFOTAB") and registered in Geneva, Switzerland, on December 8, 1980. 2025049260-9260 (U.S. Ex. 20,413); 502120799-0805 (U.S. Ex. 20,696); 2501029902-9918 (U.S. Ex. 20,558).

774. INFOTAB's charter, filed with the Swiss Government on November 2, 1982, was substantially the same as ICOSI's charter. 504934906-4953 (U.S. Ex. 20,737).

775. The six founding members of INFOTAB were Defendants BATCo, Philip Morris, and R.J. Reynolds, as well as Imperial Tobacco, Reemtsma, and Rothmans International. 10987902-9803 (U.S. Ex. 87,715); 321796140-6207 at 6151 (U.S. Ex. 28,693).

776. Defendant BATCo belonged to INFOTAB from 1981 or 1982 to about May 1990. Deposition of Christopher Proctor, United States v. Philip Morris, et al., June 12, 2002, 15:23-16:18. A 1987 document revealed that "BATCo is the largest contributor" to INFOTAB, contributing £430,671 in 1987. 301124343-4345 at 4345 (U.S. Ex. 67,762).

777. According to a January 1986 document entitled "A General Briefing on INFOTAB," there were three categories of membership: Founding Members, Associate

Members, and Allied Members. Defendants Liggett and Lorillard were Associate Members, while Defendant Tobacco Institute was an Allied Member, as was Britain's TAC. 321796140-6207 (U.S. Ex. 28,693).

778. By 1981, INFOTAB was in regular contact with tobacco industry groups in twenty-eight countries. Its strategic objective was "to help the industry around the world prevent unreasonable restrictions on its operations and help smokers preserve their freedom to choose whether or not they will smoke and where they will smoke, within the bounds of mutual courtesy." 2501029902-9918 (U.S. Ex. 20,558).

779. In the mid-1980s, Hugh Cullman of Philip Morris and Chairman of the INFOTAB Board of Governors; R.L.O. Ely of BATCo; Andrew Whist of Philip Morris; and Richard J Marcotullio of R.J. Reynolds were on the INFOTAB Board of Governors, which was later re-named the Board of Directors. 504934906-4953 at 4948 (U.S. Ex.20,737); 321796140-6207 (U.S. Ex. 28,693).

780. INFOTAB continued much of ICOSI's work using many of the same working groups and committees already established by ICOSI, including the Social Acceptability Working Party ("SAWP"), the EEC Consumerism Task Force, and the Developing Countries Group. 2025049380-9382 (U.S. Ex. 75,156).

781. In a 1983 letter drafted to INFOTAB, BATCo's Sir Patrick Sheehy asserted that the principles and beliefs that lay behind the formation of INFOTAB, formerly ICOSI, were "to establish[] agreed Industry positions upon matter of common concern and to protect[] the long-term interests of the Industry as a whole. Smoking and Health was seen as an issue of great

importance and it was considered that the Industry could only cope with the increasingly vocal and hostile attack of the anti-smoking bodies by better Industry co-operation and co-ordination." 321796112-6112 (U.S. Ex. 28,686).

782. A November 30, 1989 INFOTAB document includes among the "most important" roles to INFOTAB: "'Think tank' for industry cooperation worldwide, in association with member companies;" "Preparation of positions agreed by the industry;" "Preparation of published materials and kit sets for use by NMA's and lead companies;" and "Promulgation of strategies agreed by the industry." 300528729-8731 (U.S. Ex. 46,572).

783. INFOTAB prepared various materials on smoking and health issues including research-related materials, public relations campaign materials, and argumentation papers.

784. According to a March 1981 INFOTAB document entitled "The Public Position Question," an ad hoc meeting of members of all of INFOTAB's working parties and committees was held to discuss and report to the Board of Directors on "the public position question." The ad hoc group specifically advised the Board against the establishment of a separate Public Position Working Party because:

> (1) In general, there is a great overlap between social acceptability and the industry's credibility; and a Social Acceptability Working Party has been in existence as one of INFOTAB' s main committees almost since the beginning of ICOSI. Moreover, last year SAWP established a working group to develop a long-range Communication plan, under the code name MAYFLY. The overall objective of the project is defined as "To influence, modify or change public opinion to: the industry, smokers and smoking, to create a more favourable climate, however directly or indirectly;
>
> (2) The existing working parties and other committees are already undertaking a number of projects which bear directly on the

> credibility issue. They include (a) under SAWP, a Social Costs-Social Values programme is dealing with the allegations that the industry is an economic burden on society. Work on the public smoking issue is also relevant. These are in addition to the Mayfly project itself. (b) The EEC Consumerism task force has already recognized the credibility problem and is tackling it by the use of third parties, who can be quoted and therefore lend authority to the industry's positions. (c) The Developing Countries Group is preparing a model for economic impact studies, as well as a programme to communicate the industry's contributions to economical and social development through aid to tobacco farmers.

2025049380-9382 at 9380-81 (U.S. Ex. 75,156).

785. This document, which recorded activity by INFOTAB's working group members, subsequently noted that, although all of the above-referenced initiatives had been undertaken by the various working groups and committees, the issue of causation or smoking and health had not been addressed by any group. This was because to do so would be contrary to the purpose of INFOTAB and the position of INFOTAB on medical issues: "However, no work has been done on the primary health issue. The group doubts whether much usefulness would be derived from a review of the position on this question, unless the Board were willing to contemplate a re-examination of INFOTAB's basic position on this, as evidenced by its paragraph headed 'Medical Controversy' in the Position Paper of November 1977; by the current Board practice not to discuss the issue; and by Article 2 of the ICOSI Charter - which will be revised to state that the organization shall not 'make medical judgment on tobacco issues.' A similar sensitivity is evident from the disbanding of the Medical and Behavioral Research Group and the Science and Technical Advisory Group." 2025049380-9382 at 9381 (U.S. Ex. 75,156).

786. Although INFOTAB conducted no direct research on causation, the working

group members concluded: "Nevertheless, the industry should continue and expand its commitment to independent research and close contact with independent scientists, in order to have the means to challenge whenever and wherever possible the often biased and inaccurate claims lodged against it." 2025049380-9382 at 9381 (U.S. Ex. 75,156).

787. In 1986, INFOTAB produced an Issues Binder which provided "members with reference materials and quotations in response to the major allegations in the smoking and health area. The binder is organized around nine issues – 'addiction', advertising and sponsorship, developing countries, the public smoking issue, legislation, smoking and health, social costs, taxation and warning labels." 321796140-6207 at 6151 (U.S. Ex. 28,693).

788. In 1990, INFOTAB also issued a "Spokesperson's Guide" for Defendants' use. The introduction stated that the manual was for the use of the recipient and that no copies were to be made. The manual addressed each and every claim against the tobacco industry and provided the standard script that all users were to use to respond to such claims. Among other false statements, the manual stated that cigarette smoking was not addictive. 2503017001-7186 (U.S. Ex. 20,568).

789. A document entitled "Report and Proposals - 'Passive' Smoking Assessment Group," issued by INFOTAB, described the recommendations of INFOTAB's Secretary General to "improve the industry's position with the 'passive' smoking issues." The report emphasized that commitment from the founding member companies of INFOTAB as well as coordination with the Tobacco Institute was needed, and that all member companies and the Tobacco Institute had discussed and were in unanimous agreement with the proposals. The proposals specifically

called for (1) "a coordinated flow of publicity highlighting the positive results from three major symposiums . . . held in 1983 and 1984 which concluded that there was no hazard to health"; and (2) the industry to "take[] the initiative to support, at arms length, sound scientific research." 103366351-6353 (U.S. Ex. 26,249).

790. J. Kendrick Wells of Brown & Williamson sent a memorandum to Ernest Pepples of Brown & Williamson dated October 27, 1981, concerning a meeting held on October 26, 1981 with L.C.F. Blackman, Director of the Group Research and Development Center of BATCo in Southampton, England. At this meeting, Wells expressed concern with Blackman's slide presentation entitled "Basic Approach to Government and Medical Authorities." In October 1981, Blackman then made substantive changes to a document entitled "Basic Approach to Government and Medical Authorities." The reason for the change was that the initial document "admit[ted], despite a disclaimer, that cigarettes are harmful to health in proportion to delivery." It was noted that the document also "runs against important argument the U.S. industry is making in response to the FTC Staff Report and may need to make in response to charges that cigarettes are addictive." Blackman agreed to send the changed document to the other INFOTAB members. 680585063-5064 (U.S. Ex. 21,007); 680585041-5042 (U.S. Ex. 21,006).

791. BATCo also relied on position papers developed for the industry by INFOTAB. For example, an internal BATCo memorandum sent to all No. 1's and Public Relations Managers of Operating Companies indicated that a paper, "Advertising Argumentation," produced by INFOTAB provided arguments against advertising restrictions and was adopted for use in BATCo's 1981 Board Strategies on Smoking Issues. 100439233-9233 (U.S. Ex. 34,655);

100439234-9234 (U.S. Ex. 34,656); 100439235-9236 (U.S. Ex. 34,657).

792. Five members of INFOTAB attended the November 16, 1981 Tobacco Institute College of Tobacco Knowledge, a seminar put on by the Tobacco Institute to bring its managers and other industry employees up to speed on the history of tobacco and tobacco litigation. 2501029891-9901 (U.S. Ex. 20,557). See U.S. FPFF § I.C(4)(c), supra, for detailed discussion of Tobacco Institute College of Tobacco Knowledge.

793. In November 1981, representatives from Defendants BATCo, Philip Morris, and R.J. Reynolds joined gatherings of National Manufacturers Associations ("NMAs") in Central America (Panama City) and South America (Rio de Janeiro) at INFOTAB Public Affairs Workshops. One of the speakers explained that, three weeks earlier, INFOTAB had held its fourth workshop on tobacco issues for NMAs at which "industry groups from 25 countries were represented, as well as senior public affairs managers from our six member companies. About once a month there is a meeting of one of our four committees, bringing company specialists together from different countries. . . . [T]hese gatherings are stimulating and supporting industry action on smoking issues at the international level and in national markets. 2501029902-9918 (U.S. Ex. 20,558).

794. Among the conclusions reached at the INFOTAB Public Affairs Workshops in South and Central America were that member companies would "give consideration to opening a dialogue with doctors . . . it will be necessary to be very careful in the selection of those who are likely to be neutral/un-committed on Smoking and Health issues. Nevertheless, the advantages of such a dialogue were appreciated, particularly if these doctors could publicly give endorsement

of certain industry action (eg low tar development) on which the industry itself is legally constrained" and could "support the industry in negotiations with government." 301127373-7385 (U.S. Ex. 46,587).

795. INFOTAB held a Global Issues Working Party meeting on November 3, 1983. 202327000-0001 (U.S. Ex. 23,668).

796. E.A.A. Bruell, Chairman of BATCo, wrote "Letter to All No. 1s of Operating Companies" entitled "Relations with INFOTAB, National Manufacturers Associations and Competitors" in response to a September 2, 1983 advertisement placed by a Philip Morris affiliate in Holland regarding Barclay. Bruell noted that the advertisement "is the first occasion of which we are aware when a competitor has: 1. Raised the health issue to gain competitive advantage. 2. Quoted and thereby endorsed a report of an anti-smoking lobby . . . to attack another company in the industry." 104576617-6620 at 6617 (U.S. Ex. 78,985).

797. BATCo and other Defendants monitored research pointing to the conclusion that smoking caused cancer through INFOTAB. In a May 26, 1986 INFOTAB summary sent to BATCo's Kay Kinnard, Esther Maquet discussed one such study: "In view of the evidence that has been accumulated and presented at this meeting on the possible role of NOC [N-nitroso compounds] in the causation of human cancer, a causal association, although not rigorously established must be assumed." 2021594539-4540 (U.S. Ex. 36,773).

798. On October 15, 1986, R.J. Reynolds scientist Charles Green informed members of INFOTAB, as part of his work for the ETS Advisory Committee (further discussion at U.S. FPFF § IV.C., infra), that Defendants' lawyers pressured scientists to influence the results of a proposed

study before it was started, and that, therefore, tobacco scientists often did "pilot" studies to give the lawyers this information. 2501457517-7522 (U.S. Ex. 22,956) (U.S. Ex. 75,185).

799. In 1988, Philip Morris laid plans to create an International Center for Indoor Air Research ("ICIAR") which it envisioned would work cooperatively with INFOTAB and CIAR in the United States. 2501474262-4265 (U.S. Ex. 75,271).

800. A June 28, 1988 memorandum addressed to Todd Sollis, Assistant General Counsel of Philip Morris, from Donald Hoel, attorney with Shook, Hardy & Bacon, described Shook, Hardy & Bacon's role with respect to INFOTAB. Hoel stated: "SHB, as counsel to PM and other international manufacturers, was instrumental in the founding of INFOTAB to help strengthen and coordinate the activities of the various national manufacturers associations. The firm remains active in the operation of INFOTAB. It monitors the meetings and clears the draft minutes of the INFOTAB Board of Directors and the Global Issues Working Party, as well as INFOTAB workshops. All materials prepared by INFOTAB on smoking and health issues, including briefing documents sent to national manufacturers associations and presentations by the INFOTAB staff, are cleared by SHB in order to protect the member association and member companies. SHB also approves all public relations campaigns, tactics and strategies which address smoking and health issues." 2015007199-7207 at 7204-7205 (U.S. Ex. 20,311).

801. A January 30, 1989 INFOTAB document outlined how to "Attack WHO [World Health Organization]." The tactics it suggested included the following: "Criticize budget management, Address health priorities, Expose resource blackmail, Highlight regional failures, Attack 'behaviourism', Counter on public issues, Discredit activists' credentials, Engage in

statistical warfare, Invest in press relations, Show impact of 'cuckoo' organisations." The document also suggested the industry should "attack IOCU [the International Organization of Consumer Unions]" with the following program goals: "Relieve NGO pressure on WHO, Expose activists' 'credentials', Counter 'behaviourist' regulation, correct anti-business slant." 2501045258-5268 at 5260, 5266 (U.S. Ex. 20,559).

802. In 1990, INFOTAB also issued an INFOTAB publication entitled "Children & Smoking – The Balanced View" that addressed various World Health Organization claims. It stated that tobacco is not addictive, and that there were inconsistent findings as to whether smoking causes low birth weight, birth defects, and delayed mental and physical development in infancy. 2501342105-2110 (U.S. Ex. 20,565).

803. On January 19, 1990, Ron Loader, INFOTAB Director of Information Services, confirmed the first meeting of a worldwide industry working group at the offices of the Tobacco Institute in Washington, D.C. for the purpose of planning a Global Argumentation Project. The Global Argumentation Project was an effort to develop a standardized and comprehensive collection of argumentation papers on smoking and health issues, including ETS and youth marketing, which could be used by local management and NMAs for lobbying, public information campaigns, or as base documents for responding to public health advocates. Representatives from INFOTAB, the Tobacco Institute, Shook, Hardy & Bacon, and several European and United States' tobacco manufacturers attended the meeting, including Kay Comer, BATCo's Information Manager; Cynthia von Maerestetten, Philip Morris; Jim Goold, R.J. Reynolds; Donald Hoel and Jim Newsome of Shook, Hardy & Bacon; and Charley Powers and

Fred Panzer of the Tobacco Institute. It had been decided that for several reasons "it would be sensible to hold this first meeting in Washington" because "we need to involve the US TI at an early stage in order to take advantage of their detailed information / argumentation / lobbying materials developed over years in practical situations and needing personal discussion;" "most members of the Working Group are already in, or need to be in, the States (i.e. 8 out of 11);" and "it provides the opportunity for INFOTAB coordinators to review other information sources (e.g. RJR) at first hand." TIMN362946-2949 (U.S. Ex. 62,874); TIMN362950-2952 (U.S. Ex. 62,872).

804. In 1991, the INFOTAB Board of Directors retained the law firms of (a) Lovell, White & Durrant to provide legal clearance for all documents related to smoking and health, and (b) Chadbourne & Parke to review the documents with an eye toward making sure that "due consideration is given to the legal position in the United States." 2023237649-7650 (U.S. Ex. 87,025).

805. An August 21, 1991 paper for the International ETS Management Committee ("IEMC") was originally prepared as the annual ETS update for INFOTAB. 507782317-2318 (U.S. Ex. 20,788).

(6) TDC - Tobacco Documentation Centre

806. On December 4, 1991, the Tobacco Documentation Centre ("TDC"), a successor entity to INFOTAB, was established. BATCo joined the TDC at its inception. Its charter stated:

> The Association has as its purpose the establishment of a forum for exchange of views and information on international tobacco issues by the coordination of data and information in economic, social scientific and technical areas. The general objectives are to

> broaden the knowledge of its members. In large part accomplishment of these objectives will be sought by providing information to various national and other tobacco trade associations and by serving as a resource of expertise and data analysis on these subjects of interest to the industry.

301159102-9113 (U.S. Ex. 88,445); 301159095-9097 at 9095 (U.S. Ex. 86,873); Deposition of Christopher Proctor, United States v. Philip Morris, et al., June 12, 2002, 15:23-16:18, 113:7-11.

807. The Founding Members of the TDC and subscription levels for each were as follows: BATCo, 20%; Gallahers, 10%; Philip Morris International, Inc., 20%; Reemtsma, 10%; R.J. Reynolds Tobacco International, Inc., 20%; and Rothmans International, 20%. Subscription levels of membership categories were based on annual production. On the unanimous proposal from Charter members, the following persons were unanimously elected to the Board of Directors for 1992: D.J. Bacon of BATCo, L.E. Birks of Gallahers, Richard J. Marcotullio of R.J. Reynolds International, F.J. Moreno of Philip Morris, C.J. Walther of Reemtsma, and A.A. Woods of Rothmans International. Woods served as chairman. 301159095-9097 (U.S. Ex. 86,873).

808. The TDC was formed "to act as a central information resource for the tobacco industry worldwide. [Predecessor] INFOTAB had an extensive information collection and database, which was considered valuable and worth maintaining." 502601564-1567 at 1565 (U.S. Ex. 29,570). The TDC collected "publicly-available information on tobacco . . . and then . . . provide[d] it back out again to the members of the TDC." Deposition of Dr. Christopher, United States v. Philip Morris, et al., June 12, 2002, 113:7-114:7.

809. The TDC was headed by Ronald Tully and Fiona Deroulez. A 1992 newsletter

published by the Asian Tobacco Council described the TDC:

> This new organisation will be concentrating on providing added value information services for the industry globally, to the highest possible standards. Operating from the previous INFOTAB premices at Kew, the TDC will be chaired for the first year by Tony Wood, from Rothmans International Services and we wish him well with his interesting new responsibilities. The ATC will continue to keep in very close touch with Kew and liaison will be well maintained. With the increasing experience of the NMAs and regional groupings like our own ATC, it was inevitable that a fresh approach was appropriate for the industry's future information-related requirements.

http://tobaccodocuments.org/guildford_misc/300515974-5990.html at 5985 (U.S. Ex. 86,844).

810. On April 28, 1992, the International ETS Management Committee ("IEMC"), which was comprised of representatives from Defendants BATCo, Philip Morris, and R.J. Reynolds, prepared comments for distribution by the TDC regarding the draft EPA Risk Assessment on the health hazards of ETS. All NMAs were to use these comments in responding to inquiries regarding the draft Risk Assessment. The document was also provided to TDC member companies. 515622547-2547 (U.S. Ex. 20,865) (U.S. Ex. 75,281).

811. TDC distributed the IEMC ETS position papers, dated May 6, 1992, to the NMAs and lead companies, stating that the documents had been cleared for use by Defendants BATCo, Philip Morris, and R.J. Reynolds. TI13040345-0424 (U.S. Ex. 86,522).

812. On June 19, 1992, Philip Morris's Matt Winokur, Director of Corporate Affairs at Philip Morris International, informed Geoffrey Bible, President of Philip Morris, and other Philip Morris employees that the EPA talking points prepared by Covington & Burling were "also being used by our international competitors and by National Manufacturers Association via the TDC.

This coordinated approach to communications is highly desirable. It enables the entire global industry to espouse a common position immediately, an essential element in quickly responding to local government and media." 2021173016-3016 (U.S. Ex. 20,342) (U.S. Ex. 75,122) (U.S. Ex. 75,228).

813. In July 1992, the TDC assisted Defendants by identifying activists thought likely to attend the Eighth World Conference on Tobacco and Health. http://www.tobaccodocuments.org/guildford_misc/300504231-4263.html (U.S. Ex. 87,717).

814. TDC planned to coordinate and expand its membership within the industry. In its 1998 business plan and budget, TDC listed as two of its general objectives: "co-coordinate with other tobacco-industry information providers where appropriate" and "develop membership opportunities with large- and medium-sized tobacco companies that are of strategic value in information gathering and sharing." 321737734-7740 at 7734-7735 (U.S. Ex. 28,629).

815. In 1998, the TDC Board launched an audit of former CEO Ron Tully. In a series of letters written to Marion Funck, TDC Board member and General Counsel for Reemtsma, in response to the audit, Tully revealed a litany of unethical incidents in which he was involved during his years at TDC. Many of the fraudulent activities pertained to financial matters, such as "burying" personal expenditures among business costs of TDC. Some other of the improprieties were much more serious. Tully accused the TDC Board of using the association for "commercial gain" and therefore in breach of it non-profit status in the United Kingdom. 321737639-7643 at 7639-7640 (U.S. Ex. 87,718); 321737614–7623 (U.S. Ex. 28,612).

816. In his letters to Funck, Tully also described an elaborate document destruction

plan used by TDC to destroy possible evidence in litigation. Tully wrote:

> I was requested by three of the largest Board Members to prepare a Board paper, which could be used as the justification for the systematic destruction of pertinent documentation (from Infotab and the TDC). The aim of the document destruction exercise was to identify and remove all documents which could be viewed as "problematic", damaging or useful to plaintiffs in any way. I have to admit that I undertook a complete document review and reduced the Infotab papers to only the bare statutory minimum. This was done under the guise of being liquidated . . . . I authorized the destruction of 1 million individual pages in my seven years at TDC, and that in my last week at TDC, I spent most of my time dealing with around 5,000 key documents from Infotab Working Groups, ICOSI and general correspondence and notes of meeting and discussions between senior industry executives.

321737639-7643 at 7641 (U.S. Ex. 87,718).

(7) CORESTA - Centre for Cooperation in Scientific Research Relative to Tobacco

817. The Centre for Cooperation in Scientific Research Relative to Tobacco/Centre de Coopération pour les Recherches Scientifiques Relatives au Tabac ("CORESTA") was created following the resolutions approved by the First International Scientific Tobacco Congress held in Paris, France, on September 10, 1955. It was created "[i]n order to operate a permanent Secretariat for international co-operation in scientific studies relative to tobacco." Its registered offices are located in Paris, and every world-wide major tobacco company and tobacco industry organization is a member. Meetings have been held every two years and, as of 1992, CORESTA had approximately 190 members, including Defendants BATCo, Philip Morris, Lorillard, Brown & Williamson, Liggett, and R.J. Reynolds. 401349241-9242 (U.S. Ex. 47,550); 401349243-9248 at 9243 (U.S. Ex. 21,788).

818. Defendants early on recognized the usefulness of CORESTA to the Enterprise and the implications of releasing papers at CORESTA meetings. For example, on November 3, 1971, Helmut Wakeham, Vice President of Research and Development at Philip Morris, sent interoffice correspondence to Alexander Holtzman, General Counsel for Philip Morris; Frank Saunders of Philip Morris Corporate Affairs; and Clifford E. Goldsmith, President of Philip Morris, recommending release of a manuscript entitled "Puff-by-Puff Determination of Carbon Monoxide, Cyanides and Aldehydes in the Gas Phase of Cigarette Smoke" at a CORESTA/TCRC Conference in October 1972. The paper had been originally completed about a year earlier. Wakeham explained that the two-year delay in its release was to avoid having the FTC Testing Laboratory establish specifications and/or restrictions on gas phase delivery of cigarettes. 1004861550-1550 (U.S. Ex. 20,186).

819. A BATCo document entitled "Meeting with Dr. Helmut Wakeham, Vice-President and Director of Research, Philip Morris Inc., 10th September 1970" described a meeting between "dgf," BATCo scientist David Geoff Felton, and Wakeham when Wakeham was in Europe for the CORESTA Congress in Hamburg. The main purpose of the meeting was to explore why Philip Morris was excluded from the Tobacco Research Council; how Philip Morris could work on becoming a member; and who to contact at CORESTA. Felton explained that one of the reasons for the exclusion was that Imperial Tobacco "claimed to see scientific co-operation [with scientists from companies in the United States] as the thin end of a wedge which might lead to undue influence in TRC affairs by American lawyers." 110315968-5971 (U.S. Ex. 26,378) (U.S. Ex. 26,379); (U.S. Ex. 63,573).

820. The document further discussed "CTR Affairs" as well as "PM Affairs" and noted that BATCo had raised the issue of an International Tobacco Working Group and that Wakeham felt that the United States' tobacco companies should have been asked to participate. 110315968-5971 (U.S. Ex. 26,378) (U.S. Ex. 26,379); (U.S. Ex. 63,573).

821. Representatives from Defendants Philip Morris, Lorillard, Liggett, and R.J. Reynolds were involved in the planning of a CORESTA meeting to be held in Williamsburg, Virginia, in 1972. An internal Lorillard memorandum from W.D. Okerson, Vice President of Manufacturing, to M. Yellen, Vice President of Advertising, dated January 27, 1970, advocated supporting the meeting: "In line with our attempts to encourage more cooperative activity in the industry, I feel we would have to participate and so recommend." 01192037-2037 (U.S. Ex. 20,040); 01192039-2039 (U.S. Ex. 86,523); 01192040-2040 (U.S. Ex. 21,684); 01192042-2042 (U.S. Ex. 86,524); 01192043-2043 (U.S. Ex. 86,525); 01192044-2044 (U.S. Ex. 21,685); 80507039-7043 (U.S. Ex. 22,035); 88693136-3137 (U.S. Ex. 32,077); 89091323-1324 (U.S. Ex. 32,080).

822. A 1988 memorandum from Richard R. Baker, BATCo R&D Manager, to Richard Binns, a BATCo R&D Manager at Southampton, indicated that one of the reasons the BATCo Board authorized joining CORESTA in approximately 1986 was to "ensure that technical initiatives by CORESTA reflect BAT requirements, views and experience." Baker sought to achieve those goals by obtaining key positions in Study Groups and on the Scientific Commission, presenting research papers, and having BAT represented on the board. 321103761-3761 (U.S. Ex. 28,286); see also 800226534-6538 (U.S. Ex. 88,678) (same goals in

1996); BAG1563764-3768 (U.S. Ex. 88,679),

823. A March 31, 1992 BATCo document described CORESTA as not generally regarded as a lobbying organization, which is what made it "unique and very valuable" to the industry. The document also described the overall structure of CORESTA as follows: a General Assembly, in which every member had one vote, met every two years; the General Assembly appointed the Board and the Scientific Commission; and the Scientific Commission of CORESTA had four sub-groups, Agronomy, Phytopathology, Technology, and Smoke. 401349242-9242 (U.S. Ex. 21,787); 401349243-9248 at 9243 (U.S. Ex. 21,788); 401349241-9242 (U.S. Ex. 47,550).

824. It was BATCo's opinion that the structure of CORESTA in 1992, was "very restricted" and that "there is no doubt that it needs restructuring to meet the future demands of the Industry." Nonetheless, the resolution of the dispute between BATCo and Philip Morris over the Barclay issue was cited as an example of CORESTA's usefulness. 401349243-9248 at 9243 (U.S. Ex. 21,788). See U.S. FPFF § IV.F., infra, for further discussion of the Barclay issue.

825. CORESTA served as a forum for the industry to discuss research related to ETS.

RJR000000050802004070071804 4-8046 (U.S. Ex. 61,930) (Confidential);

RJR000000050802004370071804 7-8049 (U.S. Ex. 61,929) (Confidential); see also U.S. FPFF § IV.C., infra.

826. In June 2001, representatives from Defendants Lorillard, Philip Morris, and R.J. Reynolds, along with other delegates from the industry, convened at CORESTA's ETS Sub Group meeting, where they discussed trends in ETS research. In November 2001, the CORESTA Sidestream Task Force, which included representatives from Defendants BATCo, R.J. Reynolds, and Philip Morris, among others, met to review research conducted on sidestream tar and nicotine. 525302822-2823 (U.S. Ex. 86,526); 525302728-2729 (U.S. Ex. 86,527); 525776902-6936 (U.S. Ex. 86,528); 325260347-0362 at 0348 (U.S. Ex. 29,146); 524596882-6890 at 6883 (U.S. Ex. 66,571).

827. In February 2002, the Board of Directors of CORESTA approved the admission of Vector Tobacco Inc. as a new member of the organization. 525303277-3285 (U.S. Ex. 30,576).

(8) Tobacco Institute Interaction with Overseas and International Groups

828. On behalf of the Enterprise, the Tobacco Institute worked closely with overseas and international tobacco organizations to present a unified front; to influence public opinion; to pressure government officials to adopt the public positions of the United States tobacco industry; to maintain the Defendants' open question position on the relationship between smoking and adverse health effects; to preserve and enhance the Cigarette Company Defendants' profits; and to avoid adverse liability verdicts in lawsuits brought around the world.

829. In 1973, the Tobacco Institute's Committee of Counsel discussed expanding the

Tobacco Institute's central role in Defendants' Enterprise to offshore activities including combating foreign anti-cigarette activity. The purpose of expanding the Tobacco Institute's role was to preserve the industry's position on smoking and health abroad and prevent erosion of public industry positions that had been adopted and publicized in the United States by the actions of non-domestic companies. "It is preferable for the domestic industry to act together to combat foreign activity than for individual companies to act. On the subject of smoking and health the domestic industry has acted in concert through the Institute in the past, as it is legally permitted to do and presumably intends to continue to do. Thus, the policy with respect to combating anti-cigarette activity abroad would be but an extension of the domestic policy." 502429369-9373 (U.S. Ex. 29,556); 2501018123-8128 (U.S. Ex. 27,923); TI16740660-0663 (U.S. Ex. 72,403); 2501029891-9901 (U.S. Ex. 20,557); TI04962210-2211 (U.S. Ex. 67,250); 105367082-7098 (U.S. Ex. 26,267).

830. In a document dated October 1, 1973, and entitled "International Activities of the Tobacco Institute, Inc.," J.C.B. Ehringhaus, Jr., Tobacco Institute General Counsel, advocated that the Tobacco Institute have an increased role internationally. Ehringhaus noted that "any success of the anti-smoking group in another country 'diminishes' us. I think we have to do something about it, to be aware and to participate in order to protect the interests of the American companies." He further suggested: "We would keep aware of what's going on around the world and be able to advise out industry people in one country of these happenings so that they may be guided in dealing with their own local situations." 2010030234-0235 (U.S. Ex. 88,447).

831. The Tobacco Institute's role in international matters was then discussed at the

October 4, 1973 meeting of the Tobacco Institute Executive Committee, and it was agreed that "the Committee of Counsel should continue consideration of this area." TIMN0013425-3428 at 3427 (U.S. Ex. 88,448).

832. One way in which the Tobacco Institute coordinated worldwide industry positions was by publishing brochures, pamphlets, "backgrounders," industry position papers, and other materials on the Enterprise's stance on controversial smoking and health issues and made them available for overseas distribution, often through INFOTAB. Responses of The Tobacco Institute, Inc. to Plaintiff's Second Set of Interrogatories, United States v. Philip Morris, et al. (served March 15, 2002), at Interrogatory/Answer No. 15 (U.S. Ex. 87,710).

833. The Tobacco Institute developed a Tobacco Institute backgrounder entitled "Tobacco in the Developing Nations" and announced its availability in a Tobacco Institute newsletter on January 14, 1980. Copies were to be forwarded to international public relations personnel of member companies, overseas NMAs and other trade associations, and international organizations such as INFOTAB and ICOSI. TIMN0241954-1971 (U.S. Ex. 21,545); TI16740349-0366 (U.S. Ex. 86,538).

834. On October 15, 1981, Donald Hoel of Shook, Hardy & Bacon sent a letter to Horace Kornegay, President of the Tobacco Institute, transmitting a draft of a "Public Smoking Paper" for use by INFOTAB. TIMN0144678-4678 (U.S. Ex. 23,015) (U.S. Ex. 65,656).

835. In anticipation of a 1983 Surgeon General's Report on heart disease, the Tobacco Institute issued a report "Cigarette smoking and heart disease," which concluded: "Whether cigarette smoking is causally related to heart disease is not scientifically established." The report

was distributed to Tobacco Institute member companies who were requested not to distribute it widely, but only to use it for internal purposes until the Surgeon General's report on heart disease was released when additional copies would be made available. INFOTAB distributed the report as well, advising its members that the Tobacco Institute would acquaint news reporters with its views about smoking and heart disease before the 1983 Surgeon General's report. 2501023645-3645 (U.S. Ex. 20,556).

836. In anticipation of the 1985 Surgeon General's Report on smoking and the workplace which was expected to be issued in early December, the Tobacco Institute staff gathered prior publications on similar subjects by the prospective authors of the report chapters in order to forecast the conclusions of the report with some degree of accuracy and develop "shadow" papers among scientist who would dispute such conclusions. TIMN0061572-1572 (U.S. Ex. 88,450). In November 1985, Antonietta Corti, INFOTAB Director of Information Services, informed NMAs throughout the world, including Britain's TMA (see U.S. FPFF § I.H(3), supra), of which BATCo was a member, that the Tobacco Institute had assembled material for use in framing answers to possible specific questions from the media regarding the 1985 Surgeon General Report. INFOTAB forwarded a copy of this material for use as a basic reference by Defendants and spokespersons from the NMAs. 2501444186-4187 (U.S. Ex. 27,948); 2501444188-4213 (U.S. Ex. 27,949).

837. In June 1987, six draft briefing papers to be presented at the Sixth World Conference on Smoking and Health were given to the Tobacco Institute's William Kloepfer. The papers discussed ETS and Indoor Air Quality; the Science of ETS; ETS Legislation; Tobacco and

Developing Countries; Smoking and Young People; and Smoking and Women. Kloepfer was asked to, and did, rewrite all papers except the one on Smoking and Women. TIMN0269919-9920 (U.S. Ex. 86,539); TIMN0269920-9944 (U.S. Ex. 86,540).

838. In a 1990 memorandum and listing entitled "Allies to Be Notified of Industry Youth Initiatives," the Tobacco Institute directed that, prior to public announcement of any new industry initiatives in the area of youth smoking, the Tobacco Institute staff would inform organizations within the tobacco family, groups, and allies of the new program. The information to be provided to allies was to include advance copies of press and program materials and a cover letter to be signed by the Tobacco Institute President or other appropriate staff. Among the international organizations to be kept abreast of the Tobacco Institute's activities on behalf of the industry were INFOTAB and TMA. TIMS00026152-6153 (U.S. Ex. 88,451).

839. A letter dated March 6, 1992, from William Kloepfer, Tobacco Institute Senior Vice President, to Ron Tully of INFOTAB, Robert Kaplan of Philip Morris International, Inc., and Graciela Fernandez Ivern of Philip Morris Latin America, provided information about the Surgeon General's Report entitled "Smoking and Health in the Americas" which was released on March 12, 1992. The letter explained that, if asked, the Tobacco Institute would comment on the Surgeon General's Report, if asked, to United States media and Latin America media; that the Pan American Health Organization would be issuing a country-by-country status report on tobacco prevention and control measures; and that Kloepfer would bring briefing session materials prepared by Don Hoel of Shook, Hardy & Bacon and others. 2500121043-1043 (U.S. Ex. 20,552).

840. Tobacco Institute materials were distributed to BATCo by the BAT Key Issues Council. The BAT group of companies had a "Key Issues Council," which was comprised of representatives of the legal and public relations functions of the various BAT operating companies, including BATCo and Brown &Williamson. Its purpose was to discuss smoking and health related issues because "some coordination and some exchange of information was necessary." At a meeting in April 1995, the Key Issues Council agreed that "[m]aterial used by Tobacco Institute in hearings should be assessed and possibly distributed around the Group." 503105240-5245 at 5240-5242 (U.S. Ex. 66,407); Deposition of Ulrich Herter, United States v. Philip Morris, et al., March 19, 2003, 60:3-62:3, 64:19-23.

841. The Tobacco Institute furnished advice, assistance, and even financial support to international industry-related groups and organizations as these groups worked on projects, publications, videos, conferences, briefing papers, and lobbying materials. Responses of The Tobacco Institute, Inc. to Plaintiff's Second Set of Interrogatories, United States v. Philip Morris, et al. (served March 15, 2002), at Interrogatory/Answer No. 15 (U.S. Ex. 87,710).

842. On November 17, 1976, interoffice correspondence from Paul Isenring of Philip Morris International noted that it had been decided, at a Board meeting of Germany's Verband regarding a research project entitled "Beneficial Effects of Smoking," that the Verband should "contact the Tobacco Institute in Washington as well as BAT, Haus Neuerburg, and Philip Morris in Germany. The idea was that these companies get in touch with their US-based companies" in order to consider how this project should be approached by Philip Morris and other Defendants. 1002610069-0069 (U.S. Ex. 86,541).

843. A November 8, 1978 Philip Morris correspondence from Alexander Holtzman to Thomas F. Ahrensfeld further discussed the Tobacco Institute's "role in smoking and health matters overseas." Holtzman suggested that Philip Morris agree that the Tobacco Institute be permitted to "provide to foreign association of tobacco manufacturers, at their request, position papers on specific issues which may have been developed by TI; documentary films; statements of the views of the American industry on particular problems based on scientific information available here; information about cigarette sales since the TV ban and other types of sales or marketing data generally available." 1005056379-6380 (U.S. Ex. 88,449).

844. In a January 17, 1983 form letter to its members, TAC informed each of its member companies, one of which was Defendant BATCo, that the Tobacco Institute had provided TAC with a copy of a Tobacco Institute videotape compilation showing their spokespersons team in action: "It shows extracts of the four members of the team being interviewed on television and speaking to live audiences. Two points are of particular interest. The first, the way in which the publicly face and handle health issues. The second that all the team are first and foremost media trained and therefore utterly familiar with, and relaxed in, dealing with hostile interviews and audiences: their knowledge of tobacco matters, while vitally important, is a secondary consideration in the selection and training process." 2024919702-9702 (U.S. Ex. 26,821).

845. The Tobacco Institute provided facilities at its offices for an INFOTAB Workshop for NMAs held on September 19-22, 1983. William Kloepfer, Tobacco Institute, and Tony St. Aubyn, TAC Assistant Director, were among the presenters. TI13161263-1266 (U.S. Ex.

88,499); 100294426-4429 (U.S. Ex. 88,500); 2501021530-1532 (U.S. Ex. 27,924) (U.S. Ex. 75,260); 2501021486-1489 (U.S. Ex. 25,366); Responses of The Tobacco Institute, Inc. to Plaintiff's Second Set of Interrogatories, United States v. Philip Morris (served March 15, 2002), at Interrogatory/Answer No. 15 (U.S. Ex. 87,710).

846. During 1984, the Tobacco Institute provided $70,000 (half the cost) to INFOTAB for a monograph commissioned by INFOTAB and edited by Robert Tollison, Professor of Economics and Director of the Center for Study of Public Choice at Virginia's George Mason University. The thrust of the monograph entitled "Smoking in Society," with a working title of "Free To Smoke," was that "conventional wisdom about smoking is either wrong, unproven, built upon faulty analysis, or pushed well beyond the point of common sense. TIMN371669-1669 (U.S. Ex. 65,655); TIMN371670-1682 (U.S. Ex. 65,654); Responses of The Tobacco Institute, Inc. to Plaintiff's Second Set of Interrogatories, United States v. Philip Morris, et al. (served March 15, 2002), at Interrogatory/Answer No. 15 (U.S. Ex. 87,710).

847. In November 1990, Samuel Chilcote sent Martin Oldman of INFOTAB a list of "messages and sub-messages [that] could be helpful as a starting point for any global and/or NMA ETS campaign." TI12200663-0663 (U.S. Ex. 62,313).

848. The Tobacco Institute provided guidance, advice, strategies, and tactics to overseas organizations and groups for setting up tobacco alliances outside the United States.

849. On November 16, 1981, Mary Covington, Secretary General of INFOTAB, spoke to the Tobacco Institute College of Tobacco Knowledge on an "International Perspective on Smoking Issues and Related Activities of the Tobacco Industry" and acknowledged that

INFOTAB had received outstanding help from the Tobacco Institute, "a valuable source of information and ideas." 2501029891-9901 (U.S. Ex. 20,557).

850. In a March 5, 1986 letter to Bryan Simpson, INFOTAB Secretary General, Arthur Stevens, Lorillard Senior Vice President and General Counsel, stated that:

> Lorillard will not be renewing its INFOTAB membership subscription for 1986. Please understand that our action in no way reflects any disagreement or dissatisfaction with either the mission or the achievements of INFOTAB, all of which are credible and significant. You and your colleagues are performing valuable services for the tobacco industry worldwide, and we applaud INFOTAB's accomplishments. Although we are not engaged in the international sale of tobacco products, we recognize that restrictions and punitive measures directed against tobacco outside the U.S. are sometimes precursors to impacts felt here. However, as active and significant contributors to the program of the U.S. Tobacco Institute, whose assistance is generously and frequently afforded to INFOTAB, we believe we are already supporting INFOTAB's efforts to a very significant degree.

91820409-0410 (U.S. Ex. 57,120).

851. Simpson wrote back to Stevens on March 21, 1986, confirming Lorillard's withdrawal as a member of INFOTAB and acknowledging that "we are aware of your major contribution to TI, and the benefits that we receive indirectly." 85174260-4260 (U.S. Ex. 56,011) (U.S. Ex. 75,196).

852. Likewise, the formation of INFOTAB was "a god send as far as the TI is concerned." According to an October 2, 1981 BATCo document, the Tobacco Institute, commenting on the importance of INFOTAB to Defendants and the Enterprise, stated that the Institute had been "looking for 15 years for an international umbrella to enable them to deal with other NMAs and to improve the strength of the industry as a whole; -the back-wash from events

and attacks affecting the industry in smaller countries comes back powerfully to the USA; . . . INFOTAB helps the industry to unite in trying to combat the attacks; -for years it had been hoped that there would be some sort of organization of international trade associations, which never happened." 321796064-6067 at 6067 (U.S. Ex. 28,685).

853. In remarks on September 20, 1983, at an INFOTAB workshop in Washington, D.C. on "How to Set Up a Tobacco Alliance," A.W.M. (Tony) St. Aubyn, Assistant Director of Britain's TAC, stated that the tobacco industry in the United Kingdom initially turned to the Tobacco Institute for guidance on setting up a tobacco alliance in early summer 1982. St. Aubyn continued: "[T]hanks to the unstinting help they gave us, we were able to draw much of our conceptual thinking from their experience with the Tobacco Action Network . . . T.I.'s experience, and especially their warnings of some of the problems and pitfalls we had to avoid, was invaluable." 2501021530-1532 at 1530 (U.S. Ex. 27,924) (U.S. Ex. 75,260); 2024919702-9702 (U.S. Ex. 26, 821).

854. Tobacco Institute representatives served on international teams, committees, and boards along with industry representatives from outside the United States where strategies were developed for a coordinated approach to scientific research studies and public relations campaigns. Responses of The Tobacco Institute, Inc. to Plaintiff's Second Set of Interrogatories, United States v. Philip Morris, et al. (served March 15, 2002), at Interrogatory/Answer No. 15 (U.S. Ex. 87,710); see also TI13161190-1190 (U.S. Ex. 65,495); TI12431630-1630 (U.S. Ex. 62,383); TI13111755-1755 (U.S. Ex. 75,448); TI13110904-0904 (U.S. Ex. 62,410); TI01791304-1305 (U.S. Ex. 88,496); TI12200663-0663 (U.S. Ex. 62,313).

855. In order to coordinate the Defendants' positions for the Fifth World Conference on Smoking and Health organized by the World Health Organization ("WHO") and held in Winnipeg, Canada, Hans Verkerk of INFOTAB, invited William Kloepfer, Tobacco Institute Senior Vice President for Public Relations, to a meeting of "an industry 'steering team'" in Montreal on November 22, 1982. Other members of the industry steering team included Donald Hoel, Shook, Hardy & Bacon; Bob Ely, BATCo; and Gwynn Hargrove, a retired BATCo executive who was still active in international public affairs. TIMN270254-0254 (U.S. Ex. 72,405); TIMN270252-0252 (U.S. Ex. 86,542); TIMN270250-0251 (U.S. Ex. 86,543); TIMN270249-0249 (U.S. Ex. 86,544); TIMN270253-0253 (U.S. Ex. 86,545).

856. In a May 27, 1987 Tobacco Institute memorandum from William Kloepfer to Samuel Chilcote, Kloepfer reported on an all-day meeting of an industry steering committee for the Sixth World Conference of Smoking and Health that he had attended with INFOTAB staff. He had been asked to serve as editor of daily conference reports fed to the tobacco industry throughout the world. Kloepfer recommended an industry news conference for the evening of the conference opening to establish industry presence and to counter the opposition rhetoric of the preceding week's anti-smoking rally of WHO Pacific rim countries in Tokyo and the Japan-hosted indoor air symposium. TIDN0012090-2091 (U.S. Ex. 77,023).

857. The Tobacco Institute made countless presentations for INFOTAB and other international group workshops, seminars, symposia, and conferences outlining Defendants' strategies for attacking what Defendants deemed "anti-smoking" research and programs linking smoking and health and ETS and health. Responses of The Tobacco Institute, Inc. to Plaintiff's

Second Set of Interrogatories, United States v. Philip Morris, et al. (served March 15, 2002), at Interrogatory/Answer No. 15 (U.S. Ex. 87,710).

858. William Kloepfer participated in a meeting of the Passive Smoking Project Group, an INFOTAB committee, in Lausanne, Switzerland, on March 29, 1984. TI12431630-1630 (U.S. Ex. 62,383) (U.S. Ex. 67,243); TI13161190-1190 (U.S. Ex. 65,495); Responses of The Tobacco Institute, Inc. to Plaintiff's Second Set of Interrogatories, United States v. Philip Morris, et al. (served March 15, 2002), at Interrogatory/Answer No. 15 (U.S. Ex. 87,710).

859. William Kloepfer attended the June 4, 1984 meeting of the INFOTAB ETS Committee in Brussels, Belgium. Scientists from Defendants Philip Morris and R.J. Reynolds also attended. TI13111755-1755 (U.S. Ex. 62,412); Responses of The Tobacco Institute, Inc. to Plaintiff's Second Set of Interrogatories, United States v. Philip Morris, et al. (served March 15, 2002), at Interrogatory/Answer No. 15 (U.S. Ex. 87,710).

860. On October 10, 1985, Tobacco Institute President Samuel Chilcote spoke at an INFOTAB International Workshop on the credibility gap between the tobacco industry and the public. TIMN371764-1795 (U.S. Ex. 88,497); TIMN350605-0605 (U.S. Ex. 88,498).

861. INFOTAB held an International Workshop in Brussels on October 14-16, 1986. William Kloepfer, Tobacco Institute Vice President, spoke on Smoking in the Workplace and called ambient smoke a political issue rather than a health issue. R.L.O. Ely, head of BATCo Public Affairs, addressed WHO Initiatives. Tom Osdene, Philip Morris Director of Research, Charles Green, R.J. Reynolds scientist, and Donald Hoel, lawyer at Shook, Hardy & Bacon, took part in a panel discussion on ETS. 2021594646-4648 (U.S. Ex. 26,059); TIOK0029712-9712

(U.S. Ex. 86,546); TIOK0029713-9723 (U.S. Ex. 86,547); TIOK0029724-9734 (U.S. Ex. 86,548); TI00612539-2543 (U.S. Ex. 62,076).

862. On October 18, 1988, Tobacco Institute Vice President Walker Merryman spoke at an INFOTAB Workshop in Malaga, Spain, on anti-smoking activists. TI12261398-1399 (U.S. Ex. 62,348).

863. The Tobacco Institute arranged visits and briefing sessions for domestic and foreign industry representatives to discuss current and emerging issues that the Tobacco Institute believed threatened the industry.

864. After attending a luncheon in Washington, D.C., hosted by the Tobacco Institute's Horace Kornegay, members of Japan Tobacco, Inc. ("JTI") were invited to attend a Tobacco Institute ETS Advisory Group meeting in Washington, D.C. In his July 15, 1986 letter to JTI's S. Takeda, Donald Hoel, Chairman of the ETS Advisory Group, wrote, "One of the purposes and benefits from the proposed joint meeting would be to exchange detailed information as to current research projects . . . . The second day would include identification of research needs and perceived problems." TI00610156-0156 (U.S. Ex. 86,549); TI00610153-0154 (U.S. Ex. 62,064).

865. In 1990, Charles H. Powers, Tobacco Institute Senior Vice President, arranged a visit and briefing session between the Tobacco Institute and the Canadian Tobacco Manufacturers' Council on current emerging issues in the two countries, particularly those issues with characteristics indicating potential spill over effects from the United States to Canada and/or vice versa. TI12910068-0069 (U.S. Ex. 86,550).

866. The Tobacco Institute organized meetings for industry representatives, from both

the United States and overseas, to review international work on both the science and public affairs aspects of smoking and health issues including ETS and to discuss common problems facing the tobacco industry in all countries.

867. The Tobacco Institute organized a meeting in Washington, D.C., on March 18, 1987, chaired by Don Hoel of Shook, Hardy & Bacon, to review international work on both the science and public affairs aspects of ETS. The meeting was attended by nine foreign delegates from the United Kingdom, Germany, and Japan, as well as sixteen domestic delegates drawn from Defendants R.J. Reynolds, Philip Morris, the Tobacco Institute, and industry lawyers. The objective of the meeting was to familiarize delegates with science and public affairs programs facing various countries. The participants agreed that public affairs and political concerns had common features across borders: anti-smoking "fanatics;" government legislation and regulation and private business rules restricting smoking in offices, transportation, and public places; harmful press coverage; the need to communicate ETS science using neutral scientists; and the need to move the debate from ETS to indoor air quality, where ETS played a minor role. 2501458142-8148 (U.S. Ex. 27,951); TI00682162-2163 (U.S. Ex. 21,240).

868. The Tobacco Institute worked with other members of the Enterprise, in the United States and overseas, to develop a global strategy on ETS in which teams of scientists, set up in key countries, would produce industry-friendly ETS research to stimulate the ETS controversy. An August 1986 list prepared by William Davis, Research Analyst for Shook, Hardy & Bacon, and sent to Lorillard's Alexander Spears, set forth Defendants' coordinated efforts to develop industry-friendly science on ETS, including projects undertaken by the ETS Advisory Group, the

Tobacco Institute, R.J. Reynolds, Covington & Burling, and Shook, Hardy & Bacon on behalf of INFOTAB. 86024167-4167 (U.S. Ex. 56,093) (U.S. Ex. 75,197); 86024168-4172 (U.S. Ex. 21,089) (U.S. Ex. 75,198).

869. On February 17, 1988, Sharon Boyse of Defendant BATCo took notes at a London meeting where Philip Morris presented its global strategy on ETS to representatives of the British tobacco industry, including BATCo, Rothmans International, Imperial Tobacco, and Gallahers, and invited these companies to join in the proposed activities. The global strategy on ETS had been established at a meeting in the United States between Defendant Philip Morris and Covington & Burling, lawyers for Defendant Tobacco Institute. The proposal would set up, in key countries in every international area (United States, Europe, Australia, Far East, South America, Central America), teams of scientists organized by one national coordinating scientist and American lawyers. The teams of scientists would review scientific literature on ETS, or carry out work on ETS, and keep the ETS controversy alive. The scientists would produce research or stimulate controversy in such a way that public affairs people in the relevant countries would be able to make use of, or market, the information. The Tobacco Institute's lawyers, Covington & Burling, proposed to set up a London office later in the year to coordinate their ETS activities in Europe. Other Covington & Burling lawyers had been commissioned to coordinate ETS activities in the Far East, Australia, South America, and Central America. 401087258-7263 (U.S. Ex. 29,364); 401208386-8391 (U.S. Ex. 29,365).

870. The Tobacco Institute collaborated with overseas tobacco industry groups to discredit scientists and scientific research that the industry considered to be "anti-smoking." In

her November 1981 speech to the Tobacco Institute College of Tobacco Knowledge, Mary Covington, INFOTAB Secretary General, described how the Tobacco Institute had provided INFOTAB with its communications plans to discredit the Hirayama report on passive smoking in advance of any releases. INFOTAB alerted NMAs around the world about the Tobacco Institute's plans to attack and discredit Hirayama. As soon as the Tobacco Institute had their press releases prepared, it telexed them to INFOTAB and INFOTAB transmitted them to other worldwide NMAs for their possible use. INFOTAB followed up with a mailing of press clippings from the United States, enabling NMAs to generate similar press coverage in their own countries. 2501029891-9901 (U.S. Ex. 20,557).

871. Another idea hatched by the Tobacco Institute for carrying the industry's views on ETS to the general media was to use the industry's overseas consulting scientists "to bring a 'foreign' perspective on ETS science to U.S. journalists. . . . Through editorial board briefings and interviews with science and health reporters, these scientists will suggest that the U.S. understanding of ETS science is skewed by anti-smoker media hype, and that the U.S. response to ETS science is extreme and out of step with the rest of the world." TI01140121-0123 (U.S. Ex. 88,657); TI01140124-0133 (U.S. Ex. 62,100).

872. The Tobacco Institute funded consultants who would meet overseas with foreign industry representatives to discuss Tobacco Institute business and share ideas and strategies. For example, Tobacco Institute consultant Gray Robertson attended an ETS Symposium in Tokyo, Japan on November 4-6, 1987; a meeting with TAC in the United Kingdom on November 15-16, 1987; a meeting with TAC of Canada for government testimony on November 23-24, 1987; and

a meeting with the TAC in London on January 23-30, 1988. TIDN0012020-2020 (U.S. Ex.86,551); TIDN0012021-2021 (U.S. Ex. 86,552).

873. The Tobacco Institute organized a training program called the College of Tobacco Knowledge at which the participants were taught about the industry's positions on smoking and health issues; industry strategies for combating smoking restrictions and manipulating the public's perception of smoking and health issues; and how to transmit consistent public statements regarding smoking and health and other tobacco issues. See U.S. FPFF § I.C(4)(c), supra.

874. Tobacco industry representatives from around the world attended the College of Tobacco Knowledge. At the October 1982 session, seventeen of the forty-nine students were from foreign countries, e.g., Paraguay, Canada, United Kingdom, Australia, Brazil, Switzerland, Holland, Venezuela, and Guatemala. 04163285-3285 (U.S. Ex. 74,872); 04235250-5251 (U.S. Ex. 75,000); TI04962210-2211 (U.S. Ex. 67,250); TI04962207-2207 (U.S. Ex. 88,501).

875. Employees from INFOTAB were invited to, and did, attend sessions of the Tobacco Institute College of Tobacco Knowledge. TIFL0067876-7877 (U.S. Ex. 88,633) ; TIFL0071174-1174 (U.S. Ex. 86,142); TIFL0071332-1332 (U.S. Ex. 88,634); TI11961377-1377 (U.S. Ex. 86,186); TIFL0068447-8450 (U.S. Ex. 88,635); Responses of The Tobacco Institute, Inc. to Plaintiff's Second Set of Interrogatories, United States v. Philip Morris (served March 15, 2002), at Interrogatory/Answer No. 15 (U.S. Ex. 87,710).

(9) Other Global Coordination/Cooperation

876. The Defendants coordinated the Enterprise and conspiracy through multiple

meetings around the globe. These meetings, held between 1991 and 2000, were scheduled by correspondence and memorandums that were sent via facsimile and by mail. 536202391-2391 (U.S. Ex.86,553); 2023244508-4510 (U.S. Ex.86,554); 2025495788-5788 (U.S. Ex. 22,856); 2025495795-5795 (U.S. Ex. 26,848); 2065260331-0331 (U.S. Ex. 86,555); 2024771391-1391 (U.S. Ex. 86,556); 2063593893-3893 (U.S. Ex. 24,024); 518987394-7394 (U.S. Ex.24,791); 2025842508-2508A (U.S. Ex. 86,557); 2025477955-7955 (U.S. Ex.26,834); 700533941-3941 (U.S. Ex. 86,558); 321569320-9322 (U.S. Ex. 86,559); 321569292-9292 (U.S. Ex. 86,560); 321569060-9060 (U.S. Ex.86,561.); 321569236-9236 (U.S. Ex. 86,562); 321569039-9041 (U.S. Ex. 86,563); 321569222-9222 (U.S. Ex.86,564); 321569223-9224 (U.S. Ex.86,565); 503142364-2383 (U.S. Ex, 50,324); 2023244498-4498 (U.S. Ex. 86,624); 2070478698-8698 (U.S. Ex. 86,566); 2077748524-8524 (U.S. Ex. 86,567); 301099377D-9378 (U.S. Ex. 86,568); 503063153-3154 (U.S. Ex. 29,601); 503089496-9497 (U.S. Ex. 86,569); 503089491-9492 (U.S. Ex. 86,570); 503085845-5845 (U.S. Ex. 86,571); 503089413-9413 (U.S. Ex. 86,572); 503089408-9409 (U.S. Ex. 29,620); 503089421-9433 (U.S. Ex. 86,573); 321569392-9393 (U.S. Ex. 86,574); 321568973-8973 (U.S. Ex. 86,575); 321568996-8996 (U.S. Ex. 86,576); 321569097-9097 (U.S. Ex. 86,577); 321569098-9098 (U.S. Ex. 86,578); 322006693-6696 (U.S. Ex. 86,579); 322006698-6699 (U.S. Ex. 86,580); 322006529-6530 (U.S. Ex. 86,581); 2074164618-4618 (U.S. Ex. 86,905); 2078348038-8038 (U.S. Ex.86,906); 2502250129-0129 (U.S. Ex. 86,582); 300545714-5714 (U.S. Ex. 87,573); 2046546143-6143 (U.S. Ex. 88,502); 2046546144-6144 (U.S. Ex. 88,503); 2072416409-6410 (U.S. Ex. 88,504); 321569356-9357 (U.S. Ex. 88,505); 32156935-9358 (U.S. Ex. 88,841); 322006698-6699 (U.S. Ex. 86,580); 700533921-3921 (U.S.

Ex. 88,565); 300543355-3356 (U.S. Ex. 88,506).

877. Defendants often transmitted agendas in advance of these meetings and corresponded as to which of their industry representatives would and should attend these meetings. 2023244498-4498 (U.S. Ex. 86,583); 2500061111-1111 (U.S. Ex. 86,584); 536202391-2391 (U.S. Ex.86,625); 2023244315-4315 (U.S. Ex. 86,585); 2023244363-4363 (U.S. Ex. 86,586); 536202211-2211 (U.S. Ex. 30,671); 536202212-2212 (U.S. Ex. 30,672); 2028454705-4705 (U.S. Ex. 22,852); 2028360079-0079 (U.S. Ex. 86,587); 2023897308-7308 (U.S. Ex. 37,062); 2024210630-0631 (U.S. Ex. 22,868); 2051810327-0327 (U.S. Ex. 86,588); 2065260325-0325 (U.S. Ex. 86,589); 700533917-3917 (U.S. Ex. 86,590); 700534024-4025 (U.S. Ex. 86,591); 700534027-4027 (U.S. Ex. 86,592); 700533906-3912 (U.S. Ex. 86,593); 2065260328-0328 (U.S. Ex. 66,825); 503142364-2383 (U.S. Ex. 50,324); 2023245491-5493 at 5492 (U.S. Ex. 36,986); 2047654142-4143 (U.S. Ex. 86,594); 503063155-3155 (U.S. Ex. 29,602); 503063156-3157 (U.S. Ex. 29,603); 503087551-7552 (U.S. Ex. 86,595); 321569378-9379 (U.S. Ex. 86,596); 321568997-8998 (U.S. Ex. 86,626); 321568946-8947 (U.S. Ex. 86,627); 321569351-9352 (U.S. Ex. 86,628); 321569341-9344 (U.S. Ex. 86,629); 321569134-9137 (U.S. Ex. 86,630); 322006507-6507 (U.S. Ex. 86,597); 321987838-7859 (U.S. Ex. 79,445); 300543980-3980 (U.S. Ex. 87,574); 300543954-3954 (U.S. Ex. 87,575); 300543357-3358 (U.S. Ex. 87,576); 2046546160-6160 (U.S. Ex. 87,577); 300512229-2232 (U.S. Ex. 88,507); 300543968-3968 (U.S. Ex. 67,755); 300543811-3813 (U.S. Ex. 88,508); 2025495656-5656 (U.S. Ex. 88,509); 2078742951-2951 (U.S. Ex. 27,724); 2078742952-2952 (U.S. Ex. 27,725) ; 2078742954-2954 (U.S. Ex. 27,727); 2078742955-2955 (U.S. Ex. 27,728); 2047315968-5968

(U.S. Ex. 88,510); 2078742956-2956 (U.S. Ex. 88,511); 2047315969-5969 (U.S. Ex. 88,566); 2502250184-0185 (U.S. Ex. 45,981); 2078742953-2953 (U.S. Ex.27,726); 2047315966-5966 (U.S. Ex. 88,512); 300543817-3817 (U.S. Ex. 88,513); 2065260344-0344 (U.S. Ex. 88,514); 2047315458-5458 (U.S. Ex. 88,515); 2072424257-4257 (U.S. Ex. 88,516); 2072424213-4214A (U.S. Ex. 88,517); 2078742700-2701 (U.S. Ex. 88,518); 2072424258-4259 (U.S. Ex. 88,519); 2024767825-7826 (U.S. Ex. 88,520); 2072417014-7015 (U.S. Ex. 88,521); 2048381562-1562 (U.S. Ex. 88,522); 900006019-6019 (U.S. Ex. 88,523); 2046546145-6145 (U.S. Ex. 88,524); 2502206732-6732 (U.S. Ex. 88,525); 2072416392-6392 (U.S. Ex. 88,526); 2074417336-7337 (U.S. Ex. 88,527); 2072417268-7269 (U.S. Ex. 88,528); 2072417259-7259 (U.S. Ex. 88,529); 2077156298-6298 (U.S. Ex. 88,530); 321569087-9981 (U.S. Ex. 88,531); 321569200-9024 (U.S. Ex. 88,532); 321569223-9224 (U.S. Ex. 86,565); 321569239-9240 (U.S. Ex. 88,533); 321569251-9253 (U.S. Ex. 88,534); 321569392-6393 (U.S. Ex. 88,535); 321569333-9336 (U.S. Ex. 88,536); 321569341-9344 (U.S. Ex. 86,629); 321569350-9353 (U.S. Ex. 88,537); 321569389-9391 (U.S. Ex. 88,538); 321596375-9379 (U.S. Ex. 88,539); 700534026-4026 (U.S. Ex. 88,540).

878. Many of these meetings were summarized by meeting participants, who recorded the nature of the discussions and identified the company representatives in attendance. 507973108-3109 (U.S. Ex. 86,598); 536202400-2404 (U.S. Ex. 86,599); 507974116-4116 (U.S. Ex. 51,286) (U.S. Ex. 76,981); 2500015436A-436A (U.S. Ex. 25,776); 2025493306A-3307 (U.S. Ex. 86,600); 2023897315-7318 (U.S. Ex. 86,601); 2025495674-5677 (U.S. Ex. 86,602); 2051809368-9369 (U.S. Ex. 86,603); 2028363540-3549 at 3541 (U.S. Ex. 86,604);

2028372583-2596 at 2594 (U.S. Ex. 22,926); 517002090-2091 (U.S. Ex. 66,527); 300512244-2245 (U.S. Ex. 67,752); 300543979-3979 (U.S. Ex. 87,578); 300545676-5680 (U.S. Ex. 87,579); 300543941-3042 (U.S. Ex. 87,580); 300545701-5704 (U.S. Ex. 87,581); 300543440-3454 (U.S. Ex. 87,582); 300544202-4208 (U.S. Ex. 87,583); 2047315978-5978 (U.S. Ex. 88,636); 2078742947-2948 (U.S. Ex. 27,721); 2047315962-5962 (U.S. Ex. 88,637); 2078742962-2963 (U.S. Ex. 45,192); 2078742949-2949 (U.S. Ex. 27, 722); 2078742958-2959 (U.S. Ex. 27,729); 900006192-6193 (U.S. Ex. 88,541); 900006155-6155 (U.S. Ex. 88,542); 517351492-1492 (U.S. Ex. 88,543); 900006065-6065 (U.S. Ex. 88,544); 300543360-3366 (U.S. Ex. 88,545); 300543940-3942 (U.S. Ex. 88,546).

I. Dissolution of CTR, the Tobacco Institute, and CIAR

879. Prior to CTR and the Tobacco Institute's voluntary dissolutions and contemporaneous with liability actions against them, the New York Attorney General sought the dissolution of CTR and the Tobacco Institute on several independent statutory grounds including that each entity had transacted its business in a persistently fraudulent or illegal manner with respect to smoking and health issues. New York Attorney General's Petition to Dissolve CTR and the Tobacco Institute dated April 30, 1998 and Memorandum of Law in Support of Petition for Dissolution (U.S. Ex. 87,584).

880. In November 1998, most of the State Attorneys General entered into a settlement agreement, referred to as the Master Settlement Agreement ("MSA"), with Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and Commonwealth Brands, Inc., to resolve all pending Medicaid recoupment litigation. The State Attorneys General for Florida,

Mississippi, Minnesota, and Texas already had entered into settlements with tobacco defendants prior to November 1998. The MSA required that CTR, the Tobacco Institute, and CIAR cease all operations and dissolve. In addition, the tobacco products manufacturers signing the MSA were prohibited from reconstituting CTR or its function in any form. MSA, Sec. III(o), Permanent Relief - Dissolution of The Tobacco Institute, Inc., The Council for Tobacco Research-U.S.A., Inc. and the Center for Indoor Air Research (November 1998) (U.S. Ex. 64,359).

(1) CTR

881. On April 30, 1998, the Attorney General of the State of New York had commenced a special proceeding that sought, among other things, the dissolution of CTR. New York Attorney General's Petition to Dissolve CTR and the Tobacco Institute dated April 30, 1998 and Memorandum of Law in Support of Petition for Dissolution (U.S. Ex. 87,584); http://www.oag.state.ny.us/tobacco/petition.html (U.S. Ex. 21,478) (U.S. Ex. 76,201); http://www.oag.state.ny.us/tobacco/toc.html (U.S. Ex. 86,850); http://www.oag.state.ny.us/tobacco/dissolve.html (U.S. Ex. 86,851); http://www.oag.state.ny.us/tobacco/cause.html (U.S. Ex. 86,852).

882. On May 8, 1998, in connection with State of Minnesota v. Philip Morris Inc., Brown & Williamson, Lorillard, Philip Morris, and R.J. Reynolds (the four Class A members of CTR) entered into a Settlement Agreement and Stipulation for Entry of a Consent Judgment with the State of Minnesota ("Minnesota Settlement Agreement"), in which, among other things, the companies agreed to dissolve CTR and agreed to the entry of a consent judgment ("Minnesota

Consent Judgment"). Section VI of the Minnesota Consent Judgment, entered on May 19, 1998, provided that, within ninety days of May 8, 1998, CTR would cease all operations except as necessary to comply with existing grants or contracts and to continue its defense of other lawsuits and that CTR would be disbanded and dissolved within a reasonable time period thereafter. Plan of Corporate Dissolution and Distribution of Assets of The Council for Tobacco Research-U.S.A., Inc. (October 19, 1998) State of Minnesota v. Philip Morris, Inc., No. C1-94-8565 (2nd Judicial District, Minn. May 18, 1998) (U.S. Ex. 86,853).

883. A special meeting of the members of CTR was held on October 19, 1998, at CTR's offices in New York City at which the Plan of Corporate Dissolution and Distribution of Assets of The Council for Tobacco Research-U.S.A., Inc. was submitted to the members for consideration and approved by a unanimous vote of the members present. The Class A members present were Brown & Williamson, represented by Senior Vice President Ernest Pepples; Philip Morris, represented by Senior Vice President of Operations John Nelson; Lorillard, represented by Chairman and CEO Alexander Spears; and R.J. Reynolds, represented by President and CEO Andrew Schindler. The Class B members present were Bright Belt Warehouse Association, Tobacco Association, Inc., Burley Auction Warehouse Association, Burley Tobacco Growers Cooperative Association, Inc., and United States Tobacco. Class B member Burley Stabilization Corporation was not present and did not vote on the Plan. Plan of Corporate Dissolution and Distribution of Assets of The Council for Tobacco Research-U.S.A., Inc. (October 19, 1998) (U.S. Ex. 86,853).

884. CTR reached an agreement with the Attorney General of New York with respect

to the terms of the dissolution, and the New York court entered an Order Approving CTR's Plan of Corporate Dissolution and Certificate of Dissolution on or about October 21, 1998. 70005157-5161 (U.S. Ex. 54,380).

885. The Dissolution Plan permitted a winding up of CTR's research-funding activities and funding of the research grants-in-aid that had been previously awarded by CTR. CTR was required to wind up non-litigation activities no later than the 180th day after the date of entry of an order approving the Plan. Plan of Corporate Dissolution and Distribution of Assets of The Council for Tobacco Research-U.S.A., Inc. (October 19, 1998) (U.S. Ex. 86,853).

886. The Dissolution Plan allowed CTR to continue to defend itself and to protect its interest in litigation, and to assist in the defense of Defendants and CTR's other members in litigation, pursuant to joint defense agreements or arrangements. CTR also was permitted to continue to employ and/or retain as consultants personnel that it deemed reasonably necessary to conduct litigation-related activities. Plan of Corporate Dissolution and Distribution of Assets of The Council for Tobacco Research-U.S.A., Inc. (October 19, 1998) (U.S. Ex. 86,853).

887. The Dissolution Plan did not limit CTR's existence for purposes of conducting litigation-related activities. Section 6.3 (Duration) of the Plan stated that "in light of the large number of lawsuits pending against CTR and the possibility that numerous additional lawsuits will be filed against CTR in the future, CTR believes it is very likely that this need will continue to exist for a number of years after the conclusion of the winding up of CTR's research-funding activities." Plan of Corporate Dissolution and Distribution of Assets of The Council for Tobacco Research-U.S.A., Inc. (October 19, 1998) (U.S. Ex. 86,853).

888. The terms of the MSA likewise provided that CTR was to cease all operations and be dissolved in accordance with the laws of the State of New York, with the preservation of all applicable privileges held by any member company of CTR. MSA, Sec. III(o)(1), Permanent Relief - Dissolution of The Tobacco Institute, Inc., The Council for Tobacco Research-U.S.A., Inc. and the Center for Indoor Air Research (November 1998) (U.S. Ex. 64,359).

889. In March 1998, James Glenn, CTR President, sent a memorandum to the members of the Scientific Advisory Board requesting that the members send him a letter "indicating their willingness to serve as a consultant or as a participant in any future activities of CTR or any successor organization." Glenn received mixed results to his request. Some members, such as Carlo Croce and Hugh McDevitt, replied affirmatively expressing their willingness to continue CTR's activities. Others such as Judith Swain, declined any further relationship with CTR, stating, "because of the information that has come out of the tobacco litigation process, I do not feel that I can continue as a member of the Council of Tobacco Research . . . the information from previous years indicates that the Council may not have been totally independent of the tobacco industry." TLT0270371-0371 (U.S. Ex. 76,329); TLT0270372-0372 (U.S. Ex. 76,330); TLT027 0370-0370 (U.S. Ex. 76,328).

(2) The Tobacco Institute

890. On April 30, 1998, the Attorney General of the State of New York had commenced a special proceeding that sought, among other things, the dissolution of the Tobacco Institute. TI16980952-0969 (U.S. Ex. 86,608); TI16980970-0984 (U.S. Ex. 86,609); TI16980985-0986 (U.S. Ex. 86,610); New York Attorney General's Petition to Dissolve CTR

and the Tobacco Institute dated April 30, 1998 and Memorandum of Law in Support of Petition for Dissolution (U.S. Ex. 87,584); http://www.oag.state.ny.us/tobacco/petition.html (U.S. Ex. 21,478) (U.S. Ex. 76,201); http://www.oag.state.ny.us/tobacco/toc.html (U.S. Ex. 86,850); http://www.oag.state.ny.us/tobacco/dissolve.html (U.S. Ex. 86,851); http://www.oag.state.ny.us/tobacco/cause.html (U.S. Ex. 86,852).

891. Pursuant to a plan of dissolution that was to be negotiated by the Attorney General of the State of New York and the Original Participating Manufacturers, Brown & Williamson, Lorillard, Philip Morris, and R.J. Reynolds, in accordance with Exhibit G of the MSA, the Tobacco Institute was to cease all operations and be dissolved in accordance with the laws of the State of New York and under the authority of the Attorney General of the State of New York, with the preservation of all applicable privileges held by any member company of the Tobacco Institute. MSA, Sec. III(o)(2), Permanent Relief - Dissolution of The Tobacco Institute, Inc., The Council for Tobacco Research-U.S.A., Inc. and the Center for Indoor Air Research (November 1998) (U.S. Ex. 64,359).

892. According to the MSA, the Tobacco Institute and the Attorney General of New York were to agree on a not-for-profit health or child welfare organization that was to be named as the beneficiary of any Tobacco Institute assets that remained after lawful transfers of assets and satisfaction of the Tobacco Institute's employee benefit obligations and any other debts, liabilities or claims. The Tobacco Institute retained the right to continue to defend its litigation interests with respect to any claims against it that were pending or were brought or threatened in the future. The Tobacco Institute also was allowed to continue to engage such employees as

reasonably needed for the sole purpose of directing and supporting its defense of ongoing litigation. However, as soon as the Tobacco Institute had no litigation pending against it, the MSA required the Tobacco Institute to dissolve completely and cease all functions. MSA, Exhibit G - Obligations of The Tobacco Institute Under the Master Settlement Agreement (November 1998) (U.S. Ex. 64,359).

893. The Tobacco Institute's Plan of Corporate Dissolution and Distribution of Assets was approved on August 7, 2000, by its Class A members: Ernest Pepples, Senior Vice President of Brown & Williamson; Michael Szymanczyk, CEO of Philip Morris; Alexander Spears, Chairman of Lorillard; and Charles Blixt, Executive Vice President and General Counsel of R.J. Reynolds. TI31113058-3165 (U.S. Ex. 21,261).

894. The Tobacco Institute's Dissolution Plan was also adopted without meetings by the written consent of the Tobacco Institute Board of Directors. The members of the Board of Directors at the time were Nicholas Brookes and Ernest Pepples for Brown & Williamson, Ronald Milstein and Alexander Spears for Lorillard, Tommy Payne and Andrew Schindler for R.J. Reynolds, Michael Szymanczyk for Philip Morris, and Howard Liebengood for Philip Morris Companies. TI14870293-0303 (U.S. Ex. 21,852).

895. The Supreme Court of the New York County entered an Order Approving the Tobacco Institute's Plan of Corporate Dissolution and Certificate of Dissolution on or about September 1, 2000. TI14870293-0303 (U.S. Ex. 21,852).

(3) CIAR

896. Pursuant to the MSA, CIAR was required to cease all operations within forty-five

days after Final Approval and be dissolved in a manner consistent with applicable law, with the preservation of all applicable privileges, including those held by any member company of CIAR. MSA, Sec. III(o)(3), Permanent Relief - Dissolution of The Tobacco Institute, Inc., The Council for Tobacco Research-U.S.A., Inc. and the Center for Indoor Air Research (November 1998) (U.S. Ex. 64,359).

897. The dissolution of CIAR was authorized by its voting members on October 7, 1999. 86205205-5206 (U.S. Ex. 21,091); 520936046-6049 (U.S. Ex. 86,631).

898. At the time of CIAR's dissolution, its directors were Richard Carchman of Philip Morris, Chairman of the Board; Scott Appleton of Brown & Williamson; Tilford Riehl of Brown & Williamson; Daniel Heck of Lorillard; Alexander Spears of Lorillard; Steve Sears of R.J. Reynolds; Robert Suber of R.J. Reynolds; and Helmut Reif of Philip Morris Europe. 86205205-5206 (U.S. Ex. 21,091).

899. The Certificate of Dissolution was signed by CIAR Executive Director Max Eisenberg on December 6, 1999, and filed with the Secretary of State of the State of Delaware on December 21, 1999. 86205204-5204 (U.S. Ex. 21,090).

J. <u>Gentlemen's Agreement</u>

900. Defendants also used less formal mechanisms to organize the affairs of the Enterprise. As a means to further the aims of the Enterprise, and contrary to their repeated promises to protect the public health by conducting unbiased research related to smoking and health, the Cigarette Company Defendants adhered to a "gentlemen's agreement" -- so-called by Defendants themselves -- not to commission or perform in-house biological research on smoking

and health. The two components of this gentlemen's agreement were: (1) any company discovering an innovation permitting the manufacture of an essentially "safe" cigarette would share the discovery with others in the industry; and (2) no domestic company would use intact animals for in-house biomedical research. 501543470-3517 at 3504 (U.S. Ex. 21,737).

901. Although the Cigarette Company Defendants recognized that research and testing were essential to evaluating the health risk posed by their products, in-house scientists who urged their companies to develop safer products and compete on health grounds were often ignored or silenced.

902. The Cigarette Company Defendants' mutual commitment to share discovery of a "safe" cigarette with each other – the gentlemen's agreement – substantially reduced, by design, the financial incentive any cigarette company might otherwise have had to develop and market a safer product. See U.S. FPFF § IV.G, infra, for a detailed discussion of the Gentlemen's Agreement.

K. Suppression and Concealment of Documents and Information

903. From at least 1954 to the present, Defendants engaged in efforts to suppress and conceal documents and information in order to further the goals of the Enterprise: (1) preventing the public from learning the truth about the adverse health impacts of smoking and ETS and about the addictiveness of nicotine; (2) avoiding or, at a minimum, limiting liability for smoking and health related claims in litigation; and (3) avoiding statutory and regulatory limitations on the cigarette industry. These activities occurred despite the promises of the Cigarette Company Defendants that they did not conceal, suppress or destroy evidence, and that they shared all

pertinent research findings with the American people.

904. Methods used by the Defendants to suppress and conceal documents and information, especially scientific research, included:

(a) establishing and implementing company policies for document destruction;

(b) destroying documents and evidence;

(c) limiting the number of copies of memoranda in contemplation of eventual document destruction or concealment;

(d) shipping and secreting documents outside the United States and/or at foreign affiliates;

(e) establishing company policies of avoidance and delay of production of documents;

(f) using their lawyers to assert improper claims of attorney-client privilege and work product protection for non-privileged documents through various means, including routing documents through lawyers, maintaining scientific materials in lawyer's files, and indiscriminately marking documents as privileged, confidential, or other such designations; and

(g) using their lawyers, instead of scientists, to direct as well as suppress the scientific research and other scientific matters of the industry. See U.S. FPFF § IV.D. and § IV.H., infra.

II

THE ENTERPRISE IS ENGAGED IN AND AFFECTS INTERSTATE AND FOREIGN COMMERCE

1. The RICO Enterprise established in this case at all relevant times has been and is engaged in interstate and foreign commerce and its activities have affected, and continue to affect, interstate and foreign commerce within the meaning of 18 U.S.C. § 1962(c) and (d). Regarding Defendant-members of this RICO enterprise, the Court finds the following facts.

A. Philip Morris Companies Inc. / Altria Group

2. Defendant Philip Morris Companies Inc. ("Philip Morris Companies") is a Virginia corporation with its principal place of business in New York, New York, and is the parent company of Philip Morris Inc. ("Philip Morris"). Since 1985, Philip Morris Companies and its subsidiaries have established offices and plants in at least twenty-nine locations in at least seventeen states, and twenty-five locations internationally. Answer of Philip Morris Companies, Inc. to Plaintiff's Complaint for Damages and Injunctive and Declaratory Relief, United States v. Philip Morris, filed October 31, 2001, at 14; Philip Morris, Inc. Annual Reports for 1954-1984 (U.S. Ex. 22,602); (U.S. Ex. 22,624); (U.S. Ex. 22,680); (U.S. Ex. 22,621); (U.S. Ex. 62,879); (U.S. Ex. 22,464); (U.S. Ex. 22,469); (U.S. Ex. 22,472); (U.S. Ex. 22,474); (U.S. Ex. 22,485); (U.S. Ex. 22,480); (U.S. Ex. 22,489); (U.S. Ex. 22,491); (U.S. Ex. 22,493); (U.S. Ex. 38,345); (U.S. Ex. 22,507); (U.S. Ex. 22,495); (U.S. Ex. 22,511); (U.S. Ex. 22,515); (U.S. Ex. 22,517); (U.S. Ex. 22,539); (U.S. Ex. 22,568); (U.S. Ex. 22,577); (U.S. Ex. 22,580); (U.S. Ex. 22,587); (U.S. Ex. 20,451); (U.S. Ex. 21,548); (U.S. Ex. 22,592); (U.S. Ex. 22,597); (U.S. Ex. 22,601); (U.S. 38,342); (U.S. Ex. 22,395); Philip Morris Companies, Inc. Annual Reports for 1985-2001

(U.S. Ex. 38,638); (U.S. Ex. 65,267); (U.S. Ex. 65,268); (U.S. Ex. 65,269); (U.S. Ex. 65,270); (U.S. Ex. 65,271); (U.S. Ex. 65,272); (U.S. Ex. 37,522); (U.S. Ex. 22,440); (U.S. Ex. 22,445); (U.S. Ex. 22,446); (U.S. Ex. 22,447); (U.S. Ex. 22,448); (U.S. Ex. 40,495); (U.S. Ex. 64,485); (U.S. Ex. 65, 273); (U.S. Ex. 86,646).

3. From its creation in 1985 to the present, Philip Morris Companies and its subsidiaries employed at least 100,000 people in at least seventeen different states and twenty-two foreign countries. In 1985, Philip Morris Companies reported approximately 114,000 employees. On its website, Philip Morris Companies states that it currently has "169,000 talented and diverse employees, who keep Philip Morris Companies' business fundamentals strong and its companies growing." About Philip Morris, available at http://www.philipmorris.com/about_pm/about_pm_main.asp (U.S. Ex. 86,798); Philip Morris Companies, Inc. Annual Reports for 1985-2001 (U.S. Ex. 38,638); (U.S. Ex. 65,267); (U.S. Ex. 65,268); (U.S. Ex. 65,269); (U.S. Ex. 65,270); (U.S. Ex. 65,271); (U.S. Ex. 65,272); (U.S. Ex. 37,522); (U.S. Ex. 22,440); (U.S. Ex. 22,445); (U.S. Ex. 22,446); (U.S. Ex. 22,447); (U.S. Ex. 22,448); (U.S. Ex. 40,495); (U.S. Ex. 64,485); (U.S. Ex. 65, 273); (U.S. Ex. 86,646).

4. In each year since 1985, Philip Morris Companies' subsidiaries manufactured, advertised, and sold Philip Morris cigarettes to Philip Morris's customers for ultimate resale to consumers throughout the United States, including in the District of Columbia, and in foreign countries. At various times, Philip Morris Companies' subsidiary Philip Morris has manufactured, advertised, and sold the brands of cigarettes alleged in Paragraph 10 of the United States' First Amended Complaint. Answer of Philip Morris, Inc. to Plaintiff's Complaint for

Damages and Injunctive and Declaratory Relief, United States v. Philip Morris, filed October 30, 2000, at 8-9.

5. Fortune Magazine ranks Philip Morris Companies as one of the ten largest corporations in America. The 2002 Fortune 500, available at http://www.fortune.com/fortune/fortune500 (U.S. Ex. 86,776).

6. From 1985 to the present, Philip Morris Companies, its predecessors and subsidiaries have obtained at least $803.4 billion in total revenue from the sale of goods and services throughout the United States.

a. From 1985 to the present, domestic sales of cigarettes account for at least $167.1 billion of this revenue, and international sales of cigarettes account for at least $163.8 billion.

b. For the year 2001, Philip Morris Companies' Annual Report reported total revenues of approximately $89.9 billion, including $51.37 billion from the sale of cigarettes from its subsidiaries. Philip Morris Companies, Inc. Annual Reports for 1985 - 2001 (U.S. Ex. 38,638); (U.S. Ex. 65,267); (U.S. Ex. 65,268); (U.S. Ex. 65,269); (U.S. Ex. 65,270); (U.S. Ex. 65,271); (U.S. Ex. 65,272); (U.S. Ex. 37,522); (U.S. Ex. 22,440); (U.S. Ex. 22,445); (U.S. Ex. 22,446); (U.S. Ex. 22,447); (U.S. Ex. 22,448); (U.S. Ex. 40,495); (U.S. Ex. 64,485); (U.S. Ex. 65, 273); (U.S. Ex. 86,646); Table, "Defendants' Gross Revenues Altria Group, Inc. (f/k/a Philip Morris Companies Inc.)," attached as Appendix at APP-1 to United States' Rule 7.1/56.1 Statement Of Material Facts Not In Dispute submitted in support of United States' Motion For Partial Summary Judgment Regarding Defendants' Affirmative Defenses That The RICO Claims

SECTION II.

And Relief Sought Are Prohibited By The Tenth Amendment And Separation Of Powers And That Defendants Are Not Jointly And Severally Liable For Any Disgorgement Ordered By The Court, United States v. Philip Morris, (R. 2330; filed July 1, 2003), ARU5840096-0096 (U.S. Ex. 88,669).

7. Philip Morris Companies and its subsidiaries, or their employees, have made the following additional admissions or public statements regarding the interstate nature and international scope of its business:

a. Philip Morris Companies calls itself "the largest consumer packaged goods company on earth."

b. In 2001, the Philip Morris family of companies purchased more than $1.4 billion worth of goods and services from minority- and women-owned firms.

c. Philip Morris Companies's 2001 Annual Report states that "[o]ur tobacco and food businesses extended their leading positions in markets around the world during 2001 and generated good income growth, continued improvement in 2002."

d. Philip Morris Companies admits "that on or about January 12, 1999, [Philip Morris] entered into an agreement with Liggett under the terms of which [Philip Morris] acquired the trademarks, trade names, trade dress, service marks, registrations, and registration applications for Lark, Chesterfield and L&M cigarette brands in the United States."

e. Philip Morris Companies-owned subsidiaries sell various brands overseas, including those brands owned by other companies and distributed through licensing arrangements; similarly, other companies distribute certain Philip Morris Companies-owned

brands overseas. The Benson & Hedges brand is sold by Philip Morris Companies, as well as British American Tobacco, plc, and Gallaher. The Belmont brand is sold by Philip Morris Companies, as well as by British American Tobacco, plc. About Philip Morris, available at http://www.philipmorris.com/about_pm/about_pm_main.asp (U.S. Ex. 86,789); Supplier Diversity, available at http://www.philipmorris.com/about_pm/corp_initiatives/supplier_div.asp (U.S. Ex. 86,803); Philip Morris Companies, Inc. 2001 Annual Report at 3 (U.S. Ex. 86,646); Answer of Philip Morris Companies, Inc. to Plaintiff's Complaint for Damages and Injunctive and Declaratory Relief, United States v. Philip Morris, filed October 30, 2000, at 9; Maxwell Tobacco Fact Book, Appendix 1 Manufacturing, Table 2 "Top World Brands 1984-2001" (2002) (U.S. Ex. 86,804).

8. Through 1999, Philip Morris Companies sold Liggett Group brands overseas; in 1999, Philip Morris Companies bought most Liggett premium brands, even in the United States, such as L&M, Chesterfield and Lark. Maxwell Tobacco Fact Book, Appendix 1 Manufacturing, Table 2 "Top World Brands 1984-2001" (2002) (U.S. Ex. 86, 804).

9. In a stipulation filed with this Court on December 10, 2002, Philip Morris Companies stipulated that it has engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from July 1, 1985 to the present. Joint Stipulation Regarding Interstate Commerce, United States v. Philip Morris, at ¶7, filed December 10, 2002; Order #280, United States v. Philip Morris, at ¶7, filed December 11, 2002

B. Philip Morris Incorporated / Philip Morris USA Inc.

10. Philip Morris Companies' domestic tobacco subsidiary is Philip Morris Incorporated ("Philip Morris"). Philip Morris Companies, Inc. 2001 Annual Report at 6-7 (U.S. Ex. 86,646).

11. Philip Morris is also a Virginia corporation with its principal place of business in New York, New York. Since 1953, Philip Morris and its predecessors have had offices and plants in at least New York, New York; Richmond, Virginia; and Louisville, Kentucky. Current offices and facilities currently include headquarters in New York City; manufacturing, processing and support facilities in the Richmond, Virginia area; a manufacturing facility in Cabarrus County, North Carolina; a materials conversion plant in Louisville; sales offices throughout the United States; and an office in the Commonwealth of Puerto Rico. Answer of Philip Morris, Inc. to Plaintiff's Complaint for Damages and Injunctive and Declaratory Relief, United States v. Philip Morris, filed October 30, 2000, at 9-10; Offices and Facilities, available at http://www.philipmorrisusa.com/about_us/company_information/offices_facilities.asp (U.S. Ex. 86,777).

12. In each year since 1953, Philip Morris and its predecessors have employed at least 3,800 people in its facilities in many states and foreign countries. Philip Morris, Inc. Annual Reports for 1954-1984 (U.S. Ex. 22,602); (U.S. Ex. 22,624); (U.S. Ex. 22,680); (U.S. Ex. 22,621); (U.S. Ex. 62,879); (U.S. Ex. 22,464); (U.S. Ex. 22,469); (U.S. Ex. 22,472); (U.S. Ex. 22,474); (U.S. Ex. 22,485); (U.S. Ex. 22,480); (U.S. Ex. 22,489); (U.S. Ex. 22,491); (U.S. Ex. 22,493); (U.S. Ex. 38,345); (U.S. Ex. 22,507); (U.S. Ex. 22,495); (U.S. Ex. 22,511); (U.S. Ex.

22,515); (U.S. Ex. 22,517); (U.S. Ex. 22,539); (U.S. Ex. 22,568); (U.S. Ex. 22,577); (U.S. Ex. 22,580); (U.S. Ex. 22,587); (U.S. Ex. 20,451); (U.S. Ex. 21,548); (U.S. Ex. 22,592); (U.S. Ex. 22,597); (U.S. Ex. 22,601); (U.S. 38,342); (U.S. Ex. 22,395).

13. In each year since 1953, Philip Morris and its predecessors have manufactured, advertised, and sold its cigarettes to its direct customers for ultimate resale to consumers throughout the United States, including the District of Columbia, and from 1953-1967 in foreign countries. Answer of Philip Morris to Plaintiff's Complaint for Damages and Injunctive and Declaratory Relief, United States v. Philip Morris, filed October 30, 2000, at 10.

14. Since 1953, Philip Morris and its predecessors have obtained at least $157 million in total revenue annually.

a. From 1954 to the present, Philip Morris has obtained at least $245.5 billion in total revenue from the sale of goods and services throughout the United States and in foreign countries. b. Philip Morris's reported operating revenues for 2001 were over $24.7 billion and reported operating companies' income for the same period was over $5.2 billion. Philip Morris, Inc. Annual Reports for 1954-1984 (U.S. Ex. 22,602); (U.S. Ex. 22,624); (U.S. Ex. 22,680); (U.S. Ex. 22,621); (U.S. Ex. 62,879); (U.S. Ex. 22,464); (U.S. Ex. 22,469); (U.S. Ex. 22,472); (U.S. Ex. 22,474); (U.S. Ex. 22,485); (U.S. Ex. 22,480); (U.S. Ex. 22,489); (U.S. Ex. 22,491); (U.S. Ex. 22,493); (U.S. Ex. 38,345); (U.S. Ex. 22,507); (U.S. Ex. 22,495); (U.S. Ex. 22,511); (U.S. Ex. 22,515); (U.S. Ex. 22,517); (U.S. Ex. 22,539); (U.S. Ex. 22,568); (U.S. Ex. 22,577); (U.S. Ex. 22,580); (U.S. Ex. 22,587); (U.S. Ex. 20,451); (U.S. Ex. 21,548); (U.S. Ex. 22,592); (U.S. Ex. 22,597); (U.S. Ex. 22,601); (U.S. 38,342); (U.S. Ex. 22,395); Philip

Morris Companies, Inc. Annual Reports for 1985 -2001 (U.S. Ex. 38,638); (U.S. Ex. 65,267); (U.S. Ex. 65,268); (U.S. Ex. 65,269); (U.S. Ex. 65,270); (U.S. Ex. 65,271); (U.S. Ex. 65,272); (U.S. Ex. 37,522); (U.S. Ex. 22,440); (U.S. Ex. 22,445); (U.S. Ex. 22,446); (U.S. Ex. 22,447); (U.S. Ex. 22,448); (U.S. Ex. 40,495); (U.S. Ex. 64,485); (U.S. Ex. 65, 273); (U.S. Ex. 86,646); Table, "Defendants Gross Revenues Philip Morris USA Inc. (f/k/a Philip Morris Inc.)," attached at Appendix at APP-2-APP-3 to United States' Rule 7.1/56.1 Statement Of Material Facts Not In Dispute submitted in support of United States' Motion For Partial Summary Judgment Regarding Defendants' Affirmative Defenses That The RICO Claims And Relief Sought Are Prohibited By The Tenth Amendment And Separation Of Powers And That Defendants Are Not Jointly And Severally Liable For Any Disgorgement Ordered By The Court, United States v. Philip Morris, (R. 2330; filed July 1, 2003), ARU5840097-0098 (U.S. Ex. 88,670); Philip Morris Companies, Inc. 2001 Annual Report, at 1, 6 (U.S. Ex. 86,646).

15. Philip Morris, its affiliates, or their employees have made the following additional admissions or public statements regarding the interstate nature and scope of its business:

a. Philip Morris proclaims itself as the "nation's leading cigarette manufacturer."

b. Philip Morris markets eighteen brands of cigarettes throughout the United States and the District of Columbia: Marlboro, Virginia Slims, Benson & Hedges, Merit, Parliament, Alpine, Basic, Cambridge, Bristol, Bucks, Chesterfield, Collector's Choice, Commander, English Ovals, Lark, L&M, Saratoga and Superslims. Until the mid-1980s, Philip Morris included Philip Morris International. Philip Morris International, now a sister

corporation, markets the following brands in foreign countries: Marlboro, L&M, Philip Morris, Lark, Bond Street, Parliament, Chesterfield, Diana, Apollo Soyuz, Merit, Petra, SG, Caro, Virginia Slims, Klubowe, Multifilter, Polyot, f6, Longbeach, Peter Jackson, Dallas, Muratti, Kazakstan, Benson & Hedges, Sparta, Next, Congress, Red & White, Le Mans, Helikon, Nacional, Medeo, Astor, Rubios, Galaxy, Astra, Belmont, Kosmos, Derby, Alpine, Lider, Raffles, Prima, Klaipeda, Português Suave, Eve, Brunette, Carmen, Palace, Imparciales, Luxor, Kaunas, Kastitys, Particulares, Fiesta, Diplomat, Partner, Colorado, Talisman, Kosmosas, Juwel, Zefir, Karo, Full Speed, Mercedes, Visa, Ritz, Saratoga, Premier, Good Companion, Bond, Wilton, Basic, and Freeport.

c. Philip Morris admits that "A Frank Statement to Cigarette Smokers" appeared in 448 newspapers in 258 cities on or about January 4, 1954. Philip Morris is informed and believes that the names of certain manufacturers, including Philip Morris, were listed as sponsors of the announcement. (U.S. Ex. 20,742); (U.S. Ex. 21,422); (U.S. Ex. 30,417); (U.S. Ex. 54,510); (U.S. Ex. 58,987); (U.S. Ex. 75,860).

d. Philip Morris calls its Marlboro brand "the number one brand across all states in the country and in every major trade class."

e. Philip Morris has "about 1,800 territorial salesmen."

f. According to Michael Szymanczyk, current Chairman and former President and Chief Executive Officer of Philip Morris until 2002, approximately 400,000 various kinds of retail operations sell cigarettes throughout the United States, and "probably the majority of them" sell Philip Morris products.

g. On June 13, 2002, Szymanczyk testified that one of Philip Morris's objectives is "to grow our share of the brands in the marketplace" and to "increase [Philip Morris's] share of whatever market exists";

h. On June 13, 2002, Szymanczyk further testified that Philip Morris's marketing services staff also handles "print advertising" which includes print advertising in magazines or newspapers; About Philip Morris, available at http://www.philipmorris.com/about_pm/brands/pm_usa_brands.asp (U.S. Ex. 86,797); Philip Morris International Brands and Products, available at http://www.philipmorris.com/about_pm/brands/pm_intl_brands.asp (U.S. Ex. 86,858); Answer of Philip Morris, Incorporated to the Appendix to the Complaint, United States v. Philip Morris, filed October 30, 2000, at 3, 27; Philip Morris Companies, Inc. 2001 Annual Report at 7; Deposition of Michael Szymanczyk, United States v. Philip Morris, June 13, 2002, 23:3-23:37, 49:13, 67:7-18.

16. Philip Morris produces "between about 10 and 15 percent" of the sales product of Philip Morris International, Philip Morris Companies' international subsidiary. Deposition of Michael Szymanczyk, United States v. Philip Morris, June 13, 2002, 119:16-8.

17. As early as 1954, Philip Morris's Annual Report stated that "export sales show steady increase," and referred to markets in "Venezuela, Netherlands, Switzerland and Hong Kong." Philip Morris, Inc. 1954 Annual Report at 13 (U.S. Ex. 22,602).

18. In a stipulation filed with this Court on December 10, 2002, Philip Morris stipulated that it has engaged in and conducted activities affecting interstate commerce within the

meaning of 18 U.S.C. § 1962(c) and (d) during the period from 1953 to the present. Joint Stipulation Regarding Interstate Commerce, United States v. Philip Morris, at ¶1, filed December 10, 2002; Order #280, United States v. Philip Morris, at ¶1, filed December 11, 2002

C. R.J. Reynolds Tobacco Company

19. Defendant R.J. Reynolds Tobacco Company ("R.J. Reynolds") is a New Jersey corporation with its principal place of business in Winston-Salem, North Carolina. Since 1953, R.J. Reynolds and its affiliates have had offices and plants in at least thirty locations nationally in nineteen different states, and forty-five locations internationally. Answer, Defenses and Jury Demand of Defendant R.J. Reynolds Tobacco Company, United States v. Philip Morris, filed October 30, 2000 at 5; Annual Reports of R.J. Reynolds Tobacco Company for 1954-1969 (U.S. Ex. 20,616); (U.S. Ex. 21,415); (U.S. Ex. 22,421); (U.S. Ex. 22,422); (U.S. Ex. 22,423); (U.S. Ex. 22,424); (U.S. Ex. 22,425); (U.S. Ex. 22,426); (U.S. Ex. 22,555)22,556); (U.S. Ex. 22,558); (U.S. Ex. 22,559); (U.S. Ex. 22,560); (U.S. Ex. 22,563); (U.S. Ex. 22,564); (U.S. Ex. 22,375); (U.S. Ex. 22,377); (U.S. Ex. 22,379); R.J. Reynolds Industries, Inc. for 1970-1985 (U.S. Ex. 22,381); (U.S. Ex. 22,383); (U.S. Ex. 22,385); (U.S. Ex. 22,386); (U.S. Ex. 22,388); (U.S. Ex. 22,389); (U.S. Ex. 22,475); (U.S. Ex. 22,473); (U.S. Ex. 22,478); (U.S. Ex. 22,481); (U.S. Ex. 22,482); (U.S. Ex. 22,483); (U.S. Ex. 22,484); (U.S. Ex. 22,494); (U.S. Ex. 22,929); (U.S. Ex. 22,503); RJR Nabisco, Inc. for 1986-1987 (U.S. Ex. 22,505); (U.S. Ex. 22,506); RJR Nabisco, Inc. SEC Form 10-K for the Fiscal Year Ended December 31, 1988 (U.S. Ex. 51,274); RJR Nabisco Holdings Corp. SEC Forms 10-K for Fiscal Years 1989-1993 (U.S. Ex. 22,546); (U.S. Ex. 22,548); (U.S. Ex. 22,549); (U.S. Ex. 22,551); (U.S. Ex. 22,552); Annual Reports of RJR

Nabisco for 1994-1998 (U.S. Ex. 22,509); (U.S. Ex. 22,510); (U.S. Ex. 22,512); (U.S. Ex. 22,513); (U.S. Ex. 22,516); R.J. Reynolds Tobacco Holdings, Inc. SEC Forms 10-K for Fiscal Years 1999-2001 (U.S. Ex. 52,656); (U.S. Ex. 64,882); (U.S. Ex. 52,996); (U.S. Ex. 86,643).

20. In each year since 1953, R.J. Reynolds, its predecessors, and affiliates employed thousands of people in its facilities in at least nineteen different states. In 1954, R.J. Reynolds reported 11,540 employees. As of December 31, 2000, R.J. Reynolds reported 8,100 employees in many different states. R.J. Reynolds Tobacco Company 1954 Annual Report (U.S. Ex. 20,616); (U.S. Ex. 21,415); (U.S. Ex. 22,421); 500434703-4724 at 4710 (U.S. Ex. 21,415).

21. In each year since 1953, R.J. Reynolds, its predecessors, and affiliates manufactured, advertised, and sold R.J. Reynolds's cigarettes to its direct customers for ultimate resale throughout the United States, including the District of Columbia, as well as in foreign countries until 1999. Answer, Defenses and Jury Demand of Defendant R.J. Reynolds Tobacco Company, United States v. Philip Morris, filed October 30, 2000, at 5.

22. From 1953 to the present, R.J. Reynolds, its predecessors, and affiliates have obtained at least $188 billion in total revenue from the sales of goods and services throughout the United States and foreign countries.

a. From 1972 to the present, sales of cigarettes throughout the United States account for at least $126.3 billion of this revenue, and international sales of cigarettes account for at least $43.8 billion.

b. For the year 2001, R.J. Reynolds reported total revenues of approximately $8.585 billion from the sale of cigarettes. Annual Reports of R.J. Reynolds Tobacco Company

for 1954-1969 (U.S. Ex. 20,616); (U.S. Ex. 21,415); (U.S. Ex. 22,421); (U.S. Ex. 22,422); (U.S. Ex. 22,423); (U.S. Ex. 22,424); (U.S. Ex. 22,425); (U.S. Ex. 22,426); (U.S. Ex. 22,555)22,556); (U.S. Ex. 22,558); (U.S. Ex. 22,559); (U.S. Ex. 22,560); (U.S. Ex. 22,563); (U.S. Ex. 22,564); (U.S. Ex. 22,375); (U.S. Ex. 22,377); (U.S. Ex. 22,379); R.J. Reynolds Industries, Inc. for 1970-1985 (U.S. Ex. 22,381); (U.S. Ex. 22,383); (U.S. Ex. 22,385); (U.S. Ex. 22,386); (U.S. Ex. 22,388); (U.S. Ex. 22,389); (U.S. Ex. 22,475); (U.S. Ex. 22,473); (U.S. Ex. 22,478); (U.S. Ex. 22,481); (U.S. Ex. 22,482); (U.S. Ex. 22,483); (U.S. Ex. 22,484); (U.S. Ex. 22,494); (U.S. Ex. 22,929); (U.S. Ex. 22,503); RJR Nabisco, Inc. for 1986-1987 (U.S. Ex. 22,505); (U.S. Ex. 22,506); RJR Nabisco, Inc. SEC Form 10-K for the Fiscal Year Ended December 31, 1988 (U.S. Ex. 51,274); RJR Nabisco Holdings Corp. SEC Forms 10-K for Fiscal Years 1989-1993 (U.S. Ex. 22,546); (U.S. Ex. 22,548); (U.S. Ex. 22,549); (U.S. Ex. 22,551); (U.S. Ex. 22,552); Annual Reports of RJR Nabisco for 1994-1998 (U.S. Ex. 22,509); (U.S. Ex. 22,510); (U.S. Ex. 22,512); (U.S. Ex. 22,513); (U.S. Ex. 22,516); R.J. Reynolds Tobacco Holdings, Inc. SEC Forms 10-K for Fiscal Years 1999-2001 (U.S. Ex. 52,656); (U.S. Ex. 64,882); (U.S. Ex. 52,996); (U.S. Ex. 86,643); R.J. Reynolds Tobacco Company Table, "Defendants' Gross Revenues R.J. Reynolds Tobacco Company," attached as Appendix at APP-4-APP-5 to United States' Rule 7.1/56.1 Statement Of Material Facts Not In Dispute submitted in support of United States' Motion For Partial Summary Judgment Regarding Defendants' Affirmative Defenses That The Rico Claims And Sought Relief Are Prohibited By The Tenth Amendment And Separation Of Powers And That Defendants Are Not Jointly And Severally Liable For Any Disgorgement Ordered By The Court, United States v. Philip Morris, (R. 2330; filed July 1, 2003), ARU5840099-0100 (U.S.

Ex. 88,671).

23. R.J. Reynolds, its affiliates or their employees have made the following additional admissions or public statements regarding the interstate nature and scope of its business.

a. R.J. Reynolds stated on its website in 2002 that it is "the second-largest tobacco company in the United States, manufacturing about one of every four cigarettes sold in the United States. R.J. Reynolds' tobacco product line includes four of the nation's ten best-selling brands: Camel, Winston, Salem, and Doral."

b. R.J. Reynolds has established an Electronic Data Interchange ("EDI") website to facilitate the procurement of goods and services in interstate commerce and the transmission of funds through the interstate banking system. The Mission Statement for this website states "RJRT strives to strengthen our Trading Partner relationship through the use of EDI and Electronic Funds Transfer ("EFT"). EDI and EFT allows computer-to-computer communication of business documents and banking transactions between RJRT and its valued trading partners."

c. In its Fact Book for 2001, R.J. Reynolds stated that it has "about a 23% share" of the U.S. cigarette market. It further claims that its Camel brand places with 5.5% Retail Market Share ("RMS") in 2001; that its Doral brand was fourth with 5.9% RMS; that its Winston brand was sixth, with 4.8% RMS; and that its Salem brand was eighth with 2.7% RMS.

d. R.J. Reynolds stated on its website in 2002 that "Our company's rich heritage of innovation in the laboratory and in the marketplace continue to serve us well in successfully meeting the cigarette brand preferences of about 25% of the nation's 46.5 million

adult smokers."

e. R.J. Reynolds admitted in its Answer to the United States' Complaint that "A Frank Statement to Cigarette Smokers" was published in a number of newspapers on or about January 4, 1954 and that R.J. Reynolds and other companies were identified as sponsors of this publication."

f. In a 1997 statement prepared for public release, R.J. Reynolds stated that since 1962, it has awarded research grants totaling over $17.5 million in funds though the interstate banking system to land grant universities in seven tobacco producing states.

g. On March 13, 2002, Tommy Joe Payne, R.J. Reynolds's Executive Vice President for External Relations, testified in a deposition that R.J. Reynolds's External Relations group has a total of "about 55 full time employees" located in Winston-Salem, North Carolina, and Washington, D.C.

h.. On June 25, 2002, Mark Smith testified that he was formerly R.J. Reynolds Senior Manager for Public Affairs. The duties of this position included "working on brand publicity and tax issues in various states and the American Federal Government." R.J. Reynolds Tobacco Company, available at http://www.rjrt.com/home.asp (U.S. Ex. 86,779); Welcome, available at http://www.rjrtedi.com/INDEX.htm (U.S. Ex. 86,781); Mission Statement, available at http://www.rjrtedi.com/mission.htm (U.S. Ex. 86,782); R.J. Reynolds Tobacco Company Fact Book, available at http://www.rjrt.com/IN/COwhoweare_corpfactbook.asp?Nav=IN (U.S. Ex. 86,780); Inside RJRT, available at http://www.rjrt.com/IN/inside_cover.asp (U.S. Ex. 72,410); Answer,

Defenses and Jury Demand of Defendant R.J. Reynolds Tobacco Company, United States v. Philip Morris, filed October 30, 2000, at 13; 700137869-700137869; Deposition of Tommy Joe Payne, United States v. Philip Morris, March 13, 2002, 12:19-23; Deposition of Mark Smith, United States v. Philip Morris, June 25, 2002, 15:6-14.

24. In 1999, R.J. Reynolds sold its overseas brands to Japan Tobacco, a foreign concern. Maxwell Tobacco Fact Book, Appendix 1 Manufacturing, Table 2 "Top World Brands 1984-2001" (2002) (U.S. Ex. 86,804).

25. In a stipulation filed with this Court on December 10, 2002, R.J. Reynolds stipulated that it has engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from 1953 to the present. Joint Stipulation Regarding Interstate Commerce, United States v. Philip Morris, at ¶2, filed December 10, 2002; Order #280, United States v. Philip Morris, at ¶2, filed December 11, 2002.

D. Liggett Group, Inc.

26. Liggett Group, Inc. ("Liggett") is a Delaware corporation which maintains its principal place of business in Durham, North Carolina. Liggett is an indirect subsidiary of Vector Group Ltd. ("Vector"), a company listed on the New York Stock Exchange with principal offices in Miami, Florida. Liggett and Myers was a Liggett subsidiary. Since 1953, Liggett and its affiliates have had offices and plants in at least thirteen locations in nine different states, and six locations internationally. Answer of Liggett Group, Inc. to Plaintiff's Complaint for Damages and Injunctive and Declaratory Relief, United States v. Philip Morris, filed October 30, 2000, at 4; Company overview, available at

http://www.liggettgroup.com/pages/corporate/company_overview. html (U.S. Ex. 86,784); Annual Report of Liggett and Myers Tobacco Company for 1954-1967 (U.S. Ex. 62,944); (U.S. Ex. 62,943); (U.S. Ex. 62,942); (U.S. Ex. 62,941); (U.S. Ex. 62,940); (U.S. Ex. 62,939); (U.S. Ex. 62,938); (U.S. Ex. 62,937); (U.S. Ex. 62,936); (U.S. Ex. 62,677); (U.S. Ex. 62,935); (U.S. Ex. 48,828); (U.S. Ex. 48,830); (U.S. Ex. 62,675); Annual Report of Liggett and Myers, Inc. for 1968-1974 (U.S. Ex. 62,674); (U.S. Ex. 22,711); (U.S. Ex. 62,672); (U.S. Ex. 86,647); (U.S. Ex. 86,648); (U.S. Ex. 62,671); (U.S. Ex. 59,035); Annual Report of Liggett Group for 1975-1978 (U.S. Ex. 59,036); (U.S. Ex. 62,880); (U.S. Ex. 59,037); (U.S. Ex. 62,933); (U.S. Ex. 59,038); Liggett Group, Inc. SEC Forms 10-K for Fiscal Years 1979-1982, 1988-1990 (U.S. Ex. 64,494); (U.S. Ex. 75,912); (U.S. Ex. 75,913); (U.S. Ex. 75,548); (U.S. Ex. 57,147); (U.S. Ex. 58,588); (U.S. Ex. 86,859); Brooke Group Ltd. SEC Forms 10-K for Fiscal Years 1991-1999 (U.S. Ex. 59,876); (U.S. Ex. 59,877); (U.S. Ex. 75,550); (U.S. Ex. 59,878); (U.S. Ex. 59,879); (U.S. Ex. 75,551); (U.S. Ex. 75,914); (U.S. Ex. 59,880); (U.S. Ex. 59,881); (U.S. Ex. 59,889); (U.S. Ex. 75,553); (U.S. Ex. 59,890); (U.S. Ex. 65,311); Vector Group Ltd. SEC Forms 10-K for Fiscal Years 2000-2001 (U.S. Ex. 75,917); (U.S. Ex. 75,554).

27. In each year since 1953, Liggett, its predecessors and affiliates have employed hundreds of people in its facilities located in as many as thirteen locations nationally and six locations internationally. In 1955, Liggett reported "about 10,000" employees. Liggett currently has approximately 600 domestic employees in various states in the United States. Annual Report of Liggett and Myers Tobacco Company for 1954-1967 (U.S. Ex. 62,944); (U.S. Ex. 62,943); (U.S. Ex. 62,942); (U.S. Ex. 62,941); (U.S. Ex. 62,940); (U.S. Ex. 62,939); (U.S. Ex.

62,938); (U.S. Ex. 62,937); (U.S. Ex. 62,936); (U.S. Ex. 62,677); (U.S. Ex. 62,935); (U.S. Ex. 48,828); (U.S. Ex. 48,830); (U.S. Ex. 62,675); Annual Report of Liggett and Myers, Inc. for 1968-1974 (U.S. Ex. 62,674); (U.S. Ex. 22,711); (U.S. Ex. 62,672); (U.S. Ex. 86,647); (U.S. Ex. 86,648); (U.S. Ex. 62,671); (U.S. Ex. 59,035); Annual Report of Liggett Group for 1975-1978 (U.S. Ex. 59,036); (U.S. Ex. 62,880); (U.S. Ex. 59,037); (U.S. Ex. 62,933); (U.S. Ex. 59,038); Liggett Group, Inc. SEC Forms 10-K for Fiscal Years 1979-1982, 1988-1990 (U.S. Ex. 64,494); (U.S. Ex. 75,912); (U.S. Ex. 75,913); (U.S. Ex. 75,548); (U.S. Ex. 57,147); (U.S. Ex. 58,588); (U.S. Ex. 86,859); Brooke Group Ltd. SEC Forms 10-K for Fiscal Years 1991-1999 (U.S. Ex. 59,876); (U.S. Ex. 59,877); (U.S. Ex. 75,550); (U.S. Ex. 59,878); (U.S. Ex. 59,879); (U.S. Ex. 75,551); (U.S. Ex. 75,914); (U.S. Ex. 59,880); (U.S. Ex. 59,881); (U.S. Ex. 59,889); (U.S. Ex. 75,553); (U.S. Ex. 59,890); (U.S. Ex. 75,920); Vector Group Ltd. SEC Forms 10-K for Fiscal Years 2000-2001 (U.S. Ex. 75,917); (U.S. Ex. 75,554); Liggett and Myers Tobacco Company 1955 Annual Report at 8 (U.S. Ex. 62,943); Company Overview, available at http://www.liggettgroup.com/pages/corporate/company_overview.html (U.S. Ex. 86,784).

28. Since 1953, Liggett has manufactured cigarettes for ultimate retail sale throughout the United States, including the District of Columbia, and in foreign countries. Answer of Liggett Group, Inc. to Plaintiff's Complaint for Damages and Injunctive and Declaratory Relief, United States v. Philip Morris, filed October 30, 2000, at 4.

29. Since 1953, Liggett, its predecessors, and affiliates have obtained at least $294 million in total revenue annually from the sale of goods as services throughout the United States and in foreign countries. Annual Report of Liggett and Myers Tobacco Company for

1954-1967 (U.S. Ex. 62,944); (U.S. Ex. 62,943); (U.S. Ex. 62,942); (U.S. Ex. 62,941); (U.S. Ex. 62,940); (U.S. Ex. 62,939); (U.S. Ex. 62,938); (U.S. Ex. 62,937); (U.S. Ex. 62,936); (U.S. Ex. 62,677); (U.S. Ex. 62,935); (U.S. Ex. 48,828); (U.S. Ex. 48,830); (U.S. Ex. 62,675) ; Annual Report of Liggett and Myers, Inc. for 1968-1974 (U.S. Ex. 62,674); (U.S. Ex. 22,711); (U.S. Ex. 62,672); (U.S. Ex. 86,647); (U.S. Ex. 86,648); (U.S. Ex. 62,671); (U.S. Ex. 59,035); Annual Report of Liggett Group for 1975-1978 (U.S. Ex. 59,036); (U.S. Ex. 62,880); (U.S. Ex. 59,037); (U.S. Ex. 62,933); (U.S. Ex. 59,038); Liggett Group, Inc. SEC Forms 10-K for Fiscal Years 1979-1982, 1988-1990 (U.S. Ex. 64,494); (U.S. Ex. 75,912); (U.S. Ex. 75,913); (U.S. Ex. 75,548); (U.S. Ex. 57,147); (U.S. Ex. 58,588); (U.S. Ex. 86,859); Brooke Group Ltd. SEC Forms 10-K for Fiscal Years 1991-1999 (U.S. Ex. 59,876); (U.S. Ex. 59,877); (U.S. Ex. 75,550); (U.S. Ex. 59,878); (U.S. Ex. 59,879); (U.S. Ex. 75,551); (U.S. Ex. 75,914); (U.S. Ex. 59,880); (U.S. Ex. 59,881); (U.S. Ex. 59,889); (U.S. Ex. 75,553); (U.S. Ex. 59,890); (U.S. Ex. 75,920); Vector Group Ltd. SEC Forms 10-K for Fiscal Years 2000-2001 (U.S. Ex. 75,917); (U.S. Ex. 75,554); Table, "Defendants' Gross Revenues Liggett Group Inc.," attached as Appendix at APP-8-APP-9 to United States' Rule 7.1/56.1 Statement Of Material Facts Not In Dispute submitted in support of United States' Motion For Partial Summary Judgment Regarding Defendants' Affirmative Defenses That The Rico Claims And Sought Relief Are Prohibited By The Tenth Amendment And Separation Of Powers And That Defendants Are Not Jointly And Severally Liable For Any Disgorgement Ordered By The Court, United States v. Philip Morris, (R. 2330; filed July 1, 2003), ARU5840103-0104 (U.S. Ex. 88,674).

30. From 1954 to the present, Liggett, its predecessors, and affiliates have obtained at

least $22.3 billion in total revenue from the sales of goods throughout the United States and internationally, with at least $8.7 billion attributable to the sale of cigarettes or tobacco products. Annual Report of Liggett and Myers Tobacco Company for 1954-1967 (U.S. Ex. 62,944); (U.S. Ex. 62,943); (U.S. Ex. 62,942); (U.S. Ex. 62,941); (U.S. Ex. 62,940); (U.S. Ex. 62,939); (U.S. Ex. 62,938); (U.S. Ex. 62,937); (U.S. Ex. 62,936); (U.S. Ex. 62,677); (U.S. Ex. 62,935); (U.S. Ex. 48,828); (U.S. Ex. 48,830); (U.S. Ex. 62,675); Annual Report of Liggett and Myers, Inc. for 1968-1974 (U.S. Ex. 62,674); (U.S. Ex. 22,711); (U.S. Ex. 62,672); (U.S. Ex. 86,647); (U.S. Ex. 86,648); (U.S. Ex. 62,671); (U.S. Ex. 59,035); Annual Report of Liggett Group for 1975-1978 (U.S. Ex. 59,036); (U.S. Ex. 62,880); (U.S. Ex. 59,037); (U.S. Ex. 62,933); (U.S. Ex. 59,038); Liggett Group, Inc. SEC Forms 10-K for Fiscal Years 1979-1982, 1988-1990 (U.S. Ex. 64,494); (U.S. Ex. 75,912); (U.S. Ex. 75,913); (U.S. Ex. 75,548); (U.S. Ex. 57,147); (U.S. Ex. 58,588); (U.S. Ex. 86,859); Brooke Group Ltd. SEC Forms 10-K for Fiscal Years 1991-1999 (U.S. Ex. 59,876); (U.S. Ex. 59,877); (U.S. Ex. 75,550); (U.S. Ex. 59,878); (U.S. Ex. 59,879); (U.S. Ex. 75,551); (U.S. Ex. 75,914); (U.S. Ex. 59,880); (U.S. Ex. 59,881); (U.S. Ex. 59,889); (U.S. Ex. 75,553); (U.S. Ex. 59,890); (U.S. Ex. 75,920); Vector Group Ltd. SEC Forms 10-K for Fiscal Years 2000-2001 (U.S. Ex. 75,917); (U.S. Ex. 75,554); Table, "Defendants' Gross Revenues Liggett Group Inc.," attached as Appendix at APP-8-APP-9 to United States' Rule 7.1/56.1 Statement Of Material Facts Not In Dispute submitted in support of United States' Motion For Partial Summary Judgment Regarding Defendants' Affirmative Defenses That The Rico Claims And Sought Relief Are Prohibited By The Tenth Amendment And Separation Of Powers And That Defendants Are Not Jointly And Severally Liable For Any Disgorgement Ordered By The

Court, United States v. Philip Morris, (R. 2330; filed July 1, 2003), ARU5840103-0104 (U.S. Ex. 88,674).

31. Liggett's reported revenues for the calendar year ending December 31, 2001 were approximately $728.2 million and reported operating income for the same period was over $107 million. Vector Group, Ltd. SEC Form 10-K for Fiscal Year 2001, dated April 1, 2002 (U.S. Ex. 75,554).

32. Liggett, its affiliates, or their employees have made the following additional admissions or public statements regarding the interstate nature and scope of its business.

a. On its website for 2002, Liggett stated that it is one of the six largest manufacturers of cigarettes in the United States in terms of unit sales.

b. On June 21, 2002, Bennett LeBow, Vector's Chairman and Chief Executive Officer, testified that Liggett is now growing genetically modified tobacco in Pennsylvania, Mississippi, Louisiana, and Illinois and that Vector Group, Ltd., built its own stemmery in Timberlake, North Carolina, to handle its genetically modified tobacco, at a cost of between fifteen and twenty million dollars.

c. Liggett calls its Mebane, North Carolina-based manufacturing complex "among the most modern and efficient in the industry." The operation currently produces almost 250 unique products and is designed to maximize manufacturing flexibility. The complex includes a 240,000 square foot manufacturing complex and a 60,000 square foot state-of-the art distribution center.

d. Liggett's Northern Strategic Business Unit currently consists of the sales

force that covers the area from Maine to Maryland and out to Ohio, Indiana, Michigan, Illinois, Wisconsin.

e.

. Company overview, available at http://www.liggettgroup.com/pages/corporate/company_overview.html (U.S. Ex. 86,784); Manufacturing, available at http://www.liggettgroup.com/pages/manufacturing/manufacturing.html (U.S. Ex. 86,785); Deposition of Harold J. Petch, United States v. Philip Morris, Inc., October 12, 2001, 13:24-14:2; Deposition of Bennett LeBow, United States v. Philip Morris, June 21, 2002, 23:4-9 (Confidential).

33. Liggett affiliate Vector Tobacco is also wholly owned subsidiary of Vector Group, Ltd. Vector Tobacco has an office in New York, New York, that handles sales and marketing, public health, and some research matters. Deposition of Bennett LeBow, United States v. Philip Morris, June 21, 2002, 102:7-12.

34. In a stipulation filed with this Court on January 27, 2003, Liggett stipulated that it engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from 1990 through January 27, 2003. Liggett further stipulated that its predecessors in interest engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) from 1953 until 1990. Joint Stipulation Regarding Interstate Commerce, United States v. Philip Morris, at ¶1, filed January 27, 2003; Order #308, United States v. Philip Morris, at ¶1, filed January 31, 2003.

E. Lorillard Tobacco Company

35. Lorillard Tobacco Company ("Lorillard") is a Delaware corporation with its principal place of business in Greensboro, North Carolina. Lorillard is a wholly owned subsidiary of Lorillard, Inc., which in turn is a wholly owned subsidiary of Loews Corporation. Loews Corporation is a Delaware corporation, with its principal place of business in New York. Answer, Affirmative Defenses, and Jury Demand of Lorillard Tobacco Company, United States v. Philip Morris, filed October 30, 2000, at 7; Loew's Corp. SEC Form 10-Q filed Nov. 22, 2002, available at http://www.sec.gov/Archives/edgar/data/60086/000006008602000026/septq.txt (U.S. Ex. 86,786).

36. Since 1953, Lorillard has had as many as eleven offices and plants in nine different states, with Field and Division Sales Offices "in all principal cities," and at least two locations internationally until 1977. P. Lorillard Company, Inc. Annual Report for the Year Ended December 31, 1954; 89300905-0928 at 0907 (U.S. Ex. 21,106).

37. In approximately 1997, Lorillard moved its corporate offices from New York to North Carolina. Deposition of Kathleen A. Sparrow, United States v. Philip Morris, Inc., February 25, 2002, 57:6-7.

38. In each year since 1953, Lorillard has employed at least 3,000 people. In 1954, Lorillard reported 6,126 employees. On its website for 2002, Lorillard states that it currently employs "close to 3,300 people in 48 states, and do[es] business in all 50 states and Puerto Rico." P. Lorillard Company, Inc. Annual Report for theYear Ended December 31, 1954; 89300905-0928 at 0907 (U.S. Ex. 21,106); Who is Lorillard Tobacco Company?, available at

http://www.lorillard.net/faq.html (U.S. Ex. 86,787).

39. In each year since 1953, Lorillard or its predecessor entities have manufactured cigarettes that were advertised and sold throughout the United States, including the District of Columbia. Answer, Affirmative Defenses, and Jury Demand of Lorillard Tobacco Company, United States v. Philip Morris, filed October 30, 2000, at 7.

40. Since 1953, Lorillard, its predecessors, and affiliates have obtained at least $116 million in total revenue annually from the sale of goods and services throughout the United States. P. Lorillard Company, Inc. Annual Reports for 1954-1967 (U.S. Ex. 21,106); (U.S. Ex. 22,631); (U.S. Ex. 22,632); (U.S. Ex. 22,633); (U.S. Ex. 22,644); (U.S. Ex. 22,634); (U.S. Ex. 22,635); (U.S. Ex. 22,636); (U.S. Ex. 22,637); (U.S. Ex. 22,638); (U.S. Ex. 22,639); (U.S. Ex. 22,640); (U.S. Ex. 22,641); (U.S. Ex. 22,643); Lorillard Corporation SEC Form 10-K for the Fiscal Year Ending December 31, 1968, 93485701-5726 (U.S. Ex. 22,439); Loews Corporation Annual Reports for 1969-1970, 1972-1973, 1976-1983, 1993-1997, 1999, 2001 (U.S. Ex. 57,202); (U.S. Ex. 56,498); (U.S. Ex. 22,648); (U.S. Ex. 55,394); (U.S. Ex. 22,649); (U.S. Ex. 55,398); (U.S. Ex. 22,655); (U.S. Ex. 87,989); (U.S. Ex. 55,399); (U.S. Ex. 55,400); (U.S. Ex. 55,402); (U.S. Ex. 55,401); (U.S. Ex. 56,356); (U.S. Ex. 56,507); (U.S. Ex. 57,231); (U.S. Ex. 56,717); (U.S. Ex. 56,718); (U.S. Ex. 58,883); (U.S. Ex. 75,921); Loews Corporation SEC Form 10-K for the Four Months Ended December 31, 1974 (U.S. Ex. 86,650); Loews Corporation SEC Forms 10-K for Years 1975, 1984-1992, 1998, 2000 (U.S. Ex. 56,355); (U.S. Ex. 22,536); (U.S. Ex. 56,166); (U.S. Ex. 57,146); (U.S. Ex. 86,651); (U.S. Ex. 65,288); (U.S. Ex. 56,318); (U.S. Ex. 56,317); (U.S. Ex. 22,557); (U.S. Ex. 22,565); (U.S. Ex. 22,593); (U.S. Ex. 75,924); Table,

"Defendants' Gross Revenues Lorillard, Inc.," attached as Appendix at APP-10-APP-11 to United States' Rule 7.1/56.1 Statement Of Material Facts Not In Dispute submitted in support of United States' Motion For Partial Summary Judgment Regarding Defendants' Affirmative Defenses That The Rico Claims And Sought Relief Are Prohibited By The Tenth Amendment And Separation Of Powers And That Defendants Are Not Jointly And Severally Liable For Any Disgorgement Ordered By The Court, United States v. Philip Morris, ARU5840105-0106 (R. 2330; filed July 1, 2003) (U.S. Ex. 88,675).

41. From 1954 to the present, Lorillard, its predecessors and affiliates have obtained at least $277 billion in total revenue from the sale of goods and services throughout the United States. Loews Corp. reported operating revenues for 2001 of over $19.4 billion. For the period 1973 to the present, Lorillard, its predecessors and affiliates have reported income of at least $42.4 billion from tobacco sales. P. Lorillard Company, Inc. Annual Reports for 1954-1967 (U.S. Ex. 21,106); (U.S. Ex. 22,631); (U.S. Ex. 22,632); (U.S. Ex. 22,633); (U.S. Ex. 22,644); (U.S. Ex. 22,634); (U.S. Ex. 22,635); (U.S. Ex. 22,636); (U.S. Ex. 22,637); (U.S. Ex. 22,638); (U.S. Ex. 22,639); (U.S. Ex. 22,640); (U.S. Ex. 22,641); (U.S. Ex. 22,643); Lorillard Corporation SEC Form 10-K for the Fiscal Year Ending December 31, 1968; 93485701-5726 (U.S. Ex. 22,439); Loews Corporation Annual Reports for 1969-1970, 1972-1973, 1976-1983, 1993-1997, 1999, 2001 (U.S. Ex. 57,202); (U.S. Ex. 56,498); (U.S. Ex. 22,648); (U.S. Ex. 55,394); (U.S. Ex. 22,649); (U.S. Ex. 55,398); (U.S. Ex. 22,655); (U.S. Ex. 87,989); (U.S. Ex. 55,399); (U.S. Ex. 55,400); (U.S. Ex. 55,402); (U.S. Ex. 55,401); (U.S. Ex. 56,356); (U.S. Ex. 56,507); (U.S. Ex. 57,231); (U.S. Ex. 56,717); (U.S. Ex. 56,718); (U.S. Ex. 58,883); (U.S. Ex. 75,921); Loews

Corporation SEC Form 10-K for the Four Months Ended December 31, 1974 (U.S. Ex. 86,650); Loews Corporation SEC Forms 10-K for Years 1975, 1984-1992, 1998, 2000 (U.S. Ex. 56,355); (U.S. Ex. 22,536); (U.S. Ex. 56,166); (U.S. Ex. 57,146); (U.S. Ex. 86,651); (U.S. Ex. 22,593); (U.S. Ex. 56,318); (U.S. Ex. 56,317); (U.S. Ex. 22,557); (U.S. Ex. 22,565); (U.S. Ex. 22,593); (U.S. Ex. 75,924; Table, "Defendants' Gross Revenues Lorillard, Inc.," attached as Appendix at APP-10-APP-11 to United States' Rule 7.1/56.1 Statement Of Material Facts Not In Dispute submitted in support of United States' Motion For Partial Summary Judgment Regarding Defendants' Affirmative Defenses That The Rico Claims And Sought Relief Are Prohibited By The Tenth Amendment And Separation Of Powers And That Defendants Are Not Jointly And Severally Liable For Any Disgorgement Ordered By The Court, United States v. Philip Morris, ARU5840105-0106 (R. 2330; filed July 1, 2003) (U.S. Ex. 88,675).

42. For the year 2001, Lorillard reported total revenues of approximately $4.528 billion, all of which was obtained from the sale of cigarettes. Loews Corporation 2001 Annual Report at 94 (U.S. Ex. 75,921).

43. Lorillard, its affiliates, or their employees have made the following additional admissions or public statements regarding the interstate nature and scope of its business:

a. The 2001 Loews Corporation Annual Reports states that "Newport, Lorillard's flagship brand, increased its overall share of the cigarette market for the eleventh consecutive year, reaching 8.0 percent in 2001."

b. Lorillard created a computerized direct mail database in approximately 1993. According to Martin Orlowsky, Lorillard's Chairman, Lorillard buys names to add to this

database from "organizations that have lists of names that they qualify as smokers . . ." and obtains names from "various promotional activities that we might conduct for the company, where . . . smokers can add their name to our list."

c. On February 25, 2002, Kathleen Sparrow, Lorillard's Vice President of Sales, testified in a deposition that Lorillard had approximately 150 divisions within its Sales Department.

d. Lorillard uses direct mailing as a form of direct promotion of its products to consumers throughout the United States. Loews Corporation 2001 Annual Report at 4 (U.S. Ex. 75,921); Deposition of Martin Orlowsky, United States v. Philip Morris, June 5, 2002, 257:24-259:14; Deposition of Kathleen A. Sparrow, United States v. Philip Morris, February 25, 2002, 10:19-20, 87:9-11.

44. The Newport brand is sold by both Lorillard (within the United States) and British American Tobacco, plc (overseas) by virtue of a licensing arrangement between the two companies. Maxwell Tobacco Fact Book, Appendix 1 Manufacturing, Table 2 "Top World Brands 1984-2001" (2002) (U.S. Ex. 86,804).

45. In a stipulation filed with this Court on December 10, 2002, Lorillard Tobacco Company stipulated that it has engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from 1953 to the present. Joint Stipulation Regarding Interstate Commerce, United States v. Philip Morris, at ¶5, filed December 10, 2002; Order #280, United States v. Philip Morris, at ¶5, filed December 11, 2002

F. British American Tobacco (Investments) Limited

46. British American Tobacco (Investments) Limited ("BATCo"), formerly known as British American Tobacco Company Limited, is a company incorporated under the laws of England and Wales, with principal offices in London. BATCo is a subsidiary of British American Tobacco, p.l.c. ("BAT"), and between 1927 and 1979 was the corporate parent of Defendant Brown & Williamson Tobacco Company . Answer, Defenses and Jury Demand of British American Tobacco (Investments) Limited, United States v. Philip Morris, filed October 31, 2000, at 8.

47. In each year since 1953, BATCo and its affiliates have employed thousands of people in its facilities located in as many as thirteen states domestically and sixty-four countries internationally. BATCo currently employs 400 people in the United Kingdom and various foreign countries. Our Company, available at http://www.bat.com/oneweb/sites/uk__3mnfen.nsf/vwPagesWebLive/DO52ADCY?opendocument&TMP= (U.S. Ex. 86,789); Facts About Brown and Williamson Tobacco Corporation, available at http://www.brownandwilliamson.com/Index_sub2.cfm?ID=10 (U.S. Ex. 86,801); Deposition of Paul Adams, United States v. Philip Morris, August 22, 2002, 22:12-5.

48. In each year since 1953, BATCo has directly or through its affiliates manufactured cigarettes that were advertised and sold throughout the United States, including the District of Columbia, and in foreign countries. For each year between 1984 and 1999, sales of BATCo's State Express 555 brand have reached at least 84,000,000 cigarettes throughout the United States and the District of Columbia. Objections and Responses of Defendant British American Tobacco (Investments) Limited to Plaintiff United States' First Set of Interrogatories to

Defendants, United States v. Philip Morris, et al, dated March 15, 2002, at 56-57.

49. In each year since 1989, BATCo has obtained at least £1 Million (an estimated $1.53 million) in total revenue annually from the sale of goods and services throughout the United States. For the period 1989 to the present, BATCo net revenue of at least £42 Million (an estimated $68.85 million based on average exchange rates for the relevant period) from tobacco sales in the United States. Objections and Responses of Defendant British American Tobacco (Investments) Limited to Plaintiff United States' First Set of Interrogatories to Defendants, United States v. Philip Morris, et al., dated March 15, 2002, at 58.

50. BATCo, its affiliates, or their employees have made the following additional admissions or public statements regarding the interstate nature and scope of its business.

a. BATCo has sold two brands of cigarettes in the United States: State Express 555 and Ruby Queen; BATCo's State Express 555 continues to be sold through an arrangement with BATCo's affiliate, Brown & Williamson.

b. BAT's Annual Report states that "British American Tobacco is the world's most international Tobacco company with an impressive market position in Latin America and a robust position in all other regions."

c. BAT calls itself "the world's most international tobacco group. We do business in 180 countries, with a global market share of 15.1 per cent. With over 300 brands in our portfolio, we make the cigarette chosen by one in seven of the worlds one billion adult smokers. We hold strong market positions in each of our regions and have leadership in more than 65 markets. The Group has over 80 factories in 64 countries, processing some 660 million

kilos of leaf and producing over 800 billion cigarettes a year. Our companies, including associated companies, employ over 80,000 people worldwide."

d. BAT's website also contains the following financial summary for 2001:

Gross revenue £25,694 million (est. $37.367 billion)	Net revenue £12,039 million (est. $17.508 billion)
Operating profit pre exceptionals £2,771 million (est. $4.030 billion)	Pretax profit £2,065 million (est. $3. 003 billion)
Adjusted EPS 61.82p (est. $.899)	Dividends per share 32.00p (est $.465)
Group volumes 807 billion	Global market share 15 per cent

e. BATCo has a Smoking Issues group, which has assisted in the training of BATCo employees on corporate policy in smoking and health in various parts of the world.

f. BATCo also acts as a service company that purchases raw materials on behalf of some BAT group companies; it purchases leaf, machinery, provides R&D expertise capability, and produces products for these BAT group companies.

g. BAT has approximately 17% of the global market share for "Light" cigarettes. Objections and Responses of Defendant British American Tobacco (Investments) Limited to Plaintiff United States' First Set of Interrogatories to Defendants, United States v. Philip Morris, et al., dated March 15, 2002, at 57; 2001 British American Tobacco Annual Review and Summary Financial Statement 2001 at 23, available at http://www.bat.com/oneweb/sites/uk__3mnfen.nsf/vwPagesWebLive/C7E1095BB1D02C3B80256BF40003313D?opendocument&TMP=1 (U.S. Ex. 86,790); Deposition of Christopher Proctor,

United States v. Philip Morris, May 7, 2002, 62:13-15; Deposition of Paul Adams, United States v. Philip Morris, August 23, 2002, 203:25-204:7.

51. In a stipulation filed with this Court on December 10, 2002, BATCo stipulated that it has engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from 1953 to the present. Joint Stipulation Regarding Interstate Commerce, United States v. Philip Morris, at ¶6, filed December 10, 2002; Order #280, United States v. Philip Morris, at ¶6, filed December 11, 2002.

G. Brown & Williamson Tobacco Corporation

52. Defendant Brown & Williamson Tobacco Corporation ("Brown & Williamson") is a Delaware corporation with its principal place of business in Louisville, Kentucky. BATUS Holdings, Inc., a Delaware corporation with its principal place of business in Louisville, Kentucky, is an indirect subsidiary of BAT, and is an indirect corporate parent of Brown & Williamson. BAT is the ultimate shareholder and parent of Brown & Williamson. BATCo was formerly an indirect parent of Brown and Williamson and BATUS Holdings, Inc. Since 1953, Brown & Williamson has had as many as twenty-six offices, plants, and other facilities in twenty-one different states. Brown & Williamson's Answers, Defenses and Jury Demand to Plaintiff's Complaint for Damages and Injunctive and Declaratory Relief, United States v. Philip Morris, filed October 31, 2000, at 10, 12; Facts About Brown and Williamson Tobacco Company, available at http://www.bw.com/Index_sub2.cfm?ID=7 (U.S. Ex. 86,801).

53. In each year since 1953, Brown & Williamson and its affiliates have employed thousands of people. On its website in 2002, Brown & Williamson stated that it has

"approximately 5,000 employees throughout the U.S." Facts About Brown and Williamson Tobacco Company, available at http://www.bw.com/Index_sub2.cfm?ID=7 (U.S. Ex. 86,801).

54. Brown & Williamson reported on its website for 2002, that it has plants and offices in several communities and purchases a wide range of products and services to support these operations. Commodities purchased include but are not limited to machinery, spare parts, packaging materials, industrial supplies, office supplies, fuel, gases, construction, and contract services. Commodities Purchased, available at http://www.bw.com/index_sub2.cfm?Page=/BWT/Index.cfm%3FID%3D190%26Sect%3D4 (U.S. Ex. 86,792).

55. In each year since 1953, Brown & Williamson has manufactured and sold numerous brands of cigarettes throughout the United States, including in the District of Columbia, and in foreign countries, including Kool, Lucky Strikes, Capri, Misty, Barclay, GPC, Private Stock, Raleigh, Tareyton Special Blend, and Viceroy. Brown & Williamson's Answers, Defenses and Jury Demand to Plaintiff's Complaint for Damages and Injunctive and Declaratory Relief, United States v. Philip Morris, filed October 31, 2000, at 11.

56. On its website for 2002, Brown & Williamson stated that it is the "third largest cigarette manufacturer and marketer in the U.S." and "[h]ad Third Quarter, 2001 market share of "approximately 11.2 percent of the total U.S. cigarette market." Facts About Brown and Williamson Tobacco Company, available at http://www.bw.com/Index_sub2.cfm?ID=7 (U.S. Ex. 86,801).

57. In each year since 1961, Brown & Williamson estimated that it has obtained at

least $402.687 million in total revenue annually from the sale of goods and services throughout the United States. For the period 1961 to the present, Brown & Williamson estimates net revenue of at least $70.585 billion from tobacco sales in the United States. Response of Brown & Williamson Tobacco Corporation to United States' First Set of Interrogatories to Defendants, United States v. Philip Morris, et al., dated February 6, 2001, at 109; Brown and Williamson Tobacco Corporation Table, "Defendants' Gross Revenues Brown & Williamson Tobacco Corporation," attached as Appendix at APP-6 to United States' Rule 7.1/56.1 Statement Of Material Facts Not In Dispute submitted in support of United States' Motion For Partial Summary Judgment Regarding Defendants' Affirmative Defenses That The Rico Claims And Sought Relief Are Prohibited By The Tenth Amendment And Separation Of Powers And That Defendants Are Not Jointly And Severally Liable For Any Disgorgement Ordered By The Court, United States v. Philip Morris, (R. 2330; filed July 1, 2003), ARU5840101-0101 (U.S. Ex. 88,672).

58. Brown & Williamson's parent reported in its 2001 Annual Report that "In the U.S., Brown and Williamson contributed £356 Million [estimated $517.731 million] an increase of 10 percent in local currency." British American Tobacco Annual Review and Summary Financial Statement 2001 at 23, available at http://www.bat.com/oneweb/sites/uk__3mnfen.nsf/vwPagesWebLive/C7E1095BB1D02C3B80256BF40003313D?opendocument&TMP=1 (U.S. Ex. 86,790).

59. Brown & Williamson, its affiliates, or their employees have made the following additional admissions or public statements regarding the interstate nature and scope of its

business.

a. Brown & Williamson stated that on December 22, 1994, it acquired Defendant American Tobacco Company from American Brands, Inc., in a stock transaction, and on February 28, 1995, merged American into Brown & Williamson.

b. On its website, Brown and Williamson posts a "Company Fact Sheet"claiming the following "Principal International Cigarette Brands": Lucky Strike, Kent, Barclay, Capri, Kool, Viceroy, and Pall Mall.

c. On its web site, Brown & Williamson permits the user to enter a brand name, brand style, and zip code, then displays (if available) retail outlets in that zip code carrying the brand and style selected.

d. On May 2, 2002, Nicholas Brookes testified that as Chairman and CEO of B&W, while based in Louisville, his responsibilities were to "lead Brown & Williamson Tobacco Corporation in its commercial endeavours . . .in the U.S. and . . . in Japan and Korea."

e. On June 25, 2002, Mark Smith, as Public Relations Manager for Brown & Williamson, testified that his duties covered activities in states other than Kentucky, such as Georgia, where Brown and Williamson has a major manufacturing facility in Macon, as well as researching activities in other states, such as North Carolina, where Brown & Williamson has a plant previously owned by American.

f. On August 15, 2002, Michael R. Diven, the Director of the Secondary Supply Chain at Brown & Williamson, testified that, in an earlier position with Brown & Williamson, Diven was involved with "moving [BATCO] products from production actually in

Southampton, U.K. to our U.S. bonded facilities and on down to our direct customers . . . distributors and wholesalers." Diven further testified that, in 1996, BATCo transferred to Brown & Williamson the responsibility for the distribution and sale of the State Express brand as a "global initiative to reorganize BAT on a global basis." Diven further testified, "Prior to '95, 96 BATCo and Brown and Williamson competed with each other in the U.S. market," and that Brown & Williamson contracted for research related to BATCo brands among "aging consumers in . . . the New York City area, as well as California." Diven had seen "references to [BATCo] research that are conducted on a global basis and key cities have been denoted in that research where it was conducted." He remembered "New York always kind of being one that was prevalent in places where the research was conducted." Brown & Williamson's Answers, Defenses and Jury Demand to Plaintiff's Complaint for Damages and Injunctive and Declaratory Relief, United States v. Philip Morris, filed October 31, 2000, at 11; Facts About Brown and Williamson Tobacco Company, available at http://www.bw.com/Index_sub2.cfm?ID=7 (U.S. Ex. 86,801); Retail Store Locator, available at http://www.bw.com/Index_sub2.cfm?ID=7 (U.S. Ex. 86,801); Deposition of Nicholas Brookes, United States v. Philip Morris, May 2, 2002 , 28:20-22; Deposition of Mark Smith, United States v. Philip Morris, June 25, 2002, 6:1-8:23; Deposition of Michael R. Diven, United States v. Philip Morris, August 15, 2002, 7:14-9:1, 17:21-18:11.

60. In a stipulation filed with this Court on December 10, 2002, Brown & Williamson Tobacco Corporation stipulated that it has engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from 1953 to the

present. Joint Stipulation Regarding Interstate Commerce, United States v. Philip Morris, at ¶3, filed December 10, 2002; Order #280, United States v. Philip Morris, at ¶3, filed December 11, 2002

H. American Tobacco Company

61. Defendant American Tobacco Company ("American") was a Delaware corporation that was merged into Defendant Brown & Williamson on February 28, 1995. A separate New Jersey corporation named American Brands, Inc., was merged into American in 1985. As a result of this merger, American succeeded in interest to the tobacco products business of the New Jersey corporation named American Brands, Inc. From 1953 until its merger with Brown and Williamson, American and its affiliates have had at least four offices and plants in four different states. Brown & Williamson's Answers, Defenses and Jury Demand to Plaintiff's Complaint for Damages and Injunctive and Declaratory Relief, United States v. Philip Morris, filed October 31, 2000, at 2, 11.

62. In each year since 1953 until its merger into Brown & Williamson, American and its affiliates employed thousands of people. MNAT 00029599-9644 at 9603 (U.S. Ex. 22,653); MNAT 00029697-9748 at 9703 (U.S. Ex. 22,656); MNAT 00029749-9799 at 9755 (U.S. Ex. 22,657); MNAT 00029645-9696 at 9651 (U.S. Ex. 22,654); MNAT 00029551-9598 at 9557 (U.S. Ex. 22,651).

63. In each year from 1953 until its merger into Brown & Williamson, American and its affiliates manufactured and sold tobacco products throughout the United States, including the District of Columbia, and foreign countries. Brown & Williamson's Answers, Defenses and Jury

Demand to Plaintiff's Complaint for Damages and Injunctive and Declaratory Relief, United States v. Philip Morris, filed October 31, 2000, at 11.

64. In each year since 1954 until its merger into Brown & Williamson, American has obtained at least $558 Million in total revenue annually from the sale of goods and services throughout the United States and in foreign countries. For the period 1954 until its merger with Brown & Williamson, American had revenue of at least $49.2 billion in tobacco sales throughout the United States and in foreign countries. The American Tobacco Company, Inc. Annual Reports for 1945 - 1968 (U.S. Ex. 86,633); (U.S. Ex. 86,634); (U.S. Ex. 86,635); (U.S. Ex. 86,636); (U.S. Ex. 86,637); (U.S. Ex. 86,638); (U.S. Ex. 86,639); (U.S. Ex. 86,640); (U.S. Ex. 86,641); (U.S. Ex. 22,567); (U.S. Ex. 22,570); (U.S. Ex. 22,573); (U.S. Ex. 22,575); (U.S. Ex. 22,576); (U.S. Ex. 86,642); (U.S. Ex. 59,754); (U.S. Ex. 22,598); (U.S. Ex. 22,600); (U.S. Ex. 22,605); (U.S. Ex. 22,607); (U.S. Ex. 22,610); (U.S. Ex. 22,612); (U.S. Ex. 21,222); (U.S. Ex. 22,616); American Brands, Inc. Annual Reports for 1969-1993 (U.S. Ex. 22,618); (U.S. Ex. 22,620); (U.S. Ex. 22,622); (U.S. Ex. 22,623); (U.S. Ex. 22,651); (U.S. Ex. 22,642); (U.S. Ex. 22,645); (U.S. Ex. 22,646); (U.S. Ex. 21,394); (U.S. Ex. 21,389); (U.S. Ex. 21,393); (U.S. Ex. 21,390); (U.S. Ex. 22,671); (U.S. Ex. 21,391); (U.S. Ex. 22,658); (U.S. Ex. 22,659); (U.S. Ex. 22,661); (U.S. Ex. 22,663); (U.S. Ex. 22, 678); (U.S. Ex. 22,666); (U.S. Ex. 22,668); (U.S. Ex. 22,669); (U.S. Ex. 58,530); (U.S. Ex. 22,672); (U.S. Ex. 22,674); (U.S. Ex. 22,677); American Tobacco Company Table, "Defendants' Gross Revenues American Tobacco Company," attached as Appendix at APP-7 to United States' Rule 7.1/56.1 Statement of Material Facts Not in Dispute submitted in support of United States' Motion For Partial Summary Judgment Regarding

SECTION II.

Defendants' Affirmative Defenses That The RICO Claims and Sought Relief Are Prohibited By The Tenth Amendment And Separation Of Powers And That Defendants Are Not Jointly And Severally Liable For Any Disgorgement Ordered By The Court, United States v. Philip Morris, (R. 2330; filed July 1, 2003), ARU5840102-0102 (U.S. Ex. 88,673).

65. American, its affiliates, agents, or employees have made the following additional admissions or public statements regarding the interstate nature and scope of its business.

a. The 1993 American Brands Annual Report stated, "American successfully held its share of the U.S. cigarette market in spite of the fierce competition that sharply reduced contributions."

b. The 1993 American Brands Annual Report further stated that "[d]espite the fierce competition, American Tobacco held its own in the marketplace, with about a 6.75% market share . . . ," and that "Tareyton retained its position as the leading charcoal filtered brand, while Pall Mall Red and Lucky Strike regular held a combined 40% share of the non filter segment." American Brands 1993 Annual Report at 2, 9 (U.S. Ex. 22,677).

66. In a stipulation filed with this Court on December 10, 2002, Brown & Williamson, as successor by merger to American, stipulated that American engaged in and conducted activities affecting interstate commerce within the meaning of 18 U.S.C. § 1962(c) and (d) during the period from 1953 to February 28, 1995. Joint Stipulation Regarding Interstate Commerce, United States v. Philip Morris, at ¶4, filed December 10, 2002; Order #280, United States v. Philip Morris, at ¶4, filed December 11, 2002.

I. The Tobacco Institute

67. The Tobacco Institute admits that it was a not-for-profit corporation and tobacco industry association formed in 1958 under the laws of the State of New York, and that, at one time, its principal place of business was located in Washington, D.C. Answer, Defenses and Jury Demand of The Tobacco Institute, Inc., United States v. Philip Morris, filed October 30, 2000, at 16.

68. The Tobacco Institute bylaws in Article II provide that "any person, firm or organization engaged in the business of manufacturing and marketing of cigarettes, smoking tobacco . . . shall be eligible to become a member of the Institute." The bylaws further provide in Article III that "[e]ach member elected pursuant to Article II shall pay initial annual dues (a) in the amount of $2,000 or (b) at the rate of (i) two fifths of a cent for every thousand for every tax paid cigarettes (sic) plus (ii) one dollar and twenty cents for every thousand pounds of tobacco produced by it during the preceding calendar year, whichever of (a) or (b) shall be larger." TI 1259-2380 to 1259-2389 at 2380, 2382 (U.S. Ex. 22,394).

69. From at least 1958 until the Tobacco Institute's dissolution on January 31,1999, Defendants Philip Morris (1958-1999), R.J. Reynolds (1958-1999), American (1958-1999, 1988-1991), Brown & Williamson (1958-1987, 1994-1999), Lorillard (1958-1967, 1971-1999), and Liggett (1964-1996) declared contributions of over $618.4 million to the Tobacco Institute, which were processed through the interstate banking system. Response of Brown & Williamson Tobacco Corporation to United States' First Set of Interrogatories to Defendants, United States v. Philip Morris, served February 6, 2001, at 97-103; Liggett Group Inc.'s Objections and Responses to United States' First Set Of Interrogatories to Defendants, United States v. Philip

Morris, served February 6, 2001, at 54-56; Lorillard Tobacco Company's Responses to United States' First Set of Interrogatories to Defendants, United States v. Philip Morris, served February 6, 2001, at 40-44; Philip Morris Incorporated's Responses to United States' First Set of Interrogatories to Defendants, United States v. Philip Morris, served February 6, 2001, at 71-73; Response of R.J. Reynolds Tobacco Company to Plaintiff United States' First Set of Interrogatories, United States v. Philip Morris, served February 6, 2001, at 132-135; Table, "Defendants' Dues Paid And/Or Contributions To The Tobacco Institute," attached as Appendix at APP-13-APP-15 to United States' Rule 7.1/56.1 Statement of Material Facts Not In Dispute submitted in support of United States' Motion For Partial Summary Judgment Regarding Defendants' Affirmative Defenses That The RICO Claims And Sought Relief Are Prohibited By The Tenth Amendment And Separation Of Powers And That Defendants Are Not Jointly and Severally Liable For Any Disgorgement Ordered By The Court, United States v. Philip Morris, (R. 2330; filed July 1, 2003), ARU5840108-0110 (U.S. Ex. 88,677).

70. In addition, Tobacco Institute financial statements from 1958 until its dissolution declared contributions of at least $548,000 and as much as $46.2 million annually from all of its member organizations. TFAL 0000001-0010 at 0009 (U.S. Ex. 21,892); 2023390612-0616 at 0614 (U.S. Ex. 21,895); 81616559-6562 at 6561 (U.S. Ex. 21,897) ; 81616516-6520 at 6518 (U.S. Ex. 21,896); 89694214-4220 at 4216 (U.S. Ex. 21,898); 89693636-3641 at 3638 (U.S. Ex. 21,899); 89696116-6124 at 6118 (U.S. Ex. 21,900); 89693336-3342 at 3338 (U.S. Ex. 22,989); 89693376-3384 at 3378 (U.S. Ex. 21,901); TIOK 0000243-0249 at 0245 (U.S. Ex. 21,902); TIOK 0000250-0256 at 0252 (U.S. Ex. 21,907); TIOK 0000257-0265 at 0259 (U.S. Ex. 21,911);

TIOK 0000266-0273 at 0268 (U.S. Ex. 21,912); TIOK 0000274-0281 at 0276 (U.S. Ex. 21,914); TIOK 0000282-0289 at 0284 (U.S. Ex. 21,919); TIOK 0000290-0297 at 0292 (U.S. Ex. 21,920), TICT 0009911-9918 at 9913 (U.S. Ex. 86,078); TIOK 0000298-0304 at 0300 (U.S. Ex. 21,962), TICT 0009919-9925 at 9921 (U.S. Ex. 62,582); TIOK 0000305-0312 at 0307 (U.S. Ex. 21,963), TICT 0009888-9895 at 9890 (U.S. Ex. 85,964); TIOK 0000313-0320 at 0315 (U.S. Ex. 21,967), TICT 0009896-9903 at 9898 (U.S. Ex. 85,965); TIOK 0000321-0327 at 0323 (U.S. Ex. 21,968); TICT 0009904-9910 at 9906 (U.S. Ex. 86,080); TI1635-2199 to 2432 at 2202 to 2211, 2271 to 2282, 2290 to 2294, 2309 to 2313, 2339 to 2341, 2368 to 2368, 2393 to 2395 (U.S. Ex. 22,183); TI1635-1836 to 1838 (U.S. Ex. 21,972); TICT 0009885 - 9887 (U.S. Ex. 21,974); TICT 0009871-9874 (U.S. Ex. 21,976); TICT0009863-9866 (U.S. Ex. 21,977); TICT0009867-9870 (U.S. Ex. 21,978).

71. In each year since 1953 until its dissolution in 1999, the Tobacco Institute disseminated advertisements, press releases, position papers, and other information to magazines, newspapers, the broadcast media, and other news outlets throughout the United States. For the period July 1981 through November 1981 alone, for example, the Tobacco Institute budgeted almost $900,000 for advertising. Approximately 25% of the Tobacco Institute's budget was devoted to developing and disseminating such public statements. TI08970899-0899 (U.S. Ex. 21,248); Impropaganda Review, "Council for Tobacco Research," available at http://www.prwatch.org/improp/ctr.html (U.S. Ex. 86,794).

72. The Tobacco Institute, its agents, or former employees have made the following additional admissions or public statements as examples of the interstate nature and scope of its

business:

a. On July 1, 2002, Brennan Dawson, former Senior Vice President for Public Affairs of the Tobacco Institute, testified at a deposition that the Tobacco Institute funded a "truth squad" of scientific witnesses who gave legislative testimony and did media appearances on the issue of Environmental Tobacco Smoke ("ETS") throughout the United States. Members of the "truth squad" included Jack Peterson, David Weeks, and Larry Holcomb. During the media tours, members of the "truth squad" would talk about their areas of ETS expertise. Some of these interviews, or excerpts from them, were televised; some were on the radio; print media reporters would also attend the interviews. Members of the "truth squad" wrote editorials and opinion pieces on indoor air quality issues and what role ETS plays. In addition, Dawson testified that the Tobacco Institute retained scientists and consultants to testify at governmental and regulatory proceedings at the Federal, state, and local levels. Dawson testified at such proceedings on behalf of the Tobacco Institute thirty to forty times on issues including public smoking and taxation.

b. On August 31, 1994, William Adams, Senior Vice President of Administration of the Tobacco Institute, sent a letter to David Anderson of R.J. Reynolds advising that the Tobacco Institute Management Committee had approved additional lobbying expenditures for a state initiative and requesting R.J. Reynolds's payment of $1,585,254.

c. A financial spreadsheet dated March 31, 1995 showed the Tobacco Institute's assessments upon member firms, payments from them, and Tobacco Institute disbursements to an Arizona initiative campaign totaling approximately $5.5 million.

d. J. Richard Eichman, an accountant reviewing Tobacco Institute financial records, sent a letter dated October 16, 1992 to Jan Krebs of R.J. Reynolds advising that the Tobacco Institute had made contributions to California campaign committees and that R.J. Reynolds's pro rata share of the contribution to the Tobacco Institute for this effort was over $47,000.

e. Eichman also sent a letter dated July 17, 1992 to Nicholas Simeonidis of Lorillard advising that the Tobacco Institute made contributions to California campaign committees and that the pro rata contribution for this effort was over $8,500.

f. A financial spreadsheet dated March 21, 1995 showed Tobacco Institute's assessments upon member firms, payments from them, and Tobacco Institute disbursements for a Colorado initiative campaign totaling approximately $5.4 million.

g. A document entitled "The Tobacco Institute Massachusetts Fair Tax Coalition 1992 Assessment Number 1" showed Tobacco Institute's allocation of contributions due from member firms for payments of approximately $208,000 to the Massachusetts Fair Tax Coalition Campaign.

h. Kurt L. Malmgren, Senior Vice President for State Activities of the Tobacco Institute, sent a letter dated February 25, 1994 to Ernest Pepples, Senior Vice President of Brown & Williamson, thanking him for the Brown & Williamson Tobacco contribution of $100,000 to the Michigan Citizens for Fair Taxes to fight a 1994 ballot initiative and requesting that the funds be wired to the Tobacco Institute's bank account. Deposition of Brennan Dawson, United States v. Philip Morris, July 1, 2002, 67:19 - 68:19; TI16370185-0402 at 0329, 0330,

0341, 0366 (U.S. Ex. 21,258); TI16290292-0292 (U.S. Ex. 21,257).

J. <u>The Council for Tobacco Research – U.S.A., Inc</u>.

73. The Tobacco Industry Research Council ("TIRC") was formed in January 1954 by several entities, including Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, American, and Lorillard. TIRC had its principal place of business in New York. In 1964, TIRC changed its name to The Council for Tobacco Research – U.S.A., and in 1971, the name was changed to The Council for Tobacco Research – U.S.A., Inc., ("CTR") when CTR incorporated as a not-for-profit corporation organized under the laws of the State of New York. Answer of Defendant The Council for Tobacco Research - U.S.A., Inc. to Plaintiff's Complaint for Damages and Injunctive and Declaratory Relief, <u>United States v. Philip Morris</u>, filed October 30, 2000, at 4, 6; 70047927-7952 (U.S. Ex. 85,984).

74. The bylaws of TIRC specified that "[e]ach of the cigarette manufacturing corporate members has pledged to the Committee for payment . . . an amount equal to 1/4 of one cent for each one thousand of tax paid cigarettes produced by such Company. . . . Such corporate members shall in addition be and remain liable for any obligation created or expense incurred by resolution of the personal committee adopted by majority vote and for any additional amounts assessed against each corporate member by resolution of the personal committee adopted by majority vote, such liability of such corporate members to be in proportion to the respective production of tax paid cigarettes of such corporate members . . . ." 70047927-7952 at 7929 (U.S. Ex. 85,984).

75. From 1954 to 1964, Philip Morris, American, Brown & Williamson, Lorillard,

and R.J. Reynolds contributed a total of approximately $9.92 million to TIRC, which payments were processed through the interstate banking system. Response of Brown & Williamson Tobacco Corporation to United States' First Set of Interrogatories to Defendants, United States v. Philip Morris, served February 6, 2001, at 97-103; Liggett Group Inc.'s Objections and Responses to United States' First Set Of Interrogatories to Defendants, United States v. Philip Morris, served February 6, 2001, at 54-56; Lorillard Tobacco Company's Responses to United States' First Set of Interrogatories to Defendants, United States v. Philip Morris, served February 6, 2001, at 40-44; Philip Morris Incorporated's Responses to United States' First Set of Interrogatories to Defendants, United States v. Philip Morris, filed February 6, 2001, at 71-73; Response of R.J. Reynolds Tobacco Company to Plaintiff United States' First Set of Interrogatories, United States v. Philip Morris, served February 6, 2001, at 132-135; Response of Defendant The Council for Tobacco Research - U.S.A., Inc. to Plaintiff's First Set of Interrogatories, United States v. Philip Morris, et al., (served February 6, 2001), at Schedule C (U.S. Ex.75,927).

76. Through 1990, CTR stated that it had funded 1,174 grants, totaling over $238.1 million, in the United States and abroad. 60042239-2257 (U.S. Ex. 85,966); 60042281-2297 (U.S. Ex. 85,967); 60042374-2392 (U.S. Ex. 85,968); 60042594-2611 (U.S. Ex. 85,971); 60042406-2423 (U.S. Ex. 85,969); 60042490-2504 (U.S. Ex. 85,970); 60042788-2795 (U.S. Ex. 85,972); 60042815-2847 (U.S. Ex. 85,973); 60042927-2946 (U.S. Ex. 85,974); 60042970-2977 (U.S. Ex. 85,975); 60043072-3079 (U.S. Ex. 85,976); 60043084-3092 (U.S. Ex. 85,977); 60043093-3104 (U.S. Ex. 85,978); 60043105-3118 (U.S. Ex. 85,979); 60043119-3140 (U.S. Ex.

85,980); 70000291-0301 (U.S. Ex. 85,981); 70056065-6076 (U.S. Ex. 85,982).

77. From 1964 to 1999, Philip Morris, American, Brown & Williamson, Liggett, Lorillard, and R.J. Reynolds contributed a total of approximately $505.4 million to CTR, which payments were processed through the interstate banking system. From the period 1954 through 1999, member contributions to the CTR General Fund, processed through the interstate banking system, totaled over $470.2 million. Response of Defendant The Council for Tobacco Research - U.S.A., Inc. to Plaintiff's First Set of Interrogatories, United States v. Philip Morris, et al., (served February 6, 2001), at Schedule C (U.S. Ex. 75,927).

78. From about 1966 to 1990, CTR also administered the funding of certain CTR Special Projects, which were separate and distinct from CTR's grant in aid program. CTR administered Special Project funding through a separate checking account, and received direction and funding from sponsor companies, including Philip Morris Companies, Philip Morris, American, Brown & Williamson, Liggett, Lorillard, and R.J. Reynolds and/or their attorneys. CTR also sent correspondence and funds to Special Project recipients and/or their affiliated institutions through the United States Mail. For the period 1966 through 1990, CTR members contributed over $18.2 million toward the funding of these Special Projects. Answer of Council for Tobacco Research - U.S.A., Inc., United States v. Philip Morris, filed October 30, 2000, at 9; Deposition of Lorraine Police, United States v. Philip Morris, June 27, 2002, 43:10-54:18, 61:4-15; Response of Defendant The Council For Tobacco Research - U.S.A., Inc. To Plaintiff's First Set of Interrogatories, United States v. Philip Morris, served February 6, 2001, at Schedule C (U.S. Ex. 75,927).

SECTION II.

79. CTR provided funding to Special Projects recipients via checks processed through the interstate banking system, and delivered via the United States Mail, electronic funds transfer processed through the interstate baking system, or wire transfer processed through the international banking system. 50019509-9509 (U.S. Ex. 85,983).

80. The results of CTR-sponsored research have been published in numerous professional publications and other fora throughout the United States and in several foreign countries. 2028436582-6590 (U.S. Ex. 37,390); 2046089505-9508 (U.S. Ex. 38,499); 0000117458-7467 (U.S. Ex. 35,142); 2010045520-5526 (U.S. Ex. 36,518).

81. CTR had a contractual relationship with Processing Instruments in Brooklyn, New York, which stored smoking machines for it and shipped these machines to CTR researchers throughout the United States upon request. Deposition of Lorraine Pollice, United States v. Philip Morris, June 27, 2002, 72:18-73:13.

III

EACH DEFENDANT IS DISTINCT FROM THE ENTERPRISE, IS ASSOCIATED WITH THE ENTERPRISE, AND HAS PARTICIPATED IN THE CONDUCT OF THE AFFAIRS OF THE ENTERPRISE

1. At all relevant times each Defendant: (a) has been distinct from the Enterprise; (b) has been associated with the Enterprise; and (c) has conducted, directly and indirectly, the affairs of the Enterprise and has participated in the operation and management of this Enterprise. See U.S. FPFF § I, supra, and U.S. FPFF §§ IV, V, and VI, infra.

2. First, as demonstrated supra, the Enterprise is an association -in-fact enterprise, including all Defendants. As further shown in U.S. FPFF, §§ I & II, supra, at all relevant times each Defendant has been a legal entity distinct from each other Defendant and from the RICO Enterprise, which consists of a group of business entities, including Defendants, and individuals associated-in-fact. It is clear that the group of entities and individuals that constitutes the RICO Enterprise is broader than each corporate Defendant that is a member of the RICO Enterprise.

3. According to its Answer to the United States' Complaint, Defendant British American Tobacco (Investments) Limited ("BATCo") is a legal entity separate and distinct from the Enterprise and from its sister entity, Defendant Brown & Williamson ("Brown & Williamson" or "B&W"). BATCo is a company incorporated under the laws of England and Wales, with principal offices in London. Like B&W, BATCo is a subsidiary of BAT plc. Between 1927 and 1979, BATCo was the corporate parent of B&W. Answer, Defenses and Jury Demand of British American Tobacco (Investments) Limited, United States v. Philip Morris, et al., filed October 31, 2000, at 8 (U.S. Ex. 75,848).

4. In an affidavit filed in this case, Philip M. Cook, Company Secretary of B.A.T. Industries p.l.c., declared that, "Prior to July 23, 1976, ordinary shares of BATCo were publicly

owned and traded." Mr. Cook further declared, "Since B.A.T. Industries became the parent company of defendants Brown & Williamson and BATCo, B.A.T. Industries, Brown & Williamson and BATCo always have operated as separate and distinct corporate entities and have scrupulously maintained all corporate formalities – each has had its own registered office and board of directors, and each has maintained separate accounts, records and minutes." Affidavit of Philip M. Cook In Support Of Defendant B.A.T Industries p.l.c.'s Motion To Dismiss The Complaint For Lack Of Personal Jurisdiction, United States v. Philip Morris, et al., at 2-4 (December 27, 1999) (U.S. Ex. 88,642); see also 800062323-2325 at 2323 (U.S. Ex. 56,552); Deposition of Murray Anderson, United States v. Philip Morris, et al., June 11, 2002, 32:18-33:16, 40:9-41:15, 30:10-31:8, 40:2-40:7, 60:23-61:7.

5. Second, the evidence presented in U.S. FPFF § I, supra, and U.S. FPFF § IV, infra, proves overwhelmingly that each Defendant is and has been associated with the Enterprise.

6. Similarly, there is overwhelming evidence, presented throughout these Final Proposed Findings of Fact, that all Defendants have participated in the operation and management of the affairs of the Enterprise. A brief sampling of evidence demonstrating each Defendants' participation in the operation and management of the Enterprise is presented below.

7. In January 1954, Defendants Philip Morris, R.J. Reynolds, American, B&W, and Lorillard and other entities established the Tobacco Industry Research Committee ("TIRC"), which changed its name to the Council for Tobacco Research ("CTR") in 1964. Defendant Liggett, while not a member of TIRC/CTR, did make contributions to CTR's Special Projects fund from 1966 through 1975 and to CTR's Literature Retrieval Division from 1971 through 1983. Representatives from Defendant Altria/PMC were members of CTR's Board of Directors. See FPFF §§ I.B., supra. These seven Defendants controlled and funded TIRC/CTR to further

the objectives of the Enterprise, including to preserve and enhance Defendants' profits by, among other means, devising and executing a scheme to defraud the public, as set forth in U.S. FPFF § IV, infra, and to avoid adverse liability verdicts in the face of the growing body of scientific and medical evidence about the adverse health effects and addictiveness of smoking cigarettes. See FPFF § I, supra.

8. Each Cigarette Company Defendant (except for BATCo) agreed to fund, and did jointly fund, numerous Special Projects overseen and administered by CTR, a component of the Enterprise, that were designed to generate information and support research to bolster Defendants' public relations and litigation positions. Such joint funding of Special Projects contradicted Defendants' promises to conduct independent research through TIRC/CTR in the Frank Statement and similar statements. See U.S. FPFF §§ I.D. & II, supra, and U.S. FPFF § IV.D., infra.

9. In January 1958, Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and American and other entities established the Tobacco Institute, another component of the Enterprise, and thereafter these Defendants controlled and funded the Tobacco Institute to further the objectives of the Enterprise. Representatives of Defendant Altria/PMC were also members of the Tobacco Institute's Board of Directors. See U.S. FPFF § I.C. & II, supra, and U.S. FPFF § IV.A., infra.

10. TIRC/CTR and the Tobacco Institute also participated in the operation and management of the Enterprise by, among other means, helping to coordinate and implement aspects of the Enterprise's scheme to defraud the public, especially its fraudulent public relations matters. See U.S. FPFF § I, supra, and U.S. FPFF § IV.A., infra.

11. Each Cigarette Company Defendant (except for BATCo) participated in the

Tobacco Institute Committee of Counsel and other Tobacco Institute committees, additional components of the Enterprise, to further the Enterprise's objectives. See U.S. FPFF § I.C(3), supra.

12. Each Defendant (except for BATCo) caused and aided and abetted defendants TIRC/CTR and the Tobacco Institute to commit racketeering acts in furtherance of the affairs of the Enterprise. See U.S. FPFF § I, supra and U.S. FPFF §§ IV, V, and VI, infra.

13. Each Defendant further participated in the conduct of the Enterprise's affairs through one or more of various projects and committees designed to further the above-referenced objectives of the Enterprise, including, but not limited to: CTR Special Projects; Ad Hoc Special Projects; the Center for Indoor Air Research ("CIAR"); the Research Liaison Committee; the Industry Technical Committee; the Tobacco Manufacturers' Standing Committee ("TMSC"), which became the Tobacco Advisory Council ("TAC") and then the Tobacco Research Council ("TRC"); the International Committee on Smoking Issues ("ICOSI"), which became the International Tobacco Information Inc. ("INFOTAB") and its successor, the International Tobacco Documentation Center ("TDC"); and the Centre de Coopération pour les Recherches Scientifiques Relatives au Tabac translated as the Cooperation Centre for Scientific Research Relative to Tobacco ("CORESTA"). See U.S. FPFF § I.H., supra.

14. In furtherance of the objectives of the Enterprise, all Defendants developed and executed a scheme to defraud the public of money that was designed to preserve and enhance the market for cigarettes through a variety of means. See U.S. FPFF § I, supra, and U.S. FPFF § IV, infra.

15. Each Defendant committed racketeering acts in furtherance of the affairs of the Enterprise. See U.S. FPFF §§ IV-VI, infra.

16. Each Defendant caused the public dissemination of numerous false, deceptive or misleading statements in furtherance of the affairs of the Enterprise. See U.S. FPFF § I, supra, and U.S. FPFF §§ IV and V, infra.

17. Each Defendant endeavored to conceal or suppress information and documents and/or to destroy records which may have been detrimental to the interests of the members of the Enterprise, including information which could be discoverable in smoking and health liability cases against Defendants or in congressional and other governmental proceedings and information that could constitute, or lead to, evidence confirming Defendants' understanding of the causal link between smoking cigarettes and adverse health consequences and addictiveness. See U.S. FPFF § I, supra, and U.S. FPFF § IV.D. & IV.H., infra.

18. All Defendants directed and coordinated various activities in furtherance of the affairs of the Enterprise through correspondence and other communications between and among Defendants and through their representatives' participation in meetings and committees. See U.S. FPFF § I, supra, and U.S. FPFF § IV, infra.

19. Defendant Altria, which was incorporated in 1985 (as Philip Morris Companies Inc.), effectively and actively controls the activities of all of its subsidiaries, including Defendant Philip Morris USA Inc. and Philip Morris International, Inc. ("PM International"). This control takes two main forms. First, overall policies on all major aspects of Altria operating companies' operations are set by Altria management, and senior Altria executives, employees, and agents participate in and/or control decisions about how the operating companies implement those policies, through both formal and informal reporting relationships. See 2076154982-4986 (U.S. Ex. 27,569); 2022833399-3399 (U.S. Ex. 88,044) (After 1993 briefing of Philip Morris Companies management about Philip Morris USA's development efforts on the electrically

heated cigarette test marketed as Accord, Philip Morris Companies authorized Philip Morris USA to continue working on the project.); see also Deposition of Denise Keane, United States v. Philip Morris, et al., October 1, 2002, 27:21-28:26; 2074163364-3366 (U.S. Ex. 27,488); 2078745991-6084 (U.S. Ex. 27,733) (Confidential); Deposition of Mark Berlind, United States v. Philip Morris, et al., May 23, 2002, 8:4-10:13; 2071412978-3143 (U.S. Ex. 23,061); 2073875307-5346 at 5326 (U.S. Ex. 27,450); 2077564763-4765 (U.S. Ex. 27,628); 2978740059-0063 (U.S. Ex. 86,929) (Confidential); Deposition of Steven Parrish, United States v. Philip Morris, et al., June 25, 2003, 13:24-15:5. Second, personnel often move back and forth between Altria and the various subsidiary operating companies including Philip Morris USA, blurring the lines between job responsibilities that are assigned to or conducted by Altria itself or one of the operating subsidiaries. TLT0720004-0004 (U.S. Ex. 80,767); see, e.g., Deposition of Michael Szymanczyk, United States v. Philip Morris, et al., June 14, 2003, 462:19-463:21; Deposition of Steven Parrish, United States v. Philip Morris, et al., June 25, 2003, 10:10-11:8, 81:4-12. For example, James J. Morgan, President and Chief Executive Officer of Philip Morris USA from 1994 to 1997, had previously served as a Philip Morris USA employee from 1963 to 1983; then as an Altria/PMC employee (Staff Vice President, Marketing Planning) from 1988 to 1989 and 1990-1993; and again returning to Philip Morris USA in 1993 as Senior Vice President of Marketing. 2065504972-4973 (U.S. Ex. 86,919).

20. Defendant Altria participated in the Enterprise both by its own actions in conjunction with other Enterprise members in furtherance of the goals of the Enterprise, and by controlling and participating actively in the day-to-day activities of its subsidiaries Philip Morris USA and Philip Morris International. See U.S. FPFF § I, supra, and U.S. FPFF § IV, infra.

21. Defendant BATCo participated in the Enterprise directly and indirectly by

coordinating research, policy, and public statements, with and through other Defendants and a variety of organizations, to direct and perpetuate the Enterprise. See U.S. FPFF § I, supra, and U.S. FPFF § IV, infra.

22. In short, the evidence presented throughout the United States' Final Proposed Finding of Fact prove that each Defendants is distinct from the alleged association-in-fact Enterprise, that each Defendant is associated with the Enterprise, and that each Defendant has participated in the conduct of the affairs of the Enterprise.

IV

DEFENDANTS DEVISED AND EXECUTED A SCHEME TO DEFRAUD CONSUMERS AND POTENTIAL CONSUMERS OF CIGARETTES

1. From in or about December 1953 and continuing to the present, Defendants did knowingly and intentionally devise and execute a scheme and artifice to defraud consumers and potential consumers of cigarettes of money and property by means of material false and fraudulent statements, pretenses, representations and promises, and omissions of material facts, knowing that the statements, pretenses, representations and promises, were false, misleading and deceptive when made, including: (1) to deceive consumers into starting and continuing to smoke cigarettes by endeavoring to misrepresent and conceal the adverse health effects caused by smoking cigarettes and exposure to cigarette smoke and by maintaining that there was an "open question" as to whether smoking cigarettes causes disease and other adverse effects, despite the fact that the defendants knew otherwise; (2) to deceive consumers into starting and continuing to smoke cigarettes by undertaking an obligation to take actions, including funding independent research, in order to determine if smoking cigarettes causes cancer or other diseases, while pre-selecting researchers and directing funds to irrelevant research and research that supported Defendants' positions on smoking and health issues; (3) to deceive consumers into becoming or staying addicted to cigarettes by maintaining that nicotine is not addictive, despite the fact that Defendants knew that nicotine is addictive; (4) to deceive consumers into becoming or staying addicted to cigarettes by manipulating the design of cigarettes and the delivery of nicotine to smokers, while at the same time denying that they engaged in such manipulation; (5) to deceive consumers, particularly parents and children, by claiming that they did not market to children,

while engaging in marketing and advertising with the intent of addicting children into becoming lifetime smokers; (6) to deceive consumers through deceptive marketing to exploit smokers' desire for less hazardous and "low tar" cigarettes; and (7) to deceive consumers regarding Defendants' concerted efforts not to make less hazardous cigarettes.

A. Adverse Health Effects

(1) Cigarette Smoking, Including Exposure to Secondhand Smoke, Causes Disease and Death

2. Cigarette smoking and exposure to secondhand smoke (also known as environmental tobacco smoke or "ETS") kills nearly 440,000 Americans every year. The annual number of deaths due to cigarette smoking is substantially greater than the combined annual number of deaths due to illegal drug use, alcohol consumption, automobile accidents, fires, homicides, suicides, and AIDS. Approximately one out of every five deaths that occur in the United States is caused by cigarette smoking. Centers for Disease Control and Prevention, Smoking-Attributable Mortality and Years of Potential Life Lost—United States, 1994, MMWR, 46(20):444-450 (May 23, 1997) (U.S. Ex. 87,047); Thun M., Myers D., Day-Lally C., Namboodiri M., Calle E., Flanders W.D., Adams S., Heath Jr. C., Age and the Exposure-Response Relationships Between Cigarette Smoking and Premature Death in Cancer Prevention Study II, Chapter 5, Smoking and Tobacco Control Monograph 8: Changes in Cigarette-Related Disease Risks and Their Implications for Prevention and Control, National Institutes for Health – National Cancer Institute, p. 383-476 (1997) (U.S. Ex. 75,543); Expert Report of Timothy Wyant and Scott Zeger, United States v. Philip Morris, et al., (R. 674, filed November 15, 2001); Expert Report of David M. Burns, United States v. Philip Morris, et al, (R. 664, filed November 15,

2001); Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., (R. 666, filed November 15, 2001).

3. Lung cancer is the leading cause of cancer deaths in the United States and in the world. Ninety percent of all lung cancer cases are caused by cigarette smoking. Lung cancer death rates are directly related to smoking rates. Put simply, the most straightforward way to prevent lung cancer would be to eliminate tobacco smoking. Effective tobacco control measures could substantially reduce the incidence of and mortality caused by lung cancer. Greenlee, R. T., Hill-Harmon, M.B., Murray, T., and Thun, M., "Cancer Statistics 2001," *CA Cancer J. Clin.*, 51: 15-36, 2001 (U.S. Ex. 77,119); Peto, R., Lopez, A.D., Boreham, J., Thun, M., Heath, C., Jr., and Doll, R., "Mortality from smoking worldwide," *Br. Med. Bull.*, 52:12-21 (1996) (U.S. Ex. 77,120); Expert Report of Paul A. Bunn, Jr., United States v. Philip Morris, et al., (R. 669, filed November 15, 2001).

4. Lung cancer kills more Americans each year than breast cancer, colorectal cancer, prostate cancer and ovarian cancer combined. In 2001, there were 169,500 new cases of lung cancer in the United States. Greenlee, R. T., Hill-Harmon, M.B., Murray, T., and Thun, M., "Cancer Statistics 2001," *CA Cancer J. Clin.*, 51: 15-36 (2001) (U.S. Ex. 77,119); Expert Report of Paul A. Bunn, Jr., United States v. Philip Morris, et al., (R. 669, filed November 15, 2001).

5. Tobacco smoke contains multiple carcinogens and noxious substances that produce inflammation and genetic changes in the bronchial epithelium early after exposure. The genetic changes caused by exposure to tobacco smoke accumulate with continued smoke exposure, and most genetic changes are not reversible after cigarette smoking cessation.

Wistuba, I. I., Lam, S., Behrens, C., Virmani, A. K. Fong, K. M., LeRiche, J., Samet, J. M., Srivastava, S., Minna, J. D., and Gazdar, A. F., "Molecular damage in the bronchial epithelium of current and former smokers," *J. Natl Cancer Inst.*, 89: 1366-1373 (1997) (U.S. Ex. 77,130); Wistuba, I. I., Behrens, C., Milchgrub, S., Bryant, D., Hung, J., Minna, J. D., and Gazdar, A. F., "Sequential molecular abnormalities are involved in the multistage development of squamous cell lung carcinoma," *Oncogene* 18: 643-650 (1999) (U.S. Ex. 77,131); Expert Report of Paul A. Bunn, Jr., United States v. Philip Morris, et al., (R. 669, filed November 15, 2001).

6. Because genetic changes caused by exposure to tobacco smoke accumulate with continued smoke exposure and most genetic changes are not reversible after cigarette smoking cessation, the risk of developing lung cancer declines very slowly after smoking cessation and remains elevated even twenty years after quitting. Individuals smoking ten to twenty cigarettes per day have a ten-fold increased risk and individuals smoking forty or more cigarettes per day – two packs and over – have more than a twenty-fold increased risk of developing lung cancer. Tong, L., Spitz, M.R., Fueger, J. J., and Amos, C. A., "Lung carcinoma in former smokers," *Cancer* 78: 1004-1010 (1996) (U.S. Ex. 52,090); Expert Report of Paul A. Bunn, Jr., United States v. Philip Morris, et al., (R. 669, filed November 15, 2001).

7. There are no proven methods for the early detection of lung cancer through routine screening methods. Consequently, less than 25% of patients have their lung cancer detected with stage I or II disease, the only stages curable by surgical resection. The overall cure rate for lung cancer remains less than 15%. Greenlee, R. T., Hill-Harmon, M.B., Murray, T., and Thun, M., "Cancer Statistics 2001," *CA Cancer J. Clin.*, 51: 15-36 (2001) (U.S. 77,119); Expert

Report of Paul A. Bunn, Jr., United States v. Philip Morris, et al., (R. 669, filed November 15, 2001).

8. Cigarette smoking causes atherosclerosis. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., 21-23 (R. 666, filed November 15, 2001).

9. Cigarette smoking causes bladder cancer. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., 37-38 (R. 666, filed November 15, 2001).

10. Cigarette smoking causes cerebrovascular disease. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., 40 (R. 666, filed November 15, 2001).

11. Cigarette smoking causes chronic obstructive pulmonary disease ("COPD"). Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., 38 -39 (R. 666, filed November 15, 2001).

12. Cigarette smoking, including exposure to secondhand smoke, causes cardiovascular disease, including myocardial infarction and coronary heart disease. Expert Report of Ira S. Ockene, United States v. Philip Morris, et al., (R. 668, filed November 15, 2001).

13. Cigarette smoking causes esophageal cancer. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., 35-36 (R. 666, filed November 15, 2001).

14. Cigarette smoking causes kidney cancer. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., 36-37 (R. 666, filed November 15, 2001).

15. Cigarette smoking causes laryngeal cancer. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., 31-33 (R. 666, filed November 15, 2001).

16. Cigarette smoking causes oral cancer. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., 33-34 (R. 666, filed November 15, 2001).

17. Cigarette smoking causes pancreatic cancer. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., 35-36 (R. 666, filed November 15, 2001)

18. Cigarette smoking causes peptic ulcer disease. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., 41-42 (R. 666, filed November 15, 2001).

19. Cigarette smoking causes respiratory morbidity. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., 19-21 (R. 666, filed November 15, 2001).

20. Cigarette smoking causes diminished health status. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., 43-45 (R. 666, filed November 15, 2001).

21. Prenatal and neonatal exposure to cigarette smoke causes sudden infant death syndrome ("SIDS"), otitis media, and cognitive and behavioral difficulties. Expert Report of Michael Weitzman, United States v. Philip Morris, et al., (R. 670, filed November 15, 2001).

22. On May 27, 2004, the U.S. Surgeon General announced causal conclusions in connection with a substantial number of additional diseases that were not previously causally associated with smoking: cancers of the stomach, uterine cervix, pancreas, and kidney; acute myeloid leukemia; pneumonia; abdominal aortic aneurysm; cataract; and periodontitis. The report also concludes that smoking generally diminishes the health of smokers. *The Health Consequences of Smoking: A Report of the Surgeon General*, Washington, DC: US Department of Health and Human Services, Public Health Service, 2004 TLT0940001 (U.S. Ex. 88,660); See also TLT0940031 (U.S. Ex. 88,661); TLT0940032 (U.S. Ex. 88,662); TLT090033-40048 (U.S.

Ex. 88,663); TLT0940084 (U.S. Ex. 88,664); TLT0940090 (U.S. Ex. 88,665); TLT0940092 (U.S. Ex. 88,666). This Report is supported by an on-line database of more than 1600 published research articles. www.cdc.gov/tobacco/sgr/sgr_2004/ (U.S. Ex. 87,978).

(2) The Scientific Evidence Establishing Smoking as a Cause of Lung Cancer Led to Concerted Action by the Cigarette Company Defendants

23. As detailed above in Section I of these Proposed Findings, by 1953-1954, tobacco company executives were aware both of the significant scientific studies establishing smoking as a cause of lung cancer and the public attention the studies were receiving. Defendants' executives well understood that this new scientific evidence constituted a full-scale crisis for their respective companies.

24. As epidemiological studies establishing the link between cigarette smoking and cancer appeared, the Cigarette Company Defendants engaged in advertising campaigns to induce the public to believe that cigarette smoking was actually beneficial to one's health. 800431008-1008 (U.S. Ex. 21,402); 89749589-9590 (U.S. Ex. 21,404); 2022971953-1953 (U.S. Ex. 21,405); 2061004941-4941 (U.S. Ex. 21,406).

25. While continuing to insist that there was no indication that cigarettes were unsafe, the Cigarette Company Defendants moved aggressively to market products which they subtly and not-so-subtly implied were safer. In 1953, Defendant Liggett hired Arthur D. Little, Inc. ("ADL") to test tobacco condensates on mice in an attempt to develop strategies for removing carcinogens, at the same time that it advertised its filters as "Just What the Doctor Ordered." Liggett Advertisement, "Fredric March Says - This Is It L & M Filters Are Just What the Doctor Ordered," (U.S. Ex. 63,542).

26. In a November 26, 1953 press release denying a link between smoking and lung cancer, Paul Hahn, President of Defendant American Tobacco Company, stated: "Believing as we do that cigarette smoking is not injurious to health, I feel that a statement of reassurance to the public should be made. What the public wants to know about is whether it is true that smoking has been proved to contribute to the incidence of lung cancer. The fact, of course, is that it has not been so proved." 98248074-8078, at 8074 (U.S. Ex. 22,990).

27. Rather than carefully and critically assessing the emerging scientific data concerning the harms of smoking, the Tobacco Industry Research Committee ("TIRC") took the lead in denying and distorting these harms. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., 19 (R. 1147, filed May, 10, 2002).

28. Instead of "getting all the facts" in a timely way, TIRC focused its energies and resources in two areas: (1) it served as a public relations unit for the industry, especially with regard to growing public concerns about the risk of smoking, repeatedly attacked scientific studies demonstrating the harms of cigarette smoke, and worked concertedly to reassure smokers about cigarettes; and (2) it developed a research program that focused on basic science mechanisms in cancers that was distant, if not completely irrelevant, to evaluating the risks and harms associated with smoking. Indeed, the TIRC research program was organized and devised to **not** address the immediate and fundamental questions of the health effects of smoking. In this way, both functions of TIRC (public relations and research) were integrally related; both were fully committed to the goals of denying and discrediting the substantial scientific evidence of smoking's harms and reassuring the public (especially smokers and potential smokers) through

promotion of the image that a genuine scientific controversy existed about whether smoking caused disease. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., 21-25 (R. 1147, filed May 10, 2002).

29. Thus, while Defendants maintained a public posture of protecting consumers, privately they were working hard to avoid any indication that they might believe that cigarettes could be harmful. Despite quite candid internal assessments, company executives continued to offer blanket reassurances to consumers and stockholders. From 1954 on, they relied on citing the program of TIRC as proof of their commitment to seeking definitive answers to the questions of smoking and health. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., 19-25 (R. 1147, filed May 10, 2002).

30. In spite of the growing scientific evidence linking cigarettes to lung cancer and other diseases, Defendants continued to offer reassurances like the following 1954 Annual Report of R.J. Reynolds:

> Many eminent medical authorities have stated that claims made as to a possible causal relationship between smoking and lung cancer are lacking in any real proof. Very little is known as to the true cause or causes of any cancer, and it is to be hoped that research financed by the Committee [TIRC] will aid medical science in discovering the cause.

500028279-8300 at 8285 (U.S. Ex. 20,616).

31. Representatives of Hill & Knowlton attended Scientific Advisory Board ("SAB") meetings of TIRC from 1954 to 1964, as did company lawyers. Anything but an organization committed to funding research into the health effects of cigarette use, TIRC instead proved to be a sophisticated public relations and legal tool of the Cigarette Company Defendants. Rather than

funding research to clarify the relationship of tobacco and health as it promised, TIRC oriented itself from its inception as an organization to bring "balance" – i.e., Cigarette Company Defendants' perspective – to the smoking and health debate. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., 35 (R. 1147, filed May 10, 2002).

32. The first Scientific Director of TIRC, appointed in 1954, was biologist Clarence Cook Little. Little's personal commitments and *a priori* assumptions about cancer causality made him an ideal proponent of the Cigarette Company Defendants' goal of maintaining a "controversy" rather than scientifically resolving the questions regarding smoking and health. A former president of University of Maine, University of Michigan, and the founder of the Roscoe B. Jackson Memorial Laboratory, Little quickly became a steadfast critic of the emerging scientific data linking cigarettes to cancer. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., 35-36 (R. 1147, filed May 10, 2002).

33. On June 15, 1954, Little publicly emphasized the purported purpose of the newly-formed organization during a press conference when he stated that TIRC was "trying to find out the facts." 11310464-0500 at 0466 (U.S. Ex. 20,278).

34. Little had no compunction about offering unsubstantiated claims about the health benefits of cigarette use: "It is very well-known, for example, that tobacco has relaxed a great many people. It is a very good therapy for a great many nervous people." 11310464-0500 at 0466 (U.S. Ex. 20,278).

35. A confidential report of a TIRC meeting held October 19, 1954, made explicit Little's and Defendants' agenda: "He [Little] declared that both he and the members of the board

were aware of the attacks which had been made on tobacco for over 200 years, and wished to build a foundation of research sufficiently strong to arrest continuing or future attacks." CTRMN007295-7297 at 7295 (U.S. Ex. 22,900).

36. Little tended to castigate as moralists those whose findings showed harms with tobacco use:

> The right of an individual to determine his own level or threshold of convincibility is unquestioned. . . . There are and will always be individuals who are convinced without the need of experimental evidence that all tobacco in any form is evil, noxious and toxic. There are individuals with a similar attitude toward alcohol, coffee, and the use of drugs, sera or medicines.
>
> Such assumptions stimulated some investigators to begin an enthusiastic hunt for the 'component' or 'components' in tobacco smoke that can be blamed for the unproved cause-and-effect relationship as well as for the reported production of skin cancer in some experiments with certain strains of laboratory mice.

501773418-3466 at 3428 (emphasis in original) (U.S. Ex. 20,686).

37. Little continually called for more research:

> In the active and continuing discussions about tobacco use and health, there seems to be nearly complete agreement among scientists on only one point: The need for much more intensive research into the subject.

501773418-3466 at 3425 (U.S. Ex. 20,686).

38. Under Little's leadership, the major thrust of TIRC was to emphasize that human cancers were complex processes--difficult to study, and difficult to understand. Little directed TIRC towards what he called "pioneer research." He claimed that studies focused on cigarettes could "stifle or delay needed research to find the basic origins of lung cancer or cardiovascular

diseases, which are most powerful, diversified and deadly enemies to our well-being." Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., 38 (R. 1147, filed May 10, 2002); 501773418-3466 (U.S. Ex. 20,686).

39. TIRC never developed an approach to carcinogenesis and tobacco that could resolve the question of the harms induced by cigarette smoking. Although some researchers explored alternative hypotheses, TIRC did not pursue direct research on cigarettes and disease. Rather than directly addressing the constituents in tobacco smoke and their demonstrated effect on the human body, TIRC directed the predominance of its resources to alternative theories of the origins of cancer centering on genetic factors and environmental risks. Most research projects funded through TIRC's SAB were irrelevant to the immediate questions of the harms of tobacco. At the same time, Little and TIRC used truisms such as the "need for more research," and "how much more there is to learn" to deflect attention away from what was known. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., 39 (R. 1147, filed May 10, 2002); 501773418-3466 (U.S. Ex. 20,686).

40. Little also argued that there were no known carcinogens in tobacco tars (this despite Defendants' clear knowledge to the contrary). He repeatedly centered attention on the so-called "constitutional hypothesis," other environmental risks, and the need for more research:

> Too little is known about many factors, including why people smoke or what kind of people become particularly heavy smokers.
>
> The problem of causation of any type of cancer is complex and difficult to analyze. All research on this so-called constitutional disease is, and must be, painstaking and time consuming. There is not known today any simple or quick way to answer the question of whether any one factor has a role in causing human lung cancer.

Despite all the attention given to smoking as an accused factor in human lung cancer, no one has established that cigarette smoke, or any one of its known constituents, is cancer-causing to man. 501773418-3466 (U.S. Ex. 20,686); Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., (R. 1147, filed May 10, 2002).

(a) Upon Formation of the Enterprise, Defendants' Decades-Long Campaign of Misinformation Began with False Statements about the Health Risks of Smoking in the 1950s

41. TIRC and the Cigarette Company Defendants, and later the Tobacco Institute and TIRC's successor, the Council for Tobacco Research–U.S.A., Inc. ("CTR"), issued numerous false public statements, similar to those of Little, designed to mislead the public about the connection between cigarette smoking and disease. The public campaign of misinformation was undertaken with reckless disregard for the truth of the assertions – its sole purpose was to mislead.

42. In March 1954, in a public speech to the National Association of Tobacco Distributors, George Weissman, a Vice President with Defendant Philip Morris USA, reiterated Defendants' public position that medical evidence had not established the link between smoking and disease:

> For never in the history of American industry – a history that not so incidentally had its origins in tobacco – has one industry been under attack as we are today, never has an industry's very existence been so dependent on its relations with the public.
>
> Which brings me to another, and even more important current problem! – the current medical propaganda being directed against the cigarette industry by a small number of doctors and a large number of magazines, and newspapers. As many, if not more, distinguished scientists have disputed the arbitrary statements of the few doctors. As many, if not more, distinguished researchers, have pointed out other factors such as air pollution rather than cigarette smoking. There are many scientists who question the

> statistics and even doubt the fact that there is a health question involved in cigarette smoking. Yet, who rated the headlines when the charges were made? Unfortunately, the cigarette industry. Where were the denials and counterclaims? You sometimes had to use a microscope to find them. . . . If we had any thought or knowledge that in any way we were selling a product harmful to consumers, we would stop business tomorrow.

2022239339-9343 at 9339-9341 (U.S. Ex. 21,766).

43. On April 14, 1954, TIRC published "A Scientific Perspective on the Cigarette Controversy," which restated the Frank Statement's false pronouncement that the Cigarette Company Defendants had accepted "an interest in people's health as a basic responsibility, paramount to every other consideration in our business." A total of 205,000 copies were printed and sent to 176,800 doctors, general practitioners and specialists. It was also sent to the deans of medical and dental colleges. The book and an accompanying press release went to a press distribution of 15,000, including editors of daily and weekly newspapers, consumer magazines, veterans magazines, and medical and dental journals, news syndicate managers, business editors, editorial writers, science writers, radio and TV commentators, news columnists, and Members of Congress. The Sunday *New York Daily News* (circulation 3,800,000) gave feature treatment to the booklet, devoting a major part of the page to comment and a cartoon. The story was also sent to some 1,400 radio stations. 1005039987-0008 at 9990 (U.S. Ex. 20,192); 2023335303-5304 (U.S. Ex. 20,388).

44. On October 12, 1954, in newspapers such as the *New York Daily Mirror*, Timothy Hartnett, Chairman of TIRC, was quoted as saying that "no clinical evidence has yet established tobacco to be the cause of human cancer." "Tobacco Unit Assails Report," *New York Daily*

Mirror, October 13, 1954, (U.S. Ex. 87,049); *Wall Street Journal*, October 12, 1954, (U.S. Ex. 87,050).

45. On November 24, 1954, the *Richmond Times-Dispatch* quoted E.A. Darr, President of R.J. Reynolds, as stating that there still was not a "single shred of substantial evidence" linking cigarette smoking and lung cancer directly. ATC2454600-4600 (U.S. Ex. 87,051).

46. In a December 27, 1954 statement by TIRC, the Cigarette Company Defendants promised not only to conduct research, but to make their findings known to the public. CTRMN004957-4959 (U.S. Ex. 21,457).

47. In a December 30, 1954 letter to employees, R.J. Reynolds's President and Chairman laid out how TIRC would perpetuate the "open controversy" on smoking and health:

> There have been countless claims and denials developing around lung cancer and cigarette smoking. We want you to know our thoughts about this situation . . . . We think these unfounded and totally unproved claims will have less effect in 1955, because the public is realizing that there has not been any real proof of the relationship . . . . Of course, we are concerned about these unfounded claims, but the lack of fair play is also of concern. Most of the claims are based on statistics, and it is the dishonesty in the use of figures that surprises us. They say more cigarettes, more lung cancer. On this basis, they could say that lung cancer is increasing because there are more oil furnaces, more diesel engines, and increasing number of automobiles, and so on. You can prove anything by statistics if you are willing to use just a part of all the facts. We feel, as we know you do, that any disease like cancer deserves the most comprehensive and thorough scientific research. In an effort to get the facts, your company and certain others in the tobacco industry formed the Tobacco Industry Research Committee late in 1953. . . . These men are going after the facts with the assurance of absolute scientific freedom in all phases of their work.

500034021-4021 (U.S. Ex. 20,617).

48. By the end of 1954, the Cigarette Company Defendants created the appearance of legitimate controversy among scientists by funding and publicizing studies specifically tailored to discredit independent studies that established causation or established a link between smoking and ill health. This was accomplished mainly through TIRC. 681510669-0689 (U.S. Ex. 21,017).

49. Little, TIRC's Scientific Director, noted that one year after the Frank Statement was published, "[t]here is clear evidence that the phase of uncontrolled fear and emotional speculation created by the original premature and over-balanced statement of the American Cancer Society, is rapidly passing." Little described how reactions obtained from "contacts with individuals" showed "instead of a general skepticism concerning the aims and motives of the tobacco industry, one finds now only scattered and isolated examples of that unfriendly attitude." This change in attitude was a reflection of "the general trust which the American people have begun to place in our efforts." TM0020056-0065 at 0064 (U.S. Ex. 21,776).

50. Defendants made many false statements in furtherance of the goals of the Enterprise through publications. The Tobacco Information Committee, a TIRC subcommittee, published the *Tobacco and Health* newsletter on behalf of Defendants. The first issue, published in October 1957, contained many articles that disputed the relationship between smoking and disease, criticized research that supported such a relationship, and asserted that differing opinions existed regarding tobacco use and health. TIMN123324-3327 (U.S. Ex. 21,282).

51. Subsequent issues of *Tobacco and Health*, published by the Tobacco Institute,

likewise contained articles that disputed the relationship between smoking and disease, criticized research that supported the relationship, and asserted that differing opinions existed regarding tobacco use and health. The newsletter was sent periodically to the medical and scientific communities. It reached a circulation of 520,000 in 1962, with about 315,000 copies going to doctors, dentists, and medical schools. Publication of research results helped "make news" and was coordinated with other publicity efforts. The newsletter carried articles relating to tobacco and health and materials that did not deal with tobacco, which suggested other causes of cancer, such as viruses, air pollution, or previous chest ailments. The admitted purpose of the publication was to rebut and discredit the charges against tobacco. 511018410-8413 (U.S. Ex. 22,459); TIMN0070640-0656 (U.S. Ex. 21,299); TIMN0070657-0674 (U.S. Ex. 22,983); TIMN0081443-1457 (U.S. Ex. 21,307); TIMN0016964-6982 (U. S. Ex. 21,564).

52. Internal communications make it clear that the goal was to steer attention away from anything that might support the link between smoking and cancer. An October 18, 1968 memo from Hill & Knowlton to the Tobacco Institute's head of public relations advised: "The most important type of story is that which casts doubt on the cause and effect theory of disease and smoking." TIMN0071488-1491 (U.S. Ex. 21,302).

53. Public statements and press releases were released and promoted regularly. In a May 27, 1957 speech, George Weissman of Philip Morris USA falsely stated that "there is not one shred of conclusive evidence to support the link between cigarette smoking and lung cancer." 1002366508-6519 at 6514 (U.S. Ex. 20,134).

54. In 1957, after the American Cancer Society released figures from an

epidemiological study showing that quitting smoking lowered one's risk, that death rates from lung cancer were ten times higher than for men who never smoked, and that the primary danger of smoking, in terms of average years of life lost, was from heart disease, Defendants responded with formulaic dismissals, arguing that smoking had never been conclusively linked with any kind of disease. A June 4, 1957, TIRC press release, for example, quoted TIRC Chairman Hartnett as asserting that "the causes of cancer and heart disease are not yet known to medical science." The *New York Times* picked up the release and published it in its entirety, including this same quote from Hartnett. The *Atlanta Constitution* cited the TIRC's assertion that Hammond and Horn's new study, "like their previous reports, does nothing to change this fact." The *Chicago Daily Tribune* and many other newspapers carried these rebuffs from the TIRC, which by this time was also boasting of its support for research ("at 16 centers") while in fact doing nothing to honestly explore the growing mountain of evidence indicating hazards. ATC3234544-4544; E. C. Hammond and D. Horn, "Smoking and Death Rates--Report on 44 Months of Follow-up of 187,783 Men: Part II Death Rates by Cause," *JAMA* 166:1294 (1958) (U.S. Ex. 20,279); (U.S. Ex. 22,871); "TIRC Report on Progress of Cancer, Heart Research," *Tobacco and Health Report*, June/July 1960, at 2, (U.S. Ex. 87,052).

55. TIRC issued a July 15, 1957 press release entitled "Scientist Comments on Benzypyrene Report" where it disputed the United States Surgeon General's report that benzypyrene had been identified in cigarette smoke, and stated that scientists had concluded that benzypyrene in cigarette smoke cannot be a cause of cancer in smokers. 11313243-11313244 (U.S. Ex. 20,280); TIMN123314-3317 (U.S. Ex. 21,345).

56. A December 16, 1957 press release from TIRC stated that "no substance has been found in tobacco smoke known to cause cancer." 500518708-8711 at 8708 (U.S. Ex. 21,834).

57. On June 27, 1958, Bowman Gray, President of R.J. Reynolds, told a meeting of the Flue-Cured Tobacco Co-operative Stabilization Corp.:

> The theory that tobacco smoking is a factor in lung cancer causation rests almost entirely on statistical observations. These are chiefly that there are more smokers among lung cancer patients than among other patients and that a higher proportion of lung cancer seems to appear among smokers than among non-smokers. The statement that a mere statistical association is neither proof nor good evidence of a cause and effect relationship has been asserted so often by so many scientists that it sounds almost like a broken phonograph record. Nevertheless, it remains as true and significant as ever. Yet, assiduous search by these methods has failed to identify sufficient quantity of any substance that could account for even the relatively infrequent results obtained by painting on skins of mice. Additionally, there is the fact that all tobacco smoke inhalation studies, conducted with different species of animals over a period of several years, have consistently failed to produce any bronchogenic carcinoma – the type of lung cancer most frequently found in human beings.

TIMN436721-6734 at 6730, 6732 (U.S. Ex. 21,366).

58. With the rising popularity of filters, Cigarette Company Defendants found themselves in a delicate position of seeking to promote these new products as safer without explicitly indicating health problems with their previous products. They continued to insist that the rise of filter cigarettes merely reflected the nature of consumer demand. James P. Richards, President of the Tobacco Institute, explained on June 30, 1958:

> The cigarette industry has not changed its mind. Our position was and is based on the fact that scientific evidence does not support the theory that there is anything in cigarette smoke known to cause human lung cancer. . . . [T]he production and marketing of filter

> cigarets are matters of individual company competitive business. Anyone familiar with the tobacco industry knows that tobacco manufacturers constantly compete to make products to please customers.

TIMN0122775-2775 (U.S. Ex. 21,326).

59. In a newspaper article published on November 19, 1958, Little was quoted as saying that there was scant clear evidence that smoking caused lung cancer, much more research was needed, and TIRC would continue to provide funds for independent research in universities and hospitals until the final answers were obtained. 501860595-0595 (U.S. Ex. 21,233).

60. In a December 27, 1958 public statement, Hartnett, still TIRC's Chairman, emphasized that links to smoking and disease remained undetermined and asserted that an increasing number of factors were being associated statistically with lung cancer incidents. He cited occupational exposures, specific air pollutants, place of birth and residence, previous lung ailments, and nutrition, claiming that these factors and others were subjects of much scientific investigation and further claiming that "at its formation in January 1954, the Tobacco Industry Research Committee stated its fundamental position: 'We believe the products we make are not injurious to health. We are pledging aid and assistance to the research effort and to all phases of tobacco use and health. That statement and pledge are reaffirmed by the members of the Tobacco Industry Research Committee.' 500518759-8761 at 8761 (U.S. Ex. 20,636).

(b) Defendants Knew Their Public Statements Were False and Engaged in Their Campaign of Public Misinformation Pursuant to Their Agreed-Upon Strategy with Reckless Disregard for Its Truth or Falsity

61. The public statements issued through organizations like TIRC and its successor, CTR, as well as the Tobacco Institute and the Center for Indoor Air Research ("CIAR"), and also by the Cigarette Company Defendants themselves, were flatly inconsistent with Defendants' actual knowledge about the link between smoking and disease.

62. At the same time that the Defendants assured the public through their "Frank Statement" that "there is no proof that cigarette smoking is one of the causes [of cancer]," they documented a large number of known carcinogens delivered in cigarette smoke.

63. During the 1950s, although the Cigarette Company Defendants (except for Liggett) agreed not to perform in-house biological research that might yield evidence of causation, in fact a number of studies were conducted to discover and analyze the constituents found in cigarette smoke, including successful attempts to replicate Wynder's experiments painting mice with tar condensates.

64. Although the presidents of Brown & Williamson and R.J. Reynolds signed the 1954 Frank Statement, internal documents at both companies were inconsistent with the public position taken. A December 24, 1952 "Report of Progress – Technical Research Department" from B&W contained a "Cancer" section, which noted: "The B&W lab has in the past made a partial isolation and identification of the aromatic hydrocarbons, benzopyrene, in both smoke and original tobacco from Raleigh blend cigarettes." The report refers to benzopyrene as a "carcinogenic hydrocarbon." 65020092-0092 (U.S. Ex. 85,927).

65. R.J. Reynolds also knew that smoking was a causal factor for disease as early as 1953. R.J. Reynolds's knowledge is documented in a February 1953 Report drafted by Claude Teague, an R.J. Reynolds research scientist, entitled "Survey of Cancer Research with Emphasis on Possible Carcinogens from Tobacco," which stated: "On the basis of the information at hand, it would appear that polynuclear aromatic compounds occur in the pyrolytic products of tobacco. Bensyprene and 'N-bensyprene[sic], both carcinogens, were identified in the distillates. . . . Studies of clinical data tend to confirm the relationship between heavy and prolonged tobacco smoking and incidence of cancer of the lung." Teague further acknowledged: "Some workers have attempted to produce experimental cancers in test animals by application of tars obtained from tobacco, tobacco smoke, and other materials derived from tobacco." 501932947-2968 at 2952-2953 (U.S. Ex. 21,407).

66. In 1954, R.J. Reynolds knew that cigarette smoke contained carcinogenic polycyclic hydrocarbons: "...approximately 60 polycyclic hydrocarbons have been identified–mostly on the basis of spectrophotmetric evidence. Of these, eight are carcinogenic to mouse epidermis and another five or six may be carcinogenic. While there is no known laboratory evidence to show that these compounds have any carcinogenic effect on the human respiratory system, such an effect is implied since many authorities have suggested that if would be better for the consumer if cigarette smoke were devoid of such compounds." 500945991-5591 (U.S. Ex. 87,979).

67. In response to this information, RJ Reynolds sought to remove some of those compounds, at the same time denying that they existed: "[h]aving confirmed and extended the

early published findings on polycyclic hydrocarbons in cigarette smoke, we initiated a lengthy research program to develop methods to lessen the amounts of these potentially dangerous compounds in cigarette smoke." 500945991-5991 (U.S. Ex. 87,979).

68. Alan Rodgman, a scientist at R.J. Reynolds, drew similar conclusions in 1956. He wrote an extensive paper on "The Analysis of Cigarette Smoke Condensate." In it, Rodgman explained:

> The research described in this report represents a concerted effort to determine whether or not the polycyclic aromatic hydrocarbons are present in cigarette smoke condensate. One of the major objections offered to previous investigations is that the identification of specific compounds solely on the basis of ultraviolet absorption studies is not definitive. Since the present research describes the actual isolation, identification, and characterization of several polycyclic aromatic hydrocarbons, including the highly carcinogenic 3, 4-benzpyrene, the major criticism of past research are now nullified.

Rodgman further wrote of the studies undertaken using standard Camel cigarettes:

> In view of this data, it is logical to assume that the carcinogenic activity of cigarette smoke condensate is due to the presence of one or more carcinogenic polycyclic aromatic hydrocarbons.
>
> Since it is now well-established that cigarette smoke does contain several polycyclic aromatic hydrocarbons, and considering the potential and actual carcinogenic activity of a number of these compounds, a method of either complete removal or almost complete removal of these compounds from smoke is required.

501008241-8293 at 8254, 8279 (U.S. Ex. 20,667).

69. In 1959, Rodgman summarized his current research on known carcinogens in cigarettes in a memorandum sent to R.J. Reynolds executive Kenneth H. Hoover:

> Some thirty-odd polycyclic hydrocarbons have since been similarly characterized in these laboratories. Of these eight are carcinogenic to mouse epidermis. Cholanthrene, a potent carcinogen, is one of three not yet reported by other investigators. In April of 1959, the first positive isolation and identification of 3, 4 benzpyrene, citing data similar to ours, was reported by other investigators.

TIOK0034800-4803 at 4800-4801 (U.S. 21,249).

70. In 1962, Rodgman offered his assessment of "the smoking and health problem":

> Although the major part of the sales of this company consists of cigarettes, what the Company sells is cigarette smoke. This company, therefore, should be concerned with the physiological properties and composition of cigarette smoke. The benefits from such knowledge are obvious, particularly it anticipates possible governmental regulation. During the past two decades, cigarette smoke has been the target of a host of studies relating it to ill-health and particularly to lung cancer. The majority of these studies incriminate cigarette smoke from a health viewpoint.
>
> Epidemiological data: The results of 34 different statistical studies show that cigarette smoking increases the risk of developing lung cancer. Many authorities believe the relationship to be one of cause-and-effect. . . . The statistical data from the smoking-health studies are almost universally accepted. After more than ten years, criticisms of the studies have been reduced to the dictum A statistical study cannot prove a cause-and-effect relationship between two factors.

Rodgman made explicit that reports within the industry considered the evidence of smoking's harm convincing:

> The Evidence to Date: Obviously, the amount of evidence accumulated to indict cigarette smoke as a health hazard is overwhelming. The evidence challenging this indictment is scant. Attempts to shift the blame to other factors, e. g., air pollutants, necessitates acceptance of data similar to those denied in the cigarette smoke case.
>
> It has been repeatedly stated that some scientists discount the

> cigarette smoke-lung cancer theory. This is true. But it should be noted that many of those quoted in this regard are on record with contrasting views, e.g., Berkson, the statistician, has stated "the definitive important finding of these statistical studies is not that there is an association between smoking and lung cancer, but that there is an association between smoking and deaths from all causes generally.

Rodgman expressed concern and frustration that most aspects of the smoking and health questions had been left to the TIRC. He complained:

> If a company pleads "Not guilty" or "Not proven" to the charge that cigarette smoke (or one of its constituents) is a factor in the causation of lung cancer or some other disease, can the company justifiably take the position that publication of data pertaining to cigarette smoke composition or properties should be withheld because such data might affect adversely the company's economic status when the company has already implied in its plea that no such etiologic effect exists?
>
> It is not my intent to suggest that this Company accept the cigarette-smoke-health data at face value, but I do suggest that we <u>actively</u> participate in cigarette smoke-health studies.

504822847-2852 at 2847-2848, 2850-2852 (U.S. Ex. 20,735).

71. Rodgman's views were consistent with what visiting scientists from the United Kingdom observed in 1958 about researchers working for the Cigarette Company Defendants. While TIRC under Little's leadership never wavered from its essential mission of attempting to maintain "controversy" and an "open question" while avoiding research centered on the potential impact of smoking on health, Defendants' researchers did not necessarily accept this approach. The three British scientists reported widespread acceptance that smoking causes disease among top officials and

scientists in the United States tobacco industry, including those at TIRC, Liggett, Philip Morris USA,

and American. They further noted that there was virtual consensus among researchers within the industry that cigarettes played a role in the production of human cancers:

> With one exception (H.S.N. Greene) the individuals whom we met believed that smoking causes lung cancer if by 'causation' we mean any chain of events which leads finally to lung cancer and which involves smoking as an indispensable link. In the U.S.A. only Berkson, apparently, is now prepared to doubt the statistical evidence and his reasoning is nowhere thought to be sound.
>
> In their opinion T.I.R.C. has done little if anything constructive, the constantly re-iterated 'not proven' statements in the face of mounting contrary evidence has thoroughly discredited T.I.R.C., and the S.A.B. of T.I.R.C. is supporting almost without exception projects which are not related directly to smoking and lung cancer. Liggetts [sic] felt that the problem was sufficiently serious to justify large-scale investment by the Company directly in experimental research on smoke and cancer, accepting privately that a strong case against tobacco had been made out and avoiding any public comment until their own research had provided something concrete to offer.
>
> The majority of individuals whom we met accepted that beyond all reasonable doubt cigarette smoke most probably acts as a direct though very weak carcinogen on the human lung. The opinion was given that in view of its chemical composition it would indeed be surprising if cigarette smoke were <u>not</u> carcinogenic. This undoubtedly represents the majority but by no means the unanimous opinion of scientists in U.S.A. These individuals advised us that although it is not possible to predict unambiguously the effect of any substance on man from its effect on experimental animals the generally successful use of animals in other fields as a model for man fully justifies their use in our problem.

TINY0003106-3116 at 3108, 3111-3112 (U.S. Ex. 21, 369).

72. By 1960, R.J. Reynolds believed that there was a clear, strong, inherent risk from

smoking for not only lung cancer, but also for emphysema and COPD. Deposition of David Townsend, United States v. Philip Morris et al, July 24, 2002, 178:1-180:24.

73. In 1968 RJR internally published findings regarding exposure of rats to cigarette smoke:

> [t]he histology of the tissues from the rat which had smoked TEMPO cigarettes via an indwelling tracheal cannula has been completed with the results given on the following page. 1. A diffuse marked emphysema throughout the lungs. 2. Deposition of pigment (tars?) in lung tissue, mediastinal lymph nodes and tracheal adnexia. 3. Lymphocyte infiltration. 4. Frequent epithelial hyperplasia in trachea and bronchioles.

515384987-4993 at 4987-4988 (U.S. Ex. 87,980).

74. Lorillard conducted research which pointed to cigarette smoking as a cause of cancer and other diseases. In the early 1960s, Lorillard conducted in-house experiments on animals that showed ciliastatic effects of tobacco smoke on the respiratory tract. Deposition of Alexander Spears, Blue Cross and Blue Shield of New Jersey v. Philip Morris Inc., 18-CIV-3287 (JBW) (D.N.J.), March 23, 2000, 144:4-22.

75. Philip Morris USA researchers and senior executives knew that cigarette smoking caused disease as early as the 1950s.

76. A July 20, 1956 confidential memo to Philip Morris USA President and Chief Executive Officer O. Parker McComas, Executive Vice President Joseph F. Cullman, III, and Vice Presidents George Weissman, W.H. Hatcher, and R.N. DuPuis, concerning new product designs demonstrated Philip Morris USA's knowledge that smoking caused disease. In the memo, titled "Confidential memo re: new product advantages for ventilated cigarettes," Philip Morris USA scientists observed:

> Decreased carbon monoxide and nicotine are related to decreased harm to the circulatory system as a result of smoking. . . . [C]arbon dioxide, although non-toxic in small amounts, is a respiratory contaminant, and its reduction in smoking is desirable. . . . [D]ecreased irritation is desirable . . . as a partial elimination of a cancer hazard. Decreased carbon monoxide and nicotine are related to decreased harm to the circulatory system as a result of smoking. . . . [I]ncreased oxygen content, according to the Warbury theory, means less chance of depriving cells of oxygen and of starting a possible chain of events leading to the information of a cancer cell.

2023226912-6913 at 6912 (U.S. Ex. 20,383).

77. A July 24, 1958 memorandum written by C. Mace, head of research for Philip Morris USA, admitted that Philip Morris USA was aware that smoking was a causal factor for lung cancer. The Mace memorandum described a 1958 memorandum sent by a Philip Morris USA researcher to the company Vice President of Research and Development – who later became a member of its Board of Directors – stating that "the evidence . . . is building up that heavy cigarette smoking contributes to lung cancer either alone or in association with physical and physiological factors." 1000305086-5087 at 5086 (U.S. Ex. 20,090).

78. Dr. Helmut Wakeham, a high ranking Philip Morris USA scientist, recognized the cancer-causing effect of cigarette smoke in a September 22, 1959 memorandum: "One of the main reasons people smoke is to experience the physiological effects of nicotine on the human system. Nicotine, to the best of present knowledge, does not produce cancer. Hence, in theory one could achieve the major advantage of smoking without the hazard of cancer. But Nicotine in tobacco smoke is present in the tar phase." 1005039423-9424 at 9424 (U.S. Ex. 21,657).

79. One Philip Morris USA report from the late 1950s notes that there were already

eleven studies demonstrating "an association between mortality (death) or morbidity (illness) from cardiovascular disease and cigarette smoking." This same report, summarizing an American Heart Association statement, noted that since coronary disease was "the foremost cause of death in the American population" the number of individuals suffering from this disease would have to be "many millions." The report noted the "convincing evidence which causally relates cigarette smoking to an obstructive diseases of the arteries" and that "many physicians" believe that "certain patients should not smoke." 1005039476-9476 (U.S. Ex. 21,751); 1005039477-9477 (U.S. Ex. 23,058); 1005039478-9480 at 9478 (U.S. Ex. 22,204).

80. On Novement 15, 1961, Wakeham offered a proposal to the Philip Morris USA Research & Development Committee in New York, to investigate the possibilities of reducing carcinogens in smoke. The proposal listed fifteen carcinogens, or tumor starters, and twenty-four co-carcinogens, or tumor promoters, in cigarette smoke. Wakeham also cited the belief that "cardiovascular ailments that may arise from smoking are due to the physiological effects of nicotine," noting, in particular, nicotine's "[s]pecific effects on the adrenal medulla, causing it to discharge epinephrine, a hormone which accelerates the heartbeat, contracts the peripheral blood vessels, and raises the blood pressure." Philip Morris identified 84% of the more than 400 gas and particulate compounds in cigarette smoke, including those that he specifically recognized as carcinogens, in sidestream, or secondhand, smoke. Wakeham informed his superiors at Philip Morris USA that "a medically acceptable low-carcinogen cigarette may be possible," but indicated that it would take "money, time and unfaltering determination." 2023193305-3328 at 3327 (emphasis in original) (U.S. Ex. 20,381).

81. On April 20, 1962, Wakeham recommended diversification of Philip Morris USA's business at a greater rate due to the evidence that smoking leads to disease. 1001882121-2122 (U.S. Ex. 20,120).

82. At the very time that Defendants worked in concert to disparage meticulously conducted scientific investigations, their advertisements offered unverifiable reassurances from "medical specialists." At the same time that industry researchers, such as Rodgman of R.J. Reynolds and Wakeham of Philip Morris USA, were detailing carcinogenic substances in cigarettes and potential strategies for their removal, TIRC put out a press release asserting: "Chemical tests have not found any substance in tobacco smoke known to cause human cancer or in concentrations sufficient to account for reported skin cancer in animals." 500518873-8875 at 8874 (U.S. Ex. 20,635); Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., (R. 1147, filed May 10, 2002).

83. Liggett replicated Wynder's mouse-skin painting research and knew that smoke constituents caused carcinogenic tumors.

84. After publication of Wynder's findings and a Rand Development Corporation study detecting carcinogenic compounds in the smoke from ordinary cigarette paper, Liggett hired ADL to attempt to replicate the results. In a memorandum dated March 15, 1961, ADL summarized:

> 1. There are biologically active materials present in cigarette tobacco. These are: a) cancer causing b) cancer promoting c) poisonous d) stimulating, pleasurable, and flavorful.
>
> 2. There is no reason why the poisonous group, CO, HCN, NO2, etc., cannot be reduced, even though they are not seen as a primary

> health hazard. Methods for removal are: a) filtration (treated carbon, etc.) b) treatment for removing precursors, CN elimination c) addition as a reactant (urea for NOs).
>
> 3. Cancer promoting materials, esters, phenols, amines, can possibly be reduced by some treatment, extraction, etc.
>
> 4. The cancer-causing materials apparently are in many substances that are pyrolyzed but seem to be associated with tobacco in greater concentration than for primarily cellulose.

Liggett and ADL agreed these findings would remain "confidential." 2021382496-2498 at 2496 (U.S. Ex. 20,345) (U.S. Ex. 36,738).

85. A Liggett document prepared on April 24, 1963 accepted inferences of a causal relationship between smoking and development of carcinoma that was suggested by non-Cigarette Company Defendant scientists. 2022969727-9728 (U. S. Ex. 20,368).

86.

682621615-1617 at 1615 (U.S. Ex. 54,180); Deposition of M. Lance

Reynolds, United States v. Philip Morris, et al., September 12, 2002, 350:12-351:14, 352:14-353:13 (Confidential).

87. On July 3, 1963, Addison Yeaman, Brown & Williamson in-house counsel, sent a wire cable to A.D. McCormick, a lawyer for BATCo, regarding his attempt to keep the results of legitimate research projects, Project Hippo and the Griffith Filter, from the Surgeon General despite his knowledge that the Surgeon General was preparing the first comprehensive report on smoking and health. Yeaman informed McCormick that "Hoyt of TIRC agreed to withhold disclosure Battelle report to TIRC or SAB until further notice from me. Finch agrees submission Battelle or Griffith developments to Surgeon General undesirable and we agree continuance of Battelle work useful but disturbed at its implications re cardiovascular disorders. . . . We believe combination Battelle work and Griffith's developments have implication which increase desirability reevaluation TIRC and reassessment fundamental policy re health." 689636015-6015 (U.S. Ex. 86,879).

88. Defendants' internal documents also reveal that top officials conceded that there was virtually no evidence to dispute their internal findings confirming that smoking causes adverse health effects, evidencing that Defendants' issuance of public statements denying causation occurred without any regard to their truthfulness. The President of B&W acknowledged in October 1962, in a letter to the Chief Executive Officer of R.J. Reynolds: "Let me make my position perfectly clear. If we are able to make strong, affirmative, well-documented statements which might tend to convince the public that the charges against our industry are invalid and insupportable, I would subscribe whole-heartedly to a series of paid

advertisements in which we could tell our story. But . . . we cannot take such a position." 515857280-7282 at 7281 (U.S. Ex. 20,871).

89. The views of scientists at the cigarette companies that smoking caused cancer, as observed by visiting scientists and as reflected in internal documents, were consistent with those in the mainstream scientific community, where research into smoking and health issues continued through the 1950s and into the 1960s.

(c) Continuing Research by Mainstream Scientists in the Late 1950s and Early 1960s Confirmed the Accuracy of Earlier Scientific Investigation

90. In 1956, at the urging of Surgeon General Leroy Burney, a study group on smoking and health was organized by the American Cancer Society, the American Heart Association, the National Cancer Institute, and the National Heart Institute. This group of distinguished experts met regularly to assess the character of the scientific evidence relating to tobacco and health. At that time the group noted that sixteen studies had been conducted in five countries all showing a statistical association between smoking and lung cancer. Among the studies they summarized, it was demonstrated that: lung cancer occurs five to fifteen times more frequently among smokers than non-smokers; on a lifetime basis one of every ten men who smoke more than two packs a day will die of lung cancer; and cessation reduces the probability of developing lung cancer. Strong, Frank M., et al., "Smoking and Health: Joint Report of the Study Group on Smoking and Health," *Science* 124:1129-1133 (1957), 2063629199-9203 (U.S. Ex. 23,005).

91. They also noted that the epidemiological findings were supported by animal studies in which malignant neoplasms had been produced by tobacco smoke condensates.

Further, human pathological and histological studies added evidence to strengthen the "concept of causal relationship." The authors concluded:

> Thus, every morphologic stage of carcinogenesis, as it is understood at present, has been observed and related to the smoking habit.
>
> The sum total of scientific evidence establishes beyond reasonable doubt that cigarette smoking is a causative factor in the rapidly increasing incidence of human epidermoid carcinoma of the lung.

Strong, Frank M., et al., "Smoking and Health: Joint Report of the Study Group on Smoking and Health," *Science* 124:1129 (1957), 2063629199-9203 (U.S. Ex. 23,005).

92. E. Cuyler Hammond and Daniel Horn conducted a massive epidemiological study of smoking and lung cancer under the auspices of the American Cancer Society. In the Hammond and Horn study more than 200,000 men were followed prospectively for nearly four years; during this period 12,000 died. They found that not only was lung cancer far more prevalent among those who smoked as a cause of death (twenty-four times more than non-smokers), so too was heart disease and circulatory disease. Hammond and Horn estimated that among smokers, smoking might account for up to 40% of their mortality. Hammond, E. Cuyler, and Daniel Horn, "Smoking and Death Rates--Report on Forty-four Months of Follow-up of 187,783 Men," *JAMA*, 2840-2857 (March 15, 1958) (U.S. Ex. 20,279).

93. In January 1959, another distinguished group of cancer researchers offered a substantive review of the available evidence linking cigarettes to lung cancer. This group carefully considered the range of alternative hypotheses to account for the significant rise in cases of, and deaths from, lung cancer. They concluded:

> The magnitude of the excess lung-cancer risk among cigarette

> smokers is so great that the results can not be interpreted as arising from an indirect association of cigarette smoking with some other agent or characteristic, since this hypothetical agent would have to be at least as strongly associated with lung cancer as cigarette use; no such agent has been found or suggested. The consistency of all the epidemiologic and experimental evidence also supports the conclusion of a causal relationship with cigarette smoking, while there are serious inconsistencies in reconciling the evidence with other hypotheses which have been advanced. Unquestionably there are areas where more research is necessary, and, of course, no single cause accounts for all lung cancer. The information already available, however, is sufficient for planning and activating public health measures.

This paper also explicitly refuted ongoing critiques by statisticians Ronald Aylmer Fisher and J. Berkson, often trumpeted by Defendants. Cornfield, Jerome, et al., "Smoking and Lung Cancer: Recent Evidence and Discussion of Some Questions," *Journal of the National Cancer Institute* 22.1:173, 195 (1959), 1004810186-0216 (U.S. Ex. 20,184).

94. Cornfield noted that investigations of the health implications of smoking had significantly accelerated following the epidemiological studies earlier in the decade. Not only did the new prospective studies conducted in diverse populations confirm and strengthen the earlier findings, so too did pathological and toxicologic analyses. Cornfield and colleagues also noted that the persistent "debate" about the scientific findings regarding cigarette smoking was driven by Defendants:

> It would be desirable to have a set of findings on the subject of smoking and lung cancer so clear-cut and unequivocal that they were self-interpreting. The findings now available on tobacco, as in most other fields of science, particularly biologic science, do not meet this ideal. Nevertheless, if the findings had been made on a new agent, to which hundreds of millions of adults were not already addicted, and on one which did not support a large industry, skilled in the arts of mass persuasion, the evidence for the

> hazardous nature of the agent would generally be regarded as beyond dispute.

As Cornfield suggested, the very idea of a "controversy" had been manufactured by TIRC and other public relations efforts by the Cigarette Company Defendants. Cornfield, Jerome, et al., "Smoking and Lung Cancer: Recent Evidence and Discussion of Some Questions," *Journal of the National Cancer Institute* 22.1:198 (1959), 1004800186-0216 (U.S. Ex. 20,184).

95. In November 1959, Surgeon General Burney offered his own evaluation of the scientific evidence linking cigarettes to lung cancer. Burney revisited the epidemiologic data, as well as other confirmatory animal and pathological investigations. After a thorough assessment of current data, Burney came to the following conclusions:

> There can be no doubt that a significant portion of the increase in lung cancer is real. This rise has not been caused solely by improvements in diagnostic techniques, better reporting on death certificates, or an increase of older persons in the population. If we accept as valid the sequence of pathological changes given above the prevention of lung cancer, to a large extent, becomes possible. This will be accomplished if carcinogenic substances from any source can be kept out of the air inhaled into the lungs.

Burney, Leroy E., "Smoking and lung cancer: a statement of the Public Health Service," *JAMA* 71:1835 (1959) (U.S. Ex. 58,697).

96. For Burney, this fact meant that there were important and timely opportunities to prevent disease:

> The Public Health Service believes that the following statements are justified by studies to date:
>
> 1. The weight of evidence at present implicates smoking as the principal etiological factor in the increased incidence of lung cancer.

> 2. Cigarette smoking particularly is associated with an increased chance of developing lung cancer.
>
> 3. Stopping cigarette smoking even after long exposure is beneficial.
>
> 4. No method of treating tobacco or filtering the smoke has been demonstrated to be effective in materially reducing or eliminating the hazard of lung cancer.
>
> 5. The nonsmoker has a lower incidence of lung cancer than the smoker in all controlled studies, whether analyzed in terms of rural areas, urban regions, industrial occupations, or sex.
>
> 6. Persons who have never smoked at all (cigarettes, cigars, or pipe) have the best chance of escaping lung cancer.
>
> Unless the use of tobacco can be made safe, the individual person's risk of lung cancer can best be reduced by elimination of smoking.

Burney, Leroy E., "Smoking and lung cancer: a statement of the Public Health Service," *JAMA* 71: 1835-36 (1959) (U.S. Ex. 58,697).

97. In 1960, the World Health Organization ("WHO") also issued a statement signaling their own confirmations of the Surgeon General's conclusions, after conducting a review of the scientific findings. World Health Organization, "Epidemiology of cancer of the lung: Report of a study group," *WHO Technical Reports*:192 (1960), 2015064871-4871 (U.S. Ex. 20,336).

98. In 1962, yet another thorough and far-reaching assessment of the scientific evidence reached these same conclusions. The British Royal College of Physicians, after two years of investigation, stated, "[d]iseases associated with smoking now cause so many deaths that they present one of the most challenging opportunities for preventive medicine today." The

report concluded:

> The strong statistical association between smoking, especially of cigarettes, and lung cancer is most simply explained on a causal basis. . . . The conclusion that smoking is an important cause of lung cancer implies that if the habit ceased, the death rate from lung cancer would eventually fall to a fraction, perhaps to one fifth or even, among men, to one tenth of the present level. Since the present annual number of deaths attributed to lung cancer before the age of retirement is some 12,000 . . . a large amount of premature shortening of life is at issue.

As this statement makes clear, lives were at stake in the assessment of this scientific evidence linking cigarettes to disease. Over and over again, independent critical evaluation of the scientific findings that cigarettes caused lung cancer reached the same conclusion. Royal College of Physicians of London, *Smoking and Health: Summary and Report of the Royal College of Physicians of London on Smoking in Relation to Cancer of the Lung and Other Diseases*, 1 (New York, London: Pitman Publishing Co. 1962) (U.S. Ex. 64,056).

99. By this time, the evidence supporting the conclusion that cigarette smoking causes cardiovascular disease was significant. The Framingham Study, a comprehensive prospective cohort study, had been initiated by the Public Health Service in 1948. The participants in the study included 2,282 men and 2,845 women aged twenty-nine through sixty-two and free of coronary heart disease at initial examination, based on a random subsample of the residents of Framingham, Massachusetts. A standardized cardiovascular examination at entry included information on habits, physical characteristics, and blood chemistries. Biennial reexamination was undertaken for ascertainment of cardiovascular disease and changes in characteristics. Cardiovascular disease case ascertainment included community and mortality surveillance

activities. By 1959, results of the long term, prospective Framingham Study had shown a three-fold increase in the incidence of myocardial infarction and coronary deaths in men who were heavy smokers, as compared to non-smokers, pipe and cigar smokers, and former smokers. By 1972, analysis through twenty-four years of follow-up showed cigarette smoking to be strongly related to myocardial infarction and death from coronary heart disease, with excess risk increasing progressively with the number of cigarettes smoked. Dawber T. Kannel W., Revotskie N., Stokes J., Kagan A., Gordon T., "Some factors associated with the development of coronary disease: Six years' follow-up experience in the Framingham study," *Amer. J. Public Health*: 1349-1356 (1959) (U.S. Ex. 64,229); Kannel B., "Some lessons in cardiovascular epidemiology from Framingham," *Amer. J. Cardiol*. 37:269-82 (1976) (U.S. Ex. 64,110); Expert Report of Ira S. Ockene, United States v. Philip Morris. et al., (R. 668, filed November 15, 2001); Doyle, J.T. et al., "The Relationship of Cigarette Smoking to Coronary Heart Disease," 190 *JAMA* 108-112 (Dec. 1964), VXB3290060-0064 (U.S. Ex. 88,653).

100. Subsequently, men who were cigarette smokers at the beginning of the Framingham study, but successfully stopped smoking had heart attack rates that were half that experienced by those who continued to smoke. This difference was not explained by other changes in coronary risk factors. Gordon, T. et al., "Death and Coronary Attacks in Men After Giving Up Cigarette Smoking," *Lancet* 1345-1348 (Dec. 1974), DXA0390696-0699 (U.S. Ex. 88,654).

101. Large-scale prospective studies of mortality in Britain in the 1950s showed a step-wise association between the amount of tobacco consumed and mortality from coronary heart

disease. Doll, R. and Hill, A., "Lung cancer and other causes of death in relation to smoking," *Brit. Med. J.* 2:1071-81 (1956), TIFL0515048-5058 (U.S. Ex. 77,031).

102. In 1952, the New York State Health Department established at the Albany Medical College a prospective study of male civil servants working in Albany. Participation was obtained from 87% of eligible men aged forty through fifty-four, of whom 1,823 were free of coronary heart disease at initial examination. After six years, the incidence of myocardial infarction and death from coronary heart disease was significantly higher in cigarette smokers than in nonsmokers. Subsequent analysis after ten years of follow-up confirmed these findings. Doyle J., Heslin A., Hillehoe H., Formel P., "Early diagnosis of ischemic heart disease," *New. Eng. J. Med.* 261:1096-1101 (1959) (U.S. Ex. 87,053); Expert Report of Ira S. Ockene, United States v. Philip Morris, et al., (R. 668, filed November 15, 2001).

103. Study after study obtained consistent results: selected Minnesota businessmen and professionals were examined beginning in 1948; the Chicago Western Electric Company Study followed 1,981 workers beginning in 1957; the Chicago Peoples Gas Company medical department examined 1,264 persons beginning in 1958; the Minnesota Based Railroad Worker Study looked at coronary heart disease in 65% of the railroad workers in the northwest sector of the United States beginning in 1958; the Tecumseh Health Study began examination of the entire community of Tecumseh, Michigan in 1959. All of these studies revealed a higher incidence of myocardial infarction and death from coronary heart disease in smokers than in nonsmokers. Pooling Project Research Group, "Relationship of blood pressure, serum cholesterol, smoking habit, relative weight and ECG abnormalities to incidence of major coronary events: final report

of the Pooling Project," *J. Chronic Dis.* 31:201-306 (1978) (U.S. Ex. 64,093); Liu K., Cedres L.B., Stamler J., et al., "Relationship of education to major risk factors and death from coronary heart disease, cardiovascular diseases and all causes, Findings of three Chicago epidemiologic studies," *Circulation* 66:1308-14 (1982) (U.S. Ex. 64,098); Kemp H.G., Kronmal R.A., Vlietstra R.E., Frye R.L., "Seven year survival of patients with normal or near normal coronary arteriograms: a CASS registry study," *J. Am. Coll. Cardiol.* 7:479-83 (1986) (U.S. Ex. 87,054); Alpert J., Braunwald E., "Pathological and clinical manifestations of acute myocardial infarction," in *Heart Disease: A Textbook of Cardiovascular Medicine*, Volume 2, 1309-1352 (Braunwald E. ed., 1980) (U.S. Ex. 87,055); Expert Report of Ira S. Ockene, United States v. Philip Morris, et al., (R. 668, filed November 15, 2001).

(d) The Enterprise Responded to this Scientific Investigation in the Public Health Community by Intensifying Their Fraudulent Campaign in the Late 1950s and Early 1960s

104. The Tobacco Institute, TIRC, and its successor, CTR, were front and center in the Defendants' response to the mounting scientific evidence. TIRC representatives frequently issued statements during this period explaining: "Its purpose [TIRC] is solely to obtain new information and to advance human knowledge in every possible phase of the tobacco and health relationship." Nonetheless, the TIRC program funded almost no research whatsoever that focused on the constituents of cigarette smoke and/or the health of smokers. MNAT00515648-5651 at 5468 (U.S. Ex. 21,227).

TIRC's direct responses to the public statements emerging from groups of scientists and policy-makers were consistent with TIRC's general message. Little issued the following

statement upon the publication of Burney's 1959 evaluation:

> Despite the recent research trends, the conclusions set forth in the Public Health Service review rely almost entirely on past reports that are no more conclusive today than when these reports were first published. Most of the points are not new but are familiar to the American public because they were first advanced some years ago in statistical studies that admittedly are not supported by experimental evidence.

This despite the fact that Burney had carefully evaluated the science of recent investigators, and did not limit his assessment to epidemiological studies. 503283464-3467 at 3465-3466 (U.S. Ex. 22,981).

105. The Tobacco Institute, the public relations entity which was created in 1958, worked

closely with TIRC, despite claims of independence. The Tobacco Institute explained its related strategy in anticipation of the Burney report:

> Comment from TIRC for the press remains an effective way to meet anti-tobacco publicity efforts and emphasizes the multiple factors that should be considered. This, of course, is complemented with a continuing program of supplying information to give editors and writers a balanced perspective on questions of tobacco and health.
>
> Published in the November 28 issue of the Journal of the American Medical Association, the article signed by the Surgeon General presented a selection of published data about smoking as related to lung cancer. Anticipating the appearance of the Burney article and learning of its contents in advance of publication, it was possible to provide the press promptly with statements from Dr. C.C. Little, Mr. James P. Richards, president of The Tobacco Institute, and others. Press stories used the tobacco industry comment in covering the Surgeon General's article.

HT0145148-5150 at 5148 (U.S. Ex. 21,177).

106. For decades, the Tobacco Institute issued press releases and made public statements

on behalf of Defendants that attempted to discredit non-industry scientists, government public health statements, and scientific findings that linked cigarette smoking to human disease. The statements contradicted both Defendants' own knowledge of the link between cigarette smoking and disease and the parallel, scientific study by public health scientists. See U.S. FPFF §I.B supra.

107. For example, on November 27, 1959, the Tobacco Institute issued a press release containing statements attacking an article written by Burney on the hazards of cigarette smoking. The release marked a concerted and coordinated effort with TIRC to attack the Surgeon General, as Little's comments, cited above, were released the following day. TIMN0110091-0091 (U.S. Ex. 21,319).

108. On July 6, 1961, the Tobacco Institute issued a statement to United States newspapers for public distribution titled "Allen Gives Tobacco Institute Position on Health Scares" that quoted the Tobacco Institute President George Allen's comments on current health concerns regarding cigarette smoking: "The tobacco industry itself is more interested than anyone else in finding out and making public the true facts about tobacco and health." Allen further claimed that "research in recent years has produced findings that weaken rather than support the claim that smoking is a major contributor to lung cancer." TIMN0104428-4429 at 4428 (U.S. Ex. 21,762).

109. Defendants not only attacked mainstream scientists, they also made blanket

assertions, unfailingly false, denying the evidence that smoking caused disease.

110. For example, an October 24, 1958 Tobacco Institute press release reporting on animal research stated that more research was needed to prove a link between smoking and lung cancer. TIMN0130830-0831 (U.S. Ex. 21,335).

111. Another press release, issued following Allen's attack on the public health community, stated:

> The causes of cancer are not now known to science. Many factors are being studied along with tobacco. The case against tobacco is based largely on statistical association studies, the meanings of which are in dispute.

1005136953-6980 at 6955 (U.S. Ex. 20,224).

112. These statements were made at the time the Surgeon General was forming an Advisory Committee on Smoking and Health, with the aim of developing the first Surgeon General's Report on Smoking and Health.

(e) In 1964, the Surgeon General Released the First Surgeon General's Advisory Committee Report on Smoking and Health

113. The 1964 Surgeon General's Report on Smoking and Health is widely considered by historians to be one of the most significant documents in the history of Twentieth Century public health. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., 49 (R. 1147, filed May 10, 2002).

114. The Surgeon General's Advisory Committee on Smoking and Health was organized to evaluate the evidence about cigarettes and disease and offer a definitive assessment. As a result, the process of the committee's work, its selection, and its findings were designed to

represent a model of objective, public scientific and medical inquiry based on a rigorous and systematic assessment of the health implications of smoking. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., 49-52 (R. 1147, filed May 10, 2002).

115. To establish the Advisory Committee, Surgeon General Luther Terry created a list of some 150 individuals. None were known to have taken a public position regarding the relationship of smoking and health. These individuals represented a number of fields and medical specialties from pulmonary medicine to statistics, cardiology to epidemiology. This list was then circulated to the American Cancer Society, the American Heart Association, the National Tuberculosis Association, the American Medical Association, as well as the Tobacco Institute. Each group was permitted to eliminate any name, without any reason cited. Individuals who had already published on the issue or had taken a public position were also eliminated. The selection process indicated Terry's commitment to a process that would eventuate in a genuine and definitive consensus. He had insured that the Report could not be attacked on the basis of its membership. All ten of the members were eminent physicians and scientists; eight were medical doctors, one was a chemist and the other a statistician. Three of the panelists smoked cigarettes, two others occasionally smoked pipes or cigars. Surgeon General's Advisory Committee on Smoking and Health, *Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service*, Washington, DC: US Department of Health, Education, and Welfare, Public Health Service, p. 9 (1964) (U.S. Ex. 64,057); Fritschler, A. Lee, *Smoking and Politics* 42 (Englewood Cliffs, NJ: Prentice Hall, 1975) (U.S. Ex. 76,135).

116. The 1964 Report explained: "All of the major companies manufacturing cigarettes and other tobacco products were invited to submit statements and any information pertinent to the inquiry. The replies which were received were taken into consideration by the Committee. Surgeon General's Advisory Committee on Smoking and Health, *Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service*, Washington, DC: US Department of Health, Education, and Welfare, Public Health Service, p. 14 (1964) (U.S. Ex. 64,057).

117. Terry's first ten selections all agreed to serve on the Advisory Committee, indicating to him "that these scientists were convinced of the importance of the subject and of the complete support of the Public Health Service." Terry, Luther L., "The Surgeon General's first report on smoking and health: A challenge to the medical profession," *New York State Journal of Medicine* 1254 (December 1983) (U.S. Ex. 21,376).

118. The Report drew on the respective disciplinary strengths of the committee members. Walter J. Burdette was a prominent surgeon and chair of the Surgery Department at the University of Utah; John B. Hickman was the Chair of Internal Medicine at the University of Indiana; and Charles LeMaistre was a pulmonary specialist and head of a very large cancer treatment center. The pathologists joining the Committee were Emmanuel Farber, Chair of Pathology at the University of Pittsburgh; Jacob Furth from Columbia, an expert on the biology of cancer; and Maurice Seevers, Chair of the University of Michigan Pharmacology Department. Louis Feiser of Harvard University was an eminent organic chemist. Completing the Committee were Stanhope Bayne-Jones, a bacteriologist, former head of New York Hospital and Dean of

Yale Medical School, Leonard H. Schumann, epidemiologist at the University of Minnesota, and William G. Cochran, a Harvard University mathematician with expertise in statistical methods. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., 51-52 (R. 1147, filed May 10, 2002); Surgeon General's Advisory Committee on Smoking and Health, *Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service*, Washington, DC: US Department of Health, Education, and Welfare, Public Health Service (1964) (U.S. Ex. 64,057).

119. Terry divided the work into two distinct phases. The first phase, the work of the Advisory Committee, was to determine the "nature and magnitude of the health effects of smoking." The Committee sought to arrive at a clinical judgment on smoking. As one public health official explained, "What do we (that is, The Surgeon General of the United States Public Health Service) advise our Patient, the American public, about smoking." Surgeon General's Advisory Committee on Smoking and Health, *The Nature, Purpose and Suggested Formulation of the Study of the Health Effects of Smoking, Phase I*, National Archives, Record Group 90, Typescript, p. 1 (U.S. Ex. 63,531)

120. The Advisory Committee met together nine times in just over a year. In between these meetings both committee members and staff worked to review, critique, and synthesize what had become a formidable volume of scientific work on tobacco. Terry promised that the report on these findings would be followed by phase II, proposals for remedial action. This was significant, for it kept the Committee away from the politics which swirled around the tobacco question. What Terry sought – and ultimately got – was a document that would be

unimpeachable from a scientific point of view. Terry astutely recognized that the Advisory Committee could only speak with authority about the scientific nature of the health risks of smoking; he would leave the policy questions to the political process. Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., 51-52 (R. 1147, filed May 10, 2002).

121. The Advisory Committee established a set of criteria to evaluate the significance of a statistical association. Recognizing that the nature of inference, as a process, requires judgment, the committee sought to define this process specifically, outlining five specific conditions for judging causal relations:

a. Consistency of the Association. Nearly all the retrospective and prospective studies produced comparable results, despite the fact that different methods were employed for collecting data.

b. Strength of the Association: the ratio of lung cancer rates for smokers versus non-smokers. The Committee assessed the significance of the dose effect phenomenon, finding that risk increased with amount smoked. According to the Report:

> [A]verage smokers of cigarettes have a 9- to 10 fold risk of developing lung cancer, and heavy smokers, at least a 20 fold risk. . . . Thus it would appear that the strength of the association between cigarette smoking and lung cancer must be judged to be high.

c. Specificity of Association. This criteria, according to the Report:

> implies the precision with which one component of an associated pair can be utilized to predict the occurrence of the other. i.e. how frequently the presence of one variable (e.g. lung cancer) will predict, in the same individual, the presence of another (e.g. cigarette smoking).

> In a discussion of the specificity of the relationship between any factor causal in character and a disease it may produce, it must be recognized that rarely, if ever, in our biologic universe, does the presence of an agent invariably predict the occurrence of a disease. Second, but not less important, is our growing recognition that a given-disease may have multiple causes.

In the current case, the specificity of the association was especially strong. The Report explained, "of the total load of lung cancer in males about 90 per cent is associated with smoking."

> d. Temporal Relationship of Associated Variables:
>
> Exposure to an agent presumed to be causal must precede, temporally, the onset of a disease which it is purported to produce. . . . [N]o evidence has thus far been brought forth to indicate that the initiation of the carcinomatous process in a smoker who developed lung cancer antedated the onset of smoking.
>
> e. Coherence of the Association:
>
> A final criterion for the appraisal of causal significance of an association is its coherence with known facts in the natural history and biology of the disease.

Surgeon General's Advisory Committee on Smoking and Health, *Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service*, Washington, DC: US Department of Health, Education, and Welfare, Public Health Service, pp. 182-185 (1964) (U.S. Ex. 64,057).

122. The 1964 Surgeon General's Advisory Committee's assessment of causality was part of a coherent and logical explanation. These criteria have become the basic orthodoxy for causal inference concerning disease since the time of the report. Expert Report of Allan M.

Brandt, United States v. Philip Morris, et al., 55 (R. 1147, filed May 10, 2002); Expert Report of Ira S. Ockene, United States v. Philip Morris, et al., (R. 668, filed November 15, 2001).

123. In all, the 387-page 1964 Surgeon General's Report cited 7,000 articles; its critical review of this evidence substantiated the cigarette as a cause of disease. The Report came to the following conclusions:

> Cigarette smoking is associated with a 70 percent increase in the age specific death rates of males, and to a lesser extent with increased death rates of females. The total number of excess deaths causally related to cigarette smoking in the U.S. population cannot be accurately estimated. In view of the continuing and mounting evidence from many sources, it is the judgment of the Committee that cigarette smoking contributes substantially to mortality from certain specific diseases and to the overall death rate.
>
> Cigarette smoking is causally related to lung cancer in men; the magnitude of the effect of cigarette smoking far outweighs all other factors. The data for women, though less extensive, point in the same direction.
>
> Their risk of developing lung cancer increases with duration of smoking and the number of cigarettes smoked per day, and is diminished by discontinuing smoking.

Surgeon General's Advisory Committee on Smoking and Health, *Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service*, Washington, DC: US Department of Health, Education, and Welfare, Public Health Service, p. 31 (1964) (U.S. Ex. 64,057).

124. The 1964 Report carefully evaluated the animal studies that had been conducted up to that time:

> Condensates of tobacco smoke are carcinogenic when tested by

> application to the skin of mice and rabbits and by subcutaneous injection in rats. . . .
>
> Bronchogenic carcinoma has been produced in laboratory animals by the administration of polycyclic aromatic hydrocarbons, certain metals, radioactive substances, and viruses. The histopathologic characteristics of the tumors produced are similar to those observed in man and are predominantly of the squamous variety.

Surgeon General's Advisory Committee on Smoking and Health, *Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service*, Washington, DC: US Department of Health, Education, and Welfare, Public Health Service, p. 33, 143-45, 165 (1964) (U.S. Ex. 64,057).

125. The 1964 Report also found very high death rates among smokers, which increased with consumption:

> The death rate for smokers of cigarettes only, who were smoking at the time of entry into the particular prospective study, is about 70 percent higher than that for nonsmokers. The death rates increased with the amount smoked. For groups of men smoking less than 10, 10-19, 20-39, and 40 cigarettes and over per day, respectively, the death rates are about 40 percent, 70 percent, 90 percent, and 120 percent higher than for non-smokers. The ratio of the death rates of smokers to nonsmokers is highest at the earlier ages (40-50) represented in the studies, and declines with increasing age. The same effect appears to hold for the ratio of the death rate of heavy smokers to that of light smokers. In the studies that provided this information, the mortality ratio of cigarette smokers to nonsmokers was substantially higher for men who started to smoke under age 20 than for men who started after age 25. The mortality ratio was increased as the number of years of smoking increased. In two studies which recorded the degree of inhalation, the mortality ratio for a given amount of smoking was greater for inhalers than for non-inhalers.

Surgeon General's Advisory Committee on Smoking and Health, *Smoking and Health: Report of*

the Advisory Committee to the Surgeon General of the Public Health Service, Washington, DC: US Department of Health, Education, and Welfare, Public Health Service, p. 35-36 (1964) (U.S. Ex. 64,057).

126. The 1964 Report also reached conclusions as to coronary heart disease: "It is also more prudent to assume that the established association between cigarette smoking and coronary disease has causative meaning than to suspend judgment until no uncertainty remains." The 1968 Report went a step further, concluding that "[b]ecause of the increasing convergence of epidemiological and physiological finding relating cigarette smoking to coronary heart disease it is concluded that cigarette smoking can contribute to the development of cardiovascular disease and particularly to death from coronary heart disease." The 1979 Report flatly stated that "for purposes of preventive medicine, it can be concluded that smoking is causally related to coronary heart disease for both men and women in the United States." Surgeon General's Advisory Committee on Smoking and Health, *Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service*, Washington, DC: US Department of Health, Education, and Welfare, Public Health Service, p. 35-36 (1964) (U.S. Ex. 64,057).

127. From both a clinical and a public health perspective, the 1964 Report concluded that stopping smoking lowered an individual's risk of disease and health:

> Cigarette smokers who had stopped smoking prior to enrollment in the study had mortality ratios about 1.4 as against 1.7 for current cigarette smokers. The mortality ratio of ex-cigarette smokers increased with the number of years of smoking and was higher for those who stopped after age 55 than for those who stopped at an earlier age.

Surgeon General's Advisory Committee on Smoking and Health, *Smoking and Health: Report of*

the Advisory Committee to the Surgeon General of the Public Health Service, Washington, DC: US Department of Health, Education, and Welfare, Public Health Service, p. 35-36 (1964) (U.S. Ex. 64,057).

(f) Defendants Further Intensified Their Fraudulent Public Relations Campaign in Anticipation of and Immediately Following the Release of the 1964 Report

128. Even before the release of the 1964 Report, the scientific consensus regarding the harms of smoking was tacitly acknowledged at the highest levels of Defendant companies. And yet, the public position of the companies remained one of distortion and denial of the scientific facts.

129. The 1964 Report caused Defendants to further intensify their public relations campaign, which was undertaken without any regard for the truth of public statements and assertions and, in fact, with knowledge of the falsity of Defendants' claims that smoking had not been established as a cause of disease.

130. Before the Surgeon General's Report was released in January 1964, Defendants took steps to minimize its impact. George Allen, president of the Tobacco Institute, laid out the Cigarette Company Defendants' ongoing position in a radio interview:

> All the medical authorities as far as I know, or practically all of them, agree that nobody knows what causes cancer, and specifically lung cancer, and this is a matter that remains to be found by thorough and energetic scientific investigation.
>
> ALLEN: . . .That study [from the Royal College of Physicians, 1962], while considered very strong in its accusations, charges regarding smoking, nevertheless that study itself said that the majority of people smoke without any harm to their system. So if you say, am I going to get lung cancer if I smoke, a lot of people

> get lung cancer who have never smoked in their lives. We had a recent case, in which 27 nuns had died of lung cancer, not all together, not in the same place, but among the statistics, who had never been near tobacco. So, certainly one would have to say that if you just ask the question flatly, if I smoke, will I get lung cancer, there are many, many cases and evidences - cited statements to the fact that there is no proved cause and effect relationship between the two.

This was precisely the kind of presentation designed to mislead the public concerning the known harms of cigarette smoking. 500062010-2018 at 2011, 2015 (U.S. Ex. 20,619).

131. On March 14, 1963, the Tobacco Institute issued a press release to the *New York Times* containing a statement by Allen:

> Scientific opinions differ widely. Many scientists say that more must be learned before it will be known whether any of the factors now under study, including smoking, has a role in causation of diseases such as lung cancer, and if so, whether that role is direct or indirect, primary or incidental. In the opinion of these scientists, singling out tobacco as a major factor is not warranted by scientific knowledge.

TIMN0131426-1426 (U.S. Ex. 21, 336).

132. On April 15, 1963, the Tobacco Institute issued a press release containing "Comments on Cancer Society Booklet":

> There is dispute among scientists as to the causes of lung cancer. Many differing opinions exist. . . . The booklet does not purport to contribute new knowledge. It is our belief that the answers to questions about diseases such as lung cancer will come through the research laboratory, not through booklets or campaigns for or against smoking.

TIMN0118348-8349 at 8348 (U.S. Ex. 21, 320).

133. A June 19, 1963 Tobacco Institute press release claimed that since 1954 the

tobacco manufacturers had supported grant-in-aid research through TIRC and had contributed more than $6 million in funds towards independent medical and scientific research. While the research programs were continuing, the press release claimed that research findings regarding underlying causes of cancer and cardiovascular diseases were to that date inconclusive. TIMN0104311-4312 (U.S. Ex. 21, 317).

134. A July 9, 1963 press release reaffirmed the Tobacco Institute's public position to not accept any claims that smoking may play a part in causation of human disease until further research provided facts to link smoking to certain health effects. The release quoted Allen: "With the numerous theories, statements, and resolutions that have been presented to the public, there is some danger of losing sight of what ought to be the basic objective of all who are concerned. That is doing the needed research. We believe the answers will be found. And they will be found in the scientific laboratory, not through pronouncements either for or against tobacco." TIMN0098597-8598 at 8598 (U.S. Ex. 21, 270).

135. In September 1963, the Tobacco Institute issued a publication entitled "Tobacco and The Public Interest--Reprint of George Allen address before the National Association of State Departments of Agriculture." It provided: "There ought to be a respite from theories, resolutions and emotional statements for a time at least, so that scientists can objectively evaluate, what is known and what is not known." He reaffirmed Defendants' purported commitment to research to find necessary facts: "That is what this industry has tried to do in the past, through the research program of the TIRC. And that is what we shall do in the future, until enough facts are known to provide solutions to the health questions involved." TIMN0104251-

4256 at 4254, 4256 (U.S. Ex. 21, 316).

136. On October 11, 1963, in order to intensify Defendants' public relations campaign in anticipation of the 1964 Report, the Tobacco Institute issued a press release: "Allen Outlines Some of Reasons Why Smoking-Health Theory is Disputed." It provided: "People sometimes forget that there are good reasons why the theories about smoking and health problems are in dispute, and are often questioned by responsible scientists. . . . [T]he original theory about smoking and lung cancer – the theory that smoke was a direct, contact carcinogen – has virtually been abandoned." He asserted that the case against smoking rested largely on statistical studies, whose meanings were questioned by many leading medical statisticians and that there was a growing interest among scientists studying the issue as to the possible role of constitutional and genetic factors. TIMN0118249-8250 at 8249 (U.S. Ex. 21,561).

137. On November 1, 1963, Hill & Knowlton distributed a Tobacco Institute news release entitled "Tobacco Industry Research Will Find Answers, George Allen Says." Allen stated he was "convinced that scientific research will discover the answers to questions about smoking and health and the causes of the diseases with which smoking has been associated." After cataloguing Defendants' positions on smoking and health, Allen "suggest[ed] a moratorium on 'resolutions and emotional statements' about smoking and health, so that scientists can objectively evaluate what is known and what is not known." TIMN0118245-8246 at 8246 (U.S. Ex. 77,055).

138. A November 3, 1963 Tobacco Institute press release stated that the tobacco industry was on a "crusade" to find answers to the "questions about smoking and health" and that

it "should be a crusade neither for or against tobacco. It is a crusade for research." TIMN0118245-8246 at 8245 (U.S. Ex. 77,055).

139. Following the release of the 1964 Surgeon General's Report, the principal approach by Defendants to the burgeoning knowledge of tobacco's harms was to "stay the course." Defendants continued to rely on the basic strategic formulations set forth in the mid-1950s. They continued to assert alternative causation theories (through arguments that had already been effectively refuted). Despite overwhelming evidence from a wide range of disciplines including statistics and epidemiology, pathology and chemistry, clinical observation, and animal experimentation, including their own observations, Defendants continued to claim "no proof" and continued to attempt to create doubt about the scientific findings.

140. Defendants intentionally exploited denial and rationalization by smokers. In a memo to Joseph F. Cullman of Philip Morris USA, George Weissman described how in response to the 1964 Surgeon General's Report "we must in the near future provide some answers which will give smokers a psychological crutch and a self-rationale to continue smoking." Among the "crutches" and "rationales" proposed to be offered to the smokers were questions of medical causation, "that more research is needed," and that there are "contradictions" and "discrepancies." 1005038559-8561 at 8559-8560 (U.S. Ex. 20,189).

141. On January 13, 1964, in a *Wall Street Journal* article, Defendants disputed the 1964 Report saying the Report "was not the final chapter," and that more research was still needed “Tobacco Industry Says More Research Is Needed: State Laws on Labeling Possible,” *Wall Street Journal*, January 13, 1964 (U. S. Ex. 21,377).

142. On March 6, 1964, the Tobacco Institute sent a press release announcing the reorganization of TIRC under its new name, CTR. This press release represented that CTR's research policy would be set by doctors and scientists independent of the tobacco industry. 508775085-5088 (U.S. Ex. 20,815)

143. In testimony on June 25, 1964 at a hearing of the Committee on Interstate and Foreign Commerce, Bowman Gray, Chairman of the Board of R.J. Reynolds, stated: "I believe . . . that nearly everyone familiar with these difficult problems would agree that there are large and basic areas where there is lack of knowledge, uncertainty, and where a great deal more research is essential before definitive answers can be made. Many distinguished scientists are of the opinion that it has not been established that smoking causes disease." He also informed Congress that Defendants would solve the health crisis: "If it is proven that cigarettes are harmful, we want to do something about it regardless of what somebody else tells us to do. And we would do our level best." 501935056-5071 at 5060 (U.S. Ex. 20,690); "Tobacco Industry Says More Research Is Needed: State Laws on Labeling Possible," *Wall Street Journal*, January 13, 1964, (U.S. Ex. 21,377).

144. In a newspaper article dated July 12, 1964, Horace Kornegay, the Chairman and President of the Tobacco Institute, declared: "There exists no definite proof that smoking cigarettes causes lung cancer or any other dreaded disease." TIMN013181-3181 (U.S. Ex. 88,779).

145. On August 17, 1964, CTR issued a press release quoting Little: "The fact remains that the knowledge is insufficient either to provide adequate proof of any hypothesis or to define

the basic mechanisms of health and disease with which we are concerned." MNAT00287815-7818 at 7815 (U.S. Ex. 21, 224).

146. On February 7, 1965, the *Binghamton Press* quoted a Tobacco Institute spokesman as saying that the link between smoking and disease is was still unproven despite the 1964 Surgeon General's Report. TIMN0104477-4478 (U.S. Ex. 21,484)

147. In June 1965, the Tobacco Institute's public relations campaign on issues of smoking and health was aptly dubbed in a confidential tobacco industry memorandum as the "chronology of confusion." The "chronology" was put together by Hill & Knowlton and notes that "TI and CTR publicized the industry stance on smoking and health in a variety of ways . . . none of which revealed the true hazards of smoking and all of which were intended to confound the issues (and the public)." 1003041092-1097 (U.S. Ex. 20,144).

148. Defendants continued to add to the "chronology of confusion" and continued to focus many of their efforts on the 1964 Report. On July 27, 1965, Paul D. Smith, a Philip Morris USA in-house attorney, sent a letter to David Hardy of the law firm Shook, Hardy & Bacon, providing a list of statisticians that could be used by the tobacco industry to discredit the Report. 2015033476-3477 (U.S. Ex. 36,643).

149. On December 29, 1965, the Tobacco Institute issued a press release stating that research had not established whether smoking causes disease and that it was still an "open question." The release went on to state that "[i]f there is something in tobacco that is causally related to cancer or any other disease, the industry wants to find out what it is, and the sooner the better." TIMN0123790-3793 at 3790 (U.S. Ex. 21,330).

150. On October 21, 1966, the Tobacco Institute issued a public statement to United States newspapers that stated that the tobacco industry knew "of no valid scientific evidence demonstrating that either 'tar' or nicotine is responsible for any human illness." TIMN0099040-9041 at 9040 (U.S. Ex. 21,550).

(g) Following Publication of the 1964 Report, the Scientific Community Continued to Document the Link Between Smoking and an Extraordinary Number of Serious Health Consequences

151. The medical literature is replete with extensive epidemiological studies, conducted over decades, comparing the disease and death rates of millions of smokers and nonsmokers. Every relevant population and demographic group has been examined. Examples of these studies are: American Cancer Prevention Study I and II; British Physicians Study; Dorn Study of U.S. Veterans; National Health Interview Study; Current Population Survey; and the Behavioral Risk Factor Survey. Expert Report of David M. Burns, United States v. Philip Morris, et al., (R. 664, filed November 15, 2001).

152. The science of epidemiology is well recognized as an integral part of medical science and a proper form of evidentiary proof. Expert Report of David M. Burns, United States v. Philip Morris, et al., 6-7 (R. 664, filed November 15, 2001).

153. Still more studies have examined the induction of cancers and abnormal pathology in animals, organ systems, and at the cellular and sub-cellular level. Expert Report of David M. Burns, United States v. Philip Morris, et al., 3 (R. 664, filed November 15, 2001).

154. The psychology of smoking behavior and the pharmacological addition to nicotine have all been extensively studied. Expert Report of David M. Burns, United States v. Philip

Morris, et al., 3 (R. 664, filed November 15, 2001).

155. These studies, performed by scientists for science, not for litigation, have been critically examined by blue ribbon scientific teams and peer reviewers to ensure accuracy and adherence to generally accepted scientific procedures. Expert Report of David M. Burns, United States v. Philip Morris, et al., 5 (R. 664, filed November 15, 2001).

156. This body of literature has been reviewed and presented in Reports of the Surgeon General on Smoking and Health published in 1964, 1967, 1968, 1969, 1971, 1972, 1973, 1974, 1975, 1976, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1988, 1989, 1990, 1992, 1994, 1998, 2000, and 2001. Expert Report of David M. Burns, United States v. Philip Morris, et al., 3-4 (R. 664, filed November 15, 2001).

157. Beginning with the first Report in 1964, the United States Public Health Service has followed the scientific consensus formation approach when producing a Report of the Surgeon General on Smoking and Health. The scientific community forms a consensus on issues of causation by reviewing all of the scientific evidence available; examining that evidence for its strength, consistency, coherence, temporal association and biological plausibility; and then reaching a judgment as to whether the data support a causal relationship between smoking and a disease. Expert Report of David M. Burns, United States v. Philip Morris, et al., 9-11 (R. 664, filed November 15, 2001).

158. The Surgeon General's Reports represent a state-of-the-art consensus of the scientific community on the extent of scientific knowledge about cigarette smoking at the time at which they are published. They are the product of a broad-based peer review process.

Widespread distribution to the scientific community ensures that the information reviewed in the process of preparing a Report is complete, that a wide variety of perspectives on the data are considered, that the causal judgments reached are sound and those of the mainstream of United States science, and that any potential confounding or biasing factors have been adequately accounted for in review. This process was followed in reaching conclusions about the causal relationships between cigarette smoking and cancer of the lung, cancer of the lip, cancer of the tongue, cancer of the mouth, cancer of the esophagus, cancer of the pancreas, cancer of the larynx, cancer of the bladder, cancer of the kidney, cardiovascular disease (coronary heart disease), atherosclerosis, aortic aneurysm, peripheral vascular disease, cerebrovascular disease, chronic bronchitis, emphysema and COPD, and these conclusions have stood the tests of time and review by a wide variety of scientific groups. Expert Report of David M. Burns, United States v. Philip Morris, et al., 7 (R. 664, filed November 15, 2001).

(h) Defendants Responded to the Scientific Consensus with a Determined Fraudulent Campaign Throughout the Late 1960s and Early 1970s

159. Defendants responded to the formation of scientific consensus throughout this period in the same way they had responded to the evidence that smoking caused lung cancer in the early 1950s: with a campaign of proactive and reactive responses to scientific evidence that were false and designed to mislead the public about the health consequences of smoking in furtherance of the goals of the Enterprise.

160. The literature published by the Tobacco Institute consistently argued that evidence implicating cigarettes and smoking as causes of disease remained hypothetical, limited and static.

161. In 1967, Defendants received feedback showing that their "open controversy" strategy was working. Through a focus group with smokers conducted by public relations firm Ted Bates for Lorillard, Defendants learned that

> because they are still smoking, smokers are compelled to feel the government has not proved its case. If they want to hear anything, it is reassurance that smoking does not cause lung cancer – not that there is a difference of opinion. Smokers agree that smoking is 'unhealthy' but don't translate this as meaning it causes lung cancer or any specific, potentially fatal disease. Smoking may cause shortness of breath, a cough, or even a shorter life – but they don't expect it to give them lung cancer.

92382009-2011 at 2010 (U.S. Ex. 21,554).

162. In a 1967 press release entitled "AT Refutes Anti-Cigarette Charges," American Tobacco Company announced it was distributing a booklet entitled "The Cigarette Controversy." The booklet purported to review research done over the prior fifteen years and concluded that, in the absence of medical evidence, "the question is still an open one." It was mailed to more than 140,000 stockholders of American. (U.S. Ex. 88,668).

163. In an address delivered on October 3, 1967, Paul D. Smith, Vice President and General Counsel of Philip Morris USA, stated: "The truth of the matter is this: No one knows whether cigarette smoking causes any human disease or in any way impairs human health." Smith also claimed that "[n]obody has yet been able to find any ingredient as found in tobacco or smoke that causes human disease." He also criticized the Public Health Service's accusations against tobacco and claimed that the public research community was biased due to influence from the distribution of federal funds. 2015068601-8612 at 8603 (U.S. Ex. 20, 337);

2010035814-5818 (U.S. Ex. 21, 603).

164. In November 1967, at the direction of outside lawyers David Hardy of Shook, Hardy & Bacon, and Ed Jacobs of Cabell, Medinger, Forsyth & Decker, the Tiderock Corporation, the Tobacco Institute's public relations firm, prepared an action plan entitled "The Cigarette Controversy." The action plan laid out the objective of influencing public opinion by designing specific initiatives to re-establish the "cigarette controversy." The program called for a position paper for intra-industry use as well as one in journalistic form. The plan included targeted categories for mailings such as the medical profession, scientists, communicators (press, radio, television), educators, top public figures, and 10,000 top corporate presidents. It also detailed the publication of magazine articles. 1005109086-9106 (.U.S. Ex. 20,211); TITX 0020537-0542 (U.S. Ex. 21,606); TIMN0070816-0821 (U.S. Ex. 20,703).

165. The Tobacco Institute placed an advertisement on November 21, 1967, which declared: "The Tobacco Institute has donated more than $20,000,000 for independent research to resolve this controversy. We are pledged to continue this effort, regardless of cost, until a definitive answer is found." TIMN0070973-0975 at 0975 (U.S. Ex. 21,612).

166. In 1968, the Tobacco Institute published a statement entitled "The Cigarette Controversy: An Examination of the Facts by the Tobacco Institute -- The Tobacco Industry's Contribution to Health Research." It declared:

> In order to help advance scientific understanding of the causes, as well as the means of preventing and controlling disease, the American tobacco industry has contributed millions of dollars for independent research on smoking and health. During the past thirteen years, the industry has supported over 300 independent health studies through the industry's Council for Tobacco Research

> - U.S.A. Do Cigarettes cause disease? In spite of all the debate – in spite of all of the research – that questions is still unanswered. The industry will continue to seek the truth in the continuing cigarette controversy.

TINY0006498-6601 at 6535-6536 (U.S. Ex. 87,056); TIMN0104765-4868 at 4802-4803 (U.S. Ex. 21, 613).

167. In March 1968, the *National Enquirer*, with a circulation of close to 1,000,000 at the time, published an article titled "Cigarette cancer link is bunk." The article did not indicate that it was written by anyone with ties to Defendants and the article appeared under the pen name of "Charles Golden." Later, a sportswriter named Stanley Frank conceded that he wrote the article. Frank was at the time an employee of Hill & Knowlton and he was paid $500 by the Tobacco Institute for the work. TIMN0070973-0975 (U.S. Ex.21,612).

168. Frank's article attacked the Surgeon General's report: "Very few people know however that 39 of the 49 medical experts who testified before the Senate and House Committees on Commerce the following year disagreed strenuously with the report. They charged that it was based on false interpretations of statistics. Only two of the dissenting experts were connected with the tobacco industry." The scientists that the article presented as not "connected with the tobacco industry" included Dr. Louis Clerf, who testified previously for Philip Morris USA as an expert in a civil cancer case, and Dr. Bernice C. Sachs, who cleared her testimony with Alexander Holtzman, counsel for Philip Morris USA. The article also indicated that $8 million in research grants from Defendants allowed scientists to state that "no one working on these or any other, projects throughout the world has isolated a substance in cigarettes or tobacco smoke that is a proven lung cancer inducing agent." TIMN0104765-4868 at 4802-4803 (U.S. Ex.

21,613); TINY0006498-6601 (U.S. Ex.87,056).

169. In accordance with the "The Cigarette Controversy" action plan developed by the Tiderock Corporation, the Tobacco Institute ordered millions of reprints of the Stanley Frank article (originally appearing in *True* magazine and the *National Enquirer*) for mass mailings and for use in response to inquiries from the public, many of which came from physicians (including a request for 400 copies for distribution to Purdue University medical students). The Tobacco Institute sent reprints of an article to over 500,000 opinion leaders at a cost estimated at $836,000. In April 1968, Lorillard, R.J. Reynolds, Philip Morris USA, and Brown & Williamson purchased reprints of the *True* article for further mailings. 690012994-2994 (U.S. Ex. 54,322); TIMN0016964-6982 (U.S. Ex. 21,564); TIMN0070262-0263 (U.S. Ex. 21,567); TIMN0070270-0270 (U.S. Ex. 21,569); TIMN0070309-0309 (U.S. Ex. 21,570); TIMN0070307-0307 (U.S. Ex. 21,571); TIMN0070275-0275 (U.S. Ex. 21,572); TIMN0070304-0304 (U.S. Ex. 21,574); TIMN0070274-0274 (U.S. Ex. 21,578); TITX0000190-0190 (U.S. Ex. 21,581); TIMN0070295-0295 (U.S. Ex. 21,589); TIMN0070301-0301 (U.S. Ex. 21,590); TIMN0070257-0257 (U.S. Ex. 21,591); TIMN0070324-0335 (U.S. Ex. 21,592); TIMN0071398-1401 (U.S. Ex. 21,301).

170. Later, when the FTC began an investigation into industry involvement in the *True* article, the Tobacco Institute's Vice President of Public Relations, William Kloepfer, falsely denied direct involvement or knowledge of payment for the freelance article or mailings of *True* article reprints. In actuality, the Tobacco Institute had instructed Tiderock in December 1967 to make a mass mailing of reprints before the article appeared. In an internal memorandum outlining the Tobacco Institute's involvement with the *True* article, Kloepfer noted with approval

that the Tobacco Institute's involvement in another article, "the Barron's editorial," was not uncovered: "It should be noted that our earlier project, the advertisement of the Barron's editorial, escaped noticeable rebuttal. The editorial will be remembered, however, as an independent criticism of government activity, with no reasonable suspicion possible that cigarette interests were responsible for its preparation." TIMN0070242-0243 (U.S. Ex. 21,661); TIMN0070816-0821 (U.S. Ex. 21,606); TIMN0016964-6982 (U.S. Ex. 21,564); TIMN0071398-1401 (U.S. Ex. 21,301); 1005112459-2461 at 2460 (U.S. Ex. 20,213); (U.S. Ex. 21,302); (U.S. Ex. 21,614); (U.S. Ex. 63,014).

171. An April 23, 1968 pamphlet of questions and answers represented the Defendants' views:

> Q: Has any important new evidence against cigarettes been reported in recent years?
> A: No. Cigarettes today are branded guilty on virtually the same kind of evidence that was considered insufficient only a few years ago.
>
> Q: Is smoking a health hazard?
> A: That question is still an open one. . . . At that time, most scientists considered the findings of these studies insufficient to prove a case against smoking. Since then, many other studies have been done. But there is still no proof that cigarette smoking is a cause of lung cancer- or any other disease.

502644592-4616 at 4595 (U.S. Ex. 20,703).

172. The Tobacco Institute's internal documents reveal the Cigarette Company Defendants' true intentions with respect to the Tobacco Institute's press releases and public statements. The Tobacco Institute's 1968 "Tobacco and Health Research Procedural Memo" states: "The most important type of story is that which casts doubt on the cause and effect theory

of disease and smoking. . . . [T]he headline should strongly call out the point – Controversy! Contradiction! Other factors! Unknowns!" TIMN00721488-1491 at 1489 (U.S. Ex. 21, 302).

173. On August 17, 1968, the *New York Times* quoted the Tobacco Institute as attacking a Surgeon General's task force for a "shockingly intemperate defamation of an industry which has led the way in medical research to seek answers in the cigarette controversy." 1002401761A-1761A (U.S. Ex. 20, 136).

174. On December 24, 1968, Shook, Hardy & Bacon authored the following statement for Joseph F. Cullman, Chairman of the Board of Philip Morris USA: "The cigarette industry recognizes its responsibility to the American people. It is anxious to seek the answer to the question of whether cigarettes are in fact the cause of any human disease. It is unfortunate that emotional propaganda against cigarettes has been permitted to suppress scientific inquiry and proof." Shook, Hardy & Bacon also asserted that statistical association "can never prove cause and effect." 1000313777-3779 at 3779 (U.S. Ex. 20, 093).

175. In 1969, the Tobacco Institute published an article entitled "Centuries-old Smoking/Health Controversy Continues," stating that the causes of cancer and heart disease were still unknown. The article stated that evidence concerning smoking and cardiovascular disease was, if anything, more confused than it was in 1964 and did not permit the conclusion that there was a causal relationship. A supporting article by Dr. Carl Seltzer of Harvard University was cited as "independent" support for the position, but Seltzer's work was not independent. He forwarded his draft article to the Tiderock Corporation, which forwarded it to the Tobacco Institute. It was also circulated to the General Counsel, Ad Hoc Committee, Chief Executives,

and Defendants' public relations representatives prior to publication. TIMN395434-5437 (U.S. Ex. 21,664); 1005036071-6071 (U.S. Ex. 88,783).

176. A February 3, 1969 CTR press release explained:

> The scientist who has been associated with more research in tobacco and heath than any other person declared today that there is no demonstrated causal relationship between smoking and any disease. The gaps in knowledge are so great that those who dogmatically assert otherwise – whether they state that there is or is not such a causal relationship – are premature in judgment. If anything, the pure biological evidence is pointing away from, not toward, the causal hypothesis. Statistical associations between smoking and lung cancer, based on study of those two factors alone, are not proof of causal relationship in the opinion of most epidemiologists.

670307882-7891 at 7882 (U.S. Ex. 21, 867).

177. On February 6, 1969, General Counsel for Philip Morris USA, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and members of the Committee of Counsel, approved as a special project the running of a copy of the foregoing press release under the headline: "How Much is Known about Smoking and Health." The ad was run in major newspapers around the country, advertising journals, and medical journals, including papers in Richmond, Raleigh, Knoxville, Nashville, Washington, New York, Louisville, Lexington and Columbia; in the eastern edition of the *Wall Street Journal, Advertising Age, Broadcasting, Editor and Publisher, Southern Advertising and Publishing, National Association of Retail Druggist Journal, Food Topics, VEND, Retail Tobacconist, Southern Tobacco Journal, Tobacco, Tobacco Distributor and Confectionary Guide, Tobacco Jobber, Tobacco Leaf, Tobacco Record, Tobacco Reporter, US Tobacco Journal, Medical World News, Medical Economics, and US Medicine*.

1005132848-2849 (U.S. Ex. 20,222); 1005153098-3099 (U.S. Ex. 20,227); TIMN243001-3001 (U.S. Ex. 87,057); TIMN0081698-1698 (U.S. Ex. 21,309); *The Wall Street Journal*, March 3, 1969 (U.S. Ex. 87,585); TIMN0000560-0561 (U.S. Ex. 21,874); TIMN0081695-1696 (U.S. Ex. 21,308); (U.S. Ex. 21,040).

178. Members of the Enterprise realized that they needed to change public opinion in order to sustain the viability of the tobacco industry even if there was no evidence to support their position. In an August 10, 1967 memo from J.S. Dowdell of R.J. Reynolds wrote to C.B. Wade of R.J. Reynolds, Dowdell acknowledged:

> **Despite the fact that the industry has very little, if any, positive evidence upon which to base the aggressive campaign necessary at this late date to materially change public opinion**, public attitudes can be changed. At least to the extent that the majority who now believe smoking is a proven cause of lung cancer could become doubtful; and, other who are now skeptical could be convinced that before the industry is further penalized more evidence is required. However, the unfavorable opinion on the hazards of smoking will remain definitely high, and will not shift in a favorable direction, until positive action is taken by the industry to counter the anti-smoking propaganda and publicity.

Dowdell advocated that the Tobacco Institute Executive Committee approve the 1967 Public Relations Program and begin an aggressive public relations campaign. 500006192-6194 at 6193 (emphasis added) (U.S. Ex. 47,761).

179. At the same time, an internal B&W document entitled the "Smoking and Health Proposal" explained: "Doubt is our best product since it is the best means of competing with the 'body of fact' that exists in the mind of the American public." 690010951-0959 at 0954 (U.S. Ex. 21,040).

180. In a 1969 B&W document prepared for public dissemination entitled "How Eminent Men of Medicine and Science Challenged the Smoking-and-Health Theory During Recent Hearings in the U.S. Congress," B&W stated that "the question of smoking and health remains an open, not a closed, issue." B&W also asserted that "[t]he cause of cancer in humans, including the cause of cancer of the lung, is unknown" and that "[t]he concept that cigarette smoking is the cause of the increase in lung cancer and emphysema is a colossal blunder." 650332832-2839 at 2833, 2835-2836 (U.S. Ex. 20,947).

181. In April 1969, the Tobacco Institute issued to the public a pamphlet, "The Cigarette Controversy, 8 Questions & Answers" presenting "facts" explaining that there is "controversy" surrounding the science of smoking and health that must be answered by further scientific research and public discussion. The pamphlet was written with the assistance of the law firm Shook, Hardy & Bacon and reviewed by CTR's Scientific Director Robert Hockett prior to publication. According to a letter from David Hardy, an attorney with Shook, Hardy & Bacon, this Tobacco Institute booklet was written to explain to the public the "reasons why representatives of the Cigarette industry contend that the case against cigarettes has not been proven [and that the] Tobacco Institute has felt it desirable to have some readable document to give them which spells out some of the unanswered questions." 1005152849-2896 (U.S. Ex. 20, 226); HK0108004-8004 (U.S. Ex. 21, 171).

182. On November 11, 1969, the Tobacco Institute published an advertisement – "All Advertising Should be Truthful – Reprint from Advertising Age – The Truth Seems a Little Twisted" – which attacked American Cancer Society and the American Heart Association

commercials regarding cigarette smoking risks. The advertisement attacked the statements of the organizations as untruthful and misleading; as wild, unsupported allegations that should not be permitted on the air. The Tobacco Institute ran these advertisements in newspapers in New York, Boston, Philadelphia, Washington, Chicago, Los Angeles and San Francisco and in issues of *Time, Newsweek*, and the *Wall Street Journal*. 1005132832-2832 (U.S. Ex.21,666); 1005132842-2842 (U.S. Ex. 21,667); 1005132840-2840 (U.S. Ex. 21,668); 005132841-2841 (U.S. Ex. 21,669).

183. By the 1970s, the die of denial was long since cast, and it proved impossible to shift Defendants' position of "no proof," "open question," and "controversy." Even as new data confirming the powerful harms of tobacco came to be understood and articulated, Defendants held fast to their position that the dangers of smoking had not been demonstrated.

184. In February 1970, the Tobacco Institute issued an announcement intended for publication titled "The Tobacco Institute Believes the American Public is Entitled to Complete, Authenticated Information About Cigarette Smoking and Health," with the subtitle "The American Cancer Society Does Not Seem to Agree." This announcement challenged information issued by the American Cancer Society at a February 5th press conference concerning a research project titled "The Effects of Cigarette Smoking Upon Dogs." TIMN0081949-1949 (U.S. Ex. 4,724).

185. In March 1970, the Tobacco Institute ran TV spots which stated: "Today we in this industry support more impartial research on the vital question of tobacco and health than any agency of the Federal Government and more than all of the voluntary agencies combined. We

have great confidence that the findings of this research will lead the way in providing fair and accurate information regarding cigarette smoking. Do Smokers have common sense? We in the tobacco industry believe they do, and that millions of reasonable and responsible men and women who smoke will not be misled by the campaign of fear that is conducted against smoking. We believe that these emotional charges are no substitute for objective facts gathered from research." 2010008819-8822 at 8820 (U.S. Ex. 20,300).

186. On April 22, 1970, a CTR press release titled "Studies Raise Questions About Smoking as Health Hazard" stated: "The deficiencies of the tobacco causation hypothesis and the need of much more research are becoming clearer to increasing numbers of research scientists." 500015901-5905 at 5902 (U.S. Ex. 47,778).

187. On April 30, 1970, the Tobacco Institute sent a press release that falsely claimed that the American Cancer Society had refused to release experimental data underlying the Auerbach/Hammond "smoking beagles" study (which discovered bronchial carcinoma in beagle dogs forced to smoke tobacco). T076378-6379 (U.S. Ex. 21,237)

188. On September 7, 1970, Dr. Sheldon Sommers, Scientific Director of CTR and Chairman of the SAB, asserted in an article entitled "Smoking and Health: Many Unanswered Questions": "I do not believe it has been scientifically established that cigarette smoking causes human disease," and "CTR is deeply committed to the search for answers." ZN16062-6065 at 6063, 6065 (U.S. Ex. 21,161).

189. Later that month, a Tobacco Institute advertisement stated: "After millions of dollars and over 20 years of research – The question about smoking and health is still a

question." 500004807-4809 at 4807 (U.S. Ex. 20,608).

190. In December 1970, the Tobacco Institute issued yet another statement, published as an advertisement in major American newspapers, this one titled "The Question about Smoking and Health Is Still a Question":

> A major portion of this scientific inquiry has been financed by the people who know the most about cigarettes and have a great desire to learn the truth . . . the tobacco industry. And the industry has committed itself to the task in the most objective and scientific way possible. 1115 reports in all. Through this work much valuable data have been produced about lung cancer, heart disease, chronic respiratory ailments and other diseases. However, there's still a lot more to be learned. There are eminent scientists who believe that the question of smoking and health is an open one and that research in this area must go forward. From the beginning, the tobacco industry has believed that the American people deserve objective, scientific answers. With this same credo in mind, the tobacco industry stands ready today to make new commitments for additional valid scientific research that offers to shed light on new facets of smoking and health.

But the eminent scientists in such pronouncements were never identified. Defendants widely distributed reprints of the advertisement and provided it to every Member of Congress with a personal letter from Kornegay, President of the Tobacco Institute. TIMN0081352-1352 (U.S. Ex. 21,305); 2010008873-8883 (U.S. Ex. 22,010); 1005132832-2832 (U.S. Ex. 21,666); 2010008871-8872 (US Ex. 36,509); 2010008873-8873 (US Ex. 22,010); 2010008874-8874 (US Ex 36,510); 2010008875-8875 (US Ex. 36,511); 2010008876-8876 (US Ex. 36,512); 201008877-8877 (US Ex. 36,513); 2010008878-8879 (US Ex. 36,514); 2010008880-8880 (US Ex. 36,515).

191. The Tobacco Institute published a shorter summary of the 1970 "Cigarette

Controversy" pamphlet in 1971 entitled "Smoking and Health: An Age-Old Controversy." This leaflet briefly stated the Cigarette Company Defendants' opinions on the questions of causation and the validity of the scientific research conducted to date. A November 9, 1973 Tobacco Institute memorandum regarded "Smoking and Health: An Age-Old Controversy" as a "good synopsis of the [1970] pamphlet" and a "shorter version of the industry stand on the cigarette controversy" that should "be put to good use." TIMN0121524-1527 (U.S. Ex. 21,710); TIMN0395428-5429 at 5429 (U.S. Ex. 21,365).

192. In 1971, the Tobacco Institute mailed a "backgrounder" in a three-ring binder to 1,065 chief editorial writers. The backgrounder was also sent to members of the National Association of Science Writers. The Tobacco Institute Backgrounder consisted of five parts: (1) Smoking and the nonsmoker; (2) The counter evidence (which cited many CTR Special Project recipients); (3) Smoking and Pregnancy (which emphasized the purported inconclusiveness of the evidence and attempted to explain how different surveys could be used to reach conflicting conclusions); (4) Some Facts About Tobacco; and (5) Vital Statistics – How Accurate are they? TIMN0263390-3393 (U.S. Ex. 62,868); TIMN0121463-1646 (U.S. Ex. 21,715).

193. In 1971, the Tobacco Institute revised and republished another edition of "The Cigarette Controversy - Eight Questions and Answers." It was distributed by direct mail to physicians, librarians, newspaper and magazine editors, Members of Congress and their top aides, members of public relations groups, medical school faculties, leading tobacco growers and executives of industry supplier firms, other United States business leaders, college and university presidents and department heads, science writers, and business and financial writers

and securities analysts. Copies were also mailed to a large list of ministers. The mailing went to nearly 350,000 persons. It was sent to over 300 radio and TV station managers together with a sixty second announcement. 1005111528-1575 (U.S. Ex. 20,212); 690014815-4838 (U.S. Ex. 21,041); TIMN0080470-0477 (U.S. Ex. 21,716); 03768320-8337 (U.S. Ex. 20,064); TIMN0263390-3393 (U.S. Ex. 62,868).

194. Defendants' executives also continued to insist in the 1970s, as they had in the 1950s, that "if and when" any harmful elements were identified in cigarettes, they would take necessary steps to remove them.

195. On January 3, 1971, Joseph Cullman III, President of Philip Morris USA, explained in a "Face the Nation" TV interview:

> [T]his industry can face the future with confidence because when, as, and if any ingredient in cigarette smoke is identified as being injurious to human health, we are confident that we can eliminate that ingredient. We do not believe that cigarettes are hazardous; we don't accept that. But we are working with the government, working very hard with the government, on various methods of ascertaining whether or not cigarettes can be found hazardous. . . . I believe they have not been proved to be unsafe.

1002605545-5564 at 5550, 5560 (U.S. Ex. 35,622); 690003632-3650 at 3636, 3646 (U.S. Ex. 21,038).

196. During the same televised interview, Cullman falsely denied that cigarettes are hazardous or pose a hazard to pregnant women or their infants. His statement was directly contrary to what he had been informed by Helmut Wakeham, Philip Morris USA's Vice President for Corporate Research and Development, two years earlier. 1002605545-5564 at 5561-62 (U.S. Ex. 35,622); 690003632-3650 at 3647-48 (U.S. Ex. 21,038); 1000211305-1305 (U.S. Ex.

20,080).

197. In an effort to detract attention from smoking as a cause of disease, Defendants pointed to other possible causes. On January 1, 1971, a Tobacco Institute press release, contained statements criticizing public health efforts, suggesting to the public that not enough was being done to investigate incidents of lung cancer in non-smokers. The press release stated "[t]hat thousands of lung cancer victims who have never smoked cigarettes [are] being neglected by expensive propagation of myths instead of scientific knowledge." TIMN0123716-3720 at 3717 (U.S. Ex. 21,328).

198. A January 3, 1971 Tobacco Institute press release quoted Tobacco Institute President Horace Kornegay: "Any organization in a position to apply resources in the search for those keys [to the 'locked door' to the 'statistical path' that links smoking to ill health] – and which fails to do so – will continue to be guilty of cruel neglect of those who it pretends to serve." In this statement, Kornegay told the public that the cigarette company defendants planned to provide more than $4 million for independent scientific research. 2001052715-2718 at 2718 (U.S. Ex. 21,719).

199. A May 25, 1971 Tobacco Institute press release again publicly denied any links between smoking and health. In this press release, Defendants represented that "many eminent scientists" believe that "the question of smoking and health is still very much a question." TIMN0131768-3769 at 3769 (U.S. Ex. 21,337).

200. In November 1971, R.J. Reynolds requested and received from the Tobacco Institute 1,000 copies of the pamphlet "Smoking/Health An Age Old Controversy" for use in

responding to inquiries from children about smoking and health. Again in February 1973, 500 more copies were requested for the latest printing, again for responding to school children. TIMN0121524-1527 (U.S. Ex. 21,710); 500005148-5148 (U.S. Ex. 21,323); 500013882-3882 (U.S. Ex. 20,611).

201. On November 15, 1971, the Tobacco Institute stated in a press release that smoking is not harmful to pregnant women. They claimed that many doctors believe that the "question of smoking and health is still an open one." TIMN0100469-0470 at 0469 (U.S. Ex. 21,687).

202. In the January 24, 1972 issue of the *Wall Street Journal*, Philip Morris USA's Senior Vice President James Bowling declared that "[i]f our product is harmful . . . we'll stop making it. We now know enough that we can take anything out of our product, but we don't know what ingredients to take out." Bowling further stated that "[w]e don't know if smoking is harmful to health, and we think somebody ought to find out." 500324162-4164 at 4163 (U.S. Ex. 20,627).

203. On February 1, 1972, the Tobacco Institute issued a press release declaring that "[t]he cigarette industry is as vitally concerned or more so than any other group in determining whether cigarette smoking causes human disease, whether there is some ingredient as found in cigarette smoke that can be shown to be responsible, and if so, what it is," and that "despite this effort the answers to the critical questions about smoking and health are still unknown." 500324162-4164 at 4163 (U.S. Ex. 20,627).

204. Defendants vilified reports demonstrating the adverse health effects of smoking.

A press release asserted that the 1972 Surgeon General's Report "insults the scientific community" and that the report was "another example of 'press conference science' -- an absolute masterpiece of bureaucratic obfuscation." The press release further asserted that "the number one health problem is not cigarette smoking, but is the extent to which public health officials may knowingly mislead the American public." TIMN0120602-0603 at 0602 (U.S. Ex. 21,322).

205. In a Tobacco Institute press release on February 1, 1972, President Horace Kornegay stated that "[t]he cigarette industry is as vitally concerned or more so than any other group in determining whether cigarette smoking causes human disease . . . and that despite this effort the answers to the critical questions about smoking and health are still unknown." TIMN0120596-0597 at 0596 (U.S. Ex. 21,321).

206. The reason behind the Tobacco Institute's public statements is explained by a 1972 Tobacco Institute internal document, which stated: "In cigarette controversy, the public – especially those who are present and potential supporters (e.g. tobacco state congressmen and heavy smokers) – must perceive, understand and believe in evidence to sustain their opinions that smoking may not be the causal factor." 87657703-7706 at 7705 (U.S. Ex. 21,098).

207. After the publication of "The Cigarette Controversy," the Tobacco Institute published a series of classified advertisements in various magazines, inviting readers to request copies of the pamphlet. For example, on November 6, 1972, the Tobacco Institute ran an advertisement in *The Nation* that stated "YOU HAVE A RIGHT TO A FULL DISCUSSION ABOUT smoking and health. The Cigarette question is still a question. Send for free booklet 'The Cigarette Controversy'." TIMN0124460-4460 (U.S. Ex. 21,333).

208. The Tobacco Institute published a 1974 version of "The Cigarette Controversy" and continued to argue that objective research was needed to explore questions about smoking and health. The Tobacco Institute stated that a causal relationship between smokers and illness or death had not been established and that such claims were unproven. Over one million copies were in print by the end of the year. TIMN0017604-7612 (U.S. Ex. 23,020); TIMN217628-7639 (U.S. Ex. 21,263).

209. In a 1975 marketing document, B&W acknowledged the necessity of continuing the "open controversy" strategy, for the company discovered that: "Smokers perceive cigarette smoking as dangerous for one's health. However, they continue to smoke. Thus, they are faced with the fact that they are behaving illogically. They respond by providing either a rationalization for smoking or by repressing their perceptions of the dangers involved. . . . The advertising must also cope with consumer attitudes about smoking, providing either a rationale or a means of repressing the health concern." 680113760-3763 at 3762 (U.S. Ex. 20,987).

210. On April 7, 1975, the Tobacco Institute produced a pamphlet: "True? False? Tobacco Facts," which was sent out under various state tobacco trade associations. Over 10,000 copies were mailed to these groups. Each carried the following statement: "This leaflet is presented to aid full, free and informed discussion of the smoking and health controversy in the public interest and in the conviction that the controversy must be resolved by scientific research." The Tobacco Institute ordered 35,000 copies for itself. R.J. Reynolds requested 10,000 copies alone. The material was edited and republished in 1979 and 1982. TIMN0083360-3360 (U.S. 21,310); TIMN0083361-3368 (U.S. Ex. 87,058); TIMN0083371-3371 (U.S. Ex. 87,059);

TIMN0083397-3397 (U.S. Ex. 21,761); TIMN0083401-3401 (U.S. Ex. 21,311); TIFL0069486-9488 (U.S. Ex. 21,262).

211. These materials, and the entirety of Defendants' fraudulent campaign, took public positions that were both extraordinarily uniform in content as a result of Defendants' coordination, and directly contrary to Defendants' internal assessments, which recognized that smoking caused disease.

(i) Defendants' Internal Documents and Research from the 1960s, 1970s, and Beyond Show Their Continued Recognition of the Health Effects of Cigarette Smoking

212. Defendants knew there was a consensus in the scientific community that smoking caused lung cancer and other diseases, yet they publicly insisted on the idea of a scientific controversy and disputed scientific findings knowing that their assertions were false. Defendants continued to make claims of an "open question" in rigid adherence to the strategy conceived by the Enterprise in late 1953. All of these claims were made with reckless disregard for the truth or falsity of matters asserted.

213. In a memorandum dated October 24, 1963, Wakeham wrote to Hugh Cullman, President and CEO of Philip Morris USA, warning him of future areas of attack and stating that the health community at that time was overlooking the dangers of nitrosamines, carbonates and other carcinogenic components of tobacco smoke. Referring to the link between smoking and chronic bronchitis and emphysema, Wakeham explained that "experts have predicted that the cigarette industry may be in greater trouble in this area than in the lung cancer field." 2002242310-2312, at 2312 (U.S. Ex. 21,910).

214. Following the 1964 Surgeon General's Report, a report by Wakeham noted that "little basis for disputing the findings [of the 1964 Surgeon General's Report] at this time has appeared" and that the report reflected a "professional approach" to the matter of smoking and health. However, Philip Morris USA continued to maintain – for another forty-five years – its public position that the causal link between smoking and health was an "open question." Philip Morris USA and the other Defendants attacked the Report with reckless disregard for the truth or falsity of their assertions. 1000335612-5625 at 5615 (U.S. Ex. 22,986).

215. According to a February 1964 report prepared by Alan Rodgman at R.J. Reynolds, "[t]he known composition of tobacco smoke is not inconsistent with the biological findings that cigarette smoke is carcinogenic and ciliastatic." 504912643-2713 at 2705 (U.S. Ex. 20,736).

216. Another of Rodgman's February 1964 reports indicated that all of the data acquired by R.J. Reynolds's studies found the same "biological, pathological, or statistical data indicting cigarette smoke as a health hazard." 504912643-2713 at 2705 (U.S. Ex. 20,736).

217. In August 1964, Rodgman recognized in an internal R.J. Reynolds document: "Many nitrosamines [substances in tobacco smoke] have been shown to be carcinogenic for different organs in several species of animals. As nitrosamines are formed by the reaction of oxides of nitrogen with secondary amines, it is possible that cigarette smoke could contain nitrosoanabasine and nitrosonornicotine. Nitroanabasine, which is a derivative of the carcinogenic nitrosopiperidine, has now produced many tumors of the esophagus when given orally to rats." 501013277-3277 (U.S. Ex. 20,670).

218. A report written in October 1964 by British tobacco scientists entitled "Report on

Policy Aspects of the Smoking and Health Situation in U.S.A." stated that "[b]oth [Liggett] and Lorillard scientists told us quite bluntly that they considered TRC [the British trade group] research was on the correct basis and CTR largely without value." The report explained that R.J. Reynolds, American, and B&W criticized the TRC approach to bio-assay research on three grounds: (1) "It constituted an implied admission that tobacco contained health hazards," which could be damaging in law suits; (2) mouse skin painting with smoke condensate, according to Little, was scientifically unsound and based on a fallacy (though CTR had contracted with Bio-Research Inc. for research of this type); and (3) it could present the United States' manufacturers in a bad light to the public since they could be represented by hostile writers as being negligent of public health in comparison with British manufacturers. 1003119099-9135 at 9115 (U.S. Ex. 20,152).

219. In 1966, in a semi-annual report on Philip Morris USA's "Project 6900," exploring the biological activity – carcinogenicity, mutagenicity, cytotoxicity, etc. – of tobacco smoke, Project Director Peter C. Luchsinger noted that "cigarettes will most likely be implicated as one of the causative agents in emphysema and bronchitis." Luchsinger noted that in a series of long-term primate experiments financed by Philip Morris USA, monkeys that were forced to inhale smoke had a higher rate of emphysema than those in a non-smoking control group. Project 6900 included other experiments with smoking rodents, cats and other animals to determine whether lung function was differently disabled by different types of cigarettes. Luchsinger's report, never released to the public and marked "[n]ot to be taken from this room," concluded that "gross lung pathology can be induced by smoking cigarettes." 100341400-1414 at 1406 (U.S. Ex. 20,095).

220. A May 1967 report on "Project 6900" described further tests with mice, pigs, monkeys and cats, concluding that filtered smoke was "no less tumorigenic than nonfiltered smoke." 1000342063-2073 at 2065 (U.S. Ex. 20,096).

221. In January 1967, outside counsel Ed Jacob of the law firm Cabell, Medinger, Forsyth & Decker (a firm that represented R.J. Reynolds and CTR) met with Dr. Arthur Furst, a CTR Special Project funding recipient. Furst informed Jacob that there is a dose response relationship between nickel added to cigarettes and tumors in mice. Jacob falsely and without any basis claimed that the relationship had not been demonstrated but was a statistical artifact resulting from using different mice at different times. 1005137411-7413 (U.S. Ex. 20, 225).

222. On June 20, 1967, G.F. Todd of the Tobacco Research Council (the British counterpart to TIRC/CTR) wrote to Addison Yeaman, Vice President and General Counsel of Brown & Williamson, expressing frustration at having to keep two sets of books due to the paradox that while Defendants refused to admit publicly any health effects of smoking, senior scientists at the Tobacco Research Council actually did "accept the causation" evidence: "The real difficulties that we encountered arose out of the unavoidable paradox at the center of our operations – namely that, on the one hand the manufacturers control TRC's operations and do not accept that smoking has been proved to cause lung cancer while, on the other hand, TRC's research program is based on the working purposes. In addition, the Council senior scientists accept that causation theory. We have not yet found the best way of handling this paradox." LG0298943-8944 at 8943 (U.S. Ex. 36,267).

223. Wakeham informed Philip Morris USA executives on January 10, 1969, that

"[n]ow we have a study of the effect of smoking in pregnancy which supports previous conclusions that smoking mothers produce smaller babies," and that the medical field recognized that "smaller babies suffer detrimental effects all through life," including "lower intelligence test scores at age 10." 1000211305-1307 at 1306 (U.S. Ex. 20,080).

224. A 1969 Phillip Morris USA memorandum revealed: "A review of recent mouse skin painting data from the Harrogate Laboratories appearing in progress reports of the Tobacco Research Council (Great Britain) indicates strong support for previously published data on the following points: Cigarette smoke condensate painted on the backs of mice over a two-year period produces tumors in numbers proportionate to the amount of condensate applied. In other words, the dose-response relationship is clearly being followed in these experiments." 2025010581-0583 at 0591 (U.S. Ex. 20, 405).

225. In the 1960s, R.J. Reynolds established a facility in Winston-Salem, North Carolina, to research the health effects of smoking using mice. In this facility, nicknamed the "Mouse House," R.J. Reynolds scientists researched a number of specific areas, including studies of the actual mechanism whereby smoking causes emphysema. Internally, an R.J. Reynolds-commissioned report favorably described the Mouse House work as the most important of the smoking and health research efforts because it had come close to determining the underlying mechanism of emphysema. Deposition of Joseph E. Bumgarner, State of Texas v. American Tobacco Company, November 11, 1996, 32:9-33:12.

226. Research done in R.J. Reynolds's science and health group was routinely withheld from the scientific community: scientists were forbidden both to discuss and publish their

findings. Deposition of Joseph E. Bumgarner, State of Texas v. American Tobacco Company, November 11, 1996, 35:3-38:18.

227. In March 1970, the "Mouse House" group was informed by its supervisor that the legal department had requested their lab notebooks. Dr. Nystrom initially told them the notebooks would be returned, but they were not. Dr. Colucci later informed them that the notebooks had been accidentally destroyed in the legal department. During the tenure of Joseph Bumgarner, a scientist at R.J. Reynolds, no one ever told him that the notebooks had been retained, until 1992 when he was summoned by the law firm Womble Carlyle to verify that the notebooks one of their attorneys had belonged to him. Deposition of Joseph E. Bumgarner, State of Texas v. American Tobacco Company, November 11, 1996, 38:19-44:4, 241:18-22; 257:11-17.

228. On the day the "Mouse House" was disbanded, twenty-six people were called into a conference room, including individuals who had been out on travel who were called to return. Management representatives Murray Senkus and Ed Vassallo were there. With the exception of a few technicians, everyone was terminated. Bumgarner testified that Mr. Vassallo said that the terminations were not a reflection on their work, but that economic reasons caused a change in the direction of the company. Deposition of Joseph E. Bumgarner, State of Texas v. American Tobacco Company, November 11, 1996, 44:5-53:24.

229. Included in the remarks drafted for use by Dr. Senkus and Mr. Vassallo in discussing the termination with R.J. Reynolds employees, are the following statements:

> ...the primary result of this reorganization is to put even greater emphasis on research useful to our tobacco, food, packaging and

> containerized operations, and to eliminate research programs which are no longer appropriate to corporate needs, objectives and strategies."

515384976 (U.S. Ex. 88,655).

> "[t]he rules of termination notice and pay for the professionals who will be leaving the Research Department are special for the situation and will be discussed with each individual by George Cook or Alan Kirby.

515384979-4979 (U.S. Ex. 88,656).

230. When the scientists were dismissed they were reminded that they had signed confidentiality agreements that meant they were not to discuss company processes or secrets with competitors. Deposition of Joseph E. Bumgarner, State of Texas v. American Tobacco Company, November 11, 1996, 44:5-53:24.

231. Bumgarner testified that he disagreed with a statement made my R.J. Reynolds scientist Sam Simmons that the group was not at the point of doing valid experiments. He believes that their work was on the cutting edge of science and given time it might have identified a mechanism or specific chain of events that leads to the onset of lung disease. Bumgarner testified that they had state of the art equipment and a clear mission–to determine whether smoking caused emphysema. Deposition of Joseph E. Bumgarner, State of Texas v. American Tobacco Company, November 11, 1996, 53:25-54:11.

232. R.J. Reynolds was well aware that smoking was linked with emphysema. Bumgarner testified that he had seen slides from within his group comparing normal lung tissue with exposed lung tissue that was showing signs of emphysema. After exposure the animals suffered weight loss and changes in metabolism of lipids both in surfactant and in lung and liver.

Cytology–the study of cell structure–showed abnormal cell structure change from the smoke. Bumgarner further testified that he understood that ciliastasis (the cilia stopping from its function of clearing foreign material from the bronchial portion of the lung) was produced. To his knowledge, emphysema was produced in rats. Deposition of Joseph E. Bumgarner, State of Texas v. American Tobacco Company, November 11, 1996, 63:17-66:8, 68:11-68:20.

233. Prior to the scientists' notebooks being seized, no one in management had ever reprimanded them or challenged the quality of their work. Bumgarner believes that they were fired because what they were working on was subject to subpoena. Deposition of Joseph E. Bumgarner, State of Texas v. American Tobacco Company, November 11, 1996, 53:25-71:10.

234. By 1969 R.J. Reynolds had a plan to carry out studies to examine the lungs of animals to see if they could detect changes in chemical metabolism that would relate to the diseased state. Scientists had started that phase, but were interrupted by the seizure of their lab notebooks and subsequent termination. Prior to the seizure of the notebooks, the scientists' data was reflecting observed changes in metabolism, which are often indicators of existing or potential pathology. Deposition of Joseph E. Bumgarner, State of Texas v. American Tobacco Company, November 11, 1996, 73:4-81:4.

235. The scientists' lab notebooks that were taken represented the permanent records of their data, observed facts and events. There was nothing in the notebooks relating to legal matters, and the notebooks had never previously been reviewed by the legal department. Deposition of Joseph E. Bumgarner, State of Texas v. American Tobacco Company, November 11, 1996, 73:4-81:4.

236. R.J. Reynolds knew that epidemiology showed that there was a higher rate of emphysema in smokers and did research in order to find a mechanism to explain that. Rabbits were used in these experiments. One hypothesis tested was that smoke affected basic lipid metabolism in the lung, which, in turn, would affect the production of lung surfactant (a secretion of lipid-based film that coats the interior of the alveolar sacs). This process was thought to lead to emphysema. Deposition of Joseph E. Bumgarner, State of Texas v. American Tobacco Company, November 11, 1996, 129:17-131:14; 181:8-14.

237. That R.J. Reynolds's scientists had produced emphysema in chronic-smoke-exposed rats was known to Philip Morris USA. In a 1969 Philip Morris USA document concerning the biological research program at the Mouse House and the links it showed to smoking and disease, a Philip Morris USA scientist wrote: "I met Dr. Price from R. J. Reynolds at the CTR-USA meeting of December 11 and 12, 1969. He mentioned doing chronic cigarette smoke exposure studies with rats. The animals received up to 500 cigarettes and emphysema was produced." 1001882748-2749 at 2748 (U.S. Ex. 26,123).

238. R.J. Reynolds knew that exposing rabbits to tobacco smoke led to: slowing of heartbeat during puffs, decrease in pulse pressure, increased number of goblet cells, alveolar collapse, erythema of nasopharynx, acute pulmonary edema, erythema, endocardial hemorrhage, kidney disease, bronchial hyperplasia, emphysema, epithelial hyperplasia, bronchial edema, bronchiolar plugs, and gross lesions on lungs. 515384994-4999 (U.S. Ex.87,983).

239. According to lab notes from the Biologic Research Division's Chronic Smoking Studies at R. J. Reynolds, "[i]t appears that 6 to 7 months of smoking at a rate of 4 to 6 cigarettes

[Winston 85mm Filter Kings] per day may be sufficient to eleict [sic] changes in lung tissue of the rabbit." XRJ0030220-0220 (U.S. Ex. 87,984).

240. In 1970, Philip Morris USA's President complained to R.J. Reynolds about the work going on in the Mouse House. Despite the progress made there, R.J. Reynolds responded to the complaint by closing the Mouse House -- disbanding in one day, without notice to the staff, the entire research division, firing all twenty-six scientists at the Mouse House, and destroying years of smoking and health research. 110315968-5971 (U.S. Ex. 26, 378).

241. Scientists working for Cigarette Company Defendants also recognized the validity of research conducted by Dr. Oscar Auerbach with smoking beagles in the 1960s and early 1970s.

242. Principal Philip Morris USA scientist Raymond Fagan sent a memorandum to Wakeham, then Philip Morris USA's Research Director, on "Auerbach's Smoking Beagles" that described his visit to Auerbach's laboratory to observe a smoking dog and evidence slides. Fagan observed: "I would say that the experiment is a crude one but effective in that carcinoma in dogs has been produced. . . . The crux of the situation is whether there is general agreement by qualified pathologists that carcinoma . . . has indeed been produced. And even if the cancer production is invalidated the obvious emphysema produced cannot be denied." 1000837391-7392 at 7392 (U.S. Ex. 20,109).

243. On January 7, 1969, Wakeham informed his superiors at Philip Morris USA that "scientific findings suggest that inhalation of fresh cigarette smoke may enhance carcinogenesis." 682011667-1671 at 1668 (U.S. Ex. 21, 021).

244. On April 4, 1970, a company researcher wrote his managing director of Gallaher Ltd. (American Tobacco Company's British-based sister company) a confidential memo titled "Auerbach/Hammond Beagle Experiment" describing Auerbach's research as "undoubtedly a significant step forward. . . . We believe that the Auerbach work proves beyond reasonable doubt that fresh whole cigarette smoke is carcinogenic to dog lungs and therefore it is highly likely that it is carcinogenic to human lungs." The research manager continued, "[t]he results of the research would appear to us to remove the controversy regarding the causation of the majority of human lung cancer," and "[t]o sum up, we are of the opinion that Auerbach's work proves beyond all reasonable doubt the causation of lung cancer by smoke." 321993992-3995 at 3992, 3994 (U.S. Ex. 21,688).

245. After a review of a presentation before the Tobacco Working Group, Lorillard's Alexander Spears admitted that "[t]he slides (shown by Auerbach) represented obvious lung pathology with increased cellular proliferation with smoke exposure." Deposition of Alexander W. Spears III, Cippolone v. Liggett, (D.N.J.), July 26, 1984, 190:1-191:25.

246. According to Spears, a CTR study in the late 1960s or early 1970s produced tumors in the respiratory tracts of animals exposed to cigarette smoke. In a 1984 deposition, Spears disputed the CTR research results, blaming the tumors on viral infections unrelated to smoke. Deposition of Alexander W. Spears III, Cippolone v. Liggett, (D.N.J.), July 26, 1984, 190:1-191:25.

247. Wakeham realized how hard it was to restrict research to the narrow scope required by Defendants' governing myth of "no evidence of harm." In a 1970 memorandum to

Philip Morris USA Chairman Hugh Cullman, Wakeham indicated: "Let's face it. We are interested in evidence which we believe denies the allegation that cigarette smoke causes disease. If the CTR program is aimed in this direction, it is in effect trying to prove the negative, that cigarette smoking does not cause disease. Both lawyers and scientists will agree that this task is extremely difficult, if not impossible." 2022200161-0163, at 0161 (U.S. Ex. 21,705).

248. A November 1970 memorandum from Claude Teague to E.E. Vassalo made clear that R.J. Reynolds had engaged in research concerning smoking and health, including animal studies, but further stated that it would try to avoid any future research on smoking and health by farming such research out to industry fronts like CTR:

> Yes, we have from time to time in the past, in various circumstances, performed animal experiments in the smoking-health area, in our laboratories. These have been short-term investigations made for various purposes such as: (1) monitoring of experiments published in the scientific literature, (2) evaluation of competitive products alleged to offer advantages to the consumer; and development, on behalf of the tobacco industry, of basic instrumentation for use by independent scientists engaged in basic research on the biological effects of smoking. Currently, we have neither staff nor facilities for performing animal experiments, and no further experiments are planned unless special circumstances arise which may require them. This, of course, reflects our basic consistent conviction the massive, collaborative industry-wide support of long term basic research by independent scientists and scientific organizations already expert in their fields is the most important and effective means for establishing fundamental scientific facts in the area of smoking and health. Thus, we continue our full support of the Council for Tobacco Research-USA, and the research programs of the Amercian Medical Association.

500020977-0978 at 0977 (U.S. Ex. 20, 613).

249. CTR and its executives were also aware that Defendants' public statements were

false. Robert C. Hockett, CTR's Scientific Director, recognized in 1971 that benzo(a)pyrene, a chemical carcinogen, was easily detected in cigarette smoke. 502859720-9739 (U.S. Ex. 20,707).

250. Defendants also reviewed outside research that confirmed that smoke constituents were carcinogenic. A February 14, 1973 research report distributed to Defendants and their outside law firms linked smoking to cancer. The report, titled "Research Report re: Cigarette Smoke Condensate Preparation and Dermal Application to Mice," was prepared by Hazelton Laboratories and submitted to American, Brown & Williamson, Liggett, Lorillard, Philip Morris USA, R.J. Reynolds, and the law firm of Covington & Burling. It reported that "97 of the 100 mice developed gross lesions in the skin in the area of dermal applications of benzo(a)pyrene." Examination indicated that these were squamous cell carcinomas. 501547434-7448 at 7444 (U.S. Ex. 20,682).

251.

516966953-6953 (U.S. Ex. 79,297) (Confidential).

252. In 1970, Sir Richard Dobson, Director of BATCo, stated that "[c]igarettes in moderation do more good than harm." "Men and Matters," *The Financial Times*, March 20, 1970 (U.S. Ex. 86,875).

253. A July 21, 1970 letter from B&W outside counsel Shook, Hardy, Ottman, Mitchell & Bacon to B&W General Counsel Debaun Bryant, reveals that B&W was concerned that statements of B&W and BAT employees, "which appear to demonstrate a belief on the part

of company personnel that cigarette smoking has been established as a general health hazard or a cause of some particular disease or diseases," would expose B&W and BAT to smoking and health litigation. As examples, the letter discusses statements memorialized in the minutes of a conference at Kronberg, Germany, held from June 2 through 6, 1969 that was attended by both BAT and B&W researchers. It was David Hardy's opinion that such statements "constitute a real threat to the continued successful defense of smoking and health litigation." The letter also discusses additional concern stemming from the existence of a "'BAT/B&W Cost & Risk Pooling Agreement' executed in July 1969." 681805313-5319 at 5313, 5314, 5316 (U.S. Ex. 30,935).

254. In 1974, David Hardy of Shook, Hardy & Bacon advised BATCo against admitting to the public what its scientists knew internally, that smoking causes disease. At the time, BATCo was considering placing a warning on cigarette packages sold in England – with no government attribution – that stated that smoking "causes lung cancer, bronchitis, heart disease." In a letter addressed to BATCo, Hardy advised that this admission of fact would impede the defense of smoking and health litigation in the United States. He wrote:

> The proposed new warning removes the attribution of the warning to "H.M. Government," and instead appears to be a voluntary and direct admission by the cigarette manufacturer that the cigarettes contained in the package cause "lung cancer, bronchitis, heart disease." A wholly owned subsidiary of the manufacturer would, in our opinion, be adversely and prejudicially effected by such a voluntary warning even though it is a separate entity.
> . . . .
> Once the fact and content of the warning got before a jury in the United States in a case involving the subsidiary, the defense of "no proof of causation" would be lost for all practical purposes. Such a result would indeed be unfortunate in view of the fact that in every instance where the matter has been explored in our Court through expert testimony and otherwise, the cigarette manufacturer has

prevailed.

110318156-8157 (U.S. Ex. 34,974).

255. Similarly, a January 1, 1976 letter from B&W Vice President and General Counsel, Ernest Pepples, to BATCo General Counsel, H.A. Morina, discusses B&W's concern that voluntary consent by BAT to bring additives under the Tobacco Medicine Act would prejudice B&W, because it could attribute to B&W knowledge of specific hazards, which would badly weaken B&W's litigation position. MNATPRIV00023457-3457 (U.S. Ex. 86,869).

256. BATCo senior scientist S.J. Green questioned the logic of the Defendants' stance on smoking and health in the light of its knowledge, stating in an October 27, 1976 memorandum entitled "Cigarette Smoking and Causal Relationships":

> The problem of causality has been inflated to enormous proportions. The industry has retreated behind impossible demands for "scientific proof" whereas such proof has never been required as a basis for action in the legal and political fields. Indeed if the doctrine were widely adopted the results would be disastrous. . . . It may therefore be concluded that for certain groups of people smoking causes the incidence of certain diseases to be higher than it would otherwise be.

1099384433-8436 at 8433, 8436 (U.S. Ex. 20, 267).

257. Green developed a "Safety Index for Cigarettes." His model included the following assumptions: "Cardiovascular disease is caused to the extent of 15% of all such deaths by cigarette smoking," "95% of all lung cancer deaths are caused by smoking," and "[b]ronchitis deaths are caused in 20% of the cases by smoking cigarettes." He explained: "This is merely an example of what such an index would involve and the sort of assumptions which must necessarily be made or implied. I think it demonstrates clearly that it is not a path we should

encourage anyone to follow at present." 110069816-9819 at 9816 (U.S. Ex. 21,403).

258. Undated draft notes to a BATCo memorandum, found in Green's files recognized that: Cigarettes of substantially reduced biological activity (SRBA) can be made by product modification and will continue to present a range of marketing opportunities. By SBRA is meant cigarettes where epidemiology would show no greater incidence of disease for smokers than non-smokers. But there remains a need for credible biological tests to facilitate developments. Green admitted: "There has been no change in the scientific basis for the case against smoking. Additional evidence of smoke-dose related incidence of some diseases associated with smoking has been published. But generally this has long ceased to be an area for scientific controversy." 110078609-8609 (emphasis added) (U.S. Ex. 34, 959).

259. In 1977, Sir Peter MacAdam, former Chairman of BATCo, stated that "I am not aware of any cause or relationship [between smoking and adverse health effects]." "Professor says BAT chief is 'stupid,'" *The Scotsman*, March 18, 1977, 1002420517-0528 (U.S. Ex. 86,876).

260. In September 1977, an R.J. Reynolds scientist asked to meet with company attorneys to discuss a "retrospective epidemiological examination" evidencing the "close relationship between cigarette smoking and lung carcinoma." 500269473-9474 at 9474 (U.S. Ex. 20,623).

261. In February 1978, Rodgman, R.J. Reynolds's Director of Research, wrote a colleague at the company, instructing him to decline an invitation to write a handbook of trace substances found in tobacco. He explained that he had spoken with both in-house and law firm attorneys, who asked: "Why hand the scientists antagonistic to the industry a complete

compilation of the information useful to them in their efforts to put us out of business." 501557495-7496 at 7496 (U.S. Ex. 20,684).

262. In an internal document dated February 9, 1979, Peter Lee, a consultant for BATCo, acknowledged that the 1979 Surgeon General's report on smoking and health was, "no doubt . . . an impressive document" and that "[t]he way in which the information was presented was on the whole sound, scientific and emotive." He also predicted that it will become "the Number One basic reference document for smoking and health researchers the world over." 100214029-4047 at 4030 (U.S. Ex. 21,515).

263. On August 5, 1980, J. Kendrick Wells wrote a memorandum chronicling B&W's concerns with a draft BAT position paper called "Change of Stance on Smoking and Health." Wells counseled BAT against releasing the statement as written because it constituted an admission that "BAT has been marketing products which are for the first time admitted to be dangerous by the manufacturer." Wells was concerned that the position paper and the implicit admission regarding causation "could cripple or destroy B&W's defense to smoking and health lawsuits and opposition to legislative attacks." Deposition of J. Kendrick Wells, United States v. Philip Morris, et al., July 1, 2002, 142:10-144:9; 680050983-1001 at 0989, 0986 (U.S. Ex. 20,981).

264. J. Kendrick Wells, Brown & Williamson, sent a memo to Ernest Pepples, Brown & Williamson, dated October 27, 1981 concerning a meeting held on October 26, 1981 with Dr. Blackman, director of the Group Research and Development Center of BATCo in Southampton, England. At this meeting Wells expressed concern with a presentation slide titled "Basic

Approach to Government and Medical Authorities." Blackman then agreed to make substantive changes to the document. The reason for the change was that the initial document "admit[ted], despite a disclaimer, that cigarettes are harmful to health in proportion to delivery." The document also "runs against [an] important argument the U.S. industry is making in response to the FTC Staff Report and may need to make in response to charges that cigarettes are addictive." Blackman agreed to send the changed document to the other INFOTAB members. 680585063-5064 (U.S. Ex. 21,007); 680585041-5042 (U.S. Ex. 21,006).

265. In a May 1984 meeting with outside counsel, corporate counsel for Brown & Williamson and BATCo discussed methods for controlling admissions by BATCo scientists on causation because of the risks posed in product liability litigation in the United States. 521015673-5675 (U.S. Ex. 52,687).

266. A 1988 report labeled "Highly Confidential Work Product," extensively details how B&W and BAT sought to maintain consistency in their position on the primary issue of whether smoking causes diseases. Discussing the recognized importance of consistency of position between the two companies, the report states: "The importance of consonance between the positions of Brown and Williamson and BAT is essential because, in certain contexts, statements made by BAT personnel can be deemed to be admissions against Brown & Williamson in the pending litigation. As a result, BAT and Brown & Williamson have worked together at various times to coordinate their positions on smoking and health." The report goes on to discuss B&W's input in official position statements released by BAT, noting that "Brown & Williamson has . . . attempted to temper any effort by BAT to implement a moderation campaign

with implicit or express health claims." Indeed, "[t]he impact of such a statement on the smoking and health litigation in undermining the general causation and consumer awareness defenses was deemed so important that a legal opinion was drafted recommending that any change in BAT Group strategy on smoking and health not be made without agreement within the Group." Furthermore, the report notes that Brown & Williamson was instrumental in curbing the potential detrimental legal impact of BAT research projects, by suggesting increased lawyer involvement in research activities. 689102113-2163 at 2116-2118 (U.S. Ex. 69,170).

267. Defendants also obtained evidence about the health effects of smoking that was contrary to their public statements from research they funded. Dr. Gary Huber conducted smoking and health research funded by Defendants from 1972 to 1980 while working at Harvard University Medical School. Huber's research was conducted pursuant to a written agreement between Harvard and B&W, Liggett, Lorillard, R.J. Reynolds, and Philip Morris USA. The agreement created the Harvard Research Tobacco and Health Program, with Huber as its head and chief investigator. Trial Testimony of Gary Huber (via deposition), Dunn & Wiley v. RJR Nabisco Holding Corp., No. 18D01-9305-CT-06 (Ind.), March 3, 1998, 5473:2-13, 5484:5-5485:2.

268. Huber and his group conducted numerous studies into the response of the lung to tobacco smoke using laboratory animals. These studies assessed the effects of smoke on the lung airways, lung parenchyma, and the heart and cardiovascular systems of animals. The studies also looked at COPD, emphysema, chronic bronchitis and coronary artery disease. Huber's animal studies utilized commercially available and research cigarettes, including commercially available

cigarettes supplied by Defendants, and produced human-type diseases in the lungs of animals that inhaled cigarette smoke. The inhalation studies demonstrated changes in animal lungs that Huber's group concluded were analogous to human diseases. Trial Testimony of Gary Huber (via deposition), Dunn & Wiley v. RJR Nabisco Holding Corp., No. 18D01-9305-CT-06 (Ind.), March 3, 1998, 5499:13-5500:13, 5475:3-5476:3, 5497:19-24.

269. Huber specifically reported to his sponsors – B&W, Liggett, Lorillard, R.J. Reynolds, and Philip Morris USA – that his research demonstrated a response to inhaled cigarette smoke, including disease mechanisms similar to those associated with diseases in humans. Trial Testimony of Gary Huber (via deposition), Dunn & Wiley v. RJR Nabisco Holding Corp., No. 18D01-9305-CT-06 (Ind.), March 3, 1998, 5500:14-15.

270. Huber also conducted research funded by Defendants that studied changes in human smoking behavior as a function of lower and higher nicotine levels in cigarettes. The research, discussed at greater length in Section IV.B infra, inter alia, that smokers of lower nicotine cigarettes had an increased risk of developing pulmonary disease. Huber found that "compensation," or smoking behavior modifications, exhibited by smokers of lower nicotine cigarettes, rendered such cigarettes potentially more harmful than high nicotine counterparts because deeper inhalation carried the smoke deeper into the lung where adenocarcinoma generally occurs. Trial Testimony of Gary Huber (via deposition), Dunn & Wiley v. RJR Nabisco Holding Corp., No. 18D01-9305-CT-06 (Ind.), March 3, 1998, 5477:9-23, 5513:25-5515:2.

271. Another group of inhalation studies conducted by Huber focused on rats. The

research showed that rats exposed to cigarette smoke developed emphysema. Huber reported these results to Defendants. Trial Testimony of Gary Huber (via deposition), Dunn & Wiley v. RJR Nabisco Holding Corp., No. 18D01-9305-CT-06 (Ind.), March 3, 1998, 5478.

272. Huber had frequent contact with scientists working for Defendants, including Alexander Spears of Lorillard, Alan Rodgman of R.J. Reynolds, and Thomas Osdene of Philip Morris USA, but Huber's access to them was controlled by Defendants' attorneys. Additionally, Spears made several site visits to Huber's laboratory and reviewed his progress reports. Spears admitted that the research conducted by Huber concluded that tobacco smoke caused changes in the respiratory tracts of the animals consistent with chronic obstructive lung disease. Trial Testimony of Gary Huber (via deposition), Dunn & Wiley v. RJR Nabisco Holding Corp., No. 18D01-9305-CT-06 (Ind.), March 3, 1998, 5468:3-13, 5487:20-5488:4; Deposition of Alexander W. Spears III, State of Texas v. American Tobacco Co., No. 5:96CV91, July 24, 1997, 233:1-238:12, 239:8-16; Deposition of Alexander W. Spears III, Cippolone v. Liggett, (D.N.J.), July 26, 1984, 177:1-181:25.

273. On September 26, 1977, Philip Morris USA's Assistant General Counsel, Alexander Holtzman, sent a warning to the company President, Joseph Cullman, informing him that the results from the Harvard Project had led Huber to the conclusion that exposure of rats to cigarette smoke for six months causes emphysema and that a paper announcing the results would be delivered at the American College of Chest Physicians meeting the next month. Holtzman indicated that attorney William Shinn of Shook, Hardy & Bacon, under the direction of the industry counsel at the Tobacco Institute, had been sent to change Huber's mind on the results

and causation, but the attorney did not succeed in altering the scientists' interpretation of the results of ths study. The Tobacco Institute prepared a press release to mitigate the damage in the event Huber's interpretation received any media attention. 1005053856-3856 (U.S. Ex. 20,197).

274. In 1980, Huber sought to continue his research on animals at a time when he was making significant progress in his smoking and health research, but Defendants cut off funding for his research at Harvard and denied his request for funding after he moved later that year to the University of Kentucky. In a 1980 meeting at a Boston hotel, Defendants' attorneys told Huber that the reason funding for his research had been discontinued was because he was "getting too close to some things." The attorneys included Lee Stanford from Shook, Hardy & Bacon, Ernest Pepples from B&W, and Arthur Stevens from Lorillard. Trial Testimony of Gary Huber (via deposition), Dunn & Wiley v. RJR Nabisco Holding Corp., No. 18D01-9305-CT-06 (Ind.), March 3, 1998, 5503:6-25.

275. Internal recognition of the validity of mainstream scientific investigation also continued. In 1978, Philip Morris USA researchers wrote: "Other nitrosamine compounds have been found in tobacco and tobacco smoke. Hecht determined the levels of N'-nitrosonornicotine ("NNN") and N'-nitrosoanabasine ("NAB") using gas-liquid chromatography and mass spectrometry. NNN was found in the unburned tobacco at concentrations between 0.3 and 88.6 micrograms per gram. NNN levels are related to the increased of cancer of the oral cavity, esophagus and nasopharynx observed in tobacco chewers." 109881322-1331 at 1323, 1327 (U.S. Ex. 20,263).

276. In a 1980 memorandum, BATCo fully recognized that it was implausible to

continue to deny the internal evidence linking smoking with diseases when it stated the following: "The company's position on causation is simply not believed by the overwhelming majority of independent observers, scientists and doctors. . . . The industry is unable to argue satisfactorily for its own continued existence, because all arguments eventually lead back to the primary issue of causation, and on this point our position is unacceptable." BATCo then went on to admit causation: "On balance, it is the opinion of this department that we should now move to position B, namely, that we acknowledge 'the probability that smoking is harmful to a small percentage of heavy smokers'. . . . By giving a little we may gain a lot. By giving nothing we stand to lose everything." 109881322-1331 at 1323, 1332 (U.S. Ex. 20,263).

277. In 1980, BATCo internally admitted: "It is simply incorrect to say, 'There is still no scientific proof that smoking causes ill-health.'" And yet Defendants continued to do exactly that, throughout the 1970s, 1980s, 1990s, and beyond. 680050983-1001 at 0998 (U.S. Ex. 20, 981).

278. While Defendants' campaign of public false statements continued pursuant to the strategy initially conceived by the Enterprise in December 1953, internal documents provided further confirmation of their longstanding knowledge of the falsity of their public position.

279. Philip Morris USA scientist James Charles (who would later serve as the company's Vice President of Research) addressed a February 23, 1982 memorandum to department head Osdene, responding to the 1982 Surgeon General's Report on Smoking and Health: "Cigarette smoke <u>is</u> biologically active" and "cigarette smoke condensate applied to the backs of mice causes tumors." He listed nine facts on the biological activity of cigarette smoke

and told Osdene "you may shred this document . . . or use [it] in any way you see fit." 1003171563-1567 at 1564, 1566 (U.S. Ex. 26,137).

280. BATCo's initial inclination toward candor, admitting causation, quickly dissolved when its affiliate, Brown & Williamson, informed BATCo that conceding causation would be tantamount to going out of business, especially in light of smoking and health litigation in the United States.

281. In May 4, 1982, a BATCo consultant, Francis Roe, found the industry position on causation "short of credibility," noting that "[i]t is not really true, as the American Tobacco industry would like to believe, that there is a raging worldwide controversy about the causal link between smoking and certain disease." 100432193-2203 at 2194 (U.S. Ex. 20,182).

282. In early 1984, BATCo, concerned about the "biological activity" of its product, explicitly recognized the connection between smoking and lung cancer, heart disease, and emphysema, as well as the problems that arise from maternal smoking during pregnancy. The same year, BATCo also internally recognized the ability of epidemiological studies to demonstrate causation. 109837925-7928 (U.S. Ex. 20,260); 512102918-2955 (U.S. Ex. 51,615).

283. R.J. Reynolds's recognition of the validity of epidemiological and scientific studies led Anthony V. Colucci, Director of the company's Scientific Litigation Support Division, to write to attorney James E. Young of Jones, Day, Reavis & Pogue to push the "mechanistic argument" of causation. Colucci explicitly admitted: "That cigarettes are a risk factor for human lung cancer is an irrefutable fact." 507910855-0856 at 0855 (U.S. Ex. 20,803).

284. Lorillard was aware at the latest in 1997 that every major medical and scientific group in America that had studied the question has concluded that smoking causes disease. The company was equally aware that the only scientific studies to disagree with that conclusion were performed or funded by the tobacco industry. Deposition of Alexander W. Spears III, State of Texas v. American Tobacco Co., No. 5:96CV91, July 24, 1997, 58:3-60:12.

(j) Despite Their Internal Knowledge, Defendants Continued Their Public Campaign of Denial from 1975 Onward

285. Despite these candid internal acknowledgments that cigarette smoking caused disease, internal and commissioned research confirming the accuracy of results of studies in the public health community, and conclusions of the Surgeon General, Defendants' public position remained the same. They continued to make false statements in an effort to perpetuate the notion of an "open controversy." They continued to deny the serious health risks posed by smoking.

286. On January 14, 1975, the Tobacco Institute released a new announcement of the availability of the booklet "The Cigarette Controversy." This announcement stated that "[i]f smoking does cause disease, why after years of intensive research, has it not been shown how this occurs? And why has no ingredient as found in smoke been identified as the causal factor? These are among the unanswered questions set forth in a new publication of the Tobacco Institute, entitled The Cigarette Controversy." TIMN0120638-0639 at 0638 (U.S. Ex. 21,698).

287. Distribution of "The Cigarette Controversy" aided the goal of spreading the industry's statements about smoking and health to the public. While this booklet was published and most often distributed by the Tobacco Institute, the individual tobacco companies also made efforts to circulate this publication to its consumers. For example, on March 26, 1976, R.J.

Reynolds included an unsolicited copy of "The Cigarette Controversy" in response to a consumer's concern that cigarettes are a cause of lung cancer. 500320855-0855 (U.S. Ex. 21,894).

288. In addition to flat out denials of the health consequences of smoking, the Cigarette Company Defendants used advertising to provide rationalization to the smoker. As B&W stated in a November 29, 1976 memo entitled "Cigarette Advertising History": "Good cigarette advertising in the past has given the average smoker a means of justification on the two dimensions typically used in anti-smoking arguments: [health threats and immorality] . . . All good cigarette advertising has either directly addressed the anti-smoking arguments prevalent at the time or has created a strong, attractive image into which the besieged smoker could withdraw." 680086039-6044 at 6040 (U.S. Ex. 20,984).

289. R.J. Reynolds continued to represent that there was no evidence of adverse health effects caused by smoking in a 1977 document entitled "Scientific and Medical Aspects of the Smoking and Health Controversy -- Some Paradoxes and Fallacies." Dr. Frank Colby, a lead scientist for R.J. Reynolds, stated that "no component or group of components, as found in smoke, has ever been proven to be the cause of any disease in man." Colby added: "The smoking and health controversy is a very important question; our Industry has been -- and is, of course, trying to provide the answer. If there ever should be any component or components, as found in smoke, that can be proven to be, or contribute to be, a cause of any disease in man, we will of course, take them out." 5003230055-0055 (U.S. Ex. 87,060); 500021655-1710 (U.S. Ex. 20,614); TI04482775-2827 (U.S. Ex. 21,243).

290. On June 6, 1977, Addison Yeaman, B&W's General Counsel, publically explained in his remarks at Maxwell Associates Biannual Tobacco Seminar: "I am utterly secure in saying to you that the tobacco industry recognized its responsibility and its duty and that it will continue its every effort and at whatever cost to find the answer to the question, 'what part, if any, does tobacco play in human diseases.'" CTRPUBLICSTMT001437-1445 at 1445 (U.S. Ex. 21,164).

291. In a document distributed by B&W entitled "Facts Every Tobacco Man Should Remember," which appeared in the October 27, 1977 edition of the *United States Tobacco Journal*, B&W claimed that "[t]he case against tobacco is not closed . . . in a sense, the jury still isn't able to retire to consider the case because it doesn't have all the relevant facts." The document also stated in that the results of scientific studies regarding the health effects of smoking are "inconclusive." 544001284-1297 at 1285-1286 (U.S. Ex. 20,935).

292. The Tobacco Institute's public relations strategy was to focus as much attention as necessary in order to get the Cigarette Company Defendants' message out to the public that there was no definite link between smoking and health, and that until answers to these questions were found, smokers should not fear that their health was endangered. Defendants' four-point platform is set out in a December 29, 1977 Tobacco Institute press release: "1. The question of smoking and health is still a question requiring scientific resolution. 2. Tobacco smoke does not imperil normal smokers. 3. The tobacco farm program is an essential part of public policy. 4. The freedom of choice of our industry's customers must be preserved." TIFL0522279-2280 at 2280 (U.S. Ex. 21,424).

293. In 1977, the Tobacco Institute published a pamphlet that stated: "Has the Surgeon

General's report established that smoking causes cancer or other diseases? No." TIMN0055129-5135 at 5130 (U.S. Ex. 21,298).

294. Defendants focused much of their public relations campaign on lung cancer and, as time went on, heart disease. In 1978, a Tobacco Institute pamphlet falsely stated: "The flat assertion that smoking causes lung cancer and heart disease and that the case is proved is not supported by many of the world's leading scientists." TIMN319568-9604 at 9578 (U.S. Ex. 62,902).

295. On January 12, 1978, Ross Millhiser, President of Philip Morris USA, stated in a letter to the editor in the *New York Times*, "as for the lack of research on the 'harmful' effects of smoking, the fact is there is good reason to doubt the culpability of cigarette smoking in coronary heart disease." Millhiser, "In Defense of Smoking", *New York Times*, January 12, 1978; (U.S. Ex. 21,378).

296. In May 1978, the Tobacco Institute published a fifty-four page document entitled "Fact or Fancy?" and sent it to broadcasters, editors, writers, and officers of women's associations and organizations "because the tobacco and health controversy has increasingly focused on women and smoking." The document was produced "to present more factual and balanced answers on the health question about which mature women need to know more" and it presented the controversy argument that causality has not yet to be proved in any of the diseases and conditions linked statistically with cigarette smoking. 03731785-1838 (U.S. Ex. 21,466); 04326897-6897 (U.S. Ex. 21,468); 04326898-6898 (U.S. Ex. 21,467); 04326900-6900 (U.S. Ex. 21,469); 04326901-6901 (U.S. Ex. 21,470).

297. A number of exhibits were identified and introduced by plaintiff's and Defendant's counsel during Dr. Huber's September 20, 1997 deposition in the State of Texas litigation, documents that shed light on Dr. Huber's relationship with Defendants and that provide specific examples of information withheld from him by Defendants. HTT0010212-0214 (U.S. Exhibit 88,807); HTT0010215-0216 (U.S. Ex. 88,808); HTT0010217-0219 (U.S. Ex. 88,809); HTT0010220-0222 (U.S. Ex. 88,810); HTT0010223-0225 (U.S. Ex. 88,811); 1335866-5870 (U.S. Ex. 88,812); 1003119099-9135 (U.S. Ex. 88,813); HTT0010271-0358 (U.S. Ex. 88,814); HTT0010359-0360 (U.S. Ex. 88,815); HTT0010361-0363 (U.S. Ex.. 88,816); HTT0010364-0368 (U.S. Ex. 88,817); 1000037069-7069 (U.S. Ex. 88,818); 501009723-9727 (U.S. Ex. 88,819); 01421596-1600 (U.S. Ex. 88,820); 03540193-0194 (U.S. Ex. 88,821); 01346204-6208 (U.S. Ex. 88,822); HTT0010392-0404 (U.S. Ex. 88,823); 504022923-2923 (U.S. Ex. 88,824); 504912643-2713 (U.S. Ex. 88,825); HTT0010502-0503 (U.S. Ex. 88,826); 0000130803-0803 (U.S. Ex. 88,827); 01370915-0915 (U.S. Ex. 88,828); HTT0010508-0510 (U.S. Ex. 88,829); HTT0010511-0513 (U.S. Ex. 88,830); HTT0010514-0516 (U.S. Ex. 88,831); HTT0010517-0531 (U.S. Ex. 88,832); HTT0010532-0534 (U.S. Ex. 88,833).

298. Defendants also continued to insist publicly that there was no need to undertake research to develop "safer" cigarettes, based on their assertion that no harm could be attributed to cigarettes. In June 1978, William Dwyer, Vice President of the Tobacco Institute, explained: "A question often asked of the tobacco industry is whether researchers are developing a 'safe' cigarette. A variation of that question is whether low 'tar' nicotine cigarettes are safer. The tobacco industry is convinced that no cigarette has been proved unsafe. Therefore, they regard

any suggestion of a 'safe' or 'safer' cigarette as tortured logic. The reduced 'tar' and nicotine cigarettes represent about 20 percent of sales and are in the marketplace because of consumer demand. That demand obviously reflects the personal preferences of smokers." TIMN0074796-4800 at (U.S. Ex. 21,480).

299. The Tobacco Institute published "The Smoking Controversy: A Perspective" in December 1978. Citing heavily to scientists who had received CTR Special Project and lawyers' Special Account No. 4 funds for their research, the publication stated that society was on the "brink of paranoia" regarding smoking, that "the onslaught has grown shrill, even hysterical" and that there was a parallel to the Salem witch trials. It stated that the "wars" against disease that were being "waged by the government and voluntary health agencies" are being taken "beyond the realm of science." TIMN0129593-9628 (U.S. Ex. 21,499), TIKU000004159-4194 (U.S. Ex. 64,071).

300. In 1979, the Tobacco Institute published a document entitled "TOBACCO from seed to smoke amid controversy." It declared that "it has not been established that smoking causes any human disease." 690142176-2180 at 2178 (U.S. Ex. 21,512).

301. Beginning around the time of the 1979 Surgeon General's Report, Defendants pursued with increasing vigor the strategy that the smoking and health evidence represented an "open controversy" and made unreasonable demands that "more proof" was needed before the scientific community could jump to the conclusion that cigarette smoking kills its users. On January 10, 1979, the Tobacco Institute published a document entitled "Smoking and Health 1964-1979: The Continuing Controversy." The Tobacco Institute prepared it for distribution to

the news media one day prior to the release of the 1979 Report of the Surgeon General on Smoking & Health and tailored it to respond to the content of the 1979 Report. The Tobacco Institute had managed to obtain three draft chapters of the Surgeon General's Report which assisted it in the development of the publication. Anne Duffin was assigned the responsibility at the Tobacco Institute of researching, writing and editing the report, under the direction and guidance of the law firm Shook, Hardy & Bacon. TIMN0055304-5469 (U.S. Ex. 21,522); TIMN0073990-3992 (U.S. Ex. 21,525); TIFL0403308-3312 (U.S. Ex. 62,631); TIMN0127049-7072 (U.S. Ex. 21,532); TIMN0084430-4594 (U.S. Ex. 21,534).

302. In further anticipation of the 1979 Report, the Tobacco Institute ran advertisements in media publications in early January containing the headline: "The Secretary of Health, Education and Welfare Cordially Invites you to A One-Sided Debate." TIFL053367–3367 (U.S. Ex. 88,658).

303. BATCo consultant Peter Lee characterized "Smoking and Health 1964-1979: The Continuing Controversy" (referred to as "TA73") as "misleading." He wrote that the Tobacco Institute's counter publication did not appear to understand the idea of medical causation: "Discussion of the role of other factors can be particularly misleading when no discussion is made of relative magnitudes of effects. For example, heavy smokers are observed to have 20 or more times the lung cancer rates of non-smokers. Sure, this does not prove smoking causes lung cancer, but what it does mean, and TA73 never considers this, is that for any other factor to explain this association, it must have at least as strong an association with lung cancer as the observed association for smoking (and be highly correlated with the smoking habit). TA73

seems ready to accept evidence implicating factors other than smoking in the aetiology of smoking. This is blatantly unscientific." 100214029-4047 at 4046 (U.S. Ex. 21,515).

304. Philip Morris USA's 1979 Annual Report continued the "open controversy" strategy and declared, "[n]o conclusive clinical or medical proof of any cause-and-effect relationship between cigarette smoking and disease has yet been discovered." 2043819548-9607 at 9561 (U.S. Ex. 20,451), 1005224256-4315 (U.S. Ex. 21,548).

305. On January 11, 1979, the *News and Observer* of Raleigh, North Carolina, quoted the Tobacco Institute as stating that "many scientists are becoming concerned that the focus on cigarette smoking diverts attention from other suspected health hazards." TIMN0122721-2721 (U.S. Ex. 21,325).

306. On January 17, 1979, the Tobacco Institute issued a press release which stated that the tobacco industry had spent $75 million on research over twenty years to learn whether smoking is harmful but that "the case against cigarettes is not satisfactorily demonstrated." TIMN0074006-4006; T0017294-7294 (U.S. Ex. 87,985).

307. In July 1979, the Tobacco Institute announced to the public that "[f]rom the beginning, the tobacco industry has believed that the American people deserve objective, scientific answers." Moreover, its advertisement stated in bold type: "The findings are not secret." 500622750-2752 at 2752 (U.S. Ex. 20,643).

308. Internal documents showed that smokers relied on Defendants' public refutation of causation. Indeed, substantial numbers of smokers invoked Defendants' fraudulent public relations campaign. According to a 1979 study by BATCo, less than 50% of consonant smokers

agreed that smoking was harmful. Those smokers most often cited the industry's mantra, "no one has proved it," as reason for their belief. A September 1982 focus group study of smokers prepared for R.J. Reynolds in Minnesota concluded that smokers rationalize the risks of smoking and that they "discounted the statistical risk of smoking." 105589638-9949 (U.S. Ex. 20,243); 502458984-9004 at 8994 (U.S. Ex. 21,726).

309. The Roper Report was a biannual survey conducted by Roper Organization, a public relations firm specializing in corporate reputation building and public image, on behalf of the Tobacco Institute. In the 1980 report entitled "A Study of Public Attitudes towards Cigarette Smoking and the Tobacco Industry (May 1980)," the Roper Organization asserted the following findings: "The study finds that there are differences between smokers and non-smokers in demographics, health habits, and lifestyle. Presumably, these differences (rather than smoking itself) could account for the different disease and mortality rates observed between smokers and non-smokers." 03531619-1620 at 1619 (U.S. Ex. 20,058).

310. In 1981, the Tobacco Institute published a document entitled "On Smoking - 21 questions and answers," written by the law firm Shook, Hardy & Bacon, which stated: "The tobacco industry has committed more that $91 million for independent research on smoking and health questions. . . . The tobacco industry remains committed to advancing scientific inquiry into the gaps in knowledge in the smoking controversy." TIEX0007587-7592 at 7589 (U.S. Ex. 87,061).

311. In 1982, the Tobacco Institute launched a national series of advertisements on behalf of Defendants that addressed smoking and health issues, environmental tobacco smoke

("ETS"), public smoking restrictions, and youth smoking. These ads asked readers to keep an open mind on tobacco issues and "[w]eigh both sides before [they] take sides." Readers were encouraged to request a free copy of the Tobacco Institute's booklet "Answers to the Most Asked Questions about Cigarettes." 03028799-8809 at 8801 (U.S. Ex. 20,053).

312. On December 31, 1981, the Tobacco Institute published a document that again asserted: "Questions of smoking and health are unresolved." 2046754709-4710 at 4710 (U.S. Ex. 20,474).

313. In 1982, the Tobacco Institute published a pamphlet in which it wrote, "[s]ince the first questions were raised about smoking as a possible health factor, the tobacco industry has believed that the American people deserve objective, scientific answers. The industry has committed itself to this task." 670500617-0619 at 0618 (U.S. Ex. 20,968).

314. On February 18, 1982, "Smoking and Cancer – A Scientific Perspective" was published by the Tobacco Institute in anticipation of the release of the 1982 Surgeon General's Report on Smoking and Health. The timing of the release was based on the Tobacco Institute's axiom that "it is more effective to take the initiative in situations involving a prospective negative news event." The press release accompanying the 104-page Tobacco Institute document stated that scientific research has not been able to establish a causal link between smoking and cancer. The publication was developed working closely with outside legal counsel. Copies were provided to correspondents and to various Members of Congress with a transmittal that reiterated Defendants' false commitment to independent research. It was later introduced as part of testimony in opposition to amendments to the Federal Cigarette Labeling and Advertising Act.

2025431644-1748 at (U.S. Ex. 20,417); TIMN0245529-5529 (U.S. Ex. 21,340); 03762472-2472 (U.S. Ex. 20,063); TIMN0245530-5532 (U.S. Ex. 21,341); TIMN0245292-5292 (U.S. Ex. 21,339); 03762460-2461 (U.S. Ex. 20,062); TIMN0246497-6497 (U.S. Ex. 21,342); TIOK0002758-2802 (U.S. Ex. 21,370).

315. A May 7, 1982 memorandum to R.J. Reynolds executives advised that the key point to be made in any discussion of the issue of smoking and health was that a scientific controversy continued unresolved. The question and answer piece provided R.J. Reynolds's public positions on causation (not proven), statistics (not reliable), and research (not enough yet). The insistence on an open controversy in 1982, along with the company's other positions, was contrary to at least twenty-nine years of internal research at R.J. Reynolds, as well as more than three decades of conclusive mainstream scientific study. 502483421-3421 (U.S. Ex. 20,700).

316. In June 1982, the Tobacco Institute launched a national series of advertisements appearing in some of the country's most widely read magazines (including *US News & World Report*, *TV Guide*, *Time*, *Sports Illustrated*, *People*, and *Newsweek*), attempting to reach eight out of ten Americans twenty-five years or older. The advertisements asked readers to keep an open mind on tobacco issues and to "weigh both sides before you take sides." It offered free copies of a booklet "Answers to the Most Asked Questions about Cigarettes." 93852922-2933 (U.S. Ex. 21,118); TIOK0002758-2802 (U.S. Ex. 21,370); 03028799-8880 (U.S. Ex. 20,053).

317. In 1983, in anticipation of 1983 Surgeon General's Report, "The Health Consequences of Smoking – Cardiovascular Disease," the Tobacco Institute published a document titled "Cigarette smoking and heart disease." It concluded, "[w]hether cigarette

smoking is causally related to heart disease is not scientifically established" and argued that smoking was not an important risk factor for heart disease. The document was first distributed to the Cigarette Company Defendants, who were asked not to distribute the publication widely, but to use it for internal purposes until the Report was released. Upon release, the Tobacco Institute distributed the document, as did the Cigarette Company Defendants' European information clearinghouse, known as "INFOTAB." 2501112047-2098 at 2091 (U.S. Ex. 20,561); 2023274132-4133 (U.S. Ex. 20,386); 2501023645-3645 (U.S. Ex. 20,556).

318. Sheldon Sommers, Scientific Director of CTR, testified before Congress that year that "cigarette smoking has not been scientifically established to be a cause of chronic diseases, such as cancer, cardiovascular disease, or emphysema." 503685073-5075 at 5073 (U.S. Ex. 88,734).

319. In 1983, R.J. Reynolds published its own advertisement in an effort to perpetuate the "open controversy." The advertisement declared: "It has been stated so often that smoking causes cancer, it's no wonder most people believe this is an established fact. But, in fact, it is nothing of the kind. The truth is that almost three decades of research have failed to produce scientific proof for this claim. . . . [I]n our opinion, the issue of smoking and lung cancer is not a closed case. It's an open controversy." 504638051-8051 (U.S. Ex. 20,732).

320. In August 1983, D.G. Felton, a BATCo scientist, while commenting on a paper written by R.J. Reynolds scientist Frank Colby, concluded that based on mainstream scientific knowledge, "to persist in stressing controversy . . . can only result in a complete loss of credibility." 10040293-0297 at 0297 (U.S. Ex. 20,183).

321. In 1984, R.J. Reynolds placed an ad in numerous newspapers, including the *New York Times*, entitled "Smoking and health: some facts you've never heard about." This ad contained the statement, "[y]ou hear a lot these days about reports that link smoking to certain diseases. This evidence has led many scientists and other people to conclude that smoking causes these diseases. But there is significant evidence on the other side of this issue. It is regularly ignored by the critics of smoking. And you rarely hear about it in the public media. But, it has helped persuade many scientists that the case against smoking is far from closed." Further, the ad contained the statement, "[n]o one wants to know the real answers more then R.J. Reynolds. That is why we are providing major funding for scientific research. The funds are given at arm's length to independent scientists who are free to publish whatever they find. We don't know where such research may lead. But this much we can promise: when we find the answers, you'll hear about it." 504100135-0136 at 0136 (U.S. Ex. 20,726).

322. In 1983, the Tobacco Institute published a pamphlet entitled "Tobacco Industry Research on Smoking and Health: A $111 Million Commitment." This pamphlet stated: "Since the first questions were raised about smoking as a possible health factor, the tobacco industry has believed the American people deserve objective, scientific answers. The industry has committed itself to this task." 670500617-0620 at 0618 (U.S. Ex. 20,968).

323. Also in 1984, R.J. Reynolds placed an ad in daily newspapers entitled, "Can we have an open debate about smoking?" In this ad, R.J. Reynolds claimed that "studies which conclude that smoking causes disease have regularly ignored significant evidence to the contrary," that this "significant evidence" comes from research "completely independent of the

tobacco industry," and that "reasonable people" would consider the link between smoking and disease to be an "open controversy." 505743421-3421 (U.S. Ex. 87,063); 513943434-3434 (U.S. Ex. 50,268); (U.S. Ex. 51,761); WAS0451476 (U.S. Ex. 77,402).

324. In January 1984, David B. Fishel of R.J. Reynolds continued to parrot the line of the Enterprise when he publicly declared: "After all of this study, there are many scientists who believe there is no laboratory of clinical proof that cigarette smoke does – or does not – cause disease. We believe that reasonable people who examine all the evidence concerning smoking and disease would agree this is an open scientific controversy, not a closed case." 504638054-8056 at 8056 (U.S. Ex. 20, 733).

325. A month later, the Chairman of the Board at R.J. Reynolds made the following comments as part of a panel discussion on the "Nightline" television program: (1) it is not known whether cigarettes cause cancer; (2) despite all the research to date, there has been no causal link established (between smoking and emphysema); and (3) "as a matter of fact, there are studies that while we are accused of being associated with heart disease, there have been studies conducted over 10 years that would say, again, that science is still puzzled over these forces." 502371212-1223 at 1217 (U.S. Ex. 20,699).

326. The same year, the Tobacco Institute published a document entitled: "Cigarette Smoking and Chronic Obstructive Lung Diseases: The major gaps in knowledge." It declared that Defendants did not agree with the judgment of the Surgeon General's reports that cigarette smoking had been established as a cause of chronic bronchitis and that a causal relationship between smoking and either chronic bronchitis or emphysema had not been established

scientifically. TI13062142-2156 (U.S. Ex. 62,409).

327. Also in 1984, the Tobacco Institute published a report entitled "The Cigarette Controversy: Why More Research is Needed" as the formal statement of Defendants' position. It purported to be a review of testimony at the 1982 and 1983 congressional tobacco labeling hearings. It discussed the testimony of the thirty-nine scientists who testified to Congress, but undisclosed was the fact that most of these scientific witnesses were tobacco consultants receiving funds from the lawyer administered and controlled Special Account No. 4. It stated:

> Thirty nine scientists presented testimony against proposals in the bills. Their evidence was based on their own published research or their review of scientific literature. Each of them in his or her own right is a recognized scientist, and most have reached eminence in their area of expertise. . . . The evidence presented by these men and women is summarized in the following pages. The scientists and their professional affiliations are listed in the appended. We publish this summary in the belief that the controversy about smoking must be resolved by scientific research and in the belief that informed discussion of the controversy is in the public interest. . . . [F]ifteen witnesses explained why they consider the hypothesis that cigarette smoking causes lung cancer to be unproven . . . [W]itnesses all questioned the assertion that cigarette smoking causes emphysema in particular and chronic obstructive lung disease in general.

The report also declared that: "This publication is presented to the United States congressional committees." TIEX000964-1904 at 0964, 0966, 0970, 0973 (U.S. Ex. 62,619).

328. In July 1984, R.J. Reynolds mailed letters from employee Ann Griffin addressed to various children who had written to the company. In the letters, R.J. Reynolds claimed to be engaged in an effort to determine the harmful effects of smoking for the benefit of smokers, promised to support disinterested research into smoking and health, and claimed that research

had not revealed any "conclusive" evidence linking smoking to disease. 505465919-5919 (U.S. Ex. 20, 741).

329. In a July 1984 deposition, Lorillard's Alexander Spears declared that there were no epidemiological studies that could be designed or conducted to determine if cigarette smoking played a role in lung cancer development. Deposition of Alexander Spears, Cipollone v. Liggett, July 26, 1984, 200:22-25.

330. In January 1987, the Tobacco Institute's Vice President of Media Relations, Walker Merryman, appeared in an advertisement where he was quoted as saying, "I'll fill in the government's blanks. No judge or jury would decide a case without hearing both sides. But a lot of people have done just that on the subject of smoking." TIMN0133708-3708 (U.S. Ex. 77,073); TIOK0035181-5184 (U.S. Ex. 88,042).

331. Over time, R.J. Reynolds sent numerous letters to survivors of deceased smokers, falsely denying the scientifically established links between smoking and disease. For instance, on August 18, 1988, R.J. Reynolds sent a letter to Anthony A. Christina (the widower of a lung cancer victim) in which the company denied that there was any causal link between smoking and disease. On April 12, 1990, R.J. Reynolds wrote a letter to a customer in Minnesota in which it asserted that "scientists do not know the cause or causes of the chronic diseases reported to be associated with smoking. . . . [O]ur company intends, therefore, to continue to support [research] in a continuing search for answers." In November 1993, R.J. Reynolds wrote to the relative of a deceased smoker in California, denying the existence of any proof that smoking causes lung cancer, heart disease, or emphysema, and asserting that "a cause and effect relationship between

smoking and disease has not been established." 515792869-2869 (U.S. Ex. 20,869); 507703861-3862 (U.S. Ex. 22,056); TI13610773-0777 (U.S. Ex. 62,416); TIMN389474-9479 (U.S. Ex. 21,286); TIMN339671-9676 (U.S. Ex. 21,362); TIMN339671-9676 (U.S. Ex. 62,915).

332. In 1989, R.J. Reynolds created a position paper which purported to refute the 1989 Surgeon General's Report by attacking the science linking smoking to disease. 507605620-6239 (U.S. Ex. 20,781).

333. In a January 11, 1989 appearance on the television show "Good Morning America," the Tobacco Institute spokesperson, Brennan Dawson falsely stated that "all the links that have been established between smoking and certain diseases are based on statistics. What that means is that the causative relationship has not yet been established." TIMN389474-9479 at 9475 (U.S. Ex. 21,286).

334. An April 1990 INFOTAB publication titled "Children & Smoking-The Balanced View" states that "scientific evidence has not conclusively established cigarette smoking as a causative agent in the development of disease." 2501342105-2110 at 2108 (U.S. Ex. 20,565).

335. In January 1990, R.J. Reynolds's Public Relations Manager wrote in a letter to the principal of a grade school and one of the school's students:

> The tobacco industry is also concerned about the charges being made that smoking is responsible for so many serious diseases. Long before the present criticism began, the tobacco industry, in a sincere attempt to determine what harmful effects, if any, smoking might have on human health, established the CTR - USA. The industry has also supported research grants directed by the American Medical Association. Over the years the tobacco industry has given in excess of $162 million to independent research on the controversies surrounding smoking – more than all the voluntary health associations combined. . . . Despite all the

> research going on, the simple and unfortunate fact is that scientists do not know the cause or causes of the chronic diseases reported to be associated with smoking.

508466199-6200 at 6199 (U.S. Ex. 20,813).

336. More than forty years after Defendants issued the Frank Statement and invented TIRC, Defendants' essential position on the relationship of smoking and health had remained largely unchanged. In April 1994, over forty years after the Frank Statement, in congressional hearings before the Subcommittee on Heath and the Environment, industry executives asserted yet again that the causal relationship of smoking and cancer had not been proven. In testimony before the United States House of Representatives, the CEOs of Defendants Brown & Williamson, Liggett, Lorillard, Philip Morris USA, and R.J. Reynolds publicly denied that smoking caused cancer. And the campaign went on. Expert Report of Allan Brandt, United States v. Philip Morris, et al., (R. 1147, filed May 10, 2002); Cimons, Marlene, "Cigarette Chiefs Steadfastly Deny Smoking Kills," *Los Angeles Times*, April 15, 1994 at A1 (U.S. Ex. 20,468); 502576586-6740 (U.S. Ex. 20,701).

337. In 1994, Michael Prideaux, a spokesperson for BAT, stated that BAT's current position was that there was no causal link between smoking and cancer. "British Tobacco Companies Hushed up Health Dangers," *The Independent*, June 19, 1994 (U.S. Ex. 86,882).

338. Martin Broughton, Chairman of BAT plc, the ultimate parent of BATCo, stated in opening remarks to analysts, investors and journalists at a briefing held at Windsor House on October 30, 1996, that "**[w]e have no internal research which proves that smoking causes lung cancer or other diseases or, indeed that, smoking is addictive.**" 700506684-6688 at

6686 (emphasis added) (U.S. Ex. 69,196).

339. In April 1995, B&W informed B&W Japan to answer inquiries about smoking and health by reassuring the person making the inquiries that whether or not smoking cause diseases "is still [an] inconclusive matter." 450180143-0143 (U.S. Ex. 21,885).

340. In 1990, all Altria operating companies had the same position on causation, that smoking is a “risk factor” for disease. Deposition of Geoffrey Bible, U.S. v. Philip Morris, et al., August 22, 2002, 47:10-48:12.

341. In 1991, Philip Morris Companies coordinated with its international competitors the development of unified industry language continuing to deny that cigarette smoking had been proven to “cause” lung cancer. 2023235511-5512 (U.S. Ex. 26,780).

342. In 1991, Altria made decisions on behalf of its tobacco manufacturing subsidiaries regarding placement of health warning labels on export cigarettes and coordinated that decision with the parent companies of other U.S. and foreign cigarette manufacturers. 2022833439 (U.S. Ex. 26,758); 2023244601 (U.S. Ex. 26,782); 2022833411-3412 (U.S. Ex. 26,757).

343. Geoffrey Bible, CEO of Altria from 1994-9/02, was ultimate authority on content of public statements on smoking and health made by Altria subsidiaries, including Philip Morris USA. Deposition of Geoffrey Bible, U.S. v. Philip Morris, et al., August 22, 2002, 83:9-84:11, 85:22-86:26.

344. The October 2, 1997 so-called “Hatch Statement” in which Philip Morris agreed to stop debating whether cigarettes had been proven to cause disease was issued on Philip Morris Companies letterhead. 2063123083-3084 (U.S. Ex. 37,734).

345. In 1997, the Chief Executive Officer and Chairman of Philip Morris Companies, Geoffrey Bible, took the position that cigarettes were not a cause of lung cancer, but asserted that if they were shown to be, "I'd probably . . . shut [the] company down instantly to get a better hold of things." He made this statement four decades after Philip Morris USA recognized the carcinogenic and disease-causing nature of cigarettes in internal documents. Deposition of Geoffrey Bible, State of Florida v. American Tobacco Co., August 21, 1997, 27:1-24.

346. In 1998, Bible publicly denied the link between smoking and disease. At the 1998 Minnesota trial testimony during cross examination, Mr. Bible was asked: "Your company says smoking doesn't cause disease; don't you?" Mr. Bible responded, "I say I don't know. I just don't know. It may, but I don't know." Mr. Bible was also asked: "Has your company said smoking causes disease?" Mr. Bible answered, "Not to my knowledge, no." Trial testimony of Geoffrey Bible, State of Minnesota v. Philip Morris Inc., C1-94-8565, March 2, 1998, 5737-5738; Expert Report of Robert Dolan, United States v. Philip Morris, et al., (R. 671, filed November 15, 2001).

347. As reported in the *New York Times*, Bible was asked, "[h]as anyone died from smoking cigarettes?" His reply: "I don't know if anyone died from smoking tobacco, I just don't know." Bill Dedham, "Executive Says He's Uncertain about Tobacco's Harm," *New York Times*, March 3, 1998, at A16 (U.S. Ex. 22,167); Expert Report of Allan Brandt, United States v. Philip Morris, et al., (R. 1147, filed May 10, 2002).

348. In trial in Minnesota in 1998, the Chairman of Philip Morris USA and the Vice President of the Tobacco Institute returned to the industry's half-century old position: "We don't believe it's ever been established that smoking is a cause of disease." Trial testimony of Geoffrey

Bible, State of Minnesota v. Philip Morris Inc., C1-94-8565, March 2, 1998, 5737-5738.

349. In the development of its website in 1999, Philip Morris USA acknowledged internally that smoking causes disease but refused to share this information with the public. In a July 9, 1999 presentation related to the website development prepared by someone associated with Philip Morris USA's Strategic Issues Task Force, one slide indicated that, according to the "Scientists' Position on Causation," "from a public health perspective, it is appropriate to equate increased risk with causation." However, Philip Morris USA did not publicly communicate this information. Deposition of Denise Keane, United States v. Philip Morris, October 1, 2002; 297:16-17, 298:13-18, 299:9-13; 202674164-4190 at 4170 (U.S. Ex. 87066).

350. Altria set a company-wide policy regarding attribution of statements and positions to Philip Morris entities, which was binding on Philip Morris USA employees. 2502258272-8272 (U.S. Ex. 45,984).

351. Defendants also falsely denied what they knew internally in legal proceedings. On November 29, 1999, Philip Morris USA falsely stated in sworn pleadings: "[I]t has not been scientifically established whether cigarette smoking causes [disease] in humans." http://www.tobacco.neu.edu/Extra/hotdocs/simon_answer_ex.htm. (U.S. Ex. 87,067).

352. Executives have falsely denied Defendants' decades-long "open controversy" strategy. Denise Keane, Philip Morris USA General Counsel and an attorney at the company since 1977, discounted the "open controversy" on October 2, 2002, when she stated "[f]rom my perspective, Philip Morris has not historically discussed smoking" publicly until the 1997 statement submitted to Senator Hatch and its 1999 website. "This company, in my knowledge,

has not been out historically doing anything to communicate about the health risks other than to sell a product for which there is a whole series of warnings that are communicated to the public." She added: "This company has not been out doing anything to impact or undermine the very important message that has been carried on cigarette products that have been sold in this country since the late 60s." Deposition of Denise Keane, United States v. Philip Morris, October 1, 2002, 297:16-17, 298:13-18, 299:9-13; 202674164-4190 at 4170 (U.S. Ex. 87,066).

353. Based on responses to Interrogatories and Requests for Admission in this case, it is clear that Defendants still refuse to publicly admit what they have known and acknowledged internally for fifty years. That smoking causes lung cancer, heart disease, emphysema, and other diseases is universally accepted by medical and scientific authorities, yet Lorillard, BATCo, and Brown & Williamson still qualify their statements on causation, and R.J. Reynolds acknowledges only that smoking "may contribute to causing . . . diseases in some individuals." Defendant R.J. Reynolds Tobacco Company Responses to United States' First Set of Interrogatories, United States v. Philip Morris et al. (February 6, 2001) (U.S. Ex. 61,446); Defendant R.J. Reynolds Tobacco Company's Responses to United States' First Set of Requests for Admission to All Defendants, United States v. Philip Morris et al. (April 19, 2002) (U.S. Ex. 77,413); Defendant Lorillard Tobacco Company's Responses to United States' First Set of Interrogatories to Defendants, United States v. Philip Morris et al. (February 6, 2001) (U.S. Ex. 61,444); Defendant Lorillard Tobacco Company's Responses to the United States' First Set of Requests for Admission to All Defendants, Amended Pursuant to Order #119, United States v. Philip Morris et al. (April 19, 2002) (U.S. Ex. 86,742); Objections and Responses of Defendant British

American Tobacco (Investments) Limited to United States' First Set of Interrogatories to Defendants, United States v. Philip Morris et al. (February 6, 2001) (U.S. Ex. 77,453); Brown & Williamson Tobacco Corporation's Responses to United States' First Set of Interrogatories to Defendants, United States v. Philip Morris et al. (February 6, 2001) (U.S. Ex. 75,693).

354. And while Defendants have grudgingly made certain concessions in the form of qualified admissions such as the foregoing that cigarette smoking can cause certain diseases, Defendants' decades-long campaign to falsely and fraudulently deny the harmful effects of smoking continues in the form of their intense efforts to mislead the public as to the link between ETS exposure and disease.

(3) Continuing the Pattern and Practice That Began in the 1950's, Philip Morris Suppressed Research and Failed to Warn Consumers about the Excess Fire Danger Posed by Its Banded Paper Cigarettes, Which Were First Marketed in 2000

355. In September 2000, as a result of a research endeavor known as the Banded Paper Program, which was initiated in anticipation of new fire safety regulations in a number of states known as ignition propensity standards, Philip Morris USA began marketing a new brand of Merit cigarettes that included a special cigarette paper. Philip Morris USA sought to develop cigarette paper that would have a lower ignition propensity in certain tests – that is, a product that would be less likely to start a fire if left unattended. The paper was first put on the market in 2000 in cigarettes called Merit PaperSelect. The cigarettes utilize a cigarette paper with bands on it that Philip Morris USA, on promotional materials (including informational "onserts" attached to individual packages of cigarettes for a period after its introduction), likened to "speed bumps" that slow the burning of the cigarette. Deposition of Michael Watkins, United States v. Philip

Morris, et al., May 8, 2002, 69:1-5.

356. Soon after the national introduction of Merit with banded paper, Philip Morris USA began receiving complaints about the product that far exceeded the number of complaints that Philip Morris USA ordinarily receives when it changes a product's design or features. In particular, an unusual number of complaints concerned a phenomenon known as "coal drop off" ("CDO") – literally, when the lit coal of the cigarette drops off the cigarette rod. The coal is the "fire" of the cigarette and is not to be confused with cigarette ash that smokers periodically tap off their lit cigarettes. Deposition of Michael Watkins, United States v. Philip Morris, et al., May 8, 2002, 35:6-21, 213:24-214:22.

357. Philip Morris USA has long been aware of the potential hazards posed by CDO. In fact, in the July 1997 manual explaining how to operate a drop impact machine Philip Morris USA had previously used to test for CDO, Philip Morris USA included a boxed warning for its researchers that stated, "[a]void contact with hot coals during testing." According to the testimony of Hector Alonso, Vice President of Product Development and Technology within Philip Morris USA's Research and Development Department (who has overseen the work of the Banded Paper Program and who had previously worked on CDO), the boxed warning was a valuable cautionary statement for researchers because a dislodged cigarette coal could potentially cause a burn. Yet when confronted with evidence that consumers were experiencing unusually frequent CDO with Merit PaperSelect, Philip Morris USA chose not to inform purchasers of Merit PaperSelect of the precise problem – about which it provided a prominent, explicit warning to its own researchers – because "[i]t's understood that cigarettes are hot." Deposition of Hector

Alsonso, United States v. Philip Morris, et al., June 21, 2002, 124:1-127:25; 2083131281-1288 (U.S. Ex. 45,547); Deposition of Tyrone Murray, United States v. Philip Morris, et al., May 1, 2002, 76:5-10, 77:2-13.

358. Complaints about CDO are exceedingly infrequent for non-banded paper product – about one complaint every two weeks. By contrast, for Merit PaperSelect, Philip Morris USA received complaints at a rate far higher – 211 CDO complaints in September 2000; 247 CDO complaints in October 2000; 173 in November; and ninety-one in December 2002. Among the complaints about Merit's banded paper product were reports that coals had burned holes in t-shirts and sweatshirts, furniture, and rugs, and had fallen into smokers' laps. Persons at Philip Morris USA responsible for the product were informed of the complaints, including Urs Nyffeler, the Senior Vice President for Research, Development & Engineering, and Dave Beran, Senior Vice President of Operations. Philip Morris USA was also aware that the CDO problem could potentially distract people while they are driving, and that someone could get hurt as a result of CDO from banded paper cigarettes. Deposition of Tyrone Murray, United States v. Philip Morris, et al., May 1, 2002, 68:10-69:5, 100:8-22; Deposition of Hector Alsonso, United States v. Philip Morris, et al., June 21, 2002; 2083131325-1326 (U.S. Ex. 20,538) (Confidential); 2079050806-0810 (U.S. Ex. 45,265); 2083131325-1325 (U.S. Ex. 20,538) (Confidential); 2083131343-1352 (U.S. Ex. 23,006).

359. Philip Morris USA assigned Michael Watkins, a Ph.D. physicist with a specialty in "nondestructive evaluation" who had been with Philip Morris USA for fifteen years and who was already working in the Banded Paper Program, to investigate the cause of the increase in

CDO reported by smokers of Merit banded paper cigarettes. Based on preliminary research involving thermography and magnetic resonance imaging techniques, Watkins reported to senior management of Research and Development in October 2000 that the bands on the cigarette paper – which were responsible for the claimed reduction in ignition propensity – also appeared to play a role in causing CDO. Deposition of Michael Watkins, United States v. Philip Morris, et al., May 8, 2002, 36:19-40:11.

360. Watkins' research first focused on testing the methodology of measuring the problem. Both he and Alonso concluded that Philip Morris USA's method of measuring CDO propensity – an old machine that imparted a large periodic impact vibration to a lit cigarette – was unreliable and inadequate for meaningfully detecting differences in CDO for the banded paper cigarette because the periodic impact event of the old machine did not necessarily occur when the cigarette is burning around the bands. Just as significantly, the drop machine also had little relation to the way in which consumers actually use and handle cigarettes, because it imparted forces to the cigarette of 100G forces, far in excess of the 3G-5G forces typical to consumer handling. Indeed, Watkins's supervisor, Tyrone Murray, admitted that even under the drop impact test, banded paper cigarettes had a 40% increase in CDO, but he did not recommend that this information – which he considered scientifically valid – be provided to consumers because the 40% increase occurred on the drop impact test, and "I don't know what kind of increase that would show in consumer use." Deposition of Michael Watkins, United States v. Philip Morris, et al., May 8, 2002, 117:22-118:14; Deposition of Tyrone Murray, United States v. Philip Morris, et al., May 1, 2002, 154:1-155:25.

361. In early 2001, after Watkins was promoted to Senior Research Scientist, his supervisor, Tyrone Murray, communicated pressure from management to address and solve the problem because of Philip Morris USA's plans to launch other brands of its cigarettes using the banded paper. Deposition of Michael Watkins, United States v. Philip Morris, et al., May 8, 2002, 133:3-18.

362. In July 2001, based on his evaluation using several different research tools – thermal and magnetic resonance imaging, an "intrapuff" tool using infrared spectroscopy, and a low frequency excitation device designed to vibrate cigarettes at a force more comparable to that imparted by smokers than the impact machine – Watkins and his research team reported that the bands appeared to play a role in causing CDO. Watkins reported that initial data indicated that cigarettes with banded paper were seven times more likely to suffer CDO when the cigarette was vibrated while the burning coal was entering the band than a nonbanded cigarette. Watkins later replicated his results with a slightly different excitation technique. Deposition of Michael Watkins, United States v. Philip Morris, et al., May 8, 2002, 60:8-17.

363. Murray, who had a personal stake in the banded paper design, was visibly unhappy with the test results. He complained to Watkins and pushed to have the CDO research done on a vibration machine patterned after the drop-impact test, irrelevant to addressing the problem with the smoking habits of public consumers but more likely to yield the results that Murray wanted – namely, a finding of no increased CDO with banded paper. Deposition of Michael Watkins, United States v. Philip Morris, et al., May 8, 2002, 97:24-100:20.

364. In October 2001, Watkins reviewed his research findings with three high-ranking

scientists at Philip Morris (Hector Alonso, A. Clifton Lilly, and Urs Nyffeler), who complimented the quality of his research both as to the inadequacy of the old CDO testing device and as to his investigation into the cause of CDO. Subsequent to that review, he made a presentation reporting on his research to a forum of the Research and Development department. Based on his research, Watkins conservatively estimated that smokers are faced with burning coals dropping from cigarettes 30,000 more times per day than would occur with Merit cigarettes made with conventional cigarette paper. Deposition of Michael Watkins, United States v. Philip Morris, et al., May 9, 2002, 299:10-318:22 (Confidential); Deposition of Michael Watkins, United States v. Philip Morris, et al., May 8, 2002, 112:15-113:15, 151:1-154:2 (Confidential).

365.

Deposition of Michael Watkins, United States v. Philip Morris, et al., May 8, 2002, 124; Deposition of Michael Watkins, United States v. Philip Morris,

et al., May 9, 2002, 311:3-318:22 (Confidential).

366. Watkins's findings were further confirmed in late 2001 when Watkins learned that another Philip Morris USA scientist, Melissa Jeltima, achieved nearly identical results in an extended product test that included the banded paper Merit. Jeltima performed product testing with human smokers. Her test subjects found that CDO occurred in Merit PaperSelect at an increased frequency equal to what Watkins found based on machine testing. Watkins reported Jeltima's consistent findings to Alonso and Lilly. Deposition of Michael Watkins, United States v. Philip Morris, et al., May 8, 2002, 165:8-168:23.

367. In December 2001, Jeltima reported that the results of a call-back study – in which Philip Morris USA contacted Merit banded paper smokers to learn more about consumers' reactions to the product, rather than relying only on complaints made to the company – showed Merit banded paper smokers were still experiencing CDO at elevated levels. Deposition of Michael Watkins, United States v. Philip Morris, et al., May 8, 2002, 155:13-156:18.

368.

Deposition of Michael Watkins, United States v. Philip Morris, et al., May 9, 2002, 179:1-184:4 (Confidential); Deposition of Michael Watkins, United States v. Philip Morris, et al., May 8, 2002, 173:15-179:6 (Confidential),187:4-187:16.

369.

Deposition of Michael Watkins, United States v. Philip Morris, et al., May 8, 2002, 150:23-151:9, 192:15-200:21 (Confidential).

370. Notwithstanding the elevated consumer complaints and research indicating the increased frequency of CDO associated with Merit banded paper cigarettes, Philip Morris USA never warned consumers in any respect about the problem, never informed consumers specifically about CDO in the pamphlet attached to packs of Merit banded paper cigarettes, and fired the scientist whose research pointed to the bands as the cause of the CDO problem.

371. Philip Morris USA has attempted to, but has not successfully, licensed its banded

paper technology to other cigarette manufacturers. In its licensing efforts, Philip Morris USA has provided samples and information to other manufacturers, including R.J. Reynolds and Lorillard. Deposition of Hector Alsonso, United States v. Philip Morris, et al., June 21, 2002, 143:22-144:24; Deposition of Tyrone Murray, United States v. Philip Morris, et al., May 1, 2002, 30:16-31:12.

372. In sum, Watkins expressed concern that his widely supported, replicated, and compelling scientific research describing a design defect that, in a product intended to reduce ignition propensity, actually presents a disproportionate threat of burns and fires, has not caused Philip Morris USA to pull the product off the market or warn consumers. Deposition of Michael Watkins, United States v. Philip Morris, et al., May 8, 2002, 270:19-271:5, 300:10-21, 316:7-318:22, 322:16-323:18.

373. The company's failure to disclose its knowledge of the risks posed by its product is evidence that Philip Morris USA's pattern and practice of concealing the harmful nature of cigarettes continues unaltered.

B. To Support Their Public Relations Position Denying the Health Effects of Smoking, Defendants Agreed Not to Compete on Health Issues and Not To Perform Certain Biological Research

374. Defendants' conduct relating to the research, development, and marketing of potentially less hazardous cigarettes is powerful evidence of Defendants' execution of the alleged RICO Enterprise. Extensive documentary evidence proves that Defendants recognized that there was a substantial potential market for a cigarette that could be marketed as potentially less hazardous, but that they collectively agreed not to do anything in the marketing and development of cigarettes that would jeopardize the public relations position at the core of the scheme to defraud: the denial that any commercially sold cigarettes were a proven cause of disease.

375. Above all, Defendants agreed not to compete on smoking and health issues in the marketing of cigarettes. Accordingly, when a Defendant designed a cigarette – or developed a cigarette component – intended to potentially reduce the delivery of harmful smoke constituents to the smoker, the Defendant limited the types of information that it provided to consumers in marketing such products. Evidence shows that Defendants failed to provide information – even if they believed it to be truthful scientific information – that certain brands or types of cigarettes were likely to be less harmful than others, because such information carried the obvious implication that other cigarettes were harmful. Thus, for the first 46 years of the alleged fraudulent scheme, no Defendant that designed and tested a cigarette to potentially reduce the smoker's exposure to harmful smoke constituents told consumers about the product's potential exposure or harm reducing benefits. As of today, only a single product has been marketed to consumers as potentially less hazardous – R.J. Reynolds's Eclipse, beginning in 2000 after the

initiation of this lawsuit. Only a single such product has been made commercially available beyond a test market – Eclipse, and only beginning in 2003.

376. Similarly, documents show that Defendants limited the types of research they conducted, because they did not want to generate internal evidence to suggest that the companies believed there was any need to examine whether a causative link existed between smoking and disease, let alone create scientific information that demonstrated such a link. Accordingly, Defendants jointly agreed not to perform certain types of biological tests using commercially sold cigarette brands in their domestic research facilities.

377. In defense of their conduct in this area, Defendants collectively point to a half-dozen cigarettes for the entirety of the half-century of the alleged fraudulent scheme. Substantial evidence rebuts Defendants' claims regarding their development and marketing of potentially less hazardous cigarettes. The products Defendants identify generally employ design features or technologies known to Defendants for at least 45 years. Further, there is substantial evidence that during the past five decades Defendants have decided not to incorporate design features or processes that Defendants' own research concluded were likely to reduce the hazards of smoking, were technically feasible, and were acceptable to smokers. In sum, Defendants' conduct in this area is consistent with their well documented agreement not to compete on smoking and health issues.

(1) Defendants Made Public Statements That Linked Development & Marketing of a Potentially Less Hazardous Cigarette to Their "Open Question" Position Denying the Adverse Health Effects of Smoking

378. Defendants made false representations to the public that they would do their best

to protect the public's health, while simultaneously taking the fraudulent public and litigation position that no cigarettes had been proven unsafe. Examples of such public false or fraudulent statements include the following.

379. In January 1954, certain Defendants published the Frank Statement – the seminal public statement (discussed U.S. FPFF § I, supra) that launched their coordinated fraudulent public relations campaign to preserve the market for cigarettes and the industry's profits. In the Frank Statement, Defendants told the American public: "We accept an interest in people's health as a basic responsibility, paramount to every other consideration in our business. We believe the products we make are not injurious to health. We always have and always will cooperate closely with those whose task it is to safeguard the public health." 11309817-9817 (U.S. Ex. 20,277).

380. In March 1954, George Weissman, a Philip Morris Vice President, publicly reaffirmed the industry's commitment to protect the health of its customers, claiming that the cigarette industry would "stop business tomorrow" if it "had any thought or knowledge that in any way we were selling a product harmful to consumers." 2022239339-9343 (U.S. Ex. 21,766).

381. In 1964, Bowman Gray, Chairman of the Board of R.J. Reynolds, stated publicly on behalf of R.J. Reynolds, Philip Morris, Brown & Williamson, Lorillard, Liggett, and American, that "[i]f it is proven that cigarettes are harmful, we want to do something about it regardless of what somebody else tells us to do. And we would do our level best. This is just being human." 501935056-5071 (U.S. Ex. 20,690).

382. In 1971, Philip Morris chief executive officer Joseph Cullman III explained in a "Face the Nation" TV interview that Philip Morris was committed to removing harmful

constituents from cigarette smoke:

> [T]his industry can face the future with confidence because **when, as, and if any ingredient in cigarette smoke is identified as being injurious to human health, we are confident that we can eliminate that ingredient**. We do not believe that cigarettes are hazardous; we don't accept that . . . .

1002605545-5564 at 5550, 5560 (U.S. Ex. 35,622; U.S. Ex. 63,571) (emphasis added).

383. In the January 24, 1972 issue of the *Wall Street Journal*, Philip Morris Senior Vice President James Bowling declared that "[i]f our product is harmful . . . we'll stop making it. **We now know enough that we can take anything out of our product**, but we don't know what ingredients to take out." Bowling further stated that "[w]e don't know if smoking is harmful to health, and we think somebody ought to find out." 500324162-4164 at 4163 (U.S. Ex. 20,627) (emphasis added).

384. In 1997, Altria's Chief Executive reaffirmed his company's professed concern for smokers' health, stating in testimony that if smoking were found to be cause of lung cancer, "I'd probably . . . shut [the] company down instantly to get a better hold of things." Deposition of Geoffrey Bible, State of Florida v. American Tobacco Co., August 21, 1997, 27.

385. In each of the above statements, Defendants' stated commitment to act would have required them to accept and publicly acknowledge that their cigarettes were a proven cause of disease – an admission that would have required them to contradict the position at the core of their coordinated public relations campaigns and litigation defenses from 1954-2000.

(2) Defendants Internally Long Have Acknowledged the Competitive and Economic Advantages from Marketing a Potentially Less Hazardous

Cigarette

386. Over the past four decades, the Cigarette Company Defendants repeatedly have recognized consumer interest in cigarettes that could be marketed as potentially less hazardous. However, as shown throughout this section, Defendants' nonetheless chose not to market any cigarettes – cigarettes that they designed and in fact believed to be potentially less hazardous cigarettes – in this way.

387. In a June 1966 report by Philip Morris researcher Myron E. Johnston, Jr., sent to top scientists Helmut Wakeham and Robert Seligman, Johnston noted: "If we could develop a . . . 'healthy' cigarette that tasted exactly like a Marlboro, delivered the nicotine of a Marlboro, and was called Marlboro, it would probably become the best selling brand." In recommending that Philip Morris develop a new filter design, Johnston indicated that Philip Morris's marketing concerns predominated over actual development of such a "'healthy' cigarette," stating that "the illusion of filtration is as important as the fact of filtration," a novel filter method "need not be any more effective" than current filters. 1000338644–8671 (U.S. Ex. 21,487).

388. Similarly, in a May 25, 1966 report to Lorillard President J.E. Bennett from Alexander Spears, Lorillard's Director of Basic Research who later became its Chief Executive Officer, Spears wrote that the development and marketing of a cigarette that yielded tar with "little or no tumorigenic response [in mouseskin painting tests], would be regarded as a highly significant development by the scientific community":

> Undoubtedly, **such a product would place the corporation in a highly enviable position, and in the writer's opinion a two or threefold increase in sales could result within a short period**. . . . On the other hand, if we fail to pursue this research and/or a competitor marketed a

> cigarette whose smoke condensate gave little tumorigenic response, the writer is of the opinion that a significant sales loss could result.

81577610-7625 at 7611-7612 (U.S. Ex. 55,403) (emphasis added).

389. In discussing one scientist's conception of a "safe cigarette" in its "Long Range Strategic Plan; External Forecast; 1979-1983," R.J. Reynolds noted internally: "If this concept received national consumer media, such as *Reader's Digest*, the dynamics of demand in the marketplace could change dramatically." 500676525-6577 at 6540 (U.S. Ex. 22,087).

390. In that same time period, Lorillard also recognized that the first cigarette company to market a less hazardous cigarette successfully would reap substantial and unilateral financial rewards. In a November 1977 letter, Benito Vila of Lorillard wrote to company marketing executive Richard E. Smith that since "I don't know of any smoker who at some point hasn't wished he didn't smoke," if Lorillard could develop an acceptable alternative method to deliver nicotine, **"I am 100% sure we would have a gigantic brand**." Expert Report of Jeffrey Harris, United States v. Philip Morris, et al. (R. 690; filed Nov. 15, 2001) (U.S. Ex. 78,982) (emphasis added).

391. Undated draft notes to a BATCo memorandum, found in the files of S.J. Green, who served as a scientist, manager and director of BATCo's Research and Development Department in the late 1970's, recognized that a "reduced biological activity" cigarette could be made and offered many "marketing opportunities":

> **Cigarettes of substantially reduced biological activity (SRBA) can be made by product modification and will continue to present a range of marketing opportunities**. By SRBA is meant cigarettes where epidemiology would show no greater incidence of disease for smokers than non-smokers. But there remains a need

> for credible biological tests to facilitate developments. Credibility will continually evolve but could be provided by outside independent medical and scientific advice. . . . **Defensive research will need to be provided for as far ahead as can be seen and this may well include social aspects**.

110078609-8609 at 8609 (U.S. Ex. 34,959) (emphasis added).

392. Similarly, in a March 14, 1983 interoffice memorandum from R.J. Reynolds's R.A. Lloyd, Jr., Brand Manager, to Mike McKee, a Manager in the New Brands and Strategic Research Department, Lloyd commented on recent patents applied for or granted to Philip Morris and Imperial Tobacco Company:

> It is quite likely that smoking devices similar to those described in these patents or other new products perceived as 'safer' will be introduced to the marketplace within the next few years by major tobacco companies. **The company which can introduce such products, which also supply a degree of user satisfaction which approaches that of current cigarette products, will become the dominate [sic] company in the industry almost overnight. It is reasonable to assume that the company who introduces such a product might capture as much as 25 share points in the first year if supply could keep pace with demand**.

505098631-8634 (U.S. Ex. 22,230) (emphasis added); Expert Report of Jeffrey Harris, United States v. Philip Morris, et al., (R. 690; filed November 15, 2001) at 18 (U.S. Ex. 78,982).

393. And again in 1990, Philip Morris indicated to the Altria (then-Philip Morris Companies) Board of Directors that "[w]e believe there is a potential consumer demand for a radically new smoking device that will provide a pleasurable smoking experience, address consumer concerns about health risks and social acceptability, and still be a profitable business venture." 2046741061-1074 at 1061 (U.S. Ex. 22,185).

394. Most recently, Brown & Williamson has recognized that a potentially reduced

exposure product represents . B&W believes that

30(b)(6) Deposition of Paul Wessel, United States v. Philip Morris, et al., March 19, 2003, 10:22-11:3, 11:17-12:2, 42:1-15 (Category 1).

395. Brown & Williamson has stated similarly that the development and marketing of potentially reduced exposure cigarettes present an

271098692-8695 at 8694 (U.S. Ex. 22,033) (Category 1) (emphasis added).

(3) Defendants Agreed Not To Compete on Health Issues in the Marketing of Potentially Less Hazardous Cigarettes.

396. Internal documents show that Defendants recognized that no cigarette company could make marketing claims about less hazardous cigarettes without implicitly or explicitly admitting that all other conventional cigarettes were hazardous. For this reason, Defendants for decades jointly maintained an agreement not to compete in the marketing of cigarettes by claiming that some cigarettes were likely to be less hazardous or "safer" than others. This coordinated approach ensured that cigarette marketing would be consistent with, and thus an effective extension of, the core public relations position that cigarettes were not harmful to health.

397. Even prior to issuance of the Frank Statement, in late 1953 the Presidents of three Defendants – Philip Morris, Lorillard, and American – agreed at a meeting that "their own advertising and competitive practices have been a principal factor in creating a health problem" because to that point, Defendants had made express comparative health claims in advertising.

The meeting minutes stated that the Presidents "ha[d] informally talked over the problem and will try to do something about it." 2048375960-5964 at 5962 (U.S. Ex. 85,819). What they did was stop competition in the marketing of cigarettes on health grounds. See Expert Report of Allan M. Brandt, United States v. Philip Morris, et al., at 6-7, 15-16 (R. 1147, filed May, 10, 2002).

398. In September 1983 – thirty years after this "informal" discussion among industry heads not to compete on smoking and health issues in the marketing of cigarettes – this agreement remained in force. Patrick Sheehy, then Chairman of BAT Industries and former Chair of Defendant BATCo, wrote to Philip Morris's U.S. headquarters over a Philip Morris advertisement in Holland that was critical of BATCo's Barclay brand on smoking and health grounds, an advertisement Sheehy considered "slanderous":

> I find it incomprehensible that Philip Morris would weigh so heavily the short-term commercial advantage from deprecating a competitor's brand while weighing so lightly the long-term adverse impact from an on-going anti-smoking programme. **I believe this is the first time a Tobacco Manufacturer has purchased space to promulgate the anti-smoking position. In doing so, Philip Morris . . . makes a mockery of Industry co-operation on smoking and health issues** . . . .

2023102783 (U.S. Ex. 36,958) (emphasis added).

399. In a follow-up phone call in October 1983, BATCo board member Edgar A.A. Bruell and Philip Morris Chairman and Chief Executive Officer Hugh Cullman reaffirmed the need to maintain the policy of not competing on health grounds in cigarette marketing. Cullman agreed that it was "Essential Industry hang together," that the activity undertaken in Holland was "not PM company policy," and repeated BATCo's request that Philip Morris "'instruct its No. 1's

[top executives] **they must not use anti-smoking activities, statements or programmes for competitive gain**.'" BATCo board member Bruell likewise emphasized that it was "[e]ssential to ensure that in future no member of the Industry does anything similar." 301030943-0944 (U.S. Ex. 46,577) (emphasis added).

400. Similarly, in March 1988, Geoffrey Bible, then President and Chief Executive Officer of Philip Morris International (and later of Altria) condemned tobacco companies publicly acknowledging the notion of reducing the risks from smoking. Decrying a BATCo employee's referring to one of its products as "less harmful" in a newspaper article, Bible wrote, "The use of the words 'less harmful' and 'harmful components' has stunned us and I just cannot understand how tobacco companies can make such comments." 2500046188A (U.S. Ex. 20,548).

(4) Defendants Adhered to the Agreement Not To Compete on Health Issues in the Marketing of Potentially Less Hazardous Cigarettes.

401. From the 1960s through the 1990s, the Defendants' actual approach to marketing the cigarettes that they believed to be potentially less hazardous than other cigarettes confirms that they restricted their marketing of cigarettes so as not to contradict their core public relations position that smoking is not harmful. While Defendants have marketed remarkably few such products – cigarettes expressly and intentionally designed primarily to reduce the delivery of toxic constituents in cigarette smoke – Defendants' marketing approach to them has been strikingly uniform.

402. Though Defendants know that commercial success of less hazardous products depended upon their informing consumers about their potential for harm reduction, Defendants consistently decided against providing information to consumers because it would contradict

their denial that smoking causes disease.

403. For example, a few years after Defendants initiated their public relations campaign hatched at the Plaza Hotel and launched it with publication of the Frank Statement, a memorandum from a Philip Morris marketing executive reflected Defendants' joint agreement not to inform consumers in marketing its cigarettes about any changes to cigarettes that might lessen their adverse health effects. A 1958 document by Philip Morris executive Jet Lincoln noted:

> BENZPYRENE MUST GO. . . . Other ingredients that might be harmful must also go, but benzpyrene should go first because it is the one that seems to be under most suspicion at the moment. . . . **I think we could exploit it without ever saying a word about it in paid advertising**.

1005038656-8658 (U.S. Ex. 22,214) (emphasis added).

(a) The 1960s

(i). Philip Morris: Saratoga Cigarette

404. In the early 1960s, Philip Morris test marketed the Saratoga cigarette, which used a charcoal filter and which was, in its top researcher's view, "superior to anything in the marketplace" from a health standpoint. It failed, the company acknowledged, because Philip Morris chose not to inform consumers of what it believed to be its comparative health benefit relative to other brands.

> Two years ago, in anticipation of a health crisis to be precipitated by the Smoking and Health Report of the Surgeon General's Committee, we undertook to develop a physiologically superior product. . . . That product was Saratoga. Physiologically it was an outstanding cigarette. Unfortunately then **after much discussion we decided not to tell the physiological story which might have**

> **appealed to the health conscious segment of the market. The product as test marketed didn't have good 'taste' and consequently was unacceptable to the public ignorant of its physiological superiority**.

680907829-7987 at 7853-7859 (U.S. Ex. 21,014); 1000307159-7164 at 7160 (U.S. Ex. 20,092) (emphasis added).

(ii). R.J. Reynolds: Multijet Filter

405. By the late 1960s, R.J. Reynolds had developed a feasible cigarette filter that, according to Reynolds's research, reduced the retention of smoke particulate matter by a smoker's lungs by 63%. Unlike the filters Defendants designed for cigarettes they marketed as "low tar" cigarettes, the "multijet" filter limited smoker compensation and yielded tar and nicotine deliveries to human smokers that closely matched their FTC machine-measured yields. R.J. Reynolds's marketers expressed "concern that **utilization [in marketing] of the retention story, scientifically endorsed, may jeopardize the rest of the Company's cigarette business**." See 514901941-1966 at 1941 (U.S. Ex. 30,086) (emphasis added); 504210090-0091 (U.S. Ex. 29,749); 512279835-9836 (U.S. Ex. 30,037). Reynolds never incorporated the multijet filter into marketed products. In fact, R.J. Reynolds revived the idea in the 1990s, again recognizing its potential ability to modify the particle size of the smoke aerosol delivered to smokers, but again did not develop the filter for use in any commercialized product. 510926982-6983 (U.S. Ex. 87,554); 510827052-7068 (U.S. Ex. 87,555).

(b) The 1970s

(i). Brown & Williamson: FACT cigarette

406. In the mid-1970s, Brown & Williamson internally acknowledged a "scientific consensus on alleged ill effects of smoking" that included harm from constituents in the gas phase of cigarette smoke, including carbon monoxide (artherosclerosis, permeable arteries, displacement of oxygen in blood), nitrogen oxide (obstructive pulmonary disease, emphysema), and hydrogen cyanide (cilatoxic). It thus developed FACT, which the company touted as a "low gas" cigarette to compete with low tar products. Brown & Williamson perceived this sort of product as a potential vehicle not only to appeal to the "health-conscious" smoker, but as a method of slowing the incidence of quitting, and also as a way to address people's burgeoning concerns about environmental tobacco smoke:

> The gas reduction segment is expected to emerge in the next 1-2 years. The low gas segment is also seen as a means to eventually stem the decline in smoking incidence through positive statements to smoking consumers and passive smokers alike.

777076768-6792 at 6773, 6790 (U.S. Ex. 54,623).

407. While B&W believed that FACT presented a potential health benefit, it rejected a proposed marketing campaign that would have informed consumers "gas [from cigarette smoke] was a health hazard, and an effective campaign would both educate them of as much, and show how FACT responds to that hazard." Indeed, B&W concluded that Liggett's and Lorillard's prior low gas products had failed in part because of "an inability to communicate . . . distinct health hazards arising from cigarette gases." 777076768-6792 at 6771 (U.S. Ex. 54,623). Nevertheless, Brown & Williamson stated explicitly: "We do not support definition in advertising of the problem of gas in order to specifically communicate its consumer benefit and distinguish it from low 'tar'. **To supply such definition would require overt references to the**

alleged ciliatoxic and cardiovascular ill effects of smoking. **The possible ramifications of this in the Legal, Regulatory, and Policy area are appalling**." 667059296-9299 at 9297 (U.S. Ex. 69,068) (emphasis added).

(ii). Liggett: Project XA

408. Available evidence shows that by 1977, Liggett had developed a new cigarette product, known as "XA," that internal research led it to conclude to be safer to smokers. Liggett viewed the XA cigarette as the means for its long-term survival as a cigarette manufacturer. Liggett saw XA as a way to increase its market share, which had fallen to around 5%, by attracting smokers who desired a cigarette that was potentially less harmful than the cigarette they had been smoking. Deposition of John Bowen Ross, State of Washington v. American Tobacco Co., October 22, 1998, 38, 97-98.

409. However, evidence shows that Liggett cancelled its plans to market the product and took steps to conceal information about the product because of because of pressure exerted by other Defendants which foresaw the potential adverse impact that accurate information communicated to the public about XA could have on the industry.

410. The XA product utilized palladium as a catalyst to alter the chemical reactions occurring in a burning cigarette, thus modifying the composition of cigarette smoke. LATH00312201-2202 (U.S. Ex. 22,149); Hearing on the Legality of Cigarette Advertisements Under the Federal Trade Commission Act, House Subcomm. on Transportation, Tourism and Hazardous Materials (1988) (testimony of James Mold). By 1972, researchers at Liggett had determined that the smoke from XA cigarettes contained lower concentrations of polycyclic

aromatic hydrocarbons ("PAHs"), some of the most harmful constituents in cigarette smoke. 681879254-9715 at 9485 (U.S. Ex. 21,020); LATH 00312201-2202 (U.S. Ex. 22,149); RC 6030071-0071 (U.S. Ex. 22,176); Deposition of James Mold, Cipollone v. Liggett Group, Inc., November 26, 1985, 362-364. By 1976, Liggett researchers had concluded that the smoke condensate from XA cigarettes was also far less carcinogenic (on the order of 77% to 100% less carcinogenic) in the widely accepted, standard mouseskin-painting model. Specifically, the research concluded that XA reduced overall tumors in mice by 85-88%, and cancerous tumors by 77-100%. Expert Report of Jeffrey Harris, United States v. Philip Morris, et al., (R. 690; filed November 15, 2001), at 10 (U.S. Ex. 78,982); LG 2013584–3587 (U.S. Ex. 21,208); LG166090–6102 at 6101 (U.S. Ex. 21,195) (Figure 2); Trial Testimony of Lawrence Meyer, State of Washington v. American Tobacco Co., November 10, 1988, at 5441-5443; Deposition of James Mold, Cipollone v. Liggett Group, Inc., November 25, 1985, 102. Liggett also performed animal inhalation studies and chemical analyses that showed that the addition of palladium did not adversely affect the test animals or create threatening byproducts. 681879254-9715 at 9487 n.298 (U.S. Ex. 21,020; U.S. Ex. 25,444); Deposition of James Mold, Cipollone v. Liggett Group, Inc., November 25, 1985, 102-105 (skin painting and inhalation studies "demonstrated that we had, in fact, eliminated the animal carcinogenicity").

411. In preparing to market the XA cigarette in the late 1970s, Liggett, like the other Defendants, strictly refused to inform consumers about XA's primary design feature and what Liggett concluded was its potential harm reduction benefit for the smoker. Liggett originally wanted to develop a marketing campaign simultaneously conveying the benefits of XA

(tentatively to be marketed as the "Epic" brand) while not making any express health claims about the product, because Liggett feared retribution from other Defendants in light of agreements to coordinate smoking and health research through CTR (which Liggett had not done with XA), and to coordinate marketing through the Tobacco Institute's Committee of Counsel. Trial Testimony of Lawrence Meyer, State of Washington v. American Tobacco Co., November 10, 1988, 5471-5475, 5505-5517.

412. Liggett's unwillingness to break from the Defendants' joint agreement not to state explicitly or implicitly that any cigarettes were safer than any others was evident in a meeting it had with White House officials about XA. Liggett's then-outside counsel, Lawrence Meyer, testified that the purpose of the White House meeting was "to let them know that the [XA] project was coming," and how Liggett's perception was that the White House meeting "was positive" and that "[t]hey were encouraged until such time as almost immediately, someone from the Tobacco Institute called and – and essentially asked . . . [Liggett counsel] Joe [Greer] and some of the others what the hell they were doing." Deposition of Lawrence Meyer, State of Washington v. American Tobacco Co., September 8, 1998, at 109-110.

413. Liggett did not market XA. Explaining this decision, Liggett's President K.V. Dey testified that the goal of the research, on which the company spent twelve years and millions of dollars, was for the purpose of producing a test cigarette yielding smoke condensate less tumorogenic to mouseskin, not to create a cigarette less hazardous to humans. Liggett considered the results irrelevant to the possible effects of smoking on humans," and continued to deny any link between smoking and cancer in humans. Deposition of K.V. Dey, Cipollone v. Liggett, No.

83-CV-28642 (D.N.J.), April 19, 1984, 216:22-221:19; see also 85870124-0125 (U.S. Ex. 88,842); 8570123 (U.S. Ex. 88,843).

414. According to Liggett President K.V. Dey, pressure and threats from Philip Morris not to market XA in the United States contributed to Liggett's decision not to market XA. Deposition of James Mold, Cipollone v. Liggett Group, Inc., November 26, 1985, 191:17-193:18.

415. Lawrence Meyer, former antitrust counsel to Liggett, testified that Brown & Williamson threatened Liggett's "very existence" if it marketed the XA cigarette, including freezing Liggett out of joint defense agreements, and perhaps excluding Liggett from the Tobacco Institute as well. This instruction, delivered through Ernest Pepples, B&W's representative on the Tobacco Institute's Committee of Counsel, was based on B&W's fear that selling XA would be an admission against the interest of all Cigarette Company Defendants. 524007145-7151 at 7148-7149 (U.S. Ex. 20,917); Trial testimony of Lawrence Meyer, State of Washington v. American Tobacco Co., November 10, 1988, 5511-5518, 5540-5541.

416. Liggett feared that, given the view of the XA project by the other Cigarette Company Defendants, if Liggett decided to terminate the project to develop and market XA, it would appear that Liggett was responding to threats to terminate the project, and could be viewed implicitly or explicitly as a part to an agreement to restrain technology. Liggett in-house counsel Greer consequently instructed in-house antitrust counsel Meyer to create an opinion memo for Liggett's executives advising against mentioning outside the company the threats it received about XA because the pressure from Defendants/competitors could be viewed as unlawful. This

warning was circulated at Liggett. Trial testimony of Lawrence Meyer, State of Washington v. American Tobacco Co., November 10, 1988, 5519-5526; Deposition of John Bowen Ross, State of Washington v. American Tobacco Co., October 22, 1998, 82-86.

417. R.J. Reynolds recognized that XA was a feasible potentially less hazardous cigarette. In an internal defense memorandum prepared in approximately 1985, R.J. Reynolds (through its counsel) concluded that a non-carcinogenic cigarette could be made, noting with regard to Liggett's XA product: "Liggett abandoned it, but **only after it had come to a successful conclusion**." (emphasis added). R.J. Reynolds admitted it has made no effort to emulate that product or otherwise to make a non-carcinogenic cigarette notwithstanding the expiration of Liggett's patent on the technology. R.J. Reynolds is well aware that it could market such a technology: "[XA] suggests that 'safer cigarette' technology has been available and in the tobacco industry's patented possession for the last 30 years . . . and still, no safer cigarette." 681879254-9715 at 9482, 9502-9503 (U.S. Ex. 21,020).

(c) The 1980s

(i). R.J. Reynolds: Premier cigarette

418. From the mid 1980s to 2000, R.J. Reynolds developed and test marketed three different products that were designed primarily – and R.J. Reynolds believed successfully – to reduce the delivery of harmful smoke constituents. The company marketed each of these products – Premier, Winston EW/Select, and Eclipse – in conformity with Defendants' joint agreement not to compete on health claims in the marketing of cigarettes, and with knowledge that adhering to the agreement prevented R.J. Reynolds from providing consumers with the

information it knew would have made the cigarettes commercially successful.

419. Dating back to as early as 1957, R.J. Reynolds was aware that researchers in the greater scientific community had recommended reducing the burning temperature of cigarettes to minimize the formation of harmful constituents such as polycyclic aromatic hydrocarbons (a family of compounds that include benzoapyrene). 506149753-9823 at 9767 (U.S. Ex. 20,752); see also U.S. FPFF § IV.B(7), infra (discussions of BATCo's Ariel and Philip Morris's nicotine aerosol research). But it was not until the mid-1980s that R.J. Reynolds developed a cigarette utilizing this design approach. The cigarette, eventually given the name Premier, was specifically designed to reduce the delivery of toxic cigarette smoke constituents by reducing the temperature of the burning cigarette. See, e.g., Deposition of David Townsend, United States v. Philip Morris, et al., August 1, 2002, 551("the real goal [wa]s to reduce the risks"); Deposition of Gary Burger, Arch v. American Tobacco Co., August 21, 1997, at 234; Deposition of J. Donald deBethizy, Hoskins v. R.J. Reynolds, September 25, 1997, at 47, 169 (Premier was "in a class of products that we were studying to try to address the risks associated with our product.").

420. R.J. Reynolds conducted substantial research that led it to conclude that Premier accomplished its objective of decreasing delivery of many known harmful smoke constituents. See 0071763-1772 (U.S. Ex. 85,827); 504949270-9280 (U.S. Ex. 20,738) (Project Spa, the working name for Premier, produces "**no** constituents . . . as a consequence of the incomplete combustion of tobacco that are alleged in traditional cigarette products to cause diseases or contribute to disease causation in humans," and Spa "is not mutagenic, produces no 'adverse biological activity,' and delivers full smoking satisfaction without burning tobacco." (emphasis

in original)).

421. However, when it came to marketing Premier, R.J. Reynolds adhered to its longstanding agreement with Defendants rather than informing consumers of Premier's potential less hazardous benefits. At an October 1987 meeting with the U.S. Food and Drug Administration about Premier, R.J. Reynolds's attorney refused to discuss "safety issues" because the "tobacco industry" maintained that "**conventional cigarettes are not unsafe, and that it would never reverse this position**." He made clear that R.J. Reynolds would not "promote or label . . . [Premier] as safer than conventional cigarettes . . . [because] **such a claim would be an indictment of the tobacco industry and its long standing position that conventional cigarettes are not unsafe**." HHS0880359-0364 at 0361 (U.S. Ex. 85,828) (emphasis added).

422. In testimony in this case, R.J. Reynolds's Chief Executive Officer during its test-marketing of Premier, Gerald Long, confirmed R.J. Reynolds's commitment to protect Defendants' position that cigarettes are not harmful. Long testified that R.J. Reynolds carefully selected its marketing strategy to avoid any implication that conventional cigarettes posed a health threat:

> **[O]ne of the guidelines that we had right from the beginning [of putting together the marketing strategy was] that Premier could not be and would not be marketed as a safer cigarette because of the implications on the tremendous business that we had at hand already**. . . .
>
> **[I]f we had come out and stated here you have Premier, the safer cigarette or the safest cigarette or anything indicating to that, the implication would have come back on our own**

> **products and our competitive products in the industry which we were aware of that that would have stated that they were not safe products, and since our position was that we were marketing, the industry and – ourselves and the industry were selling and marketing safe cigarettes, then we couldn't say in one of our brands that we were coming out with something that was safe, while all the rest was not safe**. . . .
>
> The negative implications, I think, are quite obvious, that **if we came out very strongly with a product, presuming that the product could deliver and it was the product that was in our opinion and the research showed it to be some kind of a – some kind of a product that was considered to be safer than any of the conventional cigarettes on the marketplace, it would have had a substantially negative effect on the rest of the tobacco industry**, and we felt we weren't ready to take on that obligation. . . . What kind of negative effects? It would have turned around and said to people, well, the tobacco companies are publicly admitting we do not market safe cigarettes.

Deposition of Gerald Long, United States v. Philip Morris, et al., October 18, 2001, 86-90 (emphasis added).

423. As a result of this decision, R.J. Reynolds's marketing of Premier focused not on its potential health benefits, but instead on its purported cleanliness and courtesy benefits. The company told the public that it spent the better part of one billion dollars to make a cigarette that "might be more acceptable for somebody to smoke in their home or enable them to be more . . . courteous around . . . nonsmokers, and so forth . . . . Then there are other benefits: no ashes to speak of, you don't get lingering smell of cigarette smoke in your care or in your clothing." Deposition of Andrew Schindler, United States v. Philip Morris, et al., June 12, 2002, 278-279.

424. R.J. Reynolds was well aware that its refusal to inform consumers that Premier's technology reduced delivery of harmful smoke constituents contributed to its failure in the test

market. Then-Chief Executive Officer Long confirmed that Premier's chosen marketing campaigns "failed because we couldn't say what we wanted to say [i.e., that Premier was a safer cigarette]." Deposition of Gerald Long, United States v. Philip Morris, et al., October 18, 2001, at 86-88. Likewise, Reynolds's marketing executives concluded that "most [smokers] did not realize that the product had other [than low ETS] unique attributes (i.e., ... reduction in alleged controversial compounds) . . . As a result, many smokers who tried the product were not adequately prepared for its unique properties." 507543977-4004 at 3986 (U.S. Ex. 85,829); see also Deposition of Joseph Donald deBethizy, United States v. Philip Morris, et al., April 17, 2002, 122 (Premier's "taste was dramatically different and people were unprepared for it").

425. As David Iauco, R.J. Reynolds's head of business development, told the *Philadelphia Inquirer* in December 1997 (concerning R.J. Reynolds's Eclipse cigarette), "No smoker is going to switch to a lower-risk product unless they know of a benefit and believe it. There will be trade-offs and adjustments, things that the smoker will have to give up." 525413253-3262 at 3259 (U.S. Ex. 87,556); see also Expert Report of Jeffrey Harris, United States v. Philip Morris, et al. (R. 690; filed Nov. 15, 2001), at 22 & n.53 (U.S. Ex. 78,962) (quoting statements of R.J. Reynolds scientist David Townsend).

426. Philip Morris reached similar conclusions about R.J. Reynolds's marketing approach to Premier. Philip Morris hired consultants to evaluate R.J. Reynolds's marketing of Premier and found it to suffer from exactly the problem R.J. Reynolds's executive Iauco articulated: Premier's advertising was "ineffective in communicating a relative advantage over the smoker's current brand." 2022259027-9061 at 9027 (U.S. Ex. 20,363).

(d) The 1990s

(i). R.J. Reynolds: Eclipse Cigarette

427. After abruptly ending Premier's test marketing after six months in 1989, R.J. Reynolds developed Eclipse – another cigarette that reduced the burning temperature of the cigarette to reduce the formation and delivery of harmful constituents. Eclipse was first test-marketed seven years later, in 1996. For the first four years of the Eclipse test-market, from 1996 to 2000, R.J. Reynolds marketed Eclipse in the same way it had marketed Premier: as a "cleaner" cigarette due to its producing very low levels of environmental tobacco smoke.

428. In April 2000, R.J. Reynolds announced that it was beginning a new test market of the Eclipse cigarette with the claims that it may present less risk of certain smoking related illnesses "compared to other cigarettes." Specifically, it claimed that Eclipse may pose less risk for lung cancer, chronic bronchitis and emphysema. 530092076-2114 (U.S. Ex. 85,831).

429. While R.J. Reynolds did make some changes to Eclipse by 2000 compared to the initial release in 1996, none of the changes had to do with reducing health risks. See Deposition of David Townsend, United States v. Philip Morris, et al., August 1, 2002, 454.

430. Moreover, R.J. Reynolds's new health claim about Eclipse was not precipitated by any substantial scientific advancement or technology that had not previously been employed or discovered, nor was it supported by any epidemiological evidence. When Eclipse was first released in 1996, R.J. Reynolds scientific research already had let it to conclude that it was a reduced risk cigarette. See, e.g., Deposition of J. Donald deBethizy, Hoskins v. R.J. Reynolds, September 25, 1997, at 169 (Eclipse was "in a class of products that we were studying to try to

address the risks associated with our product."). All but one type of study conducted on Eclipse was performed prior to 1996. While the results of the remaining "bronchoalveolar lavage" ("BAL") study, which examined the lung tissue and measured degree of irritation, was deemed central to the decision to assert a reduced risk claim, Reynolds admits that "technically, those [BAL] studies could have been done" before 1996. Nothing prevented R.J. Reynolds from conducting BAL studies before R.J. Reynolds originally released Eclipse. Deposition of David Townsend, United States v. Philip Morris, et al., August 1, 2002, 454, 540-545.

(ii). R.J. Reynolds: Winston EW/Select cigarette

431. During the mid 1990s, R.J. Reynolds test-marketed its "EW/Select" product, which it developed to reduce certain harmful compounds in cigarette smoke and to be acceptable to consumers. See, e.g., 511080495-0496 at 0495 (U.S. Ex. 85,894) (EW's "[p]rimary goal was to achieve major chemical reductions in controversial compounds. Another important goal was to maintain acceptable taste characteristics for the consumer.").

432. A December 1994 memorandum prepared by Reynolds's then-International Research and Development division describes the special components of the EW design and manufacturing process:

511025613-5615 at 5613-5614 (U.S. Ex. 30,004) (Confidential); see also 513039845-9847 (U.S. Ex. 22,095) (Confidential). The potential reduction in exposure caused by combining these design features, Reynolds scientists believed, had potential significance to cancer and heart disease caused by smoking. See Deposition of Gary Burger, Arch v. American Tobacco Co., August 21, 1997, 156-157, 237-238.

433. By 1994, R.J. Reynolds considered the EW cigarettes to be

By this time, R. J. Reynolds had developed

511689507-9510 at 9507 (U.S. Ex. 22,090) (Confidential).

434. Before EW was ever test-marketed, R.J. Reynolds already had concluded that it would be able to substantiate exposure-reduction marketing statements about EW. By as early as 1993, scientists in the company were confident enough in EW's potential to reduce exposure and its performance on established biological tests that they reached a consensus on scientific claims that R.J. Reynolds could place on a pack insert for EW. 514910471-0472 (U.S. Ex. 22,096).

511689507-9510 at 9507 (U.S. Ex. 22,090)

(Confidential); 517400643-0671 (U.S. Ex. 30,327) (Confidential)

(emphasis in original); see also 511025613-5615 at 5613-5614 (U.S. Ex. 30,004) (Confidential); 700488776-8789 (U.S. Ex. 61,898); 518379854-9867 (U.S. Ex. 30,346) (Reynolds concluded that EW offered reduced chemistry, reduced irritation, reduced cytotoxicity and reduced genotoxicity compared to its traditional cigarette counterparts); 511325258-5260 (U.S. Ex. 30,011) (Confidential) 521909036-9039 (U.S. Ex. 30,518) (Confidential) 510768455 (U.S. Ex. 87,557) (sensory irritation evaluation – November 1994); 521967676-7677 (U.S. Ex. 30,519) (Confidential) 510334975-4977 (U.S. Ex. 29,997) (Confidential)

– September 1994); 510959750-9752 at 9750, 9752 (U.S. Ex. 51,536) (Confidential)

435. Further, R.J. Reynolds's marketing research had previously shown that potential consumers were most interested in hearing about a product's potential to reduce exposure to

carcinogenic smoke constituents. For example, in 1992-93, the company concluded that out of forty different product claims tested, the number one "enduring consumer want" was the "personal concern: want of "reduced controversial compounds." 508128536-8563 (U.S. Ex. 85,883).

436. By 1994, R.J. Reynolds had sponsored extensive consumer concept and product testing for EW, including evaluations of the strength of various reduced exposure claims. It found that the stronger and clearer the reduced exposure message, the greater the consumer interest in the product. See, e.g., 508126677-6690 (U.S. Ex. 85,884); 515873569-3776 at 3681-3684 (U.S. Ex. 85,885); see also 515873569-3776 at 3687-3688 (U.S. Ex. 85,888) (the message of "50% reduction in **alleged cancer causing compounds**" was preferred over the traditional taste claim in consumer testing by a wider margin than the amount by which the milder "50% reduction in **controversial compounds**" was preferred to a taste claim). Even though "the [EW] concept conveyed substantial taste trade offs compared to the "traditional taste" claim, consumers had a significantly higher "Purchase Interest" in the "50% reduction" claim than the traditional taste claim." 515873569-3776 at 3682 (U.S. Ex. 85,888). In light of these results, the marketing research team at R.J. Reynolds repeatedly recommended that its executives use a reduced exposure claim for EW. See 515873569-3776 at 3685 (U.S. Ex. 85,888) (citing 508585371-5427 (U.S. Ex. 85,887)).

437. R.J. Reynolds test-marketed six EW products beginning in April 1995 in Oklahoma as Winston Select ("EW/Select"), and R.J. Reynolds compared sales in that area to sales of non-EW Winston Select in the Memphis region, which was a comparable market.

517964251-4265 at 4253 (U.S. Ex. 30,341) (Confidential).

438. Notwithstanding that (1) R.J. Reynolds scientists designed EW for the purpose of creating a reduced exposure cigarette acceptable to consumers; (2) R.J. Reynolds had scientifically concluded that EW achieved that goal; and (3) marketing research showed that consumer interest was greatest for messages conveying potential exposure reduction, R.J. Reynolds **never informed** consumers in the Oklahoma test market

Depos ition of David Townsend, United States v. Philip Morris, et al., July 24, 2002, at 255, 258-260 (Confidential).

439. While R.J. Reynolds proved willing to make health claims in 2000 about Eclipse without **any** epidemiological support, it claimed in 1995 that it could not and would not make health-related claims for EW/Select 510959750-9752 at 9750 (U.S. Ex. 51,536) (Confidential).

440. Instead of providing the EW test-market consumers the exposure-reduction information that R.J. Reynolds marketing personnel found to be the most appealing to consumers and that R.J. Reynolds scientists concluded could be substantiated, the EW/Select marketing campaign focused on taste. Yet even prior to the test market, R.J. Reynolds's internal research had shown that the taste message for EW

517964251-4265 at 4258 (U.S. Ex. 30,341) (Confidential).

441. R.J. Reynolds's decision to avoid including health-related information in its EW

marketing campaign was based on the same exact reasons that underlay the half-century agreement among Defendants not to compete on health claims. Defendants refused to risk their profits from conventional cigarettes by implicitly or explicitly stating or disclosing that conventional cigarettes cause disease. In 1993, R.J. Reynolds chief counsel Wayne Juchatz asked outside law firm Jones Day Reavis and Pogue to conduct a thorough assessment of EW (then named "Project CC" internally) and its proposed potential marketing strategies, and to prepare a report for "attorneys defending Reynolds against future claims involving [EW]." In June 1994 Jones Day issued a 200-page report containing legal analysis and recommendations. See generally 515873569-3776 at 3575 (U.S. Ex. 85,888).

442. The Jones Day attorneys concluded that, in light of the scientific findings and the results of consumer tests conducted in 1993, "[i]n sum, it appears that, in terms of both taste and price, [EW] is now ready to be introduced onto the market." Noting that R.J. Reynolds set as a benchmark for EW the reduction of 50% of "alleged carcinogenic compounds," and concluding they succeeded ("[EW] substantially reduces certain compounds . . . identified . . . as being potentially harmful to human health"), the attorneys determined that "there are currently no regulations or statutes that prohibit the marketing of [EW]" as a potentially reduced exposure product. 515873569-3776 at 3581, 3667, 3672, 3699 (U.S. Ex. 85,888). Hence the law firm's analysis reiterated R.J. Reynolds's scientific conclusion that EW had the potential to reduce exposure, discussed whether and how to let the public know about that potential, and deemed it legal for the company to do so.

443. Jones Day further acknowledged the "'50% less claimed cancer causing

compounds' is more appealing to consumers than 'reduces controversial compounds' or reduces irritancy,'" and that any of these messages regarding "personal concern" were more appealing to consumers than the message concerning the taste of the cigarette. The law firm neverthless advised that any such direct, aggressive claims "may increase Reynolds' exposure to certain claims in smoking and health litigation," and recommended against even a watered down approach of "reduces irritancy" or "cleaner smoke." The law firm's advice was contrary to the desired approach of "[m]any in Reynolds R&D Division, including Dr. David Townsend, [who] appear to favor strongly an aggressive approach . . . ." 515873569-3776 at 3687-3690 (U.S. Ex. 85,888) (citing 508128039-8053 at 8048 (U.S. Ex. 85,886)).

444. EW's performance in the test-market was a commercial success and confirmed its consumer acceptability. Notwithstanding R.J. Reynolds's failure to disclose the exposure-reduction results it reported internally for EW/Select, sales for this cigarette **exceeded** R.J. Reynolds's market-share standards of at least 0.3 to 0.5%. See Deposition of David Townsend, United States v. Philip Morris, et al., July 24, 2002, 144-147. Sales for EW/Select in Oklahoma "held market share consistent with other products that didn't employ those technologies, but carried the same brand name." Deposition of David Townsend, United States v. Philip Morris, et al., July 24, 2002, at 144-47, 257; August 1, 2002, 447-449. In fact, after just four months

– more than triple or quadruple the baseline requirement. See 514028318-8320 (U.S. Ex. 20,855) (Confidential). And EW/Select actually outsold

514028318-8320 (U.S. Ex. 20,855) (Confidential); see Deposition of Gary Burger, Arch v. The American Tobacco Co., August 22, 1997, 131-132, 181-182, 188-189.

445. Notwithstanding its strong sales performance, R.J. Reynolds pulled the EW product from test market after six months, and has not reintroduced it in the eight years since.

(iii). Philip Morris: Accord

446. In 1998, Philip Morris began to sell, in one limited test market, its first cigarette since Saratoga in 1964 that was designed to reduce the delivery of, and thereby potentially the harm from, toxic smoke constituents. Known as Accord in the United States ("Oasis" in its Japanese test market), Accord is the first and only product marketed by Philip Morris in any capacity that exploits Philip Morris's long-understood principle of heating rather than burning tobacco to avoid the creation of harmful constituents via combustion. Deposition of A. Clifton Lilly, United States v. Philip Morris, et al., May 14, 2002, 41:4-20.

447. Accord is Philip Morris's electrically heated smoking "system." The purchaser receives a kit – a starter set of shorter, specially designed cigarettes and a dark rectangular heating device approximately the size of a large candy bar. To smoke Accord, the smoker inserts a cigarette into the end of the heating device. When a smoker inhales on the inserted cigarette, the inhalation triggers the device's electrical heating element, which heats the cigarette at a temperature below that necessary to create combustion and delivers smoke to the smoker. The device permits a maximum of eight puffs per cigarette, and information about the activity and puff count is provided to the smoker on a small LED display on the device. Deposition of A. Clifton Lilly, United States v. Philip Morris, et al., May 14, 2002, 41, 47-48, 53.

448. Philip Morris researchers claim that various scientific studies demonstrate that Accord has substantially reduced the delivery of fifty-eight harmful constituents believed likely to contribute to causing smoking-related diseases. For example, the company says the level of polycyclic aromatic hydrocarbons is below a measurable amount, the carbon monoxide delivery is extremely low, there is a 90% reduction in 1,3-butadiene production, and the TSNAs delivery is 50% below conventional cigarettes. Philip Morris researchers concluded that their tests have shown that mutagenic activity in the Accord cigarette is lower than conventional cigarettes, and the Ames test on Accord found essentially no mutagenic activity. Scientific evidence also shows that the design of the Accord product limits consumers' ability to compensate for reduction of nicotine and tar by taking stronger draws, because the Accord is designed to only deliver eight puffs of a limited amount of smoke. Deposition of Clifton Lilly, United States v. Philip Morris, et al., May 14, 2002, 53, 227, 246; Deposition of Richard Carchman, United States v. Philip Morris, et al., April 25, 2002, 80.

449. Yet despite its scientific research showing Accord to be a substantial technological achievement, Philip Morris has never informed potential consumers in the test market, through promotional or marketing materials, of its conclusion that Accord is a reduced exposure product and a potentially reduced harm product. Indeed, in a presentation to the Philip Morris Companies Board of Directors in late 1996, Philip Morris stated,

but that in marketing Accord to consumers,

2086120855-0890 at 0855, 0871 (U.S. Ex. 45,812). Just like Reynolds's approach to

marketing Premier and Eclipse, as of 2001 Philip Morris's marketing materials told potential consumers only that with a

Philip Morris has marketed Accord as a cigarette

Deposition of Thomas Dudreck, United States v. Philip Morris, et al. , June 21, 2002, 35-36; LB0011227-1236 (U.S. Ex. 21,854) (Category 1).

450. Philip Morris's marketing representations reflect the company's conscious decision to avoid informing consumers about Accord's lower delivery of harmful smoke constituents. In 2001-2002, Philip Morris's longtime advertising agency, Leo Burnett, was commissioned by Philip Morris to develop a set of Accord ads that included the messages that Accord including fifty-two compounds that

Philip Morris has not used these ads. Instead, the Accord advertising campaign continues to focus on

neglecting to mention any health issues. Deposition of Thomas Dudreck, United States v. Philip Morris, et al., June 21, 2002, 33-34, August 26, 2003, 465-466, 467-468 (Confidential).; LB0037946-7950 (21,855) (Category 1).

(e) The 2000s: Brown & Williamson: Advance

451. In October 1999, B&W entered an agreement with an independent tobacco company, Star Tobacco, Inc., to develop a product utilizing tobacco cured by Star's patented process for creating low-TSNA bright tobacco. 321897765-7767 (U.S. Ex. 88,041); Deposition

of Rufus Hugh Honeycutt, III, United States v. Philip Morris, et al., April 23, 2002, 59:2-17.

452. B&W believes the product, called Advance, is a

B&W bases its conclusion about Advance on its incorporation of two components: a charcoal filter, intended to reduce the delivery of known gas-phase smoke toxins, and bright tobacco cured using a process that reduces the formation, and thus delivery, of TSNAs. 30(b)(6) Deposition of Paul Wessel, United States v. Philip Morris, et al., March 19, 2003, 42:1-43:1 (Category 1); 30(b)(6) Deposition of Sharon Boyse, United States v. Philip Morris, et al., October 11, 2001, 98:2-7; Deposition of Jeffrey Harris, United States v. Philip Morris, et al., March 20, 2003, 360:5-17; Deposition of R. Hugh Honeycutt, United States v. Philip Morris, et al., April 23, 2002, 13:23-15:6, 61:3-66:6; Star USvPM 001440-1459 at 1444 (U.S. Ex. 85,923).

453. On January 13, 2000, Star Scientific, Inc. ("Star") and B&W, agreed that Star would

Star USvPM-000241-0363 at 0362 (U.S. Ex. 85,920) (Category 2). Thus, in October 2000, Star began test-marketing Advance in Lexington, Kentucky, and Richmond, Virginia. Star USvPM 001440-1459 at 1442 (U.S. Ex. 85,923). In addition to the federally mandated warnings, Star voluntarily placed additional information about the product and smoking's harms on the package, and added an informational "onsert" attached to the package. B&W disagreed with Star on the package design for Advance because the copy of the back of Star's package included such statements as "Smoking can take YEARS off your life. It is much safer for you to QUIT than to switch or smoke" and "Star's processing methods greatly reduce SOME cancer-causing chemicals (nitrosamines) and its special filter reduced SOME toxic gases in cigarette smoke." At

deposition, B&W conceded that these statements were not misleading. 30(b)(6) Deposition of Paul Wessel, United States v. Philip Morris, et al., March 19, 2003, 19:3-23:9.

454. Nevertheless, at the conclusion of Star's test-marketing of Advance in Richmond and Lexington, the agreement between B&W and Star was renegotiated. Under the renegotiated agreement, B&W was "not required to get the approval of Star for the product because it is pretty much [B&W's] product." 30(b)(6) Deposition of Sharon Boyse, United States v. Philip Morris, et al., October 11, 2001, 119:3-24; 120:22-121:2.

455. B&W began a new test market in Indianapolis in November 2001, using its own, redesigned packaging and onsert. 30(b)(6) Deposition of Paul Wessel, United States v. Philip Morris, et al., March 19, 2003, 24. B&W retained some of the content from the Star onsert, including a chart comparing the amount of certain smoke constituents delivered by Advance to unnamed lights brands, a statement that there's no such thing as a safe cigarette, and a statement on there that there's not enough information to know whether Advance reduces health risks. 30(b)(6) Deposition of Sharon Boyce, United States v. Philip Morris, October 11, 2001, 117:6-20.

456. However, in contrast to Star, Brown & Williamson was unwilling to voluntarily communicate clear, direct statements of smoking's harms in the text section of its onsert. Among the changes it made to Star's packaging and onsert, B&W:

- deleted Star's statements on the package that referred to "cancer-causing chemicals";
- deleted Star's statements that "Smoking related diseases can KILL you," "Smoking can take YEARS off your life," and "It is much safer for you to QUIT than to switch or smoke.";

- eliminated Star's text references to "carcinogens (cancer-causing chemicals)" and "potent cancer causing chemicals in tobacco and tobacco smoke" in the onsert. B&W instead referred to "toxins";

- deleted Star's onsert statement that "ALL SMOKED TOBACCO PRODUCTS ARE ADDICTIVE AND POSE SERIOUS HEALTH HAZARDS"; and

- deleted Star's statement explaining that "Because many smokers smoke to get nicotine, they tend to smoke more intensely when smoking "lights" or "ultra lights," and that because of such nicotine-driven compensation "lights" and "ultra-lights" are NOT NOW viewed by health scientists as reliably less hazardous." Instead, B&W stated in minuscule type only that smokers "can increase or decrease the amount of smoke that they take in depending on how they smoke their cigarettes" and thus actual delivery may differ from the FTC test measurements.

Compare 524942388-2389 (U.S. Ex. 52,963) & 524942390-2391 (U.S. Ex. 88,038) to Onsert to B&W Advance (U.S. Ex. 87,216).

457. In sum, there is compelling evidence that Defendants agreed not to compete on health claims in the marketing of cigarettes, and that they adhered to that agreement. Over the past 50 years, Defendants have collectively sold (in any capacity) a small handful of products that were designed primarily to reduce the delivery of known harmful constituents of cigarette smoke to the smoker, and thus to potentially reduce the harm to the smoker from smoking. Until Eclipse in 2000, none of Defendants' marketing for any of these products expressly communicated to consumers the purpose behind the primary design features so as to allow smokers to evaluate the potential benefits of the product, even though Defendants' marketing research showed that such information was important to consumers when considering whether to smoke the products.

(5) Defendants Agreed Not To Perform Certain In-House Biological Research That Would Confirm or Acknowledge That Smoking Cigarettes Causes

Disease.

458. Another facet of Defendants' long-term coordination related to the development and marketing of potentially less harmful cigarettes was reflected in the "Gentleman's Agreement" among the tobacco company Defendants. Under this agreement, Defendants committed not to perform certain types of in-house biological research. Though Defendants themselves acknowledged that such research was critical to a meaningful evaluation of whether certain cigarettes were likely to be less hazardous than others, it might lead to the conclusion or prove that smoking caused disease or illness, and thus conflict with their public denials of smoking's adverse health effects. By their words and their actions, Defendants confirmed their common understanding of, and basic adherence to, this agreement.

(a) R.J. Reynolds

459. In March 1983, high ranking R.J. Reynolds scientists Alan Rodgman and Frank Colby described the core parameters of this agreement:

> Throughout the domestic industry, two "gentleman's agreements" were operative in the early days:
>
> [a]ny company discovering an innovation permitting the fabrication of an essentially 'safe' cigarette would share the discovery with others in the industry; and
>
> **No domestic company would use intact animals in-house in biomedical research**.

501543470-3517 at 3504 (U.S. Ex. 21,737) (emphasis added). This agreement reflected Defendants' intent that no company undertake activities that would explicitly or implicitly acknowledge that cigarettes are harmful or yield research that shows cigarettes are harmful. See

U.S. FPFF § IV.B(3), supra.

460. In 1981, scientists at Temple University made a research proposal to R.J. Reynolds entitled "Selective Removal of Oxidants from the Tobacco Mainstream Smoke Aerosol." In an October 26, 1981 memorandum concerning the Temple proposal, Colby wrote:

> There is a clear-cut agreement among all U.S. cigarette manufacturers that any scientific discovery made within the companies, or otherwise sponsored by a single company, which might have a positive impact on the smoking and health controversy, would have to be freely shared, without any costs to the other manufacturers. There would, therefore, be no incentive for R.J. Reynolds to sponsor the Cohen project. This applies to any other product development oriented research by a medical institution to be sponsored by a U.S. tobacco company.

500534388-4389 (U.S. Ex. 29,467).

461. Earlier, the existence and terms of the Gentleman's Agreement was expressly recognized by a member of the Board of Directors of R.J. Reynolds. In 1978, Herschel H. Cudd, Jr., criticized Philip Morris for performing animal research at its INBIFO laboratory in Germany: "A wholly-owned subsidiary in Cologne, Germany engages in carcinogenic biological research, such as mouse painting, **in violation of the verbal agreement among domestic companies not to perform animal testing in-house**." 503940653-0688 at 0669 (U.S. Ex. 21,436) (emphasis added); 681879254-9715 at 9332 (U.S. Ex. 21,020; U.S. Ex. 25,444).

462. And in 1981, R.J. Reynold's scientist Colby stated in a memorandum that "[i]nformation was obtained that Philip Morris U.S.A. does not live up to the **alleged 'gentlemen's agreement' of not having animal laboratory facilities on their premises in this country**. Philip Morris indeed has had such facilities for at least 3-4 years and continues to

operate them. This information was communicated to all concerned." 501626469-6469 (U.S. Ex. 21,576) (emphasis added).

463. R.J. Reynolds's repeated references to the Gentleman's Agreement in the 1970s and 1980s came after the company was found briefly to have violated the Agreement in the late 1960s, when it established a facility (known as the "Mouse House") to perform certain animal studies. And, as described more U.S. FPFF § IV.D., infra, when Philip Morris discovered and complained about R.J. Reynolds's violation of the Agreement, R.J. Reynolds quickly dismantled the Mouse House and its in-house biological research program.

(b) BATCo

464. Actions undertaken by BATCo also evidence an awareness of and conformity with the principles underlying the Gentleman's Agreement. On September 16, 1976, B&W in-house counsel Ernest Pepples warned BATCo against participating in a British safer cigarette working group because it would be recognized as an acknowledgment (that could be attributed to B&W in the United States):

> that there is a health hazard from smoking;
>
> that the current state of the art knowledge is sufficiently advanced that an independent committee can posit reasonable steps for a manufacturer to take which may reduce risk to consumers; and
>
> that BATCo would have to cooperate in reaching recommendations re changes to the product itself.

Instead, in order to protect United States legislative and litigation activities, B&W urged BATCo to take the following positions:

> **the scientific picture is so complex that a cause effect**

> **relationship cannot be divined and therefore rather than researching a safer product, it is better to research the multifactorial relationships between individuals and onset of disease; [and]**
>
> **to adhere to the view that the use of tobacco is not unduly dangerous, which permits the company to avoid any duty to warn or to make affirmative changes to the product.**

680273641-3643 (U.S. Ex. 20,998) (emphasis added).

465. In 1986, BAT Industries Chair Patrick Sheehy, in a confidential internal memorandum in December 1986, again reaffirmed the Defendants' collective position in response to a request by a subsidiary to fund "safer cigarette research":

> **In attempting to develop a 'safe' cigarette you are, by implication in danger of being interpreted as accepting that the current product is 'unsafe' and this is not a position that I think we should take**. . . . The BAT objective is and should be to make the whole subject of smoking **acceptable** to the authorities and to the public at large since this is the real challenge facing the industry.

109875217-5218 (U.S. Ex. 22,040) (emphasis added).

466. As early as the 1960s, the Cigarette Company Defendants funded carefully controlled and collectively supported research in order to prevent individual companies from performing their own scientific research that might link smoking to disease. In 1962, BATCo's Charles Ellis told a conference of BATCo and B&W scientists, "We are committed not to carry out any biological testing ourselves and as I have said this is a valuable safeguard against unilateral action." 107468730-8764 at 8744 (U.S. Ex. 20,252). The scientists recommended that any such testing be done through Harrogate, the lab supported by Tobacco Research Council, the British equivalent of the Tobacco Institute.

467. BATCo urged that, as a strategic matter, Defendants should collectively perform all future research on the biological activity of cigarette smoke, noting:

> If, in fact, this had been the case in this circumstance then Lorillard could not have come out with such [a unilateral] pronouncement [that its Kent cigarette had a new filter with a 90% efficiency for phenol]. This is a good reason for doing medical and biological research industrywi[d]e and it points out the danger which might be expected when any single firm goes it alone.

107468730-8764 at 8735 (U.S. Ex. 20,252).

468. The BATCo researcher acknowledged that questions about the health effects of certain smoke constituents have both "the scientific side and the political attitude," and that the "**political implications have at the moment by far the greater importance**." He stated that Defendants refused to take "a more positive approach to this whole problem of producing 'safe' cigarettes" because of the threat it posed to defense of ongoing lawsuits. He further urged that Defendants proceed collectively in any research studying the composition and adverse physiological effects of cigarette smoke. 107468730-8764 at 8741-8744, 8750-8754 (U.S. Ex. 20,252) (emphasis added).

(c) Philip Morris

469. Immediately following the publication of the 1964 Surgeon General's Report, Philip Morris's scientists urged the company to be at the forefront of less hazardous cigarette development, reduced risk advancement, and product testing – to be prepared in case Defendants' agreement not to compete on smoking and health issues was abandoned. As shown below, in-house scientists' desire to take a responsible approach to the testing and research on the health effects of Philip Morris's cigarettes were overridden by Philip Morris executives who were

committed to adhere to the Gentleman's Agreement and the original plan hatched at the Plaza Hotel in December 1953.

470. In a February 18, 1964 memorandum, chief scientist Helmut Wakeham urged Philip Morris to: (a) gain a competitive advantage by increasing in-house research on the connection between smoking and health and by developing a "superior filter cigarette with acceptable taste having high gas-phase absorption and very low TPM [total particulate matter, or tar]" which would be "biologically approved on all major health questions"; (b) recognize that "health impact will surely be an important, perhaps the most important, basis for competition in the industry in the next few years"; (c) break up what he acknowledged to be "the common front approach of the industry through The Tobacco Institute and TIRC [the Tobacco Industry Research Committee, which became CTR]. R.J. Reynolds advocates a joint front, sit tight, status quo approach"; (d) establish "suitable biological approval specifications for all new smoking products"; and (e) change the status quo so that Defendants would conduct their own research on the connection between smoking and health "if they expect to develop proprietary position for the health competition." 1000335612-5625 at 5615, 5616, 5617, 5618 and 5623 (U.S. Ex. 22,986; U.S. Ex. 63,579).

471. Later in 1964, chief scientist Wakeham confirmed that Philip Morris's interest in expanding its research capabilities was defensive in nature: "**Our philosophy is not to start a war, but if war comes, we aim to fight well and to win**." 1000307159-7164 at 7164 (U.S. Ex. 20,092) (emphasis added).

472. Contrary to Wakeham's urgings, however, Defendants continued to **jointly** fund

and perform biological research on the health effects of smoking, rather than individually performing cigarette research and development programs that could lead to competition on health claims in the marketing of cigarettes. In February 1968, for example, the scientific directors of Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, American, and Liggett met "to discuss the scientific aspects of the problems facing the tobacco industry with specific emphasis on tobacco and health." Notes of the meeting from Liggett's representative reported **"a general feeling that an industry approach as opposed to an individual company approach was highly desirable**." MNAT00770687-0691 at 0688 (U.S. Ex. 59,816) (emphasis added).

473. Chief scientist Wakeham admitted as early as 1964 that Philip Morris had the ability to conduct studies to determine whether Philip Morris's various cigarette designs caused any differential incidence of disease. Wakeham argued that Defendants, through TIRC/CTR, should sponsor an epidemiological study of the comparative health effects on smokers of non-filtered cigarette and filtered cigarettes:

> The health value of filters is undersold in the [Surgeon General's] report and is the industry's best extant answer to its problem. The Tobacco Institute obviously should foster the communication of the filter message by all effective means. At the same time TIRC can profitably sponsor development of those areas where exceptions to the report's treatment have been made [earlier in the document]. **Specifically, a prospective survey of filter vs. non-filter smokers is appropriate**. . . . [T]he industry must come forward with evidence to show that its products, present and prospective, are not harmful. Medical research must be done for this purpose, as well as for judging the merit of work done outside the industry. **The industry should abandon its past reticence with respect to medical research. Indeed, failure to do such research could give rise to negligence charges**.

1000335612-5625 (U.S. Ex. 22,986) (U.S. Ex. 63,579) (emphasis added). Philip Morris never

conducted this or any other epidemiological research. See Deposition of Richard Carchman, Williams v. Philip Morris Inc., March 16, 1999, 54:22-58:13.

474. Chief scientist Wakeham was well aware of the existence of the Gentleman's Agreement and the Defendants' continued adherence to it. In fact, BATCo scientists reported that Wakeham "was told that **there was a tacit agreement among the head of the US companies that [in-house biological research] would not be done**." 110315968-5971 at 5969 (U.S. Ex. 26,378) (emphasis added).

475. In the late 1960s, Wakeham again proposed to executives that Philip Morris abandon its agreement not to conduct in-house biological research that could lead to the conclusion that cigarettes cause disease. In a November 1968 internal memorandum identified as a draft and entitled "Need for Biological Research by Philip Morris Research and Development," Wakeham referred explicitly to the Gentleman's Agreement:

> We have reason to believe that in spite of **gentlemans [sic] agreement from the tobacco industry** in previous years that at least some of the major companies have been increasing biological studies within their own facilities. . . . **Essential** to the development and introduction of any product are **biological studies** proving safety of the product . . . .

1001607055-7061 at 7058, 7061 (U.S. Ex. 21,617) (U.S. Ex. 76,155) (emphasis added).

476. Another version of the Wakeham memorandum, dated November 15, 1968, restated Wakeham's proposal to Philip Morris executive Clifford Goldsmith that Philip Morris test its products notwithstanding Defendants' agreement: "We have reason to believe that while this proposal to carry out biological research and testing may seem a radical departure from previous policy and practice, we are in fact only advocating that which our competitors are also

doing." 1002635062-5065 (U.S. Ex. 20,139).

477. In that same memorandum, Wakeham again proposed that Philip Morris test the biological effects of its cigarettes for defensive reasons: "We must know more about our products than anyone else so that we are not surprised when our competitors or our antagonists publish information about our products. We must know how our products perform in conventional tests regardless of whether or not we believe the tests to be significant." 1002635062-5065 at 5065 (U.S. Ex. 20,139).

478. In July 1969, Wakeham, at the instruction of Philip Morris Chief Executive Officer Joseph Cullman III, prepared and distributed an eight-page proposal outlining a $500,000 per year, in-house biological research and testing program for Philip Morris. Wakeham emphasized that since the National Cancer Institute ("NCI") had begun using biological assays to test experimental cigarettes and was likely to proceed to test actual commercial brands of cigarettes, Philip Morris should perform its own testing on commercially sold cigarettes so that it would be prepared to respond to research results NCI produced. 2024972427-2436 (U.S. Ex. 87,559).

479. On September 9, 1969, Wakeham continued to advocate to Philip Morris executives that Philip Morris should perform research and testing of the health effects of its cigarettes. In a memorandum, Wakeham reviewed British mouse skin painting data and: (a) noted that this was the best test for measuring biological activity for cigarette smoke, notwithstanding Defendants' public criticisms of this method; (b) explained the results to show the existence of a dose-response relationship, and to show that reconstituted tobacco cigarettes

"made from whole leaves but not containing excess stems" produced fewer tumors than did condensate from flue-cured cigarettes, which suggested that the former results might play a positive role developing a less hazardous cigarette; and (c) urged Philip Morris to begin testing its cigarettes with this methodology. This memorandum stated, in part:

> The mouse skin painting carcinogenicity test, despite all of its short-comings, is widely accepted as the critical test for biological activity of cigarette smoke. Even the tobacco industry is now hung on this one because of its acceptance of this test in the Chemosol evaluation. The Tobacco Working Group of the National Cancer Institute is also using this test as the primary assay of smoke. The conclusion from all this is inescapable: We should start testing our products now because it will be two years before we know the answer.

1000855768-5770 at 5768-5769 (U.S. Ex. 20,111).

480. One week later, on September 16, 1969, Philip Morris executive Ross Millhiser wrote to George Weissman, Philip Morris's President, about the Wakeham proposal: "I strongly endorse the program and feel that further delay of its implementation would present undue risks to the corporation." 2025010565-0565 (U.S. Ex. 87,560).

481. Nevertheless, Chief Executive Officer Cullman decided that Philip Morris would not pursue any biological research program. On October 7, 1969, Cullman wrote to Millhiser: "I have discussed with you and George Weissman informally my serious reservations about the wisdom of embarking upon this program at this time. . . . **I still favor having the Council for Tobacco Research - U.S.A. approach this problem as it has in the past. The legal, philosophical, and practical problems of mounting a PM biological research program seem to me to outweigh the advantages**." 1003058247-8247 (U.S. Ex. 87,561) (emphasis added).

482. And in a February 24, 1970 memorandum to Wakeham that was copied to Weissman, company general counsel Paul Smith, Millhiser, and Wakeham's boss Clifford Goldsmith, Cullman elaborated on his decision and "the strong stand I have taken in connection with certain kinds of research activities by Philip Morris." He wrote that "our present policy is the correct one and that the program you are carrying out in Boston is as far as we should go now. **The possibility of getting answers to certain problems on a contractual basis in Europe appeals to me and I feel present an opportunity that is relatively lacking in risk and unattractive repercussions in this country**." 1000216742-6742 (U.S. Ex. 20,081) (emphasis added). Philip Morris ended up buying the INBIFO lab in Cologne, Germany, to perform some biological research in a way that would avoid "unattractive repercussions" in the United States. As noted supra, U.S. FPFF § IV.B(5), R.J. Reynolds considered research at this Philip Morris-owned facility a breach of the Gentleman's Agreement.

483. In May 2001, longtime Philip Morris scientist Jerry Whidby confirmed that Philip Morris USA never conducted such biological testing of commercial cigarette brands like that advocated by Wakeham in the 1960s.

> Q. In the 1970s and 1980s and 1990s, while you were at Philip Morris, did Philip Morris do testing on commercial branded cigarettes like Marlboro and Winston, biological testing?
> A. No, we did not.
> . . .
> Q. Did you ever see of or hear, see or hear of any biological tests that were conducted by INBIFO that compared various whole products, commercial brands of cigarettes like Winston and Marlboro?
> A. No, I did not.
> . . .
> Q. Has Philip Morris ever conducted a test to determine whether

> in fact a Marlboro Light is any safer, any more safe or less safe than a Marlboro Red?
> A. No, we have not.

Trial Testimony of Jerry Whidby in Blue Cross & Blue Shield of New Jersey v. American Tobacco Co., May 2, 2001, at 4808, 4814, 4849.

484. Similarly, former Philip Morris scientist Richard Carchman has confirmed that "the [Project] Parameter test [begun in 1999] is the first time Philip Morris commercial brands were subjected to these biological assays [for cytotoxicity]." Deposition of Richard Carchman, United States v. Philip Morris, et al., April 25, 2002, 220-223.

485. Consistent with the Gentleman's Agreement not to perform certain types of biological research in the facilities of the Defendant Cigarette Companies, which continued into the 1980s, Philip Morris prohibited its scientists from publicly disclosing, without prior legal department approval, that Philip Morris was engaged in in-house animal research. See, e.g., 1000127789-7790 (U.S. Ex. 34,422) (1980 memorandum of a Philip Morris scientist referring to the Defendants' longtime legal defense that "'We within the industry are ignorant of any relationship between smoking and disease. **Within our laboratories no work is being conducted on biological systems**.'") (emphasis added).

486. On January 26, 1981, Paul Eichorn, a scientist on Philip Morris's manuscript review board, requested permission to circulate for internal review a report of a study that involved administering nicotine to rats. Eichorn asked Robert Seligman, Philip Morris's Vice President for Research & Development: "Before the Manuscript Review Board starts its review we would like to know if the subject matter (nicotine and physiological response – study in our

facilities) would be allowed for release." Seligman responded on February 2, 1981: "I plan to pass this by Alex Holtzman [Philip Morris's counsel in New York] **before** going back to the M.S. board." 2021380745-0746 at 0745 (U.S. Ex. 87,562) (emphasis in original).

487. Eichorn circulated the report to other Philip Morris personnel for review. The responses make clear Philip Morris's continuing secrecy of its in-house animal research:

> "**Are we willing to publish results of studies performed inhouse on intact animals**? WFG [Walt Gannon]" "Good question RT [Robert Thomson]" "Since word of this work and similar stuff does appear to find its way outside the company anyway publication may be preferable to suspicions. WF [William Farone]" "**Need to get legal OK out of N.Y.** [writer unidentified], 2021380714-0714 (U.S. Ex. 87,563) (emphasis added).
>
> "**Do we want it known that we do animal studies**? CHO [Cynthia H. O'Donohue]," 2021380718-0718 (U.S. Ex. 87,564) (emphasis added); and
>
> "Strongest abstract I've seen. **I'm still doubtful on publishing rat projects**. BK [B. Kosakowski]," 2021380721-0721 (U.S. Ex. 87,565) (emphasis added).

According to one scientist, the prohibition on publication extended even beyond animal research: "My question – why are we allowing this type of information to be presented and **NOT** allow papers which refer to the chemical composition of tobacco/smoke (components which have previously been reported) to be published **or** presented? Manuel [Manuel Bourlas]" 2021380730-0730 (U.S. Ex. 87,566) (emphases in original).

488. And, notwithstanding the 1981 claim by R.J. Reynolds's Frank Colby that Philip Morris was violating the Gentleman's Agreement, in 1984 Philip Morris research Director Thomas Osdene, who oversaw Philip Morris's externally conducted research related to the health effects of smoking, testified that all such research was done outside of Philip Morris's research facilities in the United States. 30(b)(6) Deposition of Thomas S. Osdene, Cipollone v. Liggett,

October 3, 1984, at 47:25-48:16, 82:6-24, 123:15-124:5 ("We did not do any animal work in-house in the United States.").

(d) Brown & Williamson

489. As indicated supra, U.S. FPFF § IV.B(5)(b), Brown & Williamson's continued adherence to the agreement not to conduct meaningful biological research in-house to develop potentially less hazardous cigarettes, and not to compete on health claims was articulated in a 1976 memorandum from counsel: **"the scientific picture is so complex that a cause effect relationship cannot be divined and therefore rather than researching a safer product, it is better to research the multifactorial relationships between individuals and onset of disease . . . . [Brown & Williamson should] adhere to the view that the use of tobacco is not unduly dangerous, which permits the company to avoid any duty to warn or to make affirmative changes to the product."** 680273641-3643 (U.S. Ex. 20,998) (emphasis added).

490. Brown & Williamson believed that research on potentially less hazardous cigarettes would undermine Defendants' public relations position that cigarettes are not harmful. Indeed, in 1989 Brown & Williamson's longtime in-house counsel advised that Brown & Williamson should not pursue the development of any less hazardous cigarette or undertake meaningful biological research that would be inconsistent with its public position regarding smoking and disease:

> You asked me to outline a response to a suggested strategy for modification of cigarettes in ways which would be said to reflect the smoking and health controversy. The suggestion includes constructing cigarettes which would have modifications such as lower biological activity, lower levels of specific smoke constituents, and lower tar and nicotine; approaching 'regulators'

> to seek approval of such modified products; and marketing the modified products to consumers. Brown & Williamson should oppose the suggested strategy for several reasons, the first of which is that **science does not support offering a modified product as relevant to concerns about smoking and health**. . . . Brown & Williamson's positions on smoking and health are based on science. Today, **our opinion is science has not established that smoking causes disease in humans and no cigarette can be constructed which would be safer than another**. . . . Neither the Ames test nor any other bioassay (including 90 day rodent inhalation tests) would provide substantiation for a manufacturer's statement that a product modification was significant for smoking and health. . . . [I]t is not established that the reduction or removal of specific smoke constituents or of smoke constituents across the board, such as in low tar cigarettes, is significant for smoking and health.

680701034-1038 at 1034 (U.S. Ex. 21,010) (emphasis added).

491. In the fall of 1989, scientific leaders of BATCo research from its Brown & Williamson location as well as from its foreign entities met in Vancouver, British Columbia, to discuss the development of a less hazardous cigarette, including the selective reduction of harmful substances and nicotine analogues. The scientists produced a fourteen page set of minutes from that meeting. Brown & Williamson and BATCo lawyers – particularly Brown & Williamson Assistant General Counsel Kendrick Wells – obtained a copy of those minutes and eliminated twelve of these pages. All references to less hazardous cigarettes – from which a conclusion ostensibly could be drawn that currently sold cigarettes were not safe and that nicotine is addictive – were removed. Deposition of Jeffrey Wigand, In re Mike Moore (No. 94-1429), November 29, 1995, 41:3-45:24, 54:13-55:11, 67:6-22, 69:1-70:23.

492. Following that Vancouver meeting, Brown & Williamson President Thomas Sandefur instructed Vice President for Research and Development Jeffrey Wigand to discontinue

discussion or research relating to the health or safety of cigarettes, even though BATCo was conducting selective reduction research in Canada and the United Kingdom. Sandefur said that alluding to the prospect of a less hazardous cigarette would be tantamount to admitting that its conventional cigarettes were not sage and therefore fatal to the company's public position. Sandefur also prohibited Brown & Williamson from having a scientific and medical advisory committee to provide direction or support for the development of a less hazardous cigarette. Deposition of Jeffrey Wigand, In re Mike Moore (No. 94-1429), November 29, 1995, 58:12-60:21, 70:2-71:23, 77:3-78:21.

493. When Wigand had first arrived at Brown & Williamson, he learned that it had previously conducted various biological studies including studies related to nicotine and the biological activity of different cigarette blends, but Brown & Williamson executives precluded him from learning the results of those studies – including the results of tests performed on potentially less hazardous cigarettes Ariel and Mad Hatter. Deposition of Jeffrey Wigand, In re Mike Moore (No. 94-1429), November 29, 1995, 62:2-66:20, 79:14-22, 89:20-91:15, 98:6-102:24; cf. Expert Report of William A. Farone, United States v. Philip Morris, et al., (R. 663; filed November 15, 2001), at 9 (U.S. Ex. 61,180) (as Philip Morris's Director of Applied Research, Farone was not permitted to see results of biological research conducted at Philip Morris's German INBIFO facility).

(e) American Tobacco

494. An August 1965 memorandum from counsel for Defendant American Tobacco reported the company's adherence to the agreement not to engage in an in-house biological

research program:

> At the conclusion of our conference Harlow stated the opinion that the program contemplated would make the Company's past and current position in the health field untenable. Harlan thought that we'll have to give it [the program] up. Harlow ultimately stated that, while the program was important and he wanted very much to do it, he would certainly not want to do anything that has an impact on the Company's position or if it makes that position any less sound than it now is.

The memorandum further noted that American Tobacco had "initiated no biological research on animals in its own laboratory" since the 1930s. Counsel warned that undertaking a proposed biological research program, which included developing techniques "to measure and evaluate [and compare] the biological effects" of American Tobacco's products, would potentially undermine its "past fundamental position" denying the harmfulness of cigarettes and to support its position in product liability litigation: "any attempt by the Company publicly to assert product improvement in terms of health on the basis of its [proposed] animal results involves all the . . . problems for its public and legal position in the health controversy." MNATPRIV00026861-6916 at 6863, 6909, 6912 (U.S. Ex. 21,478).

(6) Defendants Have Developed Products To Use Defensively If Another Company Violated the Agreement Not to Compete

495. Consistent with Defendants' agreement not to compete on health claims in the marketing of cigarettes, Defendants have withheld or removed from the market cigarettes that their internal scientific research concluded were likely to reduce smoker's exposure to known harmful smoke components, and were improvements over competitor's cigarettes. To the extent that Defendants developed less hazardous cigarettes or technologies, they have done so for defensive reasons – to be prepared to respond if other Defendants contravened the agreement and

began marketing a cigarette using health-related claims. Notwithstanding these defensive efforts to internally develop potentially less hazardous cigarettes, Defendants continued to adhere to their Gentleman's Agreement not to market them in a manner that drew a favorable comparison to conventional cigarettes on health-related grounds.

(a) Philip Morris

496. By November 1961, Philip Morris had conducted sufficient research to conclude that a "medically acceptable low-carcinogen cigarette may be possible." Its Research & Development Department continued research into less hazardous cigarettes in order to be prepared to compete on health grounds, but only if necessary. A Helmut Wakeham presentation to the Philip Morris board of directors in October 1964 noted:

> [T]he Research and Development Department is working to establish a strong technological base with both defensive and offensive capabilities in the smoking and health situation. **Our philosophy is not to start a war, but if war comes, we aim to fight well and to win**.

1000307159-7164 at 7164 (U.S. Ex. 20,092) (emphasis added).

497. As additional evidence of Philip Morris's defensive approach to the development of less hazardous cigarettes, in 1979 Philip Morris was considering the development of an extension of its new Merit brand that would reduce the delivery of carbon monoxide. In his notes from the October 15, 1979 meeting of scientists to discuss this product, Robert Seligman indicated Philip Morris's plan to keep the less hazardous product on the shelf once developed: "!! May be a very important product to have 'on the shelf' and in test market." 1003713936-3938 at 3938 (U.S. Ex. 35,855).

498. Also in the late 1980s, Philip Morris developed a product it considered competitively superior to Reynolds's Premier and that it believed to be a potentially less hazardous cigarette. However, a June 27, 1990 presentation to the Philip Morris Companies (now Altria) Board of Directors discussed Philip Morris's plan to market the less hazardous product as part of a defensive strategy only if necessary:

> We have developed our . . . prototype to the point where **it is a good competitive product for the Premier category.** It is superior to Premier in taste, lightability, and it delivers much less carbon monoxide than Premier. Our product is approaching the point where it will be ready for test market – further refinements are required but **we think we are pretty well placed to respond if necessary to a relaunch of a Premier-type product by Reynolds**.

2046741061-1074 at 1063 (U.S. Ex. 22,185) (emphasis added).

499. In the late 1990s, Philip Morris undertook its Selective Constituent Reduction Program ("SCoR" or "SCRP") to develop a conventional looking, lit-end cigarette product (unlike the electrically heated Accord device, discussed at U.S. FPFF § IV.B(4), supra, that removes certain harmful constituents from the cigarette smoke. Philip Morris has failed to market this product at all even though its longtime advertising agency Leo Burnett has supplied all of the marketing communications ("since last July [2002], we performed design and creation of advertising, point-of-sale and direct marketing communication") and spent "9-10,000 man hours on [the project in 2003]." 30(b)(6) Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 216-217, 234-235, 236-239).

500. In addition, the marketing communications that Philip Morris has asked Leo Burnett to create in the event Philip Morris ever markets the cigarette demonstrates Philip

Morris's planned "wait and see" defensive approach. Leo Burnett has prepared for Philip Morris two entirely separate sets of communications for the same exact cigarette,

30(b)(6) Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 217-218, 227-230, 236-238; Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002, 163-175.

501. However, Philip Morris has not decided it will market the product at all or if it will eventually use marketing materials that convey accurate information about the cigarette's delivery reduction features to consumers. 30(b)(6) Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 231-232. Leo Burnett has separately prepared at Philip Morris's direction a separate set of communications (newspaper, magazine and point-of-sale materials) that do **not** inform the consumer that the

30(b)(6) Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 239-241.

502. Philip Morris has failed to even test market SCoR, and according to Suzanne LeVan, former Philip Morris Vice President of Premium Brands from 1991-2001 and current Vice President of Marlboro,

Depos ition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002, 159-162, 163-175, 251; 2085803066-3084 (U.S. Ex. 25,329) (Category 1); 2085297717-7736 (U.S. Ex. 25,241) (Confidential).

(b) BATCo

503. The most significant example of BATCo developing less hazardous cigarette technology solely as a defensive measure is its history with its "Project Ariel." Ariel represents the earliest known demonstration of a Defendant's ability to deliver satisfying levels of nicotine – the primary reason people keep smoking – in aerosol form, without delivering the harmful constituents of tobacco combustion. However, BATCo failed to market Ariel because doing so would have implicitly undermined its public position that conventional cigarettes do not cause disease.

504. By 1962, Project Ariel, which had its origins in the 1950s, resulted in what BATCo considered a less hazardous product: "administration of nicotine in suitable form, should give full satisfaction to smokers while at the same time avoiding the well-known disadvantages inherent in actual cigarette smoking [i.e., the tar from combustion]," that provided "as much psychological and physiological pleasure to the smoker as conventional smoking does, and [that]

. . . also create[d] addiction in about the same relative amounts." TIMN0105567-5568 (U.S. Ex. 21,765); 700743976-3996 at 3990 (U.S. Ex. 21,050) (origins of Project Ariel).

505. On February 13, 1963, Sir Charles Ellis wrote to BATCo Production Director D.S.F. Hobson to suggest a gradual transfer of responsibility for Ariel from Battelle to BATCo, and a "definite phrase stating that BAT will undertake the commercial realization of the project." Ellis went on to state: "**There is no doubt that the project is feasible . . . . I myself smoked two crude versions of the devices . . . and obtained a marked nicotine effect without, of course, any combustion products**." 301121935-1936 (U.S. Ex. 20581) (emphasis added).

506. In a Battelle report dated February 18, 1963, from Battelle scientist Hans Schachner to Ellis, Schachner confirmed that "**it was possible to smoke a complete cigarette and get some satisfaction out of it. These experiments make it appear very likely that a satisfactory device can be developed**." 301121911-1917 at 1917 (U.S. Ex. 22,023) (emphasis added).

507. However, BATCo continued to adhere to Defendants' joint position denying adverse health effects of smoking. On the same day, BATCo board member (and future Board Chairman) D.R. Clarke stated in a memorandum that he could not see any likely commercial application for Project Ariel, which "**certainly could have no future unless the ordinary cigarette is proved to be harmful and the industry is unable to remove the cause of the trouble**." 201035126-5126 (U.S. Ex. 20,304) (emphasis added).

508. In July 1966, BATCo scientists again confirmed that with regard to Ariel, "the original objective is feasible and achievable." 105534272-4285 at 4283 (U.S. Ex. 20,241). And

again in May 1967, BATCo in-house scientists concluded that "the ARIEL design provides . . . a satisfying smoke which, within present knowledge, is 'healthy.'" 301099888-9902 at 9890 (U.S. Ex. 21,547).

509. BATCo's adherence to Defendants' join public relations position scuttled further marketing development of Ariel by patent holder BATCo, Brown & Williamson, or a licensee of the Ariel patent. On March 2, 1970, BATCo's S.J. Green (in London) informed Brown & Williamson researcher I.W. Hughes (in the United States) that he favored licensing the patent if a license were requested. He stated: "My reasoning is that to refuse is to invite adverse reaction – if we claim this invention has any conceivable contribution to make on health grounds." Hughes responded to Green's letter, stating that it was the view of people with whom he spoke at Brown & Williamson that "it would be inadvisable for his [sic] development to be licensed to anyone in the U.S.A.," noting further both companies agreed that "**the time for marketing such a product has not yet come**." 107623970-3970 (U.S. Ex. 34,856); 107623969-3969 (U.S. Ex. 20,257); 107623968-3968 (U.S. Ex. 20,256) (emphasis added); 107623967-3967 (U.S. Ex. 20,255). In the end, Ariel was neither developed by BATCo or Brown & Williamson, nor licensed to any third party.

(c) R.J. Reynolds

510. Notwithstanding Reynolds's public statement that "[i]f it is proven that cigarettes are harmful, we want to do something about it **regardless of what somebody else tells us to do. And we would do our level best**," see U.S. FPFF § IV.B(1), supra, Reynolds has not sought to reintroduce into the market its EW product – which exceeded its market share benchmark when

briefly sold in the mid-1990s – despite repeatedly reaffirming its scientific conclusions that EW reduced the delivery of numerous smoke constituents to smokers and had great potential to reduce harm to its users.

511. Evidence suggests that R.J. Reynolds intends to withhold the re-introduction of an EW-based cigarette unless and until Congress assigns FDA jurisdiction over tobacco products. An "EW-2 Product Development" memorandum states:

> **Importance to RJRT:** With the prospect of a national tobacco settlement approval by congress and signed by the president during the fourth quarter, reduced risk products such as EW-2 would provide RJRT with a starting point for FDA approval. As a result RJRT would have a consumer acceptable product ready for human trials by 8/98 [p]roviding RJRT with an advantage in the establishment of testing protocols with the FDA for reduced risk products.

RJR000000053000092550386-0387(U.S. Ex. 22,188).

512. By 1998, it appeared that R.J. Reynolds had completed or scheduled testing for a

including two EW models.

519436056-6075 at 6065 (U.S. Ex. 30,352) (Confidential). Yet in preparing a budget for inclusion in the 1998-2002 Capital Plan to account for the possibility of legislation or regulation mandating compliance with FDA standards, R.J. Reynolds recognized that it

The budget listed a

516853725-3732

at 3729 (U.S. Ex. 30,317) (Category 1).

513. In fact, when motivated in 1997 by the prospect that

and R.J. Reynolds was willing,

to contemplate

See

519990585-0593 (U.S. Ex. 30,359) (Category 1); see also 519536925-6933 at 6927 (U.S. Ex. 30,354) (Category 1).

514. Another example of R.J. Reynolds's conscious withholding of less hazardous cigarettes from the marketplace as part of a defensive strategy is Reynolds's EW version of

In a 1997 R.J. Reynolds document entitled,

519186833-6877 at 6835 (U.S. Ex. 30,349) (Category 1).

515. In short, since 1997 R.J. Reynolds has opted not to market EW products that it concluded were successfully designed to reduce exposure to certain smoke constituents and were

consumer acceptable.

(d) Brown & Williamson

516. Evidence shows that, notwithstanding Brown & Williamson's recognition of offensive or affirmative market opportunities for a potentially less hazardous cigarette, it has chosen not to market Advance, as a potentially less hazardous product, though it believes it to be one, unless other tobacco companies market reduced exposure or "reduced harm" cigarettes.

517. Since at least 2001, Brown & Williamson has had two versions of Advance ready to launch (a 100s version and a king-sized version). Brown & Williamson's

reveals that it will

271098692-8695 at 8694 (U.S. Ex. 22,033) (Category 1) (emphasis added).

518. Brown & Williamson, in fact, has tracked its competitors' progress with respect to the development of potentially less hazardous products, and is ready to market the Advance cigarette. According to the Advance Brand Plan,

271098692-8695 at 8694

(U.S. Ex. 22,033) (Category 1) (emphasis added). Brown & Williamson has informed the public that it is in the process of developing less hazardous cigarettes. However, if Brown & Williamson eventually markets Advance nationally, even then Brown & Williamson intends to educate the public about Advance's potentially less harmful qualities only

That is, the Advance Brand Plan stat ed:

271098692-8695 at 8693 (U.S. Ex. 22,033) (Category 1).

519. Notwithstanding this or the potential further risk to Brown & Williamson's market share, it has not

30(b)(6) Deposition of Paul Wessel, United States v. Philip Morris, et al., March 19, 2003, 87:22-88:8 (Category 1); 30(b)(6) Deposition of Sharon Boyse, United States v. Philip Morris, et al., October 11, 2001, 125:16-126:10.

520. Therefore, as shown here, Defendants' agreement not to compete on health claims and not to conduct biological research in-house has led Defendants to abandon development cigarettes their in-house scientists have determined to be less hazardous until such a time as less hazardous cigarettes should be used defensively.

(7) There is Substantial Evidence That Defendants Chose Not to Incorporate Feasible Designs or Product Features Found to Potentially Reduce the Exposure to or Harm from Cigarette Smoke

521. Contrary to James Bowling's 1972 public statement that because Philip Morris

did not "know if smoking is harmful to health," it did not know "what ingredients to take out" of cigarette smoke, substantial evidence shows that, internally, Philip Morris (as well as other Defendants) has recognized that cigarette smoke is harmful to smokers, and has focused considerable research attention on the primary known harmful chemicals in cigarette smoke. See 500324162-4164 at 4163 (U.S. Ex. 20,627). Since at least the early 1960s, Defendants knew about the many toxic constituents in cigarette smoke, several of which were known to be animal or human carcinogens, and include the tobacco-specific nitrosamines ("TSNAs"), aldehydes, and polycyclic aromatic hydrocarbons ("PAHs"). See Expert Report of William A. Farone, United States v. Philip Morris, et al., (R. 663; filed November 15, 2001), at 5 (U.S. Ex. 61,180); see also, e.g., 2023193305-3328 (U.S. Ex. 20,381). Further, Defendants have at times demonstrated – internally – the scientific capability to substantially reduce or remove those harmful components. See, e.g., U.S. FPFF § IV.B(4)(a), supra (discussing RJR's multijet filter). However, for innovations that chemical or biological tests suggested could potentially reduce hazards, Defendants failed to integrate the technologies into marketed cigarettes and to meaningfully test whether such features in fact caused less disease for smokers. Expert Report of William A. Farone, United States v. Philip Morris, et al., (R. 663; filed November 15, 2001) at 11-16 (U.S. Ex. 61,180). Such evidence rebuts Defendants' claims that their recently developed or test-marketed cigarettes use novel technologies to reduce smokers' exposure to these toxins, and rebuts their claimed commitment to protect smokers' health to the greatest extent possible.

(a) Altering or Preventing Cigarette Combustion and Nicotine Aerosols

(i) Philip Morris

522. By 1957, Philip Morris knew that reducing the burn temperature of cigarettes would decrease the levels of certain health-threatening hydrocarbons contained in smoke, and had identified potential methods of doing so, such as using catalysts; modifying the width of the cut and of the blend; controlling access of the air to burning coal; altering the cross-sectional size and shape of the cigarette; and using a non-catalytic filling material to conduct heat away from the coal and reduce its temperature. 1001935513-5548 at 5535 (U.S. Ex. 20,124). It took Philip Morris forty years to test market a product based on this principle – its electrically heated Accord.

523. By February 1972, Philip Morris research uncovered that scientists had the capability to substantially control the content of the smoke delivered to smokers by its cigarettes, and to limit the delivery of substances in the particulate phase of smoke that it acknowledged internally were "unhealthful." In a memorandum memorializing an "Idea Disclosure for an Indirect Cigarette," a Philip Morris scientist described a product which could use indirect heat to generate and deliver to the smoker an aerosol. The researcher stated that "[t]he particulate phase of the aerosol is generated from pure substances and its composition **is under full control; hence, it is capable of being made not only not unhealthful, but positively healthful**." In fact, this technology was publicly known since the patents for BATCo's Ariel product were granted in the early 1960s (although the cigarette never was marketed). Philip Morris has never actively marketed an aerosol cigarette. 2026378749-8750 (U.S. Ex. 20,425) (emphasis added); see also PM3000136418-6422 at 6420 (U.S. Ex. 61,504) (1976 Philip Morris document indicating that "we can filter out all tar").

524. In late 1993, Philip Morris conducted additional research regarding this approach through its "Ideal Smoke Program," where the objective was to "develop an aerosol delivery system for desired compounds only." 2050742052-2053 at 2052 (U.S. Ex. 20,491); 2061945926-5928 at 5926 (U.S. Ex. 20,509; U.S. Ex. 39,403). A high-ranking scientist at INBIFO stated that among the "[d]esirable components, . . . [n]icotine and flavor components are perceived as essential." 2023119230-9231 (U.S. Ex. 20,376).

525. By the late 1970s, Philip Morris (similar to Liggett's XA research with palladium, discussed at U.S. FPFF § IV.B(4)(b), supra) also had researched the effect of adding platinum or other platinum group metals to cigarette filters, and found that doing so significantly reduced some of the chemicals presumed to contribute to smoking-related diseases, such as aldehydes. Philip Morris also performed laboratory toxicological tests for mutagenicity or abnormal cell changes – known as Ames mutagenicity studies – on tobacco that was burned with and without the addition of platinum, and found positive differences. Philip Morris, however, has not tried to market a cigarette with platinum filters. Deposition of William Farone, United States v. Philip Morris, et al., April 3, 2002, 376-378.

526. Additionally, Philip Morris could easily inform smokers how to substantially reduce their intake of benzoapyrene ("BAP"), which has been long recognized as a carcinogen delivered by cigarette smoke, but has not done so. As early as 1958, a Philip Morris executive, Jet Lincoln, decreed that "BENZPYRENE MUST GO." 1005038656-8658 (U.S. Ex. 22,214). And in 1997, Philip Morris Companies pledged publicly to shareholders to "look for opportunities to eliminate BAP from tobacco smoke." 2084331906-1944 at 1933 (U.S. Ex.

88,034); 2065378797-8797 (U.S. Ex. 88,037) (pledging, in draft opposition to shareholder proposal, to explore ways "to reduce, and perhaps eliminate, BAP from tobacco smoke"). In fact, Philip Morris has recognized that **90 percent of the BAP delivered by a cigarette is delivered in the "lighting" puff, and that the lighting puff of a match-lit cigarette delivers 20 times more BAP than any other puff**. 2086131534-1543 (U.S. Ex. 70,846); 2072217133-7134 (U.S. Ex. 88,033). Philip Morris has also discovered that **the delivery of BAP from the lighting puff is cut by half if the smoker uses an electric lighter**, rather than a match, to light the cigarette. Yet Philip Morris has not taken the simple step of informing consumers of this or providing smokers with instructions for how to light a cigarette to minimize the disproportionate level of BAP from the lighting puff. Deposition of Hector Alonso, United States v. Philip Morris USA Inc., et al., at 155-156 (July 11, 2003); see also Expert Report of William A. Farone, United States v. Philip Morris, et al., (R. 663; filed November 15, 2001), at 8 (U.S. Ex. 61,180) (adequate "directions for use would instruct foreseeable users in how to use tobacco products in such a way that their risks for disease might be reduced. Providing information of this sort, however, would be inconsistent with an agreement not to compete on health issues.").

(ii). Liggett

527. In the late 1980s, then Liggett Chief Executive Officer Bennett LeBow was aware of the company's earlier development of XA as a potentially less hazardous cigarette. In the early 1990s, John Bunch, then a Liggett scientist and researcher,

and thereby change the composition of the smoke. In the late 1990s, Liggett began

working with the XA process again.

Bunch testified in 2002 that

Bereman confirmed

Deposition of Bennett LeBow, United States v. Philip Morris, et al., June 21, 2002, 30; Deposition of John Bunch, United States v. Philip Morris, et al., May 22, 2002, 82-83, 116-117 (Confidential); Deposition of Robert Bereman, United States v. Philip Morris, et al., April 23, 2002, 17-19 (Confidential).

528. Bereman concluded that Liggett

Indeed, when he became a research chemist and then the Vice President of Chemical Research at Vector, Bereman

Defendants' Rule 7.1/56.1 Statement of Material Facts Not in Dispute in Support of memorandum of Points and Authorities in Support of Defendants' Motion for Partial Summary Judgment on Claims that Defendants Suppressed the Development of Potentially Less Hazardous Cigarettes ¶ 54 (R.2576; Oct. 8, 2003); Deposition of Robert Bereman, United States v. Philip Morris, et al., April 23, 2002, 64-65 (Category 1), 73-77 (Category 2), 164-165.

(iii). Lorillard

529. The lack of activity at Lorillard regarding development of a less hazardous cigarette similarly reflects behavior consistent with the "Gentleman's Agreement." In the early

1960s, Lorillard also studied ciliastasis. Ciliastasis is a condition in which the lung's cilia, the hair-like structures lining the lung passageways that are responsible for removing foreign matter such as particulate matter from cigarette smoke, become immobilized, or static, and cease their cleansing function. Lorillard conducted significant research relating to one compound in particular, phenol methyl oxadiazole ("PMO"), as a possible solution to the problem of ciliastasis. Deposition of Christopher Coggins, United States v. Philip Morris, et al., June 27, 2002, 32-35.

530. PMO was added to cigarettes and people were asked to test the cigarettes, but they found the taste unacceptable. Rather than conduct committed research to attempt to overcome this obstacle, Lorillard abandoned research on PMOs by the end of the 1960s. Deposition of Christopher Coggins, United States v. Philip Morris, et al., June 27, 2002, 32-35.

531. Like other Defendants manufacturers, Lorillard developed a sophisticated understanding of the physics and chemistry of tobacco and tobacco smoke. For example, a November 1973 document states that "The analysis of a number of tobacco and smoke components and sever tobacco physical properties is regularly carried out in support of projects originating both within R&D and in other departments . . . These analyses include menthol, humectants, flavors, **carbon monoxide**, carbon dioxide, plasticizer, specific volume, moisture, **particle size** and others." 83250679-0693 at 0688 (emphasis added) (U.S. Ex. 55,641). This document further discussed Lorillard's intent to research and develop what it termed a "safe cigarette," and estimated – **in 1973** – that with the expenditure of a few hundred thousand dollars, "a marketable ['safe cigarette'] product should be realizable within a total time span of

five years." 83250679-0693 at 0692 (U.S. Ex. 55,641).

532. In 1977, Lorillard set a goal to develop and sell a "zero tar" cigarette by 1980, the year that Philip Morris introduced Cambridge. In a memorandum to Research Head Alexander Spears discussing the filtration, tobacco blend, and flavorant requirements to create such a low delivery product, Lorillard's scientist set "the probability of total success at 75 to 80 percent." 01417692-7714 (U.S. Ex. 20,047).

533. Notwithstanding Lorillard's steadfast adherence to the industry's public relations position that no cigarettes were a proven cause of disease, Lorillard has long recognized explicitly that a number of chemical and biological tests are capable of providing meaningful information about whether a change to a cigarette design or component is likely to reduce the carcinogenicity, mutagenicity, or genotoxicity or cigarette smoke. A 1986 draft document titled "Cigarette Modification Project: Biological Aspects" states Lorillard's assumptions prior to embarking on a project to conducting biological tests to evaluate potentially less hazardous products. One such assumption is: "**Our understanding of the causation of these diseases [cancer, emphysema, and cardiovascular disease] is sufficient advanced that we may reasonable target specific smoke components or classes of components for reduction**." The document goes on to identify several different tests – including Ames mutagenicity tests, mammalian cell genotoxicity assays, and in vivo genetic toxicity screening – that would allow Lorillard to evaluate whether its products were likely to be less hazardous. 87633619-3626 (U.S. Ex. 56,267) (emphasis added).

(b) Technologies to Reduce Delivery of Carcinogenic Tobacco-Specific

Toxins

534. For the last five decades, Defendants have been aware of various techniques to significantly reduce the delivery of tobacco-specific nitrosamines ("TSNAs") in cigarette smoke. See Expert Report of William A. Farone, United States v. Philip Morris, et al., (R. 663; filed November 15, 2001), at 12, 16 (U.S. Ex. 61,180) (discussing alternate methods long known to reduce nitrosamine formation or delivery). Only in the last few years have any Defendants chosen to incorporate one of these approaches in a cigarette for sale.

(i). Philip Morris

535. Philip Morris has engaged in a course of delay and never-ending research of technologies to reduce TSNAs. By 1980, Philip Morris had developed at least three different technologies for lowering the oxides of nitrogen ("denitrification") contained in reconstituted tobacco leaf, a tobacco filler created from bits of tobacco leaf discarded during the manufacturing process. Philip Morris found each of the three methods reduced the formation of nitrosamines well beyond the method then in use, and concluded each of the three was commercially and economically feasible. However, Philip Morris did not implement any of these technologies in the years after the technology was created. Deposition of William A. Farone, United States v. Philip Morris, et al., April 2, 2002, 413-414.

536. Philip Morris secured at least three patents on various denitrification processes. The first patent was for a denitrification process using electrodialysis. 2028516499-6546 (U.S. Ex. 21,568; U.S. Ex. 37,394).

537. In April 1978, Philip Morris scientist Bernard Semp filed a patent application for

a second invention, a "process for dissimilatory denitrification of tobacco materials" (hereafter referred to as the "Semp process"). Philip Morris filed an amended application for the Semp process in August 1979, and in January 1986, Patent No. 4,566,469 was issued. The patent claimed an "improved process for the reduction of the nitrate content of tobacco materials via dissimilatory denitrification." The Semp process utilized microorganisms, and **the patent acknowledged the harmful role of oxides of nitrogen, which convert to TSNAs in cigarette smoke**: "It is generally recognized that smoking products having lowered amounts of oxides of nitrogen present in smoke are desirable." The Semp patent further stated that "[s]moking articles prepared from the treated tobacco materials deliver significantly lowered amounts of oxides of nitrogen on smoking. . . . [T]he provision of a shorter processing time for denitration is a significant economic advantage, particularly when operating on a commercial scale." Patent No. 4,566,469; 2051804769-4776 (U.S. Ex. 22,192; U.S. Ex. 78,963).

538. In December 1980, Susan Dobberstein, a Philip Morris scientist, reviewed three different approaches that Philip Morris had to date developed to denitrify tobacco in a memorandum titled "Summary Report: Second Generation Process for Denitrification of RL [Reconstituted Tobacco Leaf]." The three methods were: (1) the microbial anaerobic fermentation process generally referred to as "naturally occurring denitrification" ("NOD"), that was the subject of the then-pending Semp application; (2) electrodialysis; and (3) an aerobic fermentation process ("NINO process"). Dobberstein compared the technologies on "product and process quality, financial comparison, and other considerations," for purposes of assessing incorporation into the commercial manufacturing process. Dobberstein reported that:

(1) the Semp anaerobic process resulted in the lowest NO [nitric oxide] yields;

(2) **consumer tests showed all three processes to be acceptable to the internal smoking panels used by Philip Morris to measure product "subjectives"**; and

(3) the Semp process required the greatest start-up costs – about $100 million – but would be the second cheapest to run once implemented ($14 million/year); while the electrodialysis process was the cheapest both in up-front investment ($30 million) and would be the cheapest to operate ($7 million/year).

2028516499-6546 (U.S. Ex. 21,568; U.S. Ex. 37,394) (emphasis added).

539. In 1981, Philip Morris scientist Vedpal Malik filed a patent application for a "thermophilic" process utilizing microorganisms for "reducing the levels of certain nitrogen-containing compounds in tobacco materials." 2028596292-6292 (U.S. Ex. 23,057). This patent ("Malik patent") issued in 1987. Like the Semp patent (which was pending when the Malik application was filed), the Malik patent stated, "It is generally recognized that reduced delivery of oxides of nitrogen in the smoke of tobacco products is desirable." The Malik patent further stated that the process covered by the patent:

> [A]fford the production of smoking products having lowered amounts of oxides of nitrogen, and perhaps other oxides, in smoking without the possible addition of non-tobacco compounds to those products in a commercially effective and economically efficient manner. They also afford the production of other tobacco products having lowered amounts of nitrates and other nitrogen-containing compounds in a similarly effective and economical manner.

Patent No. 4,685,478.

540. In 1981, Semp further improved the NOD process, which Philip Morris preferred

for its "potential for a lower cost process plus the fact that it was clearly novel compared to any of the early processes." 2022203905-3906 (U.S. Ex. 20,355).

541. Notwithstanding Dobberstein's 1980 conclusion that three processes were consumer-acceptable and commercially and economically feasible, and notwithstanding the 1981 development of another, cheaper NOD process, Philip Morris utilized none of these technologies to reduce the delivery of oxides of nitrogen to the smoker. Philip Morris has claimed that the NOD process was abandoned in 1984 because it did not work consistently, even though it had patent applications stating to the contrary pending before the Patent and Trademark Office. In fact, a 1983 document states that NOD "[p]roduction feasibilit[y] was demonstrated." 2021605662-5671 (U.S. Ex. 20,351); 2050824506-4550 at 4508 (U.S. Ex. 20,493).

542. Further, Philip Morris was able to fix an odor problem with the NOD process that had presented an alleged impediment to its use. A November 14, 1983 report from a Philip Morris scientist copied to numerous Philip Morris scientists including Max Hausermann, the head of Philip Morris Research & Development, Tom Osdene, Jim Charles, Cliff Lilly, Jerry Whidby, and William Farone, reviewed a project designed to fix the problems with the NOD process caused by an odor that affected subjective qualities. Mitchell reported that "modification of the NOD process improved the subjective character of NOD RL-TC on internal panel tests" and that the scientists had demonstrated the "reproducibility of the process." 2050817028-7043 (U.S. Ex. 22,219).

543. In the end, Philip Morris did not incorporate any of the improved methods for denitrifying reconstituted leaf. The Philip Morris's Tobacco Technology Group ("TTG"), the

internal committee responsible for deciding what manufacturing processes and technologies Philip Morris entities would use worldwide, preferred as of September 1983 to "put NOD on the shelf if it [was] ok with" Philip Morris's European affiliates, and "decided not to rush into commercializing" this process which reduced the nitrates in reconstituted leaf by 95%. Executive Hamish Maxwell reflected the ambivalence, questioning "whether we really need to bring our NO delivery down" at all. 2000750261-0264 at 0262 (U.S. Ex. 87,567); see also 2026232862-2862 (U.S. Ex. 87,568) (describing the TTG's mission); 2000572749-2755 (U.S. Ex. 87,569) (minutes of TTG meeting discussing denitrification processes).

544. Yet in 2000, Philip Morris appeared to recognize again the effectiveness of bacterial denitrification and to consider this method in modifying the RL process to "eliminate or reduce" the elevated nitrosation occurring during the current RL process. 2086117481-7483 at 7481 (U.S. Ex. 45,774).

545. By at least 1982, Philip Morris developed another way to reduce the oxides of nitrogen in its cigarettes – blending and preparing tobaccos that would deliver lower levels of oxides of nitrogen. Expert Report of William A. Farone, United States v. Philip Morris, et al., (R. 663; filed November 15, 2001), at 12 (U.S. Ex. 61,180).

546. Bright tobacco, also known as flue-cured tobacco, is one of the main tobaccos used in cigarettes sold in the United States. Bright tobacco has been traditionally cured by heating it in barns with propane heaters. Burley tobacco is the other main tobacco used. Burley tobacco, which is naturally higher in alkaloids that promote TSNA formation, is "air-cured." See, e.g., PM3000136161-6165 at 6161 (U.S. Ex. 61,555) (describing tobacco curing methods

and content of "important ingredients" in various strains including sugars, nicotine, and total volatile bases). In a 1985 patent that Philip Morris submitted in 1982, Philip Morris described its discovery of a way to air-cure Bright tobacco and reduce harmful NO in smoke:

> This novel tobacco, when formulated as a smoking article, such as a cigarette, and smoked, presents the aroma and taste of a blended tobacco smoking article and may be substituted in whole or in part for burley tobacco in blended tobaccos while substantially maintaining the subjective qualities of the burley tobacco and yet, as compared to the burley tobacco-containing blends, provides a reduced NO content in the smoke.

1000015245-5246 (U.S. Ex. 22,133); 511351011-1019 (U.S. Ex. 88,040) (Patent No. 4,516,590; filed November 26, 1982, issued May 14, 1985); see also 2026526349-6353 (U.S. Ex. 86,964) (Patent No. 4,607,646, submitted in Feb. 1984 and issued to Cliff Lilly on Aug. 26, 1986, claiming a method for treating bright tobacco to create a tobacco with Burley's smoking characteristics, but without Burley's "less desirable features").

547. Burley tobacco is naturally much higher in alkaloids – including nicotine and TSNAs – than Bright tobacco. Thus, this invention allowing substitution of air-cured Bright tobacco for burley tobacco offered a potential advance in reducing the delivery of harmful TSNAs to smokers. However, while Philip Morris conducted a successful trial of incorporating air-cured Bright tobacco into marketed products, Philip Morris did not pursue utilization of air-cured Bright further. Deposition of William A. Farone, United States v. Philip Morris, et al., Nov. 20, 2003, 538. Further, in a deposition in this case, Philip Morris's Vice President of Product Development and Technology, Hector Alonso, who testified that Philip Morris is searching for ways to lower the TSNAs delivered by burley tobacco, was not aware of Philip Morris's prior successful prior research and utilization of lower TSNA air-cured Bright tobacco.

See Deposition of Hector Alonso, United States v. Philip Morris, et al., July 11, 2003, 87-89 (burley tobacco highest in TSNAs), 131-132.

548. By 1985, Philip Morris had demonstrated its ability to use tobacco blend selection to "Deliver Adequate Nicotine and Reduced TSNA [Tobacco Specific Nitrosamines]." On April 1, 1985, Philip Morris scientists Sue Tafur and Ed Lambert wrote a memo to Ted Sanders, a high-level Philip Morris scientist, which was copied to other Philip Morris scientists including Jim Charles, Robert Ferguson, Robin Kinser, and William Morgan, reporting on their experiment "to determine if it is possible to deliver adequate nicotine to MS [mainstream] smoke while reducing mainstream TSNA by using an experimental filler blended from a high alkaloid tobacco with low alkaloid and oriental tobaccos. This work was designed to provide a preliminary indication of the feasibility of the concept." Tafur and Lambert concluded that "[t]he data presented here indicate that **the approach to delivering adequate nicotine to MS while reducing TSNA can be met by judicious blending of tobaccos**." 2001113614-3618 (U.S. Ex. 22,216) (emphasis added).

549. Thus, notwithstanding Defendants' scientific knowledge for the last five decades of methods to substantially reduce TSNA delivery from several different types of tobacco, including burley and reconstituted leaf, Philip Morris (and other Defendants) have failed to incorporate such technology into a nationally marketed reduced risk cigarette.

550. To the contrary, rather than incorporate reduced risk technologies into cigarettes, as recently as 2001, in response to Vector announcing its plans to market Omni, Philip Morris and BATCo lobbied Argentinian officials to prohibit cultivation of the genetically modified

tobacco that Vector says is a key component of Omni, Vector's potentially reduced exposure cigarette. Roberto Sanchez Loria, Agriculture Secretary of Tucuman, Argentina, confirms that these two companies warned him that his province "is in danger" of losing business from Defendants if it continues to plant transgenic tobacco. 524007145-7151 (U.S. Ex. 20,917).

551. In the late 1980s, Philip Morris developed and utilized a process – supercritical fluid extraction – that removed virtually all of the nicotine from cigarettes. Because nicotine is the primary alkaloid in cigarettes responsible for TSNA formation, Philip Morris repeatedly demonstrated and reported that the supercritical fluid extraction process also removed virtually all of the harmful TSNAs from tobacco. Expert Report of William A. Farone, United States v. Philip Morris, et al., (R. 663; filed November 15, 2001), at 16 (U.S. Ex. 61,180). Yet when Philip Morris test-marketed the product under the brand names Next and De-Nic, it did not inform consumers that by removing nicotine, the cigarette eliminated the physiological dependence that causes the repeated inhalation of harmful cigarette smoke constituents, or that the product had a substantially reduced level of TSNAs. 2023088294-8297 at 8296 (U.S. Ex. 20,375); 2022207033-7038 (U.S. Ex. 20,356).

(ii). R.J. Reynolds

552. R.J. Reynolds, Philip Morris, and Brown & Williamson all claim to have incorporated in their products, to varying degrees, Bright tobacco that has been cured by an indirect heating process that replaces the old propane flue-curing technique. The supposedly novel process hinders the formation of TSNAs by preventing the chemical reactions that previously occurred between the tobacco leaf and the nitric oxide from the direct-fire propane

burners. Deposition of David Townsend, United States v. Philip Morris, et al., September 5, 2002, 741-742. According to R.J. Reynolds, a heat exchange curing method similar to that it has begun (re)using recently was previously used by farmers in the early 1970s even before direct fire was introduced. However, although R.J. Reynolds was aware of the presence of TSNAs in tobacco smoke and in tobacco leaf, R.J. Reynolds did not measure for TSNAs at the time. Deposition of David Townsend, United States v. Philip Morris, et al., September 5, 2002, 745-755.

553. Further, as discussed at U.S. FPFF §IV.B(4)(d), supra, R.J. Reynolds knew that removal of nitrogen-containing compounds from tobacco could yield cigarette smoke lower in TSNAs. In its EW/Select product developed in the early 1990s, a product R.J. Reynolds concluded was both a potential reduced exposure product and consumer acceptable in its test market, Reynolds included a "low nitrogen" tobacco blend intended to reduce the formation and delivery of TSNAs.

554. Moreover, R.J. Reynolds is aware that higher nitrate levels can increase the level of nitrosamines and that, to some extent, the level of TSNAs can be reduced if tobacco farmers reduce their use of nitrate fertilizers. And while R.J. Reynolds has conducted some experiments finding that, to some degree, using very low levels of nitrate fertilizers can reduce nitrosamine levels without any adverse effect on "taste," R.J. Reynolds has opted not to restrict its tobacco purchases to tobacco grown with low-nitrate fertilizer. Deposition of David Townsend, United States v. Philip Morris, et al., September 5, 2002, 733-740.

(c) Charcoal Filters

555. Like the idea of reduced TSNA deliveries through tobacco growing, curing, or treating methods, the sudden re-focus on charcoal filters is a decades-late attempt to utilize a technology Defendants have known to be effective for at least 45 years.

556. By 1959 at the latest, Defendants knew of the potential for filters containing charcoal or activated carbon to absorb harmful constituents of smoke, in particular from the part of cigarette smoke which remains in gaseous (as opposed to particulate) form. The February 18, 1964 report from Helmut Wakeham to Philip Morris senior management titled "Smoking and Health Significance of the Report of the Surgeon General's Committee to Philip Morris Incorporated," stated that "[t]he [Surgeon General's] report gives inadequate recognition to the selective adsorption of certain gas phase components from smoke which affect pulmonary cleansing mechanisms (viz., mucus flow, cilia activity). The statement that carbon filters previously employed do not have specific power to scrub the gas phase ignores pioneer work at American Tobacco reported in Tobacco Science, Vol. 3, pp. 52-56, 1959." 1000335612-5625 at 5618 (U.S. Ex. 22,986; U.S. Ex. 63579). Among the harmful chemicals delivered in the gas phase of cigarette smoke are the toxic aldehydes.

557. By 1964 Philip Morris had test marketed the charcoal filtered Saratoga brand, which Philip Morris scientists considered "[p]hysiologically . . . an outstanding cigarette." 2022889778-9801 at 9793 (U.S. Ex. 85,826). Results of research Philip Morris conducted in 1969 on the biological effects of whole fresh smoke and the gas phase of cigarette smoke in unfiltered and charcoal-filtered cigarettes included the finding that carbon "effectively . . . filters . . . the biologically active components of smoke." 1000036347-6366 at 6354 (U.S. Ex. 20,070),

(U.S. Ex. 35,091). Despite this early recognition of the value of charcoal or carbon filters, however, Philip Morris and the other Cigarette Company Defendants have sold very few brands that contain activated carbon or charcoal filters, and have not communicated to consumers the reduced risk nature of the cigarettes containing these technologies. For example, the only brands that Philip Morris has sold with charcoal in the filter are: one packing of one brand of Parliament (Parliament Lights 100); Lark; and Multifilter, a brand launched in 1964 as the reformulated version of the Saratoga, but is no longer sold. Trial Testimony of Jerry Whidby in Blue Cross & Blue Shield of New Jersey v. American Tobacco Co., May 2, 2001, 4877-4878.

558. Similarly, R.J. Reynolds recognized the potential benefits of a charcoal filter by 1960. However, R.J. Reynolds's sole carbon filter cigarette during that time was Tempo, which sold from the early 1960s to the early-to-mid 1970s. Deposition of David Townsend, United States v. Philip Morris, et al., July 24, 2002, 144-164.

559. In 1957, at a time when Liggett was one of the largest American cigarette manufacturers, Liggett and its outside research consultant, Arthur D. Little & Associates, showed that the hydrogen cyanide components of cigarette smoke "inhibited and, in excessive quantities destroyed, the ciliary action of the mammalian trachea." The lung's cilia function to clear the lungs of toxic substances, and A.D. Little found that cigarette smoke was paralyzing their ability to do that – hence "ciliastasis." Liggett and Little developed techniques to measure the small quantities of hydrogen cyanide in smoke and techniques for measuring the amount of inhibition, and researched methods to solve this problem. 681879254-9715 at 9485 (U.S. Ex. 21,020).

560. In 1962, Liggett concluded that using a charcoal-like granular absorbent in filters

could reduce the hydrogen cyanide delivery substantially. By 1963, Liggett developed a filter medium consisting of activated charcoal manufactured from bituminous coal, and first marketed the Lark cigarette, some line extensions of which contained a charcoal filter. 681879254-9715 at 9485 (U.S. Ex. 21,020).

561. As shown below, Defendants' claim that consumers in the United States find the taste of charcoal filters unacceptable ignores evidence that their own research demonstrated their ability to develop consumer-acceptable charcoal filter cigarettes.

562. In 1971, R.J. Reynolds undertook research to "find[ ] chemical additives and blends which will reduce or mask the unpleasant off-taste associated with carbon filter cigarettes." 500605911-5915 at 5911 (U.S. Ex. 48,333). The research concluded:

> Fifteen additives have been found which reduce the carbon taste on all flue cured test cigarettes, but these additives were not markedly effective on the TEMPO blend. By changing the blend, however, a significant reduction in the carbon taste was achieved even without the use of additives.

These researchers identified "Valmont" as an actual R.J. Reynolds brand sold abroad that modified Tempo and substantially reduced the carbon taste for smokers. 500605911-5915 at 5914 (U.S. Ex. 48,333). Yet R.J. Reynolds did not make that change for the domestic market.

563. Also in 1971, a report to Robert Seligman, Philip Morris's Vice President of Research and Development, described the results of a weeklong taste test of charcoal and noncharcoal versions of a new cigarette brand among almost 400 smokers. Almost one-fifth of the smokers (19%) had no preference between the two models, "many smokers had trouble discriminating between the two products," and even among those expressing a preference, "the two products were preferred about equally." 1000718502-8505 (U.S. Ex. 87,571).

564. More dramatically, in April 1984 Philip Morris reported on a Public Opinion Liking ("POL") Study, a consumer test regularly utilized by Philip Morris to evaluate potential new cigarette brands, that compared a regular Merit cigarette to one utilizing a charcoal filter. The purpose of the study was "[t]o determine consumer acceptability of Merit 85mm with charcoal filter relative to control Merit 85mm." The POL Study Leader summarized the results:

> The results, based on this sample of the control and experimental cigarettes, indicate that **the experimental cigarette [the version with the charcoal filter] was preferred and rated significantly higher on the qualitative attributes by the Merit 85mm and Merit Ultra Lights 85mm smokers. These results support previous results from a Richmond Product Placement Panel test . . . run in 1976**.

2075008054-8067 at 8054 (U.S. Ex. 87,572) (emphasis added). Thus, Philip Morris confirmed on multiple occasions – in 1971, 1976, and again in 1984 – its ability to develop consumer acceptable charcoal-filter cigarettes.

565. Despite its scientific knowledge of the role of activated charcoal, in late 1997, Philip Morris re-initiated a research project with the objective of understanding "effects of carbon filters on gas phase deliveries" and included among its continued filtration research a project to "[d]evelop model of carbon adsorption." 2086131512-1512 (U.S. Ex. 21,933); 2086131675-1675 (U.S. Ex. 21,934). Such repetitive study of previously researched questions has characterized Philip Morris's research. Deposition of William A. Farone, United States v. Philip Morris, et al., April 12, 2002, 135-136; see also 2086117939-7940 (U.S. Ex. 70,837).

566. Similarly, in the mid-to-late 1990s Philip Morris performed research to explore the comparative adsorbent qualities of charcoal and silica gel and potential for application in cigarettes to reduce the delivery of harmful gas phase smoke constituents like the aldehydes and

1-3,butadiene. See, e.g., 2086117839-7852 (U.S. Ex. 45,806) (February 1999 presentation); 2086117648-7654 (U.S. Ex. 45,779); 2086117665-7674 (U.S. Ex. 45,781); 2086118001-8004 (U.S. Ex. 45,811); 2086117951-7972 (U.S. Ex. 70,806) (draft patent application). Philip Morris's documents describing this late-1990s effort reiterated conclusions that Philip Morris scientists had articulated 25 years earlier, in 1974. See 2028631322-1339 at 1339 (U.S. Ex. 88,022).

567. In short, for 40 years Defendants have understood charcoal's potential benefits, but ignored research demonstrating feasible ways to exploit charcoal's capabilities and claimed (falsely) that charcoal-filtered cigarettes were simply unacceptable to American smokers. Thus, the three charcoal-filtered products recently developed (or in development) that Philip Morris, R.J. Reynolds, and Brown & Williamson tout as potential reduced exposure products must be viewed in this context.

568. In the late 1990s, Philip Morris undertook its SCoR program, discussed at U.S. FPFF § IV.B(6), supra, to develop a conventional looking, lit-end cigarette product that removes certain harmful constituents from the cigarette smoke. To accomplish the intended reduced deliveries, Philip Morris has included a plug-space-plug filter – activated carbon is sandwiched in the space between two "plugs" of another filter material. See Deposition of Hector Alonso, United States v. Philip Morris, et al., July 11, 2003, 74-76. In fact, this filter design was known to Philip Morris **by 1959**. 2021656217-6217 (U.S. Ex. 88,023) (1959 memorandum discussing plug-space-plug filter research). And in the late 1960s and early 1970s, Philip Morris researched precisely this plug-space-plug design utilizing charcoal. 1000320914-0914 (U.S. Ex. 88,024)

(March 1970 document concerning plug-space-plug filter using carbon, stating that "project is economically feasible"); 1000320619-0619 (U.S. Ex. 88,025); 2028631322-1339 (U.S. Ex. 88,022) (November 1974 report). Philip Morris has not yet marketed any SCoR product, and has repeatedly pushed back its expected date of introduction.

569. Second, Reynolds's EW/Select product, discussed at U.S. FPFF § IV.B(4)(d), supra, has a charcoal filter as one of its central exposure-reduction components, and R.J. Reynolds has internal information that the specific filter technology is decades old. Specifically, with regard to the carbon scrubber filter technology in EW, Jones Day identified a 1973 patent for technologies very similar to two of the primary features of the EW filter, and noted that R.J. Reynolds's application to patent the EW filter was denied because it was not deemed novel, useful and not obvious. 515873569-3776 at 3739-3742 (U.S. Ex. 85,888).

570. Third, Brown & Williamson incorporated what it considers "really a sort of almost standard off-the-shelf filter" on its Advance brand – a product that has been briefly test-marketed but which, as discussed supra, Brown & Williamson appears to be holding back for defensive purposes. See Deposition of Sharon Boyse, United States v. Philip Morris, et al., October 11, 2001, 102:19-25.

571. In short, Defendants' suggestion that recent product development efforts disprove the United States' claims is rebutted by substantial evidence that these "new" products in fact rely on design approaches and features long known to Defendants, and reflect technologies that Defendants have for decades chosen not to meaningfully test and exploit.

C. Adverse Health Effects of Exposure to Environmental Tobacco Smoke

(1) Exposure to Secondhand Smoke Causes Disease and Death

572. Environmental tobacco smoke ("ETS"), also called secondhand smoke, is a mixture of mostly sidestream smoke given off by the smoldering cigarette and some exhaled mainstream smoke, which is the smoke an active smoker exhales. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al. (R. 666; filed November 15, 2001) (U.S. Ex. 77,223).

573. Evidence of the health risks of ETS on passive smokers comes from epidemiological studies, which have directly assessed the associations of ETS exposure with disease outcomes, and also from knowledge of the components of ETS and their toxicities. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., (R. 666; filed November 15, 2001) (U.S. Ex. 77,223).

574. Conclusions about the causal relationship between ETS exposure and health outcomes are based not only on epidemiological evidence, but also on the extensive evidence derived from epidemiological and toxicological investigation of active smoking. Additionally, studies using biomarkers of exposure and dose, including the nicotine metabolite cotinine and white cell adducts, document the absorption of ETS by exposed nonsmokers, adding confirmatory evidence to the observed associations of ETS with adverse effects. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al. (R. 666; filed November 15, 2001) (U.S. Ex. 77,223).

575. ETS exposure of infants and children has adverse effects on respiratory health, including increased risk for severe lower respiratory infections, middle ear disease (otitis media), chronic respiratory symptoms and asthma, as well as a reduction in the rate of lung function growth during childhood, and causes sudden infant death syndrome and cognitive and behavioral disorders. Expert Report of Michael Weitzman, United States v. Philip Morris, et al. (R. 670; filed November 15, 2001) (U.S. Ex. 77,225); Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al. (R. 666; filed November 15, 2001) (U.S. Ex. 77,223).

576. In adults, ETS exposure causes lung cancer and ischemic heart disease. ETS exposure causes two to three percent of all lung cancer cases. In 1986, the Surgeon General and the National Research Council of the National Academy of Sciences concluded that passive smoking causally increases the risk of lung cancer in nonsmokers. Expert Report of Paul A. Bunn, Jr., United States v. Philip Morris, et al. (R. 669; filed November 15, 2001) (U.S. Ex. 87,321); Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al. (R. 666; filed November 15, 2001) (U.S. Ex. 77,223); A.K. Hackshaw, M.R. Law, & N.J. Wald, The accumulated evidence on lung cancer and environmental tobacco smoke, Br Med J., 315: 980-988 (1997) (U.S. Ex. 28,430); R. Taylor, R. Cumming, A. Woodward, & M. Black, Passive smoking and lung cancer: a cumulative meta-analysis, Aust. N.Z.J. Public Health, 25: 203-211 (2001) (U.S. Ex. 77,136).

577. Evidence also links ETS to exacerbation of asthma, reduced lung function, and

respiratory symptoms. Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al., (R. 666; filed November 15, 2001) (U.S. Ex. 77,223).

578. Although Defendants publicly dispute the harmfulness of ETS, they have recognized the expertise and conservatism of the conclusions by United States' expert Jonathan Samet regarding passive smoke in an internal document that was written in or about August 1994:

> Dr. Samet is highly respected by his professional constituency. His scientific/medical capabilities appear to be quite sophisticated and are recognized as such by the professional societies with which he is affiliated. . . . This is probably due at least in part to his scientific conservatism regarding inference and interpretations from limited information; in most instances, Dr. Samet carefully assesses the available information prior to drawing general conclusions. . . . He seems to be a believer in the 'weight-of-the-evidence' approach and, usually, does not form conclusive opinions until the available data are sufficiently consistent and of high enough quality to warrant such opinions.

2050987891-7898 at 7891 (U.S. Ex. 76,214). See also 2081784567-4574 (U.S. Ex. 88,567).

579. The issue of the harms of exposure to secondhand smoke began to receive public attention in the 1960s. A 1967 editorial by *Science* magazine's powerful editor, Philip Abelson, characterized indoor air pollution from secondhand tobacco smoke as a "toxic hazard," containing agents such as carbon monoxide, nitrogen dioxide, carcinogenic benzpyrene, and hydrogen cyanide. Abelson further explained the dangers: "In a poorly ventilated, smoke filled room, concentrations of carbon monoxide can easily reach several hundred parts per million, thus exposing smokers and nonsmokers present to a toxic hazard." Philip H. Abelson, A Damaging Source of Air Pollution, 158 Science 1527 (1967) (U.S. Ex. 86,748). Harold Diehl's popular

1969 account of scientific findings, *Tobacco and Your Health,* similarly castigated second-hand smoke as a source of pollution and a threat to non-smokers. Harold, Diehl, Tobacco & Your Health: The Smoking Controversy 52-54 (1969), VXA2640170-0313 (U.S. Ex. 63,422).

580. In 1971, U.S. Surgeon General Jesse Steinfeld called for a nonsmoker's "Bill of Rights," arguing that smoking should be banned in restaurants, theaters, airplanes, buses, and other public spaces. Reporting on Steinfeld's remarks, *Newsweek* asked whether there would be a ban on public smoking. A Ban on Public Smoking?, Newsweek, January 25, 1971, at 90-91 (U.S. Ex. 86,749). That same year, the Interstate Commerce Commission mandated separate (and confined) smoking sections on all interstate buses.

581. In 1972, the activist John Banzhaf, founder of "Action on Smoking and Health," used an article in *Today's Health* to call on smokers to "Please Put Your Cigarette Out; the Smoke is Killing Me!" John Banzhaf III, Please Put Your Cigarette Out; the Smoke is Killing Me!, Today's Health, April 1972, at 39-40 (U.S. Ex. 86,750). Surgeon General Steinfeld's Report that year pointed out that carbon monoxide levels in smoke-filled rooms could "equal and at times exceed the legal limits for maximum air pollution permitted for ambient air quality." U.S. General, U.S. Dept. of Health, Education, and Welfare, The Health Consequences of Smoking, (1972) (U.S. Ex. 60,597). In 1973, new federal guidelines made nonsmoking sections in airplanes mandatory.

582. Several of the earlier studies during the 1960s had focused on allergic and toxic substances in sidestream smoke – notably particulates in the form of soot and ash, but also carbon monoxide, nitrogen oxides, and other noxious/poisonous gases. A 1967 study by Milan

Srch of the Forensic Medical Institute of Karls University in Hradec Kralove, for example, examined the physiological impact of riding in a closed car with smokers and found significantly elevated levels of carbon monoxide in the blood of the non-smokers. Milan Srch, Ueber die Bedeutung des Kohlenoxyds beim Zigarettenrauchen im Personenkraftwageninnern, 60 Deutsche Zeitschrift für die gesamte gerichtliche Medizin, 87 (1967). 1000278778-8787 (U.S. Ex. 86,751). Srch stressed the decisive impact of tobacco smoke on CO levels in closed spaces, pointing to the need for ventilation as a remedy in most cases. A slightly different methodology was used in a 1973 experiment by the U.S. Department of Transportation, which measured the ambient carbon monoxide in a bus where every other seat had a smoker (twenty-five cigarettes), compared to a situation where smoking was allowed only in the rear 20% of the bus (five cigarettes). At the driver's seat, carbon monoxide levels rose to thirty-three parts per million in the unrestricted situation, compared to only eighteen parts per million in the "smoking only in the back of the bus" situation. H. E. Seiff, U.S. Dept. of Transportation, Carbon Monoxide as an Indicator of Cigarette-Caused Air Pollution Levels in Intercity Buses, (1973) (U.S. Ex. 86,752). Prolonged exposures to low levels of carbon monoxide had already been implicated in heart disease (angina pectoris) by this time. T. L. Kurt et al., Association of the Frequency of Acute Cardiorespiratory Complaints with Ambient Levels of Carbon Monoxide, 74 Chest 10-14 (1978) (U.S. Ex. 87,322); W. S. Aronow et al., Effect of Freeway Travel on Angina Pectoris, 79 Annals of Internal Medicine, 392-95 (1972) (U.S. Ex. 87,324); L. H. Kuller et al., Carbon Monoxide and Heart Attacks, 30 Archives of Environmental Health, 477-82 (1975), 100279086-9091 (U.S. Ex.88,568).

583. More generally, scientific studies documenting the health hazards of secondhand smoke increased in both quality and quantity in the 1970s and the concerns of earlier scholars were shown to be justified. In 1970 and 1971, Hans-Peter Harke found that nonsmoking waitresses working in smoky taverns inhaled the nicotine equivalent of about one cigarette per hour. Hans-Peter Harke, Zum Problem des Passiv-Rauchens, 51 Münchener Medizinische Wochenschrift, 2328-34 (1970) (U.S. Ex. 86,753). Other studies further analyzed the chemical composition of environmental tobacco smoke. Ulrich Hoegg's study of 1972, for example, is only one of about thirty at this time exploring the concentration of carbon monoxide in closed, smoke-filled environments; such studies were important technically, contributing as they did to efforts to find a common standard for measuring sidestream smoke concentrations.

584. Hoegg distinguished between "glowstream" smoke from the burning end of the cigarette emitted during puffs, "smoulder stream" from the mouth end of the cigarette, and "sidestream" smoke from the burning end emitted while puffing, each of which had properties differing to various degrees from those of the "mainstream" smoke inhaled by the smoker. The sidestream smoke released by a single cigarette, for example, was found to contain a concentration of carbon monoxide nearly five times as great as that derived from the mainstream smoke inhaled by the smoker. Ulrich R. Hoegg, Cigarette Smoke in Closed Spaces, 2 Environmental Health Perspectives, 117-28 (1972) (U.S. Ex. 86,754). Drawing from previous studies, Hoegg noted that "the pollution of closed spaces by cigarette smoke possibly contributes to such otherwise unexplained phenomena as lung cancer in nonsmokers." Id. at 117 (U.S. Ex.

86,754).

585. During the 1970s, Peterson and Stewart stressed the qualitative similarities of mainstream and sidestream smoke with regard to the intake of carbon monoxide, while Russell et al. and Cuddeback et al. further scored the high levels of toxic carbon monoxide in sidestream smoke. Jack. E. Peterson and Richard D. Stewart, Absorption and Elimination of Carbon Monoxide by Inactive Young Men, 21 Archives of Environmental Health, 165-71 (1970) (U.S. Ex. 86,755); Michael A. H. Russell et al., Absorption by Non-Smokers of Carbon Monoxide From Room Air Polluted by Tobacco Smoke, 803 Lancet 576-79 (1973), 2015043587-3590 (U.S. Ex. 88,569); John Cuddeback et al., Occupational Aspects of Passive Smoking, 37 American Industrial Hygiene Association Journal 263-67 (1976) (U.S. Ex. 86,757). Russell and his colleagues measured carbon monoxide concentrations in the blood of patients subjected to high ambient smoke levels and found that the amount absorbed by a non-smoker from passive smoking "was about the same as would be expected if they had actively smoked and inhaled one cigarette." Michael A. H. Russell et al., Absorption by Non-Smokers of Carbon Monoxide From Room Air Polluted by Tobacco Smoke, 803 Lancet, 576-79 at 576 (1973), 2015043587-3590 (U.S. Ex. 88,569). Their conclusion: "in addition to discomfort, occasional allergic reactions, and nasal and conjunctival irritation, a small but real health risk is another potential consequence of passive smoking." Id. at 579.

586. In 1974, Ferdinand Schmidt, publishing in one of Germany's leading medical journals, concluded that environmental tobacco smoke was an occupational hazard, given the levels of toxic substances in many workplace environments. Ferdinand Schmidt, Tabakrauch als

wichtigste Luftverschmutzung in Innenräumen und als pathogene Noxe für Passivraucher, 25 Medizinische Welt, 1824 (1974) (U.S. Ex. 86,758). Two years later in the United States, Cuddeback et al. also concluded that "passive smoke inhalation from cigarette effluents" should be considered "an occupational hazard." John Cuddeback et al., Occupational Aspects of Passive Smoking, 37 American Industrial Hygiene Association Journal, 263-67 at 266 (1976) (U.S. Ex. 86,757).

587. In 1980, following the lead of earlier researchers, James Repace and Alfred Lowrey of the United States Environmental Protection Agency and the United States Naval Research Laboratory respectively conducted measurements of soot, ash, and other particulates in the air of bars and other places where indoor air was dirtied by tobacco smoke, concluding that "indoor air pollution from tobacco smoke presents a serious risk to the health of non-smokers." James L. Repace and Alfred H. Lowrey, Indoor Air Pollution, Tobacco Smoke, and Public Health, 208 Science, 471 (1980) (U.S. Ex. 86,759). James White and Herman Froeb in the *New England Journal of Medicine* that same year found that nonsmokers working in smoky environments tend to have pulmonary functions similar to light smokers. White and Froeb calculated that in consequence of long-term lung (small-airways) dysfunction, nonsmokers working in a smoky environment had about the same risk of impairment as smokers who inhaled "between one and 10 cigarettes per day." James R. White and Herman F. Froeb, Small-Airways Dysfunction in Nonsmokers Chronically Exposed to Tobacco Smoke, 302 New England Journal of Medicine, 723 (1980) (U.S. Ex. 87,325).

588. Studies of the late 1970s and early 1980s centered around lung cancer and heart

disease. Earlier studies had noted the presence of benzpyrene in sidestream smoke; now, there was increasing attention given to nitrosamines, a family of carcinogens already coming under scrutiny for their presence in smoked and nitrate-cured meats. Studies by Klaus Brunnemann et al. in 1977 and in 1978, for example, showed the presence of volatile n-nitrosamines in sidestream smoke "in far greater concentrations" even than in mainstream smoke (e.g., up to twenty-fold higher for dimethylnitrosamines). Brunnemann, K.D., L. Yu, and D. Hoffmann, Assessment of Carcinogenic Volatile N-Nitrosamines in Tobacco and in Mainstream and Sidestream Smoke from Cigarettes, 37 Cancer Res. Vol. 3218-222 (1977), 2021621170-1174 (U.S. Ex.88,570); Brunnemann, K.D. and D. Hoffman, Chemical Studies on Tobacco Smoke LIX. Analysis of Volatile Nitrosamines in Tobacco Smoke and Polluted Indoor Environments, IARC Sci. Publ. Vol. 70, Pt. 2, No. 19, at 343-356 (1978), 2024833807-3819 (U.S. Ex. 88,571).

589. The results of two major epidemiological investigations were released in 1981. First, Takeshi Hirayama, Chief of Epidemiology at Tokyo's prestigious National Cancer Centre Research Institute, published a study showing a significant correlation between lung cancer and ETS based on his epidemiological studies of 91,540 nonsmoking Japanese women living in households with a smoking husband over nearly fifteen years. Hirayama showed that wives of heavy smokers had "a higher risk of developing lung cancer" and that "the effect of passive smoking was most striking in younger couples in agricultural families (ruling out the complication of urban air pollution), relative risk reaching 4.6, probably because of the lesser extent of the exposure to passive smoking outside the family in the case of rural residents." Takeshi Hirayama, Non-Smoking Wives of Heavy Smokers Have a Higher Risk of Lung-Cancer:

A Study From Japan, 282 British Medical Journal, 183-85 (1981) (U.S. Ex. 22,963); see also Elisa Ong and Stanton A. Glantz, Hirayama's Work Has Stood the Test of Time, 78 Bulletin of the World Health Organization, 938-40 (2000) (U.S. Ex. 87,326).

590. Second, Dimitrios Trichopoulos, working with colleagues from the University of Athens School of Medicine and Harvard's School of Public Health, published a case-control epidemiologic study of fifty-one Greek women suffering from lung cancer (plus control groups) in the *International Journal of Cancer*, finding that the non-smoking wives of heavy smokers had elevated lung cancer risks. Dimitrios Trichopoulos et al., Lung Cancer and Passive Smoking, 27 International Journal of Cancer, 1-4 (1981) (U.S. Ex. 50,615). Trichopoulos, like Hirayama, found that lung cancer was about twice as common among nonsmoking women whose husbands smoke as among nonsmoking women whose husbands did not smoke.

591. Studies confirming the original Hirayama/Trichopoulos findings accumulated in the 1980s. See, e.g., Correa et al., Passive Smoking and Lung Cancer, 2 Lancet 595-97 (1983) (U.S. Ex. 87,327); Gus H. Miller, Cancer, Passive Smoking and Nonemployed and Employed Wives, 140 Western Journal of Medicine 632-35 (1984), 2505522186-2190 (U.S. Ex.88,572). These new studies strengthened the case that involuntary smoking was linked to lung cancer in nonsmokers. In 1985, James Repace and Alfred Lowrey calculated that about 5,000 nonsmokers die of lung cancer every year in the United States, based on average exposures of 0-14 mg tar per day, and an assumption of five lung cancer deaths per 100,000 persons exposed per milligram of daily tar exposure (derived from the better-known "mainstream smoke" dose-response relations and the observation of no thresholds). James Repace and Alfred Lowrey, A quantitative estimate

of nonsmokers' lung cancer risk from passive smoking, 11 Environ Int 3-22 (1985), 2502237574-7593 (U.S. Ex. 88,573).

592. The 1986 Surgeon General's Report specifically examined the health consequences of exposure to ETS. The Surgeon General explained:

> The current Report, The Health Consequences of Involuntary Smoking, examines the evidence that even the lower exposure to smoke received by the nonsmoker carries with it a health risk. Use of the term "involuntary smoking" denotes that for many nonsmokers, exposure to ETS is the result of an unavoidable consequence of being in proximity to smokers. It is the first Report in the health consequences of smoking series to establish a health risk due to tobacco smoke exposure for individuals other than the smoker, and represents the work of more than 60 distinguished physicians and scientists, both in this country and abroad. After careful examination of the available evidence, the following overall conclusions can be reached:
>
> 1. Involuntary smoking is a cause of disease, including lung cancer, in healthy nonsmokers.
>
> 2. The children of parents who smoke, compared with the children of nonsmoking parents, have an increased frequency of respiratory infections, increased respiratory symptoms, and slightly smaller rates of increase in lung function as the lung matures.
>
> 3. Simple separation of smokers and nonsmokers within the same air space may reduce, but does not eliminate, exposure of nonsmokers to environmental tobacco smoke.

VXA2110670-1053 (U.S. Ex. 63,709).

593. Since the 1986 Surgeon General's Report, reviews and assessments of the science

on ETS conducted by other public health authorities have recognized this scientific consensus and consistently concluded that ETS causes disease. See, e.g., 2085579835-9871 (U.S. Ex. 22,135) (U.S. Environmental Protection Agency, Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders (1992)); 2065192422-2615 (U.S. Ex. 22,092) (Australian National Health and Medical Research Council, The Health Effects of Passive Smoking (1997)); 521550532-0586 (U.S. Ex. 22,093) (California Environmental Protection Agency, Health Effects of Exposure to Environmental Tobacco Smoke (1997)); 2072208812-8948 (U.S. Ex. 24,591) (Scientific Committee on Tobacco and Health of the United Kingdom, Report of the Scientific Committee on Tobacco and Health (1998)). More recently, in 2001, the United States National Toxicology Program in its *Ninth Report on Carcinogens* stated:

> Environmental tobacco smoke (ETS) is known to be a human carcinogen based on sufficient evidence of carcinogenicity from studies in humans that indicate a causal relationship between passive exposure to tobacco smoke and human lung cancer. Studies also support an association of ETS with cancers of the nasal sinus.

TLT0680107-0142 (U.S. Ex. 65,180) (citations omitted) (emphasis in original). In June 2002, the International Agency for Research on Cancer of the World Health Organization recently released *IARC Monographs (Vol. 83) Tobacco Smoke and Involuntary Smoking*, the product of a scientific working group of twenty-nine experts from twelve countries which "reviewed all significant published evidence related to tobacco smoking and cancer, both active and involuntary," concluded that "[n]onsmokers are exposed to the same carcinogens as active smokers. (U.S. Ex. 86,807). Even the typical levels of passive exposure have been shown to cause lung cancer among never smokers. Second-hand tobacco smoke IS carcinogenic to

humans." VXA3090024-0025 (U.S. Ex. 60,680).

594. Many other organizations have likewise concluded that ETS causes disease in nonsmokers, including the American Cancer Society, the American Medical Association, the American Heart Association, the American Lung Association and the American Academy of Pediatrics. American Cancer Society, Cancer Facts & Figures 2002, at 31 (2002) (U.S. Ex. 86,715); American Medical Association, AMA House of Delegates, Environmental Tobacco Smoke (ETS), House Policy H-490.936 (established 1994; reaffirmed 1999, 2000) (U.S. Ex. 86,714); American Heart Association, 2003 Heart and Stroke Statistical Update 1, 21-22 (2002) (U.S. Ex. 86,716); American Lung Association, Fact Sheet: Secondhand Smoke (September 2000) (U.S. Ex. 86,717); American Academy of Pediatrics, Tobacco's Toll: Implications for the Pediatrician, 107 Pediatrics 794 (April 2001) (U.S. Ex. 63,833). See also Minutes, Board of Health for the Northwestern Unit, Dryden, Ontario, July 4, 2002, at 2 (U.S. Ex. 86,718) ("There is a remarkable and unusual scientific consensus that exposure to environmental tobacco smoke is a known cause of many diseases and that there is no safe level of exposure.").

(2) Echoing Promises Made in the Frank Statement, Defendants Told the Public They Would Seek Answers to the Harms Associated with Exposure to Secondhand Smoke

595. Defendants responded to the scientific evidence showing that exposure to secondhand smoke is a cause of lung cancer and other diseases in exactly the same manner in which they responded to the landmark epidemiological studies of the 1940s and 1950s concerning active smoking – by falsely promising publicly that they would conduct and support independent research into smoking and health issues, including the adverse health effects of ETS.

596. For instance, in 1982, one ad campaign asked "Does Cigarette Smoke Endanger Nonsmokers?" and "What Happens to Cigarette Smoke in the Air?" Defendants' response promised: "Like you, we seek answers. The tobacco industry has committed more funds for independent research on smoking and health than any non-governmental group. . . . The researchers we fund are encouraged to publish whatever they find. Whatever the outcome." TI04591849-1855 at 1853 (U.S. Ex. 22,028). Throughout the fall of 1983, these advertisements ran in the following publications: Washington Post, Time, New Republic, Wall Street Journal, US News & World Report, Sports Illustrated, National Review, Commentary, National Journal and Editor & Publisher, Progressive Farmer, Flue-Cured Tobacco Farmer, Kentucky Farmer, US Tobacco Journal, Tobacco International, Tobacco Reporter, Vending Times, Convenience Store Merchandiser and Supermarket News. 93852854-2869 at 2856 (U.S. Ex. 88,574).

597. Similarly, a 1984 R.J. Reynolds ETS advertisement in the *New York Times* promised to fund and support "independent" and "arms length" research. 504100135-0136 (U.S. Ex. 20,726).

598. And in 1987, continuing to reaffirm false promises initially made in the Frank Statement and adopted in the ETS arena more than three decades later, a Tobacco Institute brochure stated: "The tobacco industry is therefore devoting substantial resources to the investigation of indoor air quality generally and to the ways in which particular constituents of indoor air – including tobacco smoke – may affect human health." 2025364951-5007 at 4954 (U.S. Ex. 22,173).

599. In 1988, the Tobacco Institute issued a report stating that the "tobacco industry is therefore devoting substantial resources to the investigation of indoor air quality generally and to the ways in which particular constituents of indoor air - including tobacco smoke - may affect human health." 202101144-0201 at 0148 (U.S. Ex. 88,575).

600. These public promises, however, were false and fraudulent. Defendants' true goal with respect to passive smoking was not to support independent and valid research in order to answer questions about the link between ETS and disease, but rather the goal was simply "to keep the controversy alive." 206371182-1187 at 1182 (U.S. Ex. 88,576); see also 2021181803A-1812 at 1803 (U.S. Ex. 22,155) (U.S. Ex. 25,697) (noting specific ETS goals to include "maintain the controversy").

(3) Internally, Defendants Recognized the Connection Between Passive Exposure and Disease

601. Internally, however, Defendants recognized that secondhand smoke contained high concentrations of carcinogens and other harmful agents. Defendants recognized that the research showing that passive exposure caused disease was persuasive evidence of the harmful effects of exposure to secondhand smoke.

602. In the early 1980s, for instance, Philip Morris scientists reviewed the evidence showing that nonsmokers exposed to ETS suffer significant damage to their health and found such conclusions to be credible. A Philip Morris department head wrote: "I have reviewed the above paper [by James R. White, Ph.D. and Herman Froeb, M.D., concluding that nonsmokers exposed to secondhand smoke suffer significant damage to airway function] and find it to be an excellent piece of work which could be very damaging to our business." In response, Philip

Morris did not acknowledge the danger its cigarette products posed to nonsmokers, nor did it seek to conduct research similar to that undertaken by White and Froeb. Instead, it began to baldly and falsely deny the validity of the research results. Philip Morris also considered contacting Dr. Gary Huber to see whether he, as a "recognized medical authority," might be willing to publicly refute the paper's findings for them in a medical or scientific journal. 2024299572-9575 (U.S. Ex. 20,401); 1002641904-1907 (U.S. Ex. 22,933).

603. Philip Morris had recognized the dangers in ETS exposure long before the 1980s. In 1961, Helmut Wakeham, a Philip Morris scientist, drafted a paper cataloguing known gas and particulate chemicals in cigarette smoke, including those that Philip Morris viewed as carcinogens, identified 84% of the 400 then-identified chemicals in sidestream smoke, a large component of ETS. 2024947172-7196 (U.S. Ex. 22,891).

604. Philip Morris confirmed Wakeham's findings in a 1984 study conducted overseas at its research facility in Neuchatel, Switzerland. In a report, "Quantitative Evaluation of Cigarette Sidestream Smoke Components Under Controlled Experimental Conditions," Philip Morris summarized its detailed testing of the quantities of harmful chemicals generated by sidestream smoke in ambient air. Philip Morris did not only find that harmful constituents, including carcinogens, were generated, but it found their concentrations in the air to be directly related to the number of cigarettes smoked and, further, found that concentrations did not decay over a time period of an hour after cigarettes were extinguished. 2029269056-9126 (U.S. Ex. 20,432).

605. Brown & Williamson also specifically recognized the harms of ETS exposure.

On November 16, 1982, the company conceded internally that "the overwhelming weight of scientific literature point[s] toward toxicity" in ETS. 680546750-6752 (U.S. Ex. 21,001).

606. The tobacco industry would not support scientific studies concerning ETS that it feared would further reinforce the growing scientific recognition that ETS was harmful to nonsmokers. 508793116-3129 (U.S. Ex. 88,577).

607. Liggett recently admitted that ETS exposure causes disease. The chief chemist at Vector Tobacco, a Liggett corporate affiliate, testified in this case that ETS causes lung cancer in nonsmokers. Deposition of Robert Bereman, United States v. Philip Morris, et al., April 23, 2002, 28:15-29:5.

608. On July 6, 1994, the Majority Staff, Health and the Environment Subcommittee of the Committee on Energy and Commerce in the United States of Representatives sent each member of the Science Advisory Board of the Center for Indoor Air Research ("CIAR") a survey on the health effects of ETS. Six of the seven Board members agreed that ETS "presents a serious and substantial public health threat to children" and five of the seven members agreed that ETS is "a human lung carcinogen." The Committee found that these answers contradicted Defendants' public position that ETS is not a health threat to nonsmokers. 2044436543-6544 (U.S. Ex. 21,991).

(4) Defendants Viewed the Evidence of the Health Effects of Exposure to Secondhand Smoke as a Threat to the Social Acceptability of Smoking

609. In September 1986, William Kloepfer, Senior Vice President of Tobacco Institute Public Relations, acknowledged that ETS "is our biggest public/political issue and deserves top-level navigation." TI10191292-1293 (U.S. Ex. 62,270).

610. R.J. Reynolds established a project in the late 1970s entitled "Studies on the Social Aspects of Smoking" to reverse the steadily unfavorable trend toward decreasing social acceptability of smoking. The company tried to mobilize Defendants "aggressively" under R.J. Reynolds's leadership and structured the Tobacco Institute to engage in a "pre-emptive strike" on ETS. R.J. Reynolds conceded that "no counter-strategy can succeed unless we can refute the [ETS] causation theory." 500008899-8964A (U.S. Ex. 20,609).

611. In the early 1980s, the health effects of exposure to ETS had become a major threat to cigarette company profits and an important catalyst in attempts to regulate tobacco use. In a letter dated June 29, 1982, from E.A. Horrigan, Jr., Chief Executive Officer of R.J. Reynolds, to Robert Ave, Executive Vice President of Lorillard, Horrigan conceded that "[w]e all know that probably the biggest threat to our industry is the issue of passive smoking." 93443843-3843 (U.S. Ex. 32,289).

612. According to William Kloepfer, Senior Vice President of Public Relations of the Tobacco Institute, the Tobacco Institute had "shifted into high gear on the ETS issue" in 1984 by supporting ETS research and researchers likely to be favorable to the industry, ensuring publicity for research they hoped would perpetuate the idea of an ETS controversy, and using those researchers to testify at public hearings and scientific conferences: "It's been two years since we shifted into 'high gear' on the ETS issue, with PR 'issue management,' ETSAG (Hoel committee) research activity and IAPAG (Schwartz group) testimony." TI10191292-1293 (U.S. Ex. 62,270); 401033603-3603 (U.S. Ex. 88,578). Defendants recognized that evidence of the dangers of ETS would result in a decline in the social acceptability of smoking, which would prompt public

smoking restrictions and ultimately a substantial decline in sales.

613. Despite growing recognition that ETS is harmful to nonsmokers, Defendants undertook concerted deceptive action to forestall and undermine any public perception of risk by smokers and nonsmokers because, as early as 1974, such a perception was seen as a "movement could lead to the virtual elimination of cigarette smoking." TIMN0067732-7755 at 7734 (U.S. Ex. 22,047).

614. On January 31, 1974, at the 1974 Tobacco Institute's annual meeting in New York, Horace Kornegay, Tobacco Institute President, recounted the opening of official hostilities between the industry and the Federal Government ten years earlier over the 1964 Surgeon General's report. Kornegay then switched to the threat from research into passive smoking and stated:

> our opponents are seeking a new strategic handle . . . . This time they will start trying to protect people from the smokers. Our efforts at the Tobacco Institute, with your support, will be to frustrate them. It is in this context that I hope you will view my report of what we have done this year. At the executive committee meeting in November we called attention to one aspect of the new agenda: . . . the successful efforts made in 1973 to prohibit smoking in public places. We illustrated the potential impact on sales and warned that the movement could lead to the virtual elimination of cigarette smoking.

TIMN0067732-7755 at 7734 (U.S. Ex. 22,047).

615. Two years later, in June 1976, BAT Industries/BATCo held a Chairman's Advisory Conference, in Hot Springs, Virginia. These conferences were attended by the Board and Chief Executives of the major overseas subsidiaries and other affiliates. 110069831-9831 (U.S. Ex. 88,579). At this conference, there was agreement that the social unacceptability issue

surrounding second hand smoke "constitutes 'a more serious threat to the industry's future than any other aspect of the attack on smoking.'" 2025025481-5494 at 5481 (U.S. Ex. 37,220); see also 680040485-0502 at 0489 (U.S. Ex. 25,437) (official notes of the conference) ("It had been estimated that the issue of passive smoking had already lost the industry cigarette sales of 1,000 million a year."); 2025025457-5460 at 5457 (U.S. Ex. 75,152) (R. Haddon); 2025025510-5512 (U.S. Ex. 37,221) (official notes of the Tobacco Advisory Counsel). Defendants BATCo and B&W had executives in attendance. C.I. McCarty, a Brown & Williamson Executive Vice President, member of its Board of Directors, and a member of the Tobacco Institute's Executive Committee, spoke to the conference about the situation in the United States relating legislative efforts on smoking restrictions. 680040485-0502 at 0490 (U.S. Ex. 25,437); 110069862-9862 (U.S. Ex. 88,580); 110069857-9857 (U.S. Ex. 88,581). In preparation for the 1976 BATCo Chairman's Conference, T.J.N. Foley, a former BATCo chairman, who later became a director of BAT's Australian subsidiary, provided comments on the draft agenda regarding social unacceptability of smoking: “The subject is inseparably linked with passive smoking and presents a major danger and challenge to the industry . . . the challenge lies in the industry’s need to devise a counter-campaign . . . part of the industry’s answer surely is to work towards making passive smoking the conflict issue.” 110069863-9866 at 9863-9864 (US Ex. 34,951).

616. In 1978, the Roper Organization advised the industry that the passive smoking issue was:

> the most dangerous development to the viability of the tobacco industry that has yet occurred. While there is little sentiment for an out-right ban on smoking in public gathering places, there is already a majority sentiment for providing separate facilities for

> smokers and non-smokers. As the anti-smoking forces succeed in their efforts to convince non-smokers that their health is at stake too, the pressure for segregating facilities will change from a ripple to a tide as we see it.

TITX0000963-1015 at 0968 (U.S. Ex. 88,582).

617. In January 1980, Frank Colby, an R.J. Reynolds scientist, wrote in a draft memorandum addressing the activities of the Hoel Committee and recommending additional research and public relations efforts that the "'public smoking' activities of the anti-smoking forces do not only tarnish the 'image' of the industry, but they also represent a very substantive threat to sales. A cigarette which a smoker is prevented from smoking because of restrictions to smoke in public areas, is a cigarette not smoked, because, by and large, the smoker will not smoke that cigarette once he returns home." 502668016-8018 at 8018, RJR0023847-3849 at 3849 (U.S. Ex. 75,399).

618. On June 26, 1987, and throughout the 1990's, Philip Morris continued to stress the link between second hand smoke and cigarette sales: "a . . . multiple warhead . . . system that targets a specific audiences with specific messages and tactics [including] . . .longer term science work to address the health issue" raised by second hand smoke, it was recognized that "[t]he situation cannot get any worse. Sales are down, [and the decline] can't be attributed to taxes or price increases." 2021502671-2678 at 2671, 2678 (U.S. Ex. 22,950), (U.S. Ex. 75,076); 2021502135-2142 (U.S. Ex. 22,275); see also 2026226012-6021 at 6012 (U.S. Ex. 88,583) (an undated report from the 1990's stated "Without a doubt, the social acceptability of smoking practices is the most critical issue that our industry is facing today. . . . The consequences of any decrease in social acceptability are extremely important because of their direct effect on the total

volume of sales . . . "); 2041183751-3790 at 3752 (U.S. Ex. 37,924) (July 1994 document stated: "The achievement of universal accommodation [between smokers and non-smokers] . . . is imperative because the rights of smokers to smoke where they work, play – and even where they live – is under attack as it has never been before. The immediate implications for our business are clear: if our consumers have fewer opportunities to enjoy our products, they will use them less frequently and the result will be an adverse impact on our bottom line.").

619. Indeed, the actual impact of smoking restrictions on cigarette sales was known to be so substantial that by January 1992, Philip Morris USA was measuring past impacts on sales and modeling the future sales impact of only the possible workplace smoking restrictions resulting from public concerns about the significant health impacts of second hand smoke on non-smokers. "From 1987 to 1991, the industry lost an estimated incremental 1.7% (9.5 billion units) due to increasing workplace restrictions [alone]. If these trends continue, the industry will lose an additional 1.3% to 1.9% (8.4 to 11.4 billion units) from 1991 to 1996. . . . If smoking were banned in all workplaces, the industry's average consumption would decline 8.7%-10.1% from 1991 levels and the quitting rate would increase 74% (e.g., from 2.4% to 4.4%). 2023914280-4284 at 4280 (U.S. Ex. 88,584) (emphasis in original).

(a) Defendants Responded to the Perceived Threat with Concerted Activity Coordinated by their Attorneys

620. Defendants undertook concerted action in response to the foregoing scientific conclusions and evidence. The evidence linking ETS exposure to disease represented a threat to the social acceptability of smoking. Defendants viewed it as a crisis for the Enterprise and responded accordingly.

621. Through its representation of the members of the Enterprise, Covington & Burling was able to coordinate the actions of the members of the Enterprise.

622. Covington & Burling set up an office in London in March 1988 to coordinate the Enterprise's overseas activities to maintain an open controversy on ETS. 2060563936-3941 (U.S. Ex. 79,164); Deposition of Sharon Blackie (Boyse), United States v. Philip Morris, et al., April 29, 2002, 138:19-139:6.

623. During the 1990s, the law firm of Covington & Burling took over much of the industry's activities and coordination of scientific witness development. A February 20, 1988 draft memo by Covington & Burling attorney David H. Remes explained Defendants' view that organizing scientific witnesses to attack the weaknesses in evidence supporting the harmfulness of ETS was the best way to maintain a "controversy" on ETS and avoid smoking restrictions. Law firms have historically been a tool that Defendants have used to secure their joint objectives, and in the February memo, Remes explained that Covington & Burling, as an outside entity, was in a better position than its client, Philip Morris, to coordinate a multiple tobacco company effort on ETS. 2501474253-4259 (U.S. Ex. 22,017) (U.S. Ex. 75,270).

624. Boyse testified that Philip Morris used Covington & Burling to coordinate ETS activities between the members of the Enterprise because "they had done a lot of regulatory work in the United States on helping advise companies and putting together consultants to testify in regulatory proceedings, again, when ETS bans were being proposed, and I think they just had a lot of general experience in this area." Deposition of Sharon Blackie (Boyse), United States v. Philip Morris, et al., April 29, 2002, 170:2-9.

625. BATCo Head of Science, Christopher Proctor, moved seamlessly between BATCo and Covington & Burling, moving from BATCo to Covington in 1989 and then back to BATCo in 1993. With Covington, Proctor provided "scientific advice to the attorneys who then provided advice to a variety of different clients." His duties included reviewing the scientific literature on ETS. Additionally, he "talked to scientists who were producing comments for the regulatory process that the Environmental Protection Agency was undertaking." In 1994, even after returning to BATCo, Proctor continued to work on projects he had worked on at Covington & Burling. Deposition of Christopher Proctor, United States v. Philip Morris, et al., May 7, 2002, 8:2-20, 9:15-23, 153:7-154:9; 2024210653-0653 (U.S. Ex. 22,867).

626. Defendants' response to the emerging scientific evidence was controlled by their attorneys. Attorneys were involved in the selection and management of "research" projects through front organizations like Council for Tobacco Research ("CTR") and various industry-wide ETS committees. Attorneys were also involved in the management of misinformation campaigns through the Tobacco Institute and international organizations like the International Tobacco Information Center/Centre International d'Informatin Du Tabac (commonly referred to as "INFOTAB"). Donald Hoel of Shook, Hardy & Bacon and John Rupp of Covington & Burling were predominant among the lawyers supporting the efforts of the Enterprise, which furthered the scheme to defraud. Hoel worked on a number of Defendants' ETS committees from the 1970s until 1993. In an internal Shook, Hardy & Bacon memorandum, Hoel admitted that his law firm was "instrumental in organizing the tobacco industry's response to the ETS issue." Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 96:12-99:23,

100:9-101:21; 2015007199-7207 at 7206 (U.S. Ex. 20,311); 2023590167-0174 (U.S. Ex. 20,393).

627. Hoel and fellow Shook, Hardy & Bacon attorney Patrick Sirridge were part of an *ad hoc* advisory group made up of tobacco company scientists and outside law firm lawyers that was organized to coordinate the tobacco industry's response to the emerging ETS issue in the mid-1970s. The lawyers assisted in contracting outside scientists and in generating scientific studies designed to yield evidence beneficial to the litigation and public relations positions of Defendants. Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 96:12-97:16; 1003293752-3753 (U.S. Ex. 20,169) (U.S. Ex. 75,204); 1000205071-5073 (U.S. Ex. 20,079) (U.S. Ex. 75,203).

628. Defendants sought to hide lawyer involvement in, and all evidence of, these early ETS activities.

629. According to a handwritten note dated November 5, 1975, industry lawyers such as Edward Jacobs of Jacobs & Medinger wanted any notes taken by members of the ETS Advisory Group led by Hoel destroyed. 1003294811-4811 (U.S. Ex. 20,171) (U.S. Ex. 23,402) (U.S. Ex. 75,206).

630. Notes from a July 1976 meeting of Defendants' Research Liaison Committee show that outside law firms and the Committee of Counsel, a Tobacco Institute committee comprised in part of the general counsel of member tobacco companies, controlled what scientific research Defendants engaged in with regard to ETS exposure, as opposed to the independent scientists that the Defendants represented would control CTR's research funding.

The notes specifically indicated that records relating to review of scientific projects by outside law firms and the Committee of Counsel should not be kept. Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 161:24-164:9; 1000255997-6001 (U.S. Ex. 20,086) (U.S. Ex. 25,506) (U.S. Ex. 34,283).

631. William Shinn, another Shook, Hardy & Bacon attorney, participated in the effort to hide evidence of the role of lawyers in designing favorable ETS exposure research. In a 1978 memorandum, Shinn described Special Account No. 4 to the Committee of Counsel. Cigarette Company Defendants pooled funds for research and litigation, including ETS exposure projects, into Special Account No. 4. Shinn instructed that notes regarding the workings and administration of Special Account No. 4 be destroyed. Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 77:21-82:9; 03638976-8979 (U.S. Ex. 20,060) (U.S. Ex. 46,483).

632. In the fall of 1984, at the explicit direction of the Committee of Counsel, Hoel was asked to reconvene the committee he had helped run in the 1970s to coordinate Defendants' efforts on ETS, including the generation of scientific evidence to defend the tobacco industry's liability positions. This group was named the ETS Advisory Group, but was also referred to as the "Hoel Committee" after its chairman. The Hoel Committee operated not only as the ETS Advisory Group, but under a variety of different names. Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 139:13-140:8; 2015029667-9667 (U.S. Ex. 20,315) (U.S. Ex. 75,222); 2015029667-9667 (U.S. Ex. 20,315); Deposition of John Rupp, United States v. Philip Morris, et al., June 28, 2002, 97:11-98:9; 86024168-86024172 (U.S. Ex. 21,089) (U.S.

Ex. 75,198).

633. The Hoel Committee was made up of tobacco company scientists, in-house counsel, outside law firm attorneys, and public relations experts from the Tobacco Institute. In addition to Hoel, some of the committee meeting attendees were: Bill Davis of Shook, Hardy & Bacon; John Rupp and Michael Michaelson of Covington & Burling; Alexander Spears, Lorillard executive; scientist Charles Green, scientist Guy Oldaker, and attorney Mary Ward of R.J. Reynolds; scientist Thomas Osdene and scientist Robert Pages of Philip Morris; scientist J.G. Esterle of Brown & Williamson; and Marvin Kastenbaum and William Kloepfer of the Tobacco Institute. The group met monthly. While Liggett and American Tobacco did not participate directly, they contributed funding to the committee activities. Deposition of John Rupp, United States v. Philip Morris, et al., June 28, 2002, 91:10-97:10; 2021004058-4064 (U.S. Ex. 20,339) (U.S. Ex. 75,330).

634. The Committee of Counsel did not merely demand the creation of the ETS Advisory Group, it remained involved in the efforts of the Hoel Committee and oversaw its activities. The Committee of Counsel set guidelines for the types of scientific research that Hoel could direct his committee to engage in or fund. For instance, notes of a November 2, 1984 ETS Advisory Group meeting indicate that the group was given guidelines from the Committee of Counsel that no "body fluid" testing should have been done. Hoel and Rupp regularly briefed the Committee of Counsel on Hoel Committee activities. Along with the rest of the Hoel Committee, they made recommendations on which ETS projects to fund and, with the Committee of Counsel's approval, funded research as CTR Special Projects, with the intention

that the ties between recipients and Defendants remain hidden. Deposition of John Rupp, United States v. Philip Morris,.et al., June 28, 2002, 101:15-102:11; Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 129:3-7; 211:3-212:22; 2021004916-4917 (U.S. Ex. 21,706); 2021004058-4064 (U.S. Ex. 20,339); 508230855-0855 (U.S. Ex. 20,809) (U.S. Ex. 75,280).

635. The early efforts to coordinate a public relations and litigation strategy in the interest of maintaining the social acceptability of smoking involved other lawyer-dominated committees.

636. For instance, in the mid-1980s, Covington & Burling attorney John Rupp assembled an Indoor Air Pollution Advisory Group ("IAPAG") on behalf of the Tobacco Institute. IAPAG was a group of scientists organized to advise the Tobacco Institute on scientific issues related to ETS exposure and to provide favorable testimony at legislative hearings. The group included, among others, Rupp, Gray Robertson, Chief Executive Officer of ACVA Atlantic, Inc., later renamed Healthy Buildings International, and Sorell L. Schwartz, a paid tobacco industry consultant. Representatives from Defendants attended IAPAG scientific meetings. While IAPAG reported to Rupp, key IAPAG member Schwartz, a Georgetown University scientist who provided consulting and testifying services to the Tobacco Institute and to Defendants on ETS matters, understood Hoel to be the most significant player on ETS matters within the industry. 401087370-7384 (U.S. Ex. 85,517); 505454031-4034 (U.S. Ex. 20,740); 2021019013-9013 (U.S. Ex. 21,743); 2021019014-9016 (U.S. Ex. 21,746); TIOK0023344-3355 (U.S. Ex. 65,699); 504921177-1179 (U.S. Ex. 20,018); TITX0025965-5968 (U.S. Ex. 88,585);

Deposition of Sorell Schwartz, United States v. Philip Morris, et al., May 28, 2002, 164:2-165:1.

637. At the same time that Hoel and Rupp were beginning their efforts to assist Defendants' fraudulent public relations strategy in the United States, Defendants took steps to set up international organizations to address issues related to the health consequences of exposure to secondhand smoke.

(b) Defendants Responded to the Threat Posed by Evidence of the Harmful Effects of Exposure to Secondhand Smoke with Coordinated International Activity

638. Defendants' ETS exposure concerns were also addressed on an international level, springing from a meeting that took place in the United States in the spring of 1976. At the BAT Groups' Chairman's Conference in Hot Springs, Virginia, BATCo recognized that the health consequences of ETS exposure would lead to the "social unacceptability of smoking." The company acknowledged:

> The subject is inseparably linked with passive smoking and presents a major danger and challenge to the industry. The danger exists in the clearly evident snowballing effect of the tactics aimed at making smoking a distasteful practice. The challenge lies in the industry's need to devise a counter-campaign. . . . Part of the industry's answer surely is to work towards making passive smoking the conflict issue.

At the conference "there was unanimous agreement that the social unacceptability issue constitutes a more serious threat to the industry's future than any other aspect of the attack on smoking." 110069863-9866 at 9864 (U.S. Ex. 34,951); 2025025481-5494 at 5481 (U.S. Ex. 37,220).

639. Later that year, in October 1976, BATCo expressed its "belief that whilst smokers

are prepared to subliminate their anxieties about the so-called health hazards, the need for industry margins to keep abreast of inflationary costs, with more smoke constituents coming under suspicion, and now with these social pressures, we foresee the possibility of a further diminution in the incidence of smoking unless Companies, either collectively or individually are prepared to take positive action." 2025025506-5507 at 5506 (U.S. Ex. 75,154).

640. In November 1976, the Tobacco Advisory Council ("TAC") in the United Kingdom, akin to Center for Tobacco Research in the United States, discussed TAC's future role. TAC members agreed that they needed to focus efforts on the social unacceptability of smoking. 2025025510-5512 (U.S. Ex. 37,221).

641. Thereafter, Tony Garrett, Chairman of Imperial Tobacco, called Hugh Cullman, then President of Philip Morris International and Executive Vice President of Philip Morris Incorporated, to explore with Philip Morris whether several of the world's largest manufacturers, including BATCo and R.J. Reynolds, "might be prepared to meet discreetly to develop a defensive smoking and health strategy for major markets such as the UK, Germany, Canada, US and possibly others." 2025025286-5286 (U.S. Ex. 20,407) (U.S. Ex. 75,142) (U.S. Ex. 78,987).

642. On December 3, 1976, Hugh Cullman, Executive Vice President of Philip Morris, memorialized Garrett's suggestion for a discreet meeting of the heads of certain tobacco companies, including BATCo, R.J. Reynolds, and Philip Morris International, "to develop a defensive smoking and health strategy." The initial objective of this group was to develop a smoking and health agreement which would include a voluntary agreement, that no concessions beyond a certain point would be voluntarily made by the members and if further concessions

were required by respective governments, that these not be agreed to and that governments be forced to legislate. These leaders met in 1977, and the meeting was called "Operation Berkshire." 500269225-9228 (U.S. Ex. 20,622) (U.S. Ex. 75,188); 2025024797-4803 (U.S. Ex. 20,406); 2025025286-5286 (U.S. Ex. 20,407) (U.S. Ex. 75,142) (U.S. Ex. 78,987); 2501020298-0308 (U.S. Ex. 21,903) (U.S. Ex. 75,180); 2025025288-5289 (U.S. Ex. 20,408); 2025025341-5343 (U.S. Ex. 20,409); 2025025347-5348 (U.S. Ex. 20,410) (U.S. Ex. 75,149); 2025025369-5369 (U.S. Ex. 20,411); 2501024571-4575 (U.S. Ex. 21,904); 1000219803-9803 (U.S. Ex. 21,906).

643. Garrett "was most encouraged to find a concensus [sic] emerging that some of the major companies expressed a wish to meet together to try to form a defensive smoking and health strategy, to avoid our countries and/or companies being picked off one by one, with a resultant domino effect." Garrett reported that BATCo, R.J. Reynolds, Reemtsma, Rothmans, and Imperial were prepared to consider such a unified strategy and suggested that a meeting take place in April or May 1977, with three representatives from each company, including its CEO. Garrett emphasized that the meeting should be as discreet as possible and avoid any publicity. 2025025290-5291 (U.S. Ex. 22,980) (U.S. Ex. 75,145).

644. In furtherance of the "Operation Berkshire" participants' desire to form internationally consistent positions on smoking and health issues, including the health effects of ETS exposure, the group agreed to form the International Committee on Smoking Issues ("ICOSI"). Pursuant to the agreement, certain companies would work to develop positions on specified issues, including R.J. Reynolds (leading the Social Acceptability Working Party or

"SAWP") and BATCo (the Behavior Working Party). 502948580-8591 (U.S. Ex. 21,908) (U.S. Ex. 75,189); 2501024103-4107 (U.S. Ex. 21,909) (U.S. Ex. 75,181).

645. An April 28, 1977 report, entitled "Position Paper for Operation Berkshire," developed by Philip Morris and BAT, suggests that Operation Berkshire participants agreed that "the Industry's activity in the smoking and health field should be carried out primarily by or through the Associations, wherever this is possible." They further agreed upon several tactics, designed to maintain the open question:

> We acknowledge the fact that there is a continuing smoking and health controversy but we do not accept as proven that there is a causal relationship between smoking and various diseases . . . .
>
> [W]e believe it is better to speak as an industry with one voice on such matters and that this can be accomplished through national associations of manufacturers.
>
> We take the view that to date there is no persuasive scientific evidence to support the contention that the non-smoker is harmed by the tobacco smoke of others . . . .
>
> The tactics were also designed to frustrate efforts to regulate the industry:
>
> [resist] [t]he imposition of maximum tar and nicotine yields, as well as attempts by Governments to tax high tar products differentially to those with lower deliveries . . . .
>
> [maintain the] Industry view that there is no valid evidence to support the contention that advertising increases total consumption ofcigarettes . . .[and]
>
> resist any requirements to put figures for the yields of smoke constituents or tar groups on packs or in advertising.

2025025313-5318 (U.S. Ex. 23,741).

646. In October 1977, BATCo's Director of Public Relations, Richard Haddon, was a member of ICOSI's SAWP. Working party members included representatives from R.J. Reynolds Industries, Inc., Rothman's International, R.J. Reynolds Tobacco Company, and Philip Morris, Inc. 501472756-2794 (U.S. Ex. 66,342); 2025025295-5300 (U.S. Ex. 75,146).

647. The First Report by SAWP to ICOSI stated, in part, that:

> -[T]he industry has no time to spare before stepping up its actions on social acceptability as a separate set of issues [from that of smoking and health] where steps can and must be taken even while basic health questions remain unresolved.
>
> -The Working Party finds that anti-smoking influences are increasingly linking themselves together into international movements. Negative social acceptability developments in one country are being picked up and transmitted through worldwide networks to other nations.

501472756-2794 at 2768, 2770-2771 (U.S. Ex. 66,342).

648. The First Report by SAWP also admitted that "[i]n dealing with current social acceptability issues, the industry has focused almost all its countermeasures on blocking, delaying or changing governmental actions and plans" and decided that the "industry also should launch sustained, long-term counter-measure programs . . ." rather than merely reacting "to outside pressures for laws and regulations." The SAWP further concluded that "national trade associations (rather than individual companies) are key vehicles for launching countermeasures on social acceptability issues. Such association countermeasures become even more effective when they carry 'third party' endorsements . . . ." 501472756-2794 at 2772-2773 (U.S. Ex. 66,342).

649. In November 1977, ICOSI member companies were directed to: avoid making any

claims that one cigarette was healthier than others; resist strenuously warning labels implying that smoking causes diseases; and express the view that there was no persuasive scientific evidence that non-smokers are harmed by secondhand smoke. 321795932-5945 at 5936-5937 (U.S. Ex. 28,675); 321795889-5925 at 5911 (U.S. Ex. 28,667) (U.S. Ex. 28,668) (U.S. Ex. 28,669).

650. On February 7, 1978, SAWP recommended that future coverage of ICOSI activities be centered on the United States, the United Kingdom, Australia, Belgium, Canada, Ireland, the Netherlands, Switzerland, and Germany. Members of SAWP at that time included BATCo, Philip Morris, Inc., and R.J. Reynolds Tobacco Co. 980037079-7167 at 7077-7079, 7085, 7161 (U.S. Ex. 32,445).

651. A March 1978 BATCo document stated: "The aim of ICOSI is defensive research aimed at throwing up a smoke screen and to throw doubt on smoking research findings which show smoke causes diseases." 321588692-8692 (U.S. Ex. 28,544).

652. An internal Philip Morris memorandum dated December 12, 1978, from J.M. Hartogh, counsel for Philip Morris–London to A.E. Bellot, Philip Morris International Vice-President, expressed Philip Morris's view that the effectiveness of ICOSI would require coordination and input from the Tobacco Institute and Shook, Hardy & Bacon. 2501018326-8327 (U.S. Ex. 21,505) (U.S. Ex. 75,179).

653. Later, Lovell, White & Durrant (which became simply "Lovells"), counsel for BATCo, admitted that Defendants' approach to ETS exposure issues mirrored the approach to direct smoking that the Enterprise developed in the 1950s. Expressing its concern that

statements by TAC on ETS might be inconsistent with those of the Tobacco Institute and other Cigarette Company Defendants, Lovells observed that the industry found itself in "the same position in relation to ETS that it was thirty-to-forty years ago in relation to active smoking." Lovells urged: "Statements made by TAC should, therefore, be consistent with the positions adopted by the individual companies." Lovells further observed: "On scientific matters relating to ETS, a common position has been agreed to by all the companies." 503055325-5326 (U.S. Ex. 20,712).

654. That coordination and active participation occurred, most notably with ICOSI's successor organization, INFOTAB, which replaced ICOSI in November 1981. INFOTAB's Board of Directors included, at various times, Hugh Cullman, Executive Vice President of Philip Morris, Alexander Holtzman, Vice President & Associate General Counsel of Philip Morris Companies, and Edward A. Horrigan, Chief Executive Officer of R. J. Reynolds (who was also at the time the Tobacco Institute Chairman of the Executive Committee, and on the Tobacco Institute Board of Directors). Donald Hoel from Shook, Hardy & Bacon attended the organization's meetings. In 1992, INFOTAB was renamed the Tobacco Documentation Centre ("TDC"), but the name change did not lead to any change in its function. 2025013308-3308 (U.S. Ex. 21,585) (U.S. Ex. 75,238).

655. Members of the Tobacco Institute met and coordinated with members of INFOTAB, an international organization of which BATCo was a member, in furtherance of the Enterprise.

656. On November 16, 1981, the Tobacco Institute provided INFOTAB with its

communications plans regarding the Hirayama report, a report linking ETS and adverse health consequences. INFOTAB alerted national associations around the world and as soon as the Tobacco Institute had its press releases prepared, it telexed them to INFOTAB and INFOTAB transmitted them by telex to the other associations for their possible use. INFOTAB followed up with a mailing of press clippings from the United States, which enabled associations to generate similar press coverage in their own countries. 2501029891-9901 at 9898 (U.S. Ex. 20,557).

657. In October 1984, the Tobacco Institute underwrote half the cost of producing a monograph commissioned by INFOTAB entitled, "Free To Smoke" and edited by Robert D. Tollison, Ph.D., Professor of Economics and Director of the Center for Study of Public Choice, George Mason University that touted the United States industry's position on smoking and health and free choice. TIMN371669-1682 (U.S. Ex. 65,655), (U.S. Ex. 65,654).

658. In 1985, TAC was asked to circulate the Tobacco Institute's "refutation" of the forthcoming United States Surgeon General's report. 107354976-4981 at 4980 (U.S. Ex. 26,300).

659. In 1985, the Secretary General of INFOTAB sought to "improve the industry's position with 'passive' smoking issues" by highlighting symposia concluding that ETS did not pose a hazard to health and an increased emphasis on coordination with the members of INFOTAB and the Tobacco Institute. 103366351-6353 (U.S. Ex. 26,249).

660. On April 8, 1986, INFOTAB's Board of Directors, including Robert L. O. Ely, BATCo's Head of Public Affairs, met in the United Kingdom to discuss the industry's current

research activities concerning secondhand smoke. The meeting included representatives from Philip Morris USA, BATCo, R.J. Reynolds, the Tobacco Institute, and the law firms of Shook, Hardy & Bacon and Covington & Burling. It was decided to coordinate all available information and research on second hand smoke; and the industry would use all research results demonstrating that second hand smoke is not a risk to health. Various research projects were discussed, to be used by the attendees to address proposed regulations with respect to ETS, including programs sponsored by the Tobacco Institute and the "cooperative [United States] industry study to measure carbon monoxide, nicotine, and particulate matter in restaurants." 2022932502-2506 at 2506 (U.S. Ex. 22,828) (U.S. Ex. 75,333) (U.S. Ex. 75,125); 505347172-7174 at 7172-7173 (U.S. Ex. 20,739) (U.S. Ex. 75,274).

661. An August 1986 outline set forth the coordinated efforts of Defendants to develop industry-friendly science on ETS and included projects managed by the ETS Advisory Group (the "Hoel Committee"), the Tobacco Institute, Shook, Hardy & Bacon, Covington & Burling, and INFOTAB. 86024168-4172 (U.S. Ex. 21,089) (U.S. Ex. 75,198).

662. Through the Tobacco Institute, other Defendants (beyond Philip Morris, R.J. Reynolds and BATCo) were involved with INFOTAB's activities. A September 18, 1986 letter from Shook, Hardy & Bacon to Alexander Spears of Lorillard attached a listing of ETS projects that included preparation of a paper on ETS health claims and constituents for INFOTAB by the law firm for use by lead tobacco companies. The letter to Spears also advised of an INFOTAB workshop where Thomas Osdene, Director of Science & Technology of Philip Morris, Incorporated, Charles Green, Principal Scientist of Research & Development, R. J. Reynolds, and

Donald Hoel of Shook, Hardy & Bacon would serve as panelists for an ETS presentation. 86024167-4167 (U.S. Ex. 56,093) (U.S. Ex. 75,197); 86024168-4172 (U.S. Ex. 21,089) (U.S. Ex. 75,198).

663. INFOTAB functioned much like the Tobacco Institute, principally in its development and coordination of statements, that were prepared with reckless disregard for the truth or falsity of matters asserted relating to the health effects of smoking. As with the Tobacco Institute, INFOTAB prepared these documents for public dissemination by its members, which included Philip Morris, R.J. Reynolds, and BATCo, with the goal of creating the idea that a scientific controversy existed over the health effects of smoking.

664. One example of such materials was a document known at the ETS Kitset. It identified two key strategy objectives for its members:

> Objective 1 To demonstrate the inconclusive nature of claims that ETS has harmful effects, by bringing to light the scientific controversy over such claims.
>
> Objective 2 To position ETS as just one (and a very minor) factor in a complex atmospheric mix which also includes petrol/diesel fumes, dust, bacteria (particularly in air conditioned environments), pollen, and in industrial situations an enormous variety of chemical fumes and substances.

2501155644-5648 at 5646 (U.S. Ex. 45,901).

665. The Kitset also contained "Campaign Resource Materials" that instructed members on the best ways to run publicity campaigns, and publicity leaflets addressing six "sub-issues" created by INFOTAB for use by recipients, with the aim that the "scientific" presentations therein reach the "target audience." To that end, INFOTAB provided a Public Affairs Guide

("for use with politicians, civil servants, journalists and other opinion-leaders") and a "general leaflet" that addressed "the two major strategic themes of 'demonstrating scientific controversy' and 'ambient air quality.'" The introduction to the Kitset further indicated:

> Finally, the key arguments on the claimed health effects of ETS and its contribution to indoor air quality have been picked out in two documents defined as *Useful Arguments*. These give more detail on what might be said in relation to the main strategic theme, and are designed to facilitate [members] construction of their own campaign materials.

2501155644-5648 at 5648 (U.S. Ex. 45,901) (emphasis in original).

666. The introduction to the Kitset made clear the INFOTAB Board's desire to keep its control and influence over the campaign secret:

> This kitset contains two distinct types of document[s]. The leaflets have been written for publication outside the industry and have been scrutinized by industry experts. They are clearly distinguished as printed, two-colour publications, and do not carry either the Infotab name or the ETS campaign logo.
>
> IN CONTRAST, THE INTERNAL PAPERS - OF WHICH THIS INTRODUCTION IS ONE - ARE FOR USE INSIDE THE INDUSTRY ONLY AND SHOULD BE TREATED AS CONFIDENTIAL. FOR THIS REASON, THE INTERNAL PAPERS HAVE BEEN PRODUCED IN A FORM WHICH IS INAPPROPRIATE FOR PUBLIC USE AND ARE CLEARLY MARKED AS CONFIDENTIAL INFOTAB DOCUMENTS.

2501155644-5648 at 5648 (U.S. Ex. 45,901) (emphasis in original).

(5) <u>Defendants' Response Ultimately Led to the Formation of Jointly Controlled Organizations to Carry Out Their Concerted Activity.</u>

(a) <u>CIAR</u>

667. Ultimately, these early international efforts through ICOSI and then INFOTAB

were coordinated with the domestic activities started by the Hoel Committee and the Tobacco Institute in a web of front organizations and joint strategies that included the Center for Indoor Air Research ("CIAR"), the ETS Consultancy Program, Project Downunder, ACVA and HBI, Covington & Burling and Shook, Hardy & Bacon, CORESTA, and currently the Philip Morris External Research Program.

668. At a Hoel Committee meeting on May 26, 1987, attended by representatives of Philip Morris, Lorillard, Brown & Williamson, and R.J. Reynolds and attorneys from Covington & Burling and Shook, Hardy & Bacon, the parties decided that a new ETS research coordinating organization for the Defendants should be called the Center for Indoor Air Research ("CIAR") in order to dissociate it from its tobacco funding. 506300804-0815 (U.S. Ex. 20,756) (U.S. Ex. 75,276) (U.S. Ex. 79,211).

669. After further planning discussions of the Hoel Committee, the Executive Committee of the Tobacco Institute convened in New York on December 10, 1987 to present a proposal for the formal organization of "a research organization to deal with issues relating to indoor air quality." The presentation was made by Thomas Ogburn, Vice President/Director - Public Issues and Charles Green, a scientist with R.J. Reynolds, and Thomas Osdene a scientist with Philip Morris. The meeting was attended by, among others, Tobacco Institute Executive Committee Chairman, Philip Morris President and Chief Executive Officer Frank Resnick; Philip Morris Senior Vice President and General Counsel Thomas Ahrensfeld; Lorillard's Chairman, J. Robert Ave, Executive Vice President, Alexander Spears, and General Counsel, Arthur Stevens; B&W Vice President and General Counsel, Ernest Pepples; Liggett Vice President and General

Counsel Josiah Murray III; recently retired R.J. Reynolds President Gerald H. Long; and Guy V. Smith IV, Philip Morris Vice President Corporate Affairs and Chairman, Communications Committee, Tobacco Institute. The proposal presented called for the creation of CIAR, an organization to be controlled by Defendants and intended to function in a virtually identical manner to TIRC and CTR. At the end of the meeting, "it was agreed that Dr. Osdene and his group would proceed with the hiring of an Executive Director and the preparatory corporate and other steps for the establishment of the CIAR." TIMN0014390-4393 (U.S. Ex. 62,782).

670. Pursuant to the agreement reached in December 1987, CIAR was officially created in 1988 to take over the research responsibilities of the Hoel Committee – that is, to act as a coordinating organization for Defendants' efforts to fraudulently mislead the American public about the health effects of ETS exposure. CIAR was created by Philip Morris, Lorillard, and R.J. Reynolds who controlled the activities of the organization. Brown & Williamson joined CIAR as a voting board member in 1995. While Liggett was never officially a member of CIAR, it attended meetings of the organization and participated in ETS seminars and meetings organized by Covington & Burling and was fully cognizant of, and in fact assented to, the activities of the organization. BATCo, while not a member of CIAR, provided funding to CIAR to hide BATCo and Philip Morris's involvement in at least one CIAR "sponsored" study. Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 143:9-146:14, 197:9-199:11; Deposition of John Rupp, United States v. Philip Morris, et al., June 28, 2002, 102:18-103:8; Deposition of Dennis Dietz, United States v. Philip Morris, et al., July 1, 2002, 132:1-138:17; 87803899-3916 (U.S. Ex. 21,103) (U.S. Ex. 75,283); 87802318-2319 (U.S. Ex.

23,535) (U.S. Ex. 75,418); 509591861-1870 (U.S. Ex. 24,741); 2023544456-4456 (U.S. Ex. 22,816) (U.S. Ex. 75,342) (U.S. Ex. 79,213).

671. CIAR's stated mission was to serve as a hub that would sponsor and foster quality, objective research in indoor air issues with emphasis on ETS and effectively communicate pertinent research findings to the broad scientific community. While Philip Morris, Lorillard, and R.J. Reynolds publicly represented that CIAR was independent, its by-laws revealed otherwise. The by-laws required that charter members be tobacco companies; dictated that only charter members have the power to choose CIAR's officers; and, significantly, gave charter members the exclusive power to decide what research the organization would fund. Max Eisenberg served as CIAR's Executive Director and John Rupp of Covington & Burling as its General Counsel. TIBU30949-0968 (U.S. Ex. 21,396); Deposition of Max Eisenberg, United States v. Philip Morris, et al., June 20, 2002, 12:17-13:1, 28:5-10, 38:19-39:12, 78:17-79:7.

672. In Report and Recommendation #151 in this case, adopted by the Court in Order #525, the Special Master concluded:

> Plaintiff has offered evidence that could convince a trier of fact that the CIAR was publicly-billed as an independent scientific entity organized to support research projects addressing indoor-air issues, when in fact funding was controlled by the tobacco industry, and projects were sought for the purpose of establishing industry-favorable science and potential expert witnesses. . . . Plaintiff also establishes that CIAR-supported research was sought for litigation purposes, an interest that, for the industry, is not neutral and one not likely to be funded in a disinterested manner. . . . While Lorillard claims that the affiliation of CIAR to the industry was widely known, the Special Master is not persuaded in light of the paucity of evidence provided by Lorillard in support of its position, and the fact that it appears from counsel's correspondence that the industry intended to create an entity where

> the affiliation would not be obvious. Also, while Lorillard claims that the researchers were free to publish the results of their research, the Special Master notes that the fact that the industry exercised final decision-making authority over what projects would be funded established sufficient industry control at the front end of the research to call into question CIAR's true intent, and to potentially manage what final results would occur.

R&R #151 at 110-111 (internal footnote omitted).

673. Internal documents reveal the true purpose of CIAR. On April 25, 1988, Thomas Osdene, Director of Science at Philip Morris, explained to the Tobacco Institute's President that the purpose of CIAR was to provide Defendants with ammunition in legal and legislative fora where ETS exposure was at issue. CIAR was intended to allow Defendants to perpetuate a "scientific controversy" surrounding the health effects of ETS exposure. As Rupp explained in March 1993: "In sum, while one might wish it otherwise, the value of CIAR depends on the industry's playing an active role (1) in identifying research projects likely to be of value and (2) working to make sure that the findings of funded research are brought to the attention of decision makers in an appropriate and timely manner." According to a former CIAR board member, "ETS was a litigation issue and a PR issue." 506662315-2316 (U.S. Ex. 20,762) (U.S. Ex. 75,277); 2021012384-2388 (U.S. Ex. 20,340) (U.S. Ex. 75,227) (U.S. Ex. 75,331); 2023053717-3720 at 3719 (U.S. Ex. 20,373); Deposition of Robert Suber, United States v. Philip Morris, et al., June 18, 2002, 77:4-5.

674. Many of the same officers of Defendants who were part of the Hoel Committee participated in CIAR Board discussions. Rupp also participated in Board discussions, including discussions that focused on whether CIAR should fund particular research. CIAR had two

methods of funding research on ETS. One method was to have research proposals submitted to and reviewed by a CIAR Science Advisory Board, with its selections subsequently voted on by the CIAR board members. The second method was for the CIAR Board to propose and fund projects directly, without any prior review by its Scientific Advisory Board ("SAB"), or to fund projects that the SAB had explicitly recommended against funding. This second group of projects were referred to as CIAR's "Applied Projects" and were the equivalent of Special Projects at CTR, discussed at U.S. FPFF §§I.D (2), I.G (2), supra. Deposition of Steven Parrish, United States v. Philip Morris, et al., June 25, 2002, 110:8-111:25; 87697352-7354 (U.S. Ex. 56,308); 2023530027-0029 (U.S. Ex. 23,003); 2023054167-4167 (U.S. Ex. 20,374) (U.S. Ex. 75,232); 517577761-7761 (U.S. Ex. 20,867).

675. Certain Applied Projects were undertaken in order to counter the impact of mainstream publications such as the EPA Risk Assessment and the International Agency for Research on Cancer's ("IARC") 1998 report on ETS. Deposition of Helmut Reif, United States v. Philip Morris, et al., March 30, 2004, 15:4-21.

676. The lengths that Defendants went to in order to insure that CIAR served their litigation, legislative, and public relations needs were extraordinary. With the heavy involvement of lawyers in the scientific research on ETS exposure and health, scientists were often asked to provide the results of a proposed study first, and thus they employed "pilot" studies to give the lawyers advanced information. If the preliminary study produced results unfavorable to the litigation positions of Defendants, the lawyers would not continue to fund them. For example, R.J. Reynolds scientist Charles Green admitted in a presentation to an INFOTAB meeting on

October 15, 1986 that while he was a part of the Hoel Committee, lawyers commonly performed pilot projects so they could anticipate what the results of a study before it was completed. These pilot projects enabled the attorneys to discontinue projects if it appeared that the results would be unfavorable. Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 176:13-179:22; 2501457517-7522 (U.S. Ex. 22,956); 89259467-9468 (U.S. Ex. 22,982); Deposition of Carr Joseph Smith, United States v. Philip Morris, et al., April 26, 2002, 63:23-67:12.

677. Defendants' efforts to fill a stable of paid international consultants – scientists who they could point to as purportedly independent support for their public relations position on the health effects of exposure to secondhand smoke – did not end with CIAR. Their massive coordinated campaign extended through a plan known as "Project Downunder" and its counterpart, the International ETS Consultancy Program.

(b) Project Downunder

678. Defendants' concern over the ETS issue was shaping up to be one of the most intractable problems for the tobacco industry. In 1987, Philip Morris explicitly recognized that "[i]t is apparent that the effects of ETS on others is now the most powerful antismoking weapon being employed against the industry." 2050864094-4097 (U.S. Ex. 20,494).

679. Perhaps because of this recognition, Philip Morris acted aggressively. At a May 11, 1987 meeting on ETS strategy spearheaded by Philip Morris, Rupp was tapped to develop "buffer entities" to hide Defendants' connection to scientific consultants from the public. The meeting minutes, labeled "Strictly Confidential," identified the following objectives of the ETS

strategy: (1) "[r]esist smoking restrictions;" and (2) "[r]estore smoker confidence." The latter identified objective is evidence of Philip Morris's specific intention that smokers be influenced by its public relations campaign. Philip Morris identified pre-requisites to achieving its goals: (1) "[r]everse scientific and popular opinion;" (2) "[r]estore social acceptability of smoking;" and (3) "[p]reserve product liability defences." In order to meet its identified prerequisites, Philip Morris required:

> Industry Coordination
>
> It is preferable to build up a coordinated, international industry effort. Ideally this would be under the auspices of INFOTAB. In many markets it will be advisable or even necessary to work through the [National Manufacturing Association] or an industry club. Nevertheless it was understood that PM must forge on and lead/act unilaterally whilst the industry coordination is being established in individual markets. This coordination should ultimately lead to integration with respect to the buffer entity.

At the same meeting, participants discussed the importance that consultant ACVA Atlantic (later renamed Heathy Buildings International) "be perceived to be at arm's length from the industry, including in media briefings. Its role at most should seem as yet another third party expert amongst others." 2046754737-4740 (U.S. Ex. 21,646).

680. A month later, Philip Morris hosted an internal conference code named "Project Down Under" to look at the ETS issue confronting Defendants.

681. The marching orders for "Project Downunder" came from the very top. In a June 8, 1987 letter from William Murray, Vice Chairman of Philip Morris, announcing the formation of the Project, Murray stressed that the company had to "take action to at a minimum slow down the anti-smoking forces and at best actually reverse some of their advances." In his letter, Murray

stressed:

> I cannot overemphasize the importance of this activity . . . . It is important to point out that we are not embarking on this exercise to simply exchange ideas on the ETS problem. Rather, **we have been instructed to examine the problem and to arrive at solutions that can be immediately implemented**.

2023551340-1343 at 1341 (U.S. Ex. 88,586); PWO2067368-7371 (U.S. Ex. 85,518) (emphasis added). Murray, who was involved in Operation Berkshire in 1977, was on the CTR Board of Directors at when Project Downunder was formed. Murray had also been part of the industry's Operation Berkshire. The letter was copied to the Chairman of Philip Morris Companies, Hamish Maxwell.

682. According to the Project Downunder agenda, this meeting began on June 23, 1987 and ended on the afternoon of June 26 with a presentation of an ETS plan to senior management. Substantive discussions began the morning of June 24. All attendees were housed in private villas on the island, and all expenses were paid by the Philip Morris. 2024270524-0527 (U.S. Ex. 75,083).

683. Many details of the four-day meeting are contained in a thirty-three page Philip Morris document titled "PROJECT DOWNUNDER CONFERENCE NOTES." The morning session on June 24th began with the history of passive smoking, including: the 1972 Surgeon General's Report which was the first Report to address ETS, the 1981 Hirayama study, the 1985 Repace/Lowrey study, and the 1986 Surgeon General's Report that also concluded ETS posed a cancer risk to nonsmokers. 2021502102-2134 at 2102-2105 (U.S. Ex. 20,346) (U.S. Ex. 75,074).

684. John Rupp then addressed the group, opening with, “Where we are. In deep shit.”

He noted the "watershed significance" and "tremendous credibility" of the 1986 Surgeon General's report. He told the conference attendees the industry's position on passive smoking was restricted to "ETS not shown to be health hazard to non-smoker." He cautioned that, "[w]e cannot say ETS is 'safe' and if we do, this is a 'dangerous' statement." 2021502102-2134 at 2106 (U.S. Ex. 20,346) (U.S. Ex. 75,074).

685. Rupp emphasized that the cigarette manufacturers had little on their side: "Someone has to say ETS is no risk. [This] has to come from somewhere." 2021502102-2134 at 2107 (U.S. Ex. 20,346) (U.S. Ex. 75,074).

686. The importance of the ETS problem facing the industry was clearly expressed at the meeting - corporate profits, indeed corporate existence, was at stake. Conference notes revealed that sales were declining in the United States, and "in U.S., [the] ETS issue will have [a] devastating effect on sales." Philip Morris was very concerned that the industry was "just at the beginning of [the] impact of [the] ETS issue." 2021502102-2134 at 2109-2110 (U.S. Ex. 20,346) (U.S. Ex. 75,074)

687. At the conference, Rupp identified advertising as a key to influencing public opinion about the health effects of ETS exposure and the need for smoking restrictions:

> <u>Three types of ads.</u>
>
> 1. "Designer" campaign. Artistic photo & copy. "I think we can live together." "Faulty data." "I'm a responsible guy," etc. Geared to smokers & non-smokers.
>
> (noted here that copy has not been legally approved.)
>
> 2. "Rights" campaign. Subject standing outside restaurant, exclusion compared to that of minorities, prohibition.

> 3. "Science of ETS" campaign.
>
> Did focus groups. Groups liked #1 best, liked #2 least. Quantitative research revealed #3 liked best, #2 worst. Therefore, we can't make call yet, need more research to determine ad strategy. . . .
>
> As we think through this, remember there are <u>different</u> ways of getting information across to <u>different</u> people. E.g., some people would like science jargon.

2021502102-2134 at 2108 (U.S. Ex. 20,346) (U.S. Ex. 75,074) (emphasis in original).

688. At this Project Downunder conference, Rupp expressed a sense of urgency, noting, "Problem – threatens number of smokers & number of cigarettes they smoke," and then indicated that the question confronting Defendants was "[h]ow to alter public perception that ETS is damaging." To mold public perception, according to Rupp, would involve in part an attempt to "[c]hange underlying <u>fact</u> from 'not proven' to ETS is not harmful to non-smoker." Rupp admitted, however, that doing so would be a problem because of the "[l]ack of objective science" to support Defendants' public relations campaign. The lack of objective science, however, would not stand in Defendants' way. Rupp asked: "Is $100 million campaign worth an x increase in sales?" The answer: "Yes." 2021502102-2134 at 2110-2114 (U.S. Ex. 20,346) (U.S. Ex. 75,074).

689. Throughout the conference, the theme was to use science and other means to change public perception of the risk of harm from ETS, to make people "feel good" about ETS exposure, as opposed to actually reducing the known risk of harm. The industry had to do this (1) "in [the] face of overwhelming adverse information and publicity" relating to the harm of passive smoking to nonsmokers; (2) in the absence of "objective science" in favor of the

industry's position; and (3) despite the fact that "10 of the 13 [ETS] studies show [an] effect in the direction of harm." 2021502102-2134 at 2110-2112 (U.S. Ex. 20,346) (U.S. Ex. 75,074).

690. The conference notes also included the admissions that "a scientific battle was lost" with the 1986 Surgeon General's report, the industry "can't say it [ETS] is safe," ETS research was historically feared and avoided by the industry partly because of the "risk in doing research where you don't know where it will lead." 2021502102-2134 at 2112, 2113, 2115 (U.S. Ex. 20,346) (U.S. Ex. 75,074).

691. The conference attendees proposed the following solutions, among many: "Create our own expert," "More research – prove ETS is safe," "Create a bigger monster (AIDS)," "Make it hurt (political risk) to take us on," "Seriously look at TV, print, other media campaigns," "Create science journal," "Create non-science journal," "Infiltrate WHO," "$2-5 million funding for CIAR now," "Sue the bastards," "Undermine Koop," "Defeat Waxman," and "Attack anti-groups where they hurt." The conference notes also stated, "Central to many of our ideas is a third-party conduit." The group debated and rejected a "lie low strategy," choosing instead a campaign to "take positive action." 2021502102-2134 at 2116-2118, 2123- 2124 (U.S. Ex. 20,346) (U.S. Ex. 75,074).

692. The conference attendees later agreed that the industry needed "substantial funding in ETS via CIAR" and needed to "increase [the] number of scientists up to 50 in the U.S. and also throughout world." The "effort should be organized worldwide" and the "science program has to be joint-industry based." 2021502102-2134 at 2130-2132 (U.S. Ex. 20,346) (U.S. Ex. 75,074); 2021502679-2683 (U.S. Ex. 26,057) (U.S. Ex. 75,077) (U.S. Ex. 75,078).

693. On June 26, 1987, the final day of "Project Downunder," the conference attendees presented their conclusions and recommendations to William Murray, Vice Chairman of Philip Morris. The group characterized their recommended strategy as staying the corporate course, while creating an appearance of change: "Do something that, for us, is not different, but for the world is different," while funding a "dramatic increase in scientific activity on ETS." Philip Morris did not view its inherently dangerous products as a problem; rather the only problem was the "perception" of smokers, non-smokers, public officials, media, and the scientific community. The group additionally adopted what they called an "NRA strategy" of "Select[ing] the weakest of our enemies, mak[ing] an active effort to defeat them in the next election, then let[ting] people know what we did and why we did it," in conjunction with the "financial support" of industry friends. The "perception" problem would be worked in the media and in the science community, worldwide. The increased funding of CIAR, the increased recruitment of "consulting scientists," and the establishment of an industry "scientific journal" were to play roles in the industry "solution" as well." 2021502671-2678 (U.S. Ex. 22,950) (U.S. Ex. 75,076).

694. The group also stated their intent to bring on the other members of the tobacco industry though discussions "at the highest level":

> We also need to tell the tobacco industry, regarding accommodation strategy, [sic] This is what we are doing, join us. Use TI if helpful to do so. RJR can be expected to buy on. Concept should be introduced to R.J. Reynolds and other majors at the highest level. CEO to CEO, Chairman to Chairman.

2021502671-2678 at 2676 (U.S. Ex. 22,950) (U.S. Ex. 75,076).

695. When Murray asked about the risks of the proposals, and whether the proposals would "make the situation worse," he was told that "**The situation can't get any worse. Sales**

are down, can't be attributed to taxes or price increases. ETS is the link between smokers and non-smokers and is, thus, the anti's silver bullet." In this way, the Vice Chairman was convinced that Philip Morris was in a corner and threatened by a "silver bullet" issue that could destroy an industry. 2021502671-2678 at 2678 (U.S. Ex. 22,950) (U.S. Ex. 75,076) (emphasis added).

696. One week later, John Rupp took the Philip Morris ETS message out to the other members of the industry. A document titled "Report on Industry Meeting Concerning ETS" reveals that Rupp met with representatives of R.J. Reynolds, Philip Morris, Liggett, Hill & Knowlton, and the Tobacco Institute on July 2, 1987. Rupp "shared some general objectives which were articulated at a Philip Morris exercise a week earlier." The group agreed with the Philip Morris view that the industry needed to go on offense and create a perception that ETS does not cause harm. 87697186-7193 (U.S. Ex. 88,587); LWO1745979-5986 (U.S. Ex. 85,519).

697. To accomplish this, the group proposed the creation of a senior level task force composed of representatives from each company, a dramatic increase in funding to counter the ETS issue, and increased attention to industry scientific research, media relations, and blanket opposition to any restrictive legislation. Overall, the participants stressed the need for a long-term "commitment" among the companies and TI to get out the tobacco industry message. Rupp warned participants that the manufacturers had to act as a unified front on ETS: "Individual companies, he noted, are in a position to take advantage of their commercial resources but should make every effort to do so toward the common goal of the industry as a whole." 87697186-7193 (U.S. Ex. 88,587); LWO1745979-5986 (U.S. Ex. 85,519).

698. Shortly after the conference, Philip Morris approved the conclusions and recommendations of the Downunder project. In a July 14, 1987 letter from Guy L. Smith, Vice President, Corporate Affairs of Philip Morris, to Thomas Osdene, Director, Science & Technology of Philip Morris, Smith announced:

> It is a great pleasure to inform you that Vice Chairman Murray, after consulting with Chairman Maxwell and President Resnik, asked that the recommendations of the Operation Downunder group proceed immediately. . . .
>
> As we move into the executional elements of Operation Downunder, selected working groups will be established to make certain that the project advances according to plan.

2023551320-1320 (U.S. Ex. 23,682) (U.S. Ex. 23,683).

699. In an October 8, 1987 memorandum from Helmut Gaisch, Director of Philip Morris (Europe-FTR) Science & Technology, to Lee Pollak, in-house counsel in New York, Gaisch advised that Operation Downunder was being implemented in Europe with other cigarette companies and Covington & Burling. Gaisch further described the recruitment of scientific consultants, or "whitecoats," who would work on behalf of the industry throughout the world. Gaisch reported that:

> Within the framework of the scientific part of "Downunder," we are involved in the process of enlisting the assistance of scientific experts on a world-wide basis. As there are other tobacco companies involved, e.g. R.J. REYNOLDS, John Rupp of C&B has been charged with coordinating this part of the project. . . . I have personally arranged meetings of John Rupp with key "whitecoats" in a number of European countries.

2501000364-0365 at 0365 (U.S. Ex. 45,866) (U.S. Ex. 75,259).

700. The industry as a whole followed Philip Morris's lead only months later. On

January 4, 1988, the Executive Committee of the Tobacco Institute "approved the concept of Operation Downunder." Tobacco Institute president Sam Chilcote wrote that:

> [w]e have long agreed with many of Downunder's basic goals. . . . Further, the aggressive industry posture evident throughout the plan is needed if we are to stem the tide of legislative and private industry initiatives to ban or severely restrict smoking, as well as deal with other important industry issues.

TIOK0024369-4378 (U.S. Ex. 88,844); TIDN0002710-2719 at 2711 (U.S. Ex. 65,548); 506617591-7594 (U.S. Ex. 20,759) (U.S. Ex. 75,191); 506617595-7596 (U.S. Ex. 20,760) (U.S. Ex. 75,100).

701. Shortly thereafter, the details of "Operation Downunder" were presented to the Tobacco Institute's Communications Committee for implementation by committee chairman Guy L. Smith, Philip Morris Vice President, who had been responsible for coordinating the June 1987 Philip Morris "Operation Downunder" conference held at Hilton Head. According to the minutes of the February 3, 1988 Communications Committee meeting, John Rupp of Covington & Burling and Lee Stanford of Shook, Hardy & Bacon were present along with representatives of all Defendants. The Minutes recorded the following:

> Chairman Smith outlined "Operation Downunder," a program to support and extend widely the position of the industry on the ETS issue in order to slow the decline in social acceptability of smoking and create a more favorable legislative and regulatory environment at all levels of government. In essence, it will position the industry as positive, enlightened, and supportive of its customers while pressing for accommodation of smokers and nonsmokers in all social contexts without government intervention. . . .
>
> It was the unanimous view of the committee members that development of the project should continue rapidly, and that the chairman should appoint a working subcommittee of company and

staff representatives to guide the development and implementation. TIDN0005811-5812 at 5811 (U.S. Ex. 65,558) (U.S. Ex. 75,102); TIDN0008865-8890 (U.S. Ex. 65,559).

702. Industry implementation of "Operation Downunder" was further reviewed and discussed at the March 2nd meeting of the Tobacco Institute's Communications Committee, a meeting that included Sam Chilcote, President of the Tobacco Institute, and John Rupp, Covington & Burling lawyer. At this meeting, the industry (except Philip Morris) decided to continue their opposition to any policy of separating smokers and nonsmokers in restaurants, hotels and other public places. TIOK0031137-1143 (U.S. Ex. 65,703) (U.S. Ex. 75,110); TIOK0031144-1160 (U.S. Ex. 65,704).

703. On June 16, 1988, Sam Chilcote told the Tobacco Institute Executive Committee on June 16, 1988 that the Tobacco Institute and its member companies had discussed Operation Downunder "on numerous occasions" and that they were now tasked to "move forward with an expanded comprehensive effort" to deal with the ETS threat. At this meeting, Chilcote laid out the industry's "new and expanded approaches": utilizing mail, media, and outside scientists. The overarching goals were (1) "to defeat or lessen all smoking restrictions;" and (2) "to slow the decline of [the] social acceptability of smoking." These goals were to be achieved through funding the Center for Indoor Air Research, promoting ventilation to many audiences, intensified lobbying efforts, making use of the media, establishing smokers' rights groups, and "pointing a finger at rude anti-smokers." TIDN0008865-8890 (U.S. Ex. 65,559) (U.S. Ex. 75,103).

704. Philip Morris and Covington & Burling also presented "Operation Downunder" to

BATCo and other European cigarette manufacturers to bring them on board as part of what would become a complex worldwide ETS program. Sharon Boyse, Scientific Director of BATCo, took detailed notes of a "special meeting of the UK Industry on Environmental Tobacco Smoke" held in London on February 17, 1988 at which the details of Downunder were outlined. 401247331-7336 (U.S. Ex. 29,377) (U.S. Ex. 79,190); 2060563936-3941 (U.S. Ex. 66,813) (U.S. Ex. 79,164); 321140944-0949 (U.S. Ex. 20,586). Boyse explained the plan, which would come to be known as the ETS Consultancy Program:

> Philip Morris presented to the UK industry their global strategy on environmental tobacco smoke. In every major international area (USA, Europe, Australia, Far East, South America, Central America & Spain) they are proposing, in key countries, to set up a team of scientists organised by one national coordinating scientist and American lawyers, to review scientific literature and carry out work on ETS to keep the controversy alive.

401247331-7336 (U.S. Ex. 29,377) (U.S. Ex. 79,190); 2060563936-3941 (U.S. Ex. 79,164); 321140944-0949 (U.S. Ex. 20,586); see also U.S. FPFF § IV.C (5) (c), infra (discussing in detail the ETS Consultancy Program).

705. The Boyse record of the meeting parallels the recommendations that came out of "Operation Downunder" in June 1987. In fact, Helmut Gaisch, Director of Philip Morris Europe Science and Technology Division, announced at the meeting with the other companies that their ETS strategy had been established in the United States at a meeting between Philip Morris and Covington and Burling, who were “the lawyers acting for the Tobacco Institute of the USA.” There can be no doubt Gaisch is referring to the "Operation Downunder" conference. David Remes, a Covington & Burling attorney, told the group assembled in London that the lawyers

would "act as intermediaries between the consultants and the industry," and "filter" the information from the consultants to "eliminate areas of sensitivity." He also stated that, "The Center for Indoor Air Research that Philip Morris, RJR and Lorillard have set up in the US was mentioned as a further development of this strategy." 401247331-7336 (U.S. Ex. 29,377) (U.S. Ex. 79,190); 321140944-0949 (U.S. Ex. 20,586).

706. On January 4, 1988, the "Downunder" strategies were introduced and accepted by the Tobacco Institute's Executive Committee, and on February 18, 1988, R.J. Reynolds, Lorillard, Liggett, and American were invited by the Tobacco Institute to assist with the development of "Project Downunder." 506617591-7594 (U.S. Ex. 20,759) (U.S. Ex. 75,191); 506617595-7596 (U.S. Ex. 20,760) (U.S. Ex. 75,100).

707. A February 21, 1988 memorandum from Helmut Gaisch acknowledged the role of Philip Morris's Science & Technology Division, Covington & Burling, and Shook, Hardy & Bacon in "The European Counterpart to 'Operation Downunder.'" According to Gaisch, the ETS "Project" had two components: "a corporate affairs side (i.e. Big Chill) and a scientific side (i.e. indoor air quality research)." Gaisch's memorandum also stated that Covington & Burling attorneys would act as intermediaries between scientists and laboratories on one hand, and the cigarette manufacturers on the other. 2028343858-3860 (U.S. Ex. 75,086) (U.S. Ex. 75,165).

708. The phrase "Big Chill" used by Gaisch referred to the "unifying strategy" of Philip Morris, as memorialized and agreed upon at the "Operation Downunder" conference in June 1987, to "chill anti-smoking rhetoric" through a "major media campaign defining PM as reasonable on the ETS issue." An August 12, 1987 letter from Guy L. Smith, Vice President,

Corporate Affairs of Philip Morris, to Thomas Osdene, Director, Science & Technology of Philip Morris, titled "Operation Downunder Implementation" stated that "January 12, 1988 ha[d] been selected as the public launch date for "The Big Chill." 2021502679-2683 at 2679 (U.S. Ex. 26,057) (U.S. Ex. 75,077) (U.S. Ex. 75,078); 2021502671-2678 at 2671 (U.S. Ex. 22,950) (U.S. Ex. 75,076); 2023551295-1296 at 1295 (U.S. Ex. 23,681).

709. As ordered, the "Big Chill Strategy" later turned into a "Big Chill Campaign" of media and advertising in an attempt to change public perceptions on passive smoking and stop government intervention. The campaign was funded by each of the Cigarette Company Defendants, including Liggett. 506617633-7651 (U.S. Ex. 24,244); 2045624610 (U.S. Ex. 66,756); TI12191513-1513 (U.S. Ex. 65,461); TI12191475-1533 (U.S. Ex. 85,521); TI07561364;(U.S. Ex. 65,476) TI12050294-0294 (U.S. Ex. 65,476) (U.S. Ex. 87,328); **MNAT00751879-1884 (U.S. Ex. 88,794).**

710. An August 17, 1988 memorandum, written by Christopher Proctor (currently Head of Science at BATCo) when he served as a research scientist at the Southampton laboratories, discusses CIAR and its articles of incorporation. This document states, in part:

> Meetings of the board are held every five weeks in Washington and, in addition to the board members, John Rupp (Covington and Burling), Don Hoel (Shook, Hardy and Bacon), Mary Ward (RJ Reynolds) and a TI representative attend to observe. Rupp and Hoel comment on product liability aspects. **In terms of scientific acceptability, CIAR provides a further buffer between the Company and the third party, yet allows strong control of projects without major in house effort**.

400974598-4600 at 4598, 4600 (U.S. Ex. 47,526) (emphasis added).

711. Operation Downunder was eventually executed on two tracks: (1) a domestic ETS

program through the Tobacco Institute and Covington & Burling that created and utilized seemingly "independent" consultants and front organizations such as CIAR, IAPAG, and CEHHT, to counteract the scientific consensus that linked certain adverse health effects to passive smoking; and (2) a parallel and coordinated international ETS program through Covington & Burling that created and utilized seemingly "independent" consultants and front groups such as ARIA, IAI, EGIL, ACVA/HBI and others to create the illusion of an international controversy on ETS. These two tracks consistently denied any proven ETS health risk, attempted to dilute the ETS issue by pulling it into a discussion of "indoor air quality" generally, and omitted their connection to Defendants. 401033325-3328 (U.S. Ex. 24,099); TITX0025965-5968 (U.S. Ex. 85,522); 87697186-7193 (U.S. Ex. 88,587); TITX0038050-8057 (U.S. Ex. 85,523); TIDN0008310-8312 (U.S. Ex. 85,524); TI07560615-0619 (U.S. Ex. 65,472); TIOK0023599-3602 (U.S. Ex. 65,701); 2501152077-2091 (U.S. Ex. 25,597); 300538976-8978 (U.S. 88,778); 2023542584-2586 (U.S. Ex. 87,329).

(c) The ETS Consultancy Program

712. The ETS Consultancy Program was an offshoot of Operation Downunder. In the late 1980s, Defendants, led by Philip Morris and industry attorneys, intensified their efforts to identify and fund industry friendly scientists around the world to attack the science linking ETS exposure to disease in furtherance of its Downunder program goals. This ambitious undertaking was referred to as, among other things, the ETS Consultancy Program. The project description revealed its scale and focus:

> In every major international area (USA, Europe, Australia, Far East, South America, Central America & Spain) they are

> proposing, in key countries, to set up a team of scientists organized by one national coordinating scientist and American lawyers, to review scientific literature or carry out work on ETS to keep the controversy alive. They are spending vast sums of money to do so, and on the European front Covington & Burling, lawyers for the Tobacco Institute in the USA, are proposing to set up a London office from March 1988 to coordinate these activities.

2060563936-3941 at 3936 (U.S. Ex. 79,164); 401247331-7336 at 7331 (U.S. Ex. 29,377) (U.S. Ex. 79,190); 321140944-0949 at 0944 (U.S. Ex. 20,586).

713. According to a facsimile memorandum from J. Kendrick Wells to Nick Cannar, Senior Counsel for BATCo, the "central charge" of the ETS Consultancy Program was "to arrange public appearances and statements by the consultants," to give the appearance of independent, third party endorsement of the Enterprise's position on ETS. Wells further explained that "the consulting groups consist of scientists who will speak on the issue of ETS and who have been horse-shedded by John [Rupp] to ensure that their opinions support the industry's position on ETS and that their answers to the inevitable questions about the primary issue do not undercut the industry." 401033325-3328 at 3325 (U.S. Ex. 24,099).

714. A January 1992 BATCo document entitled, "Industry ETS Consultancy Programmes," highlighted the lack of credibility of the industry and the need to find "independent" spokespersons for the industry. The document notes that BATCo's relationship with Philip Morris and Covington & Burling, as well as its increasing participation in consultancy programs will provide it with increasing access to "independent" consultants. 300515335-5340 at 5335-5336 (U.S. Ex. 46,568).

715. The ETS Consultancy Program was sometimes referred to as the “Whitecoat

Project," the "ETS consultancy, " or the "ETS scientific witness team." Deposition of John Rupp, United States v. Philip Morris, et al., June 28, 2002, 136:6-13.

716. In the late 1980s and the 1990s, Defendants shared the costs of the law firm efforts to develop scientific witnesses and evidence through the Tobacco Institute. The project was to "be independent from, but work cooperatively with, bodies such as INFOTAB and the US CIAR." In the 1990s, a "priority for the project [was] to address product liability concerns in all international markets including the U.S." Deposition of John Rupp, United States v. Philip Morris, et al., June 28, 2002, 51:13-52:5, 173:14-174:12; Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 144:13-146:8; Deposition of Steven Parrish, United States v. Philip Morris, et al., June 25, 2002, 67:12-68:17; 2021001643-1645 (U.S. Ex. 20,338) (U.S. Ex. 75,223); 2500017054-7063 (U.S. Ex. 10,543) (U.S. Ex. 75,093); 321140944-0949 at 0944 (U.S. Ex. 20,586); 2501152342-2344 (U.S. Ex. 20,017) (U.S. Ex. 75,184) (U.S. Ex. 75,263); 2501254705-4708 at 4705 (U.S. Ex. 75,267) (U.S. Ex. 75,382); 700528234-8234 (U.S. Ex. 88,793).

717. The international ETS Consultancy Program was an extension and amplification of multifaceted domestic initiatives by industry counsel to counter ever-mounting evidence implicating secondhand smoke as a cause of disease and other health problems; however, Defendants acted on a global scale. Through this program, Defendants worked to identify, "educate," and financially reward scientists in every world market to generate research results, present papers, pen letters to scientific journals, plan and attend conferences, and publicly speak on behalf of the cigarette companies. The overarching goal was to "keep the controversy alive"

and forestall legislation and any restrictions on public or workplace smoking. 2023590685-0687 (U.S. Ex. 37,027); 2023590786-0788 (U.S. Ex. 85,525).

718. Thus, the international ETS Consultancy Program resembled and modeled itself in many respects after the program already established and underway in the United States through the Tobacco Institute and Covington & Burling under the codename "Project Downunder." TIDN0007059-7110 (U.S. Ex. 65,551).

719. Defendants used the worldwide ETS Consultancy Program as a mechanism to distort and deny the health risks associated with passive smoking. Defendants accomplished this, in parallel with their domestic ETS attack, by funding and developing a network of seemingly "independent" and "objective" scientists to advance the goals of the companies themselves, protect public smoking, and secure the continued profitability of the cigarette manufacturers.

720. A July 1989 overview of the ETS Consultancy Program produced by Philip Morris in this litigation, provides an illustration of the size and complexity of the program. The 1989 document states that some seventy scientists had been recruited in Europe, Asia, Australia, and Canada. This number included forty-nine scientists who were university-affiliated and twenty-one who were private. The consultants were sent to thirty-six scientific conferences in 1989, published some forty-three papers, published three books in seven languages, delivered over seventy scientific and political briefings, published several books, gave over 1100 media interviews, and signed ten affidavits in an Australian ETS lawsuit (AFCO). According to the memorandum, this effort was managed by some thirty attorneys and cost approximately $3.5 million in consultant and legal fees in 1989. Defendants would later expand the consultancy

program into Central and South America. 2024255285-5288 (U.S. Ex. 85,526); 2500048772-8781 (U.S. Ex. 85,527).

721. The numbers in the 1989 memo did not include ETS consultants in the United States working for the industry and its law firms (e.g., the Center for Indoor Air Research).

722. The ETS Consultancy Program was as much about the tobacco companies as it was about their law firms. The guiding force and structure behind the tobacco industry's comprehensive ETS program was stated in a February 20, 1988 "personal and confidential" memo written by Covington & Burling attorney David Remes describing the initiative in Europe (EEC) and Eastern Europe/Middle East/Asia (EEMA):

> The objective of the PM EEC/EEMA ETS Project is to prevent the imposition of smoking restrictions in the EEC/EEMA regions based on the asserted health hazards of ETS to non-smokers. To realize this objective, three audiences must be persuaded that the health claims by anti-smoking forces concerning ETS are groundless. Those three audiences are the scientific community, regulatory authorities, and the general public. . . . For this purpose, scientists must be available who can attack the studies relied on by the anti-smoking forces to justify smoking restrictions on health grounds. Scientists and engineers also must be available who can demonstrate that any irritation to non-smokers from ETS can and should be mitigated through improvements in ventilation/filtration systems . . . [because] [s]olving the ETS "problem" should be made part of solving the more general indoor air quality problem."

2501474253-4259 at 4253 (U.S. Ex. 22,017) (U.S. Ex. 75,270).

Remes explained Defendants' view that organizing scientific witnesses to attack the weakness in evidence supporting the harmfulness of ETS was the best way to maintain an "open controversy" on ETS and avoid smoking restrictions. He further explained that Covington & Burling, as an outside entity, was in a better position than its client, Philip Morris, to coordinate a multiple tobacco company effort on ETS. 2501474253-4259 (U.S. Ex. 22,017) (U.S. Ex. 75,270).

723. Other documents show that Shook, Hardy & Bacon played a central role in the organization and management of the international program along with Covington & Burling:

> The [ETS Consultancy] Programme is divided geographically into two parts:
>
> (a) Europe, Middle East - organized by Helmut Gaisch (Neuchatel) and John Rupp (Covington & Burling)
>
> (b) Rest of World - organized by Don Hoel (Shook, Hardy & Bacon).

401033488-3491, (U.S. Ex. 85,528); see also 401033609-3609 (U.S. Ex. 47,533) ("You are right about the tension between Hoel and Rupp.").

724. While the total cost of the worldwide ETS program has not been ascertained, the 1993 annual budget for the European, Asian, and Latin American programs alone was $3 million, which is a sum described as a "substantial decrease" from the prior year." Financial responsibility for program was shared among Philip Morris, BAT, Japan Tobacco, Inc., RJ Reynolds, Brown & Williamson, and Rothmans, drawing "funds from a central budget (shared by all participants)." 2023590685-0687 at 0685 (U.S. Ex. 37,027); 2023590464-0466 (U.S. Ex. 85,529); ($3.4 million projected for overseas ETS consultancy program in 1992).

725. As discussed below, the international ETS Consultancy Program was deceptive in at least three respects: (1) the program sought to create the false perception that a true "controversy" existed with respect to the adverse health effects of ETS, when there was in fact none; (2) the program sought to create a perception of "independent" scientists when in fact the scientists were working on behalf of and at the insistence of the tobacco industry; and (3) by identifying and hiring only scientists who were willing to dispute ETS health effects and

maintain a pro-industry position, the program contradicted public statements by the industry promising to conduct independent, objective research to find the truth.

(i) Creating and Sustaining an ETS "Controversy"

726. The first prong of the ETS Consultancy Program was to locate or create industry-favorable scientists to "attack" and disprove research finding or merely suggesting that secondhand smoke caused adverse health effects. In this way, the tobacco companies sought to maintain a "controversy" as to the health effects of ETS.

727. The tobacco industry's need to create and maintain ETS "controversy" was stated at a meeting of BATCo, Philip Morris, other European cigarette manufacturers, and Covington & Burling in February 1988. At this meeting, Philip Morris presented the ETS "global strategy" of spending "vast sums of money . . . to keep the controversy alive." 2060563936-3941 at 3936 (U.S. Ex. 79,164); 401247331-7336 at 7331 (U.S. Ex. 29,377) (U.S. Ex. 79,190); 321140944-0949 at 0944 (U.S. Ex. 20,586).

728. The report of the February 1988 industry meeting stated that Philip Morris had prepared a list of prospective scientific consultants and the ETS Consultancy Program was already operating in many European countries. 2060563936-3941 (U.S. Ex. 79,164).

729. This was no surprise. On February 21, 1988, Helmut Gaisch, Director of Philip Morris Europe Science and Technology Division, wrote that the European ETS Consultancy Program was "the European Counterpart to Operation Down under," the industry's vast attack program in the United States to counter and neutralize adverse ETS research and comments. 2028343858-3860 at 3858 (U.S. Ex. 75,086) (U.S. Ex. 75,165).

730. "Operation Downunder" referred to the worldwide passive smoking strategy formed at the June 1987 Philip Morris conference, part of which included recruiting scientists to dispute the scientific consensus that ETS caused harm. The Downunder strategy was subsequently adopted by the Tobacco Institute and the other manufacturers. The origin, industry adoption, and execution of Operation Downunder is described in detail at U.S. FPFF § IV.C (5) (b), supra.

731. Defendants reiterated their desire to "maintain doubt about the science" and "create marketable science" to oppose evidence implicating ETS at a June 17, 1988 meeting of the scientific directors and other representatives of Philip Morris, R.J. Reynolds, Brown & Williamson, BATCo, and the Tobacco Institute. The report from this meeting recited that the Tobacco Institute, with Covington & Burling, was in the process of identifying "expert witnesses" to meet industry objectives. 401033458-3465 at 3462 (U.S. Ex. 85,530).

732. The ETS Consultancy Program began in the late 1980s and continued well into the 1990s. By 1988, the program had ballooned to include over eighty scientists worldwide, outside of the United States. In 1994, an ETS Consultancy Program agenda discussed the continuing objectives of generating research, agreeing on public relations support, and insuring the ongoing recruitment of scientists. 2023542571-2573 (U.S. Ex. 85,531), PMP011726-1728 (U.S. Ex. 88,590); 2021012389-2390 (U.S. Ex. 26,725); 2025838391-8391 (U.S. Ex. 85,532).

733. The ETS Consultancy Program was actually a web of regional programs that were interlocked and synchronized, and sometimes undertook collaborative efforts on behalf of Defendants. For example, approximately sixty ETS consultants from the United States, Canada,

Asia, and Western Europe took part in a November 1989 symposium at McGill University. The purpose of the symposium was to generate a preemptive "monograph" to "neutralize" the anticipated EPA risk assessment and a parallel Canadian report finding adverse health effects associated with passive smoking. This collaborative effort was planned and managed by Covington & Burling, who billed the Tobacco Institute almost $700,000 for the conference alone. 2500048508-8515 (U.S. Ex. 20,549); TIDN0021302-1305 (U.S. Ex. 75,291); 2500020313-0332 (U.S. Ex. 22,861).

734. The European ETS Consultancy Program had a 1988 budget of $2.5 million from Philip Morris alone. That sum allowed the assembly of a "corps of scientific consultants" as well as "contracts with six research laboratories" in Germany, the Netherlands, Switzerland, France, and the United Kingdom. A November 1992 document titled "Revised 1993 Budget: European Consultant Program" lists a budget of $1.6 million, ostensibly for Philip Morris's share of the costs alone. The "European Consultancy Programme" quickly grew and became a model for consultant initiatives in other regions. 2501474253-4259 at 4255 (U.S. Ex. 22,017) (U.S. Ex. 75,270); 2023590747-0751 (U.S. Ex. 85,533); 2063935003-5003 (U.S. Ex. 85,534); 2500048956-8969 (U.S. Ex. 27,901).

735. According to John Rupp, the ETS Consultancy Program had a 1990 budget of $800,000 in Asia alone. This industry funding went to the "recruitment and orientation" of ETS consultants (also referred to by Rupp as "education," and then to their strategic "deployment" in China, Japan, the Philippines, Korea, Malaysia, Indonesia, and Hong Kong. In Asia, the supporting companies for Rupp and the ETS Consultancy Program were Philip Morris, R.J.

Reynolds, BATCo, and Brown & Williamson. Defendants sponsored some 20 consultants in Asia to conduct research related to indoor air quality, publish results favorable to the industry, and infiltrate major conferences and seminars. 300515335-5340 at 5337-5338 (U.S. Ex. 46,568); 2500048999-9001 (U.S. Ex. 85,535); 2500048976-8998 (U.S. Ex. 23,007) (U.S. Ex. 75,377); 2500101311-1323 (U.S. Ex. 20,551); Deposition of John Rupp, United States v. Philip Morris, et al., June 28, 2002, 182:18-185:11, 187:22-189:19.

736. The Latin American ETS Consultancy Program, also run by Covington & Burling, had a "central budget" as well as a "country-specific component" to fund its recruitment and use of scientists. 1992 and 1994 Philip Morris memoranda indicated that the program (also known as the "Central American Project) was active in Argentina, Brazil, Chile, Costa Rica, Ecuador, Guatemala, and Venezuela with an annual total budget of over $600,000. 2023591264-1270 (U.S. Ex. 85,536); 2023590386-0386 (U.S. Ex. 85,537); 2023590390-0397 (U.S. Ex. 85,538); 500874585-4585 (U.S. Ex. 85,539); 500874587-4590 (U.S. Ex. 85,540).

737. Defendants' uses of the multifaceted ETS Consultancy Program are contained in a Philip Morris January 31, 1989 report titled "Boca Raton Action Plan." In this report, the company details its worldwide ETS initiatives, including placing consultants in scientific seminars, using consultants to resist aircraft smoking bans, using consultants to oppose restaurant smoking restrictions, the creation of Burson-Marsteller 'News Bureau" programs in Europe for media distribution, and the coordination with other industry groups such as INFOTAB and CORESTA. All of these initiatives helped create the illusion of an ETS controversy. 2021595753-5910 (U.S. Ex. 85,541).

738. Other examples of how Defendants were able to coordinate the use of the worldwide consultants were spelled out in a September 1989 Philip Morris document titled "Boca Raton Action Plan." This report discussed the role of consultants to influence the World Health Organization, to place consultants in conferences around the world, to use consultants in resisting airline smoking restrictions, to place "News Bureau" articles in the media and other initiatives. 2501204997-5021 (U.S. Ex. 22,858).

739. From the outset, the ETS Consultancy Program was designed to perpetuate an illusion of a credible controversy on the health effects of ETS. As stated by the industry in one BATCo document:

> It has been apparent to the industry for some time that we do not have sufficient credibility to put forward a position on ETS (or any other issue for that matter) unless we can identify independent scientists who are saying the same thing. If independent scientists back up our position, it becomes more credible, not only to the general public and the media, but to politicians and other decision-makers. . . . Although it is essential for the industry to speak up about it positions, there are some things that are better left to independent scientists to express.

300515335-5340 at 5335 (U.S. Ex. 46,568).

Thus, the objective of ETS Consultancy Program was to use seemingly "independent" consultants both to attack scientists finding links between secondhand smoke and disease and to divert attention away from ETS and onto issues of "air quality" generally. In this way, Defendants could "place ETS in perspective–to demonstrate that a host of serious public health problems needs to be tackled by governments in certain countries before they address other indoor air quality in general, or ETS specifically." 300515335-5340 at 5337 (U.S. Ex. 46,568).

740. Many internal documents lay out the collaborative and global activities of the various tobacco companies to perpetuate a "debate" on the health effects of secondhand smoke. Other documents recommended that the industry go on offense and do even more, such as "establish affirmatively that ETS presents no significant health risk to non-smokers." 2501474253-4259 at 4254 (U.S. Ex. 22,017) (U.S. Ex. 75,270).

741. Another Philip Morris document noted that, "The strategic objective for S&T [Science & Technology] PME [Philip Morris Europe] is to go beyond the establishment of a controversy concerning an alleged ETS health risk but to disperse the suspicion of risk." To meet this "strategic objective," "S&T PME continue[d] to consult with S&T Richmond , with C&B [Covington & Burling] and with SH&B [Shook, Hardy & Bacon]." 2028343858-3860 (U.S. Ex. 75,086) (U.S. Ex. 75,165) (emphasis in original).

742. The range of activities for the ETS Consultancy Program was as extensive as it was well-organized. For example, in 1989, after only two years of participating in the program, Philip Morris vice president Andrew Whist reported to Philip Morris International president Geoffrey Bible (who later became CEO of Philip Morris) that:

> several hundred specific activities or events have been completed. These have included numerous press briefings, repeated briefings of important government officials, the publication of a number of review articles on the science of ETS, several air quality monitoring studies, convening of a number of scientific conferences, submission of comments on smoking restriction proposals being considered in a number of countries, testimony before a variety of legislative bodies, preparation and submission of affidavits and offers of proof in cases involving claims concerning ETS, publication of a book ("Clearing the Air") that seeks to put ETS into proper perspective, drafting of two additional books on ETS and indoor air quality issues, and approximately 100

> separate presentations at major international scientific meetings challenging the unwarranted health claims that have been made concerning ETS.

2023034623-4632 at 4623 (U.S. Ex. 26,775).

743. A July 24, 1991 list of consultant "selections" by Covington & Burling, titled "Latin American Candidate Recommendations," showed how the industry only used scientists who were willing to toe the industry line, dispute the health risks associated with secondhand smoke, and generate the necessary "controversy." In the list, later approved by Philip Morris via letter dated July 25, 1991, Covington & Burling provided the details and qualifications of many scientists, but recommended only those who whose pro-Industry views had been verified. For example, Carlos Alvarez from Buenos Aires had "already consulted for the companies in lawsuits involving cardiovascular disease from ETS exposure. Clearly, he shares the industry view on this issue." Eduardo Gros not only smoked, but had previously worked with BATCo scientist Chris Proctor. Covington & Burling had verified that Osvaldo Fustinoni of Argentina "does not believe that ETS poses a major health risk." On the other side, Morton Schienberg of Brazil was rejected because he and his wife "despise cigarettes and do not let anyone smoke in their house or around them." 2503001504-1519 (U.S. Ex. 85,542).

744. Another Covington & Burling document, dated April 10, 1989, detailed "selections" by their lawyers of consultants in Asia, again on the basis of their pro-industry views. The document described how the attorneys would make contact with potential consultants, withholding their affiliation with the tobacco companies until they were confident that the researcher was someone they wanted. The Covington & Burling attorneys would then

give him or her a "packet" of ETS materials for review and comments. The researcher's value as a consultant was then determined by these comments. 2500048643-8654 (U.S. Ex. 22,857).

745. Defendants' hand-picked ETS consultants were put to good use on behalf of the tobacco industry its efforts to defeat ETS-related regulation. For example, Cigarette Company Defendants (through co-defendant Tobacco Institute and its law firms) assembled and submitted many consultant opinions and studies to the U.S. Environmental Protection Agency in 1990 in response to the proposed ETS Compendium of Technical Information and the EPA Risk Assessment. 507775919-5963 (U.S. Ex. 85,543); 2021183709-3736 (U.S. Ex. 26,054); 87653565-6821 (U.S. Ex. 88,596).

746. The illusion of "controversy" was perpetuated in the press as well, where Defendants' consultants were used with no reference to their cigarette manufacturer benefactors. For example, a June 28, 1989 article in the South China Morning Post, in an article titled "Passive Smoking Fears Played Down," made the following reference to industry ETS consultant George Leslie:

> An independent British scientist yesterday played down fears about passive smoking. Mr. George Leslie, a British consultant toxicologist, said published studies show a non-smoker would need to spend hundreds to thousands of hours in a public smoking area to take in the equivalent nicotine amount of one cigarette. . . .

2501204902-4902 (U.S. Ex. 85,544).

(ii) Hiding the "Fingerprints": Masking Industry-Favorable and Law Firm-Controlled Consultants Behind a False Veil of Scientific "Independence"

747. As the second prong of the program, Defendants sought to create a source of

seemingly "independent" industry-favorable consultants to support the industry's position on secondhand smoke, primarily through their in-house and external counsel. This was intended to not only create an illusion of "controversy," but to create an illusion that the "controversy" was among "independent" scientists. As demonstrated below, the global effort to create and manage this illusion by masking the ties between the consultants and the Cigarette Company Defendants spanned years and required intensive coordination among the companies and their counsel.

748. The two primary law firms involved in finding these "independent"consultants and creating a "buffer entity" between scientists and their patron cigarette companies were Shook, Hardy and Bacon and Covington & Burling. In the words of Covington & Burling attorney David Remes, the lawyers were entrusted to locate a "corps of scientific consultants and engineers in each market" around the world. "Unsuitable candidates" had to be "weeded out." Covington & Burling used an entity called the Center for Environmental Health and Human Toxicology in Washington (CEHHT) to review the publications of prospective consultants to do the weeding. The guidance was that, "Candidates who ha[d] made public statements adverse to the industry on the primary health issue generally [we]re avoided." 2501474253-4259 at 4256 (U.S. Ex. 22,017) (U.S. Ex. 75,270); 2028355892-5903 (U.S. Ex. 85,545).

749. Philip Morris regional counsel Frederick Dulles memorialized a May 12, 1987 meeting with Covington & Burling attorneys and company in-house counsel to discuss "ETS-Legal Arrangements for European Consultants." In this memorandum Dulles discussed the possible creation of a "European Center" and recalled that:

> John Rupp believes that the only way to keep studies, documents, and correspondence between external experts and the Company

> from being "discoverable" (available to opposing parties and eventually subject to submission in court) in litigation, through the use of the 'attorney-client privilege,' would be to have a lawyer or law firm act as an intermediary. . . . In the U.S., Covington & Burling pays the invoices for independent experts on ETS and rebills the U.S. Tobacco Institute. . . . While the issues involved in establishing the European Center are being worked out, all outside scientists engaged on ETS matters will work through John Rupp, Covington & Burling, Washington.

2023542571-2573 (U.S. Ex. 85,531).

750. The Dulles memo shows that the law firm "buffer" was already in place in the United States, and the industry sought to export this structure ("independent" consultants paid by Covington & Burling, Covington & Burling paid by Tobacco Institute, Tobacco Institute funded by the cigarette manufacturers) to create two additional layers of potentially "protected" documents between the consultants and the cigarette manufacturers. In this way, the statements of the consultants would not be legally attributable to Philip Morris or the other defendants, and outsiders would have no means to obtain the "privileged" documents showing the true connection. 2023542571-2573 (U.S. Ex. 85,531).

751. Helmut Gaisch, Philip Morris Science & Technology Director, reiterated the role of attorneys as intermediaries: "S&T PME will systematically use C&B as legal intermediates with scientists and testing laboratories . . . . S&T PME uses SH&B as legal intermediate for the organisation of scientific events." 2028343858-3860 at 3859 (U.S. Ex. 75,086) (U.S. Ex. 75,165).

752. On July 15, 1988, company representatives (Philip Morris, R.J. Reynolds, BATCo and others) along with Covington & Burling, and Shook, Hardy & Bacon lawyers attended a

"Joint Meeting on ETS" at which they plotted the continuing industry ETS strategy of generating "marketable science" to use for public relations purposes. As one company representative told the group, "In providing this [ETS] information, the industry must be inconspicuous." Otherwise, he argued, the public will suspect the authenticity of the information." He recommended the use of third parties to convey Defendants' message. This tactic of hiding the Defendants' management and funding of the ETS consultants' work was adopted by Defendants and their lawyers. 2021548222-8235 at 8234 (U.S. Ex. 20,349).

753. Covington & Burling would bill the companies for the services rendered by the consultants, to avoid direct payments to the consultants from the companies themselves. 2023591935-1938 (U.S. Ex. 22,855); 2023856337-6349 (U.S. Ex. 23,709); 2023856390-6391 (U.S. Ex. 85,546); 2023856119-6119 (U.S. Ex. 85,547); 2023592502-2502 (U.S. Ex. 23,701) (U.S. Ex. 75,236); 2023591935-1938 (U.S. Ex. 22,855); 700534102-4103 (U.S. Ex. 87,331); 321324827-4827 (U.S. Ex. 87,332).

754. In some cases, additional layers were erected between the companies and the consultants to hide the tobacco connection. For example, the European ETS Consultancy Program created and employed other groups to organize and pay consultants, such as Associates for Research on Indoor Air ("ARIA"), the Indoor Air International ("IAI"), Scientific Consultancy Services ("SCS"), and EGIL (a Swedish acronym for Expert Group on Indoor Air). Thus, the consultant would bill ARIA, ARIA would bill Covington & Burling, Covington & Burling would bill the Tobacco Institute, and Defendants would make contributions to the Tobacco Institute to fund its payments to the consultants. 2023592986-2998 (U.S. Ex. 85,548);

2023592793-2797 (U.S. Ex. 20,394); 2063780058-0058 (U.S. Ex. 22,863); 2501152077-2091 (U.S. Ex. 25,597); 2500048956-8969 (U.S. Ex. 27,901); 2023592502-2502 (U.S. Ex. 23,701) (U.S. Ex. 75,236).

755. Industry consultant front organizations created by the tobacco industry, such as ARIA and IAI, were also used to "independently" organize conferences, attend conferences, and publish pro-industry papers on ETS issues. These organizations even published books on ETS and journals. 2500019903-9911 (U.S. Ex. 25,337); 2500048956-8969 (U.S. Ex. 27,901).

756. ARIA was an organization founded in 1988 by industry ETS consultants Francis Roe, George Leslie, and Frank Lunau. On October 25, 1988, these three men gave a presentation and progress update regarding ARIA to Philip Morris executives in Neuchatel. Covington & Burling monitored the organization and attended its meetings. 2500048956-8965 at 8960 (U.S. Ex. 27,901); 2501152077-2091 at 2089 (U.S. Ex. 25,597); 300538945-8954 (U.S. Ex. 85,549).

757. ARIA worked for the industry and Covington & Burling not only in the United Kingdom, but also in Asia. In addition, George Leslie personally traveled with John Rupp to identify and recruit industry ETS consultants. 300541891-1894 (U.S. Ex. 85,550); 300541877-1877 (U.S. Ex. 85,568).

758. Similarly, IAI was created in October 1989 exclusively by Defendants' paid European ETS consultants, notably Francis Roe, Frank Lunau, George Leslie, and Max Weetman. Covington & Burling managed the creation of IAI, publicly presented it as an "international learned society," and drafted the organization's bylaws ("statutes"). 2021598978-8991 at 8981, 8986 (U.S. Ex. 23,604) (U.S. Ex. 23,605); 2028440936-0950 at 0940 (U..S. Ex.

75,243); 2028467020-7028 (U.S. Ex. 85,551).

759. IAI was originally funded by Philip Morris, through the Covington & Burling conduit, until other industry funding/companies could be located. Covington & Burling billed Philip Morris for services it performed in connection with IAI. BATCo later participated in the funding of IAI's ETS activities. 300538942-8943 (U.S. Ex. 85,552); 300511564-1568 (U.S. Ex. 85,553); 2500048951-8955 (U.S. Ex. 85,571); 2500048931-8932 (U.S. Ex. 85,554); 2500049060-9062 (U.S. Ex. 85,555).

760. All of IAI's founding members were industry European ETS consultants and prior members of ARIA, except for Howard Goodfellow, an industry Canadian consultant who had previously been paid by the Tobacco Institute. 300538947-8954 (U.S. Ex. 85,556); 2023592986-2998 (U.S. Ex. 85,548); 2501151940-1955 at 1942 (U.S. Ex. 85,557).

761. In May 1990, the executive director of the Tobacco Advisory Council ("TAC") in the United Kingdom (which was the counterpart to the United States' Center for Tobacco Research) announced the formation of IAI to TAC members, and even forwarded an "earnest plea" to the companies "to steer papers for publication in the direction" of IAI. for publication in the new IAI. journal. 2028467016-7019 (U.S. Ex. 85,558).

762. IAI's publications and newsletters omitted any connection to the tobacco industry or tobacco law firms, both with respect to its inception and to its upcoming programs. Instead, its publications stated that the organization was merely a "learned society" dedicated to "promoting indoor air quality." 2028467035-7042 (U.S. Ex. 85,559); 2028467029-7034 (U.S. Ex. 85,560); 2023545366-5369 (U.S. Ex. 23,680); 325297289-7360 (U.S. Ex. 85,561).

763. IAI was a front group that allowed the industry ETS consultants to avoid admitting any association with Defendants. Helmut Gaisch, Philip Morris Director of Science & Technology, stated in an October 1989 memorandum that "The purpose of the creation of such an organisation is to provide a scientific "home" . . . in order to make sure that independent scientists can identify with a professional organisation and do not have to resort to giving vague explanations as to whom they are associated with." 2028440936-0950 at 0940 (U.S. Ex. 23,819) (U.S. Ex. 75,243).

764. The association with, and support of, IAI through Covington & Burling and the cigarette companies was intended to remain secret. In September 1991, Anthony Andrade, a Shook, Hardy & Bacon attorney seconded to Philip Morris in Lausanne in the early 1990s, wrote Mary Pottorff, Manager in Scientific Affairs, Philip Morris, expressing his concern that Philip Morris Science and Technology should avoid direct involvement with consultants actively working with Covington & Burling:

> C&B should not recruit as consultants any scientists actively working for S&T. . . . There is a grave risk that IAI members may be compromised if they have a direct relationship with Philip Morris S&T. The best example would be Dr. Weetman. Dr. Weetman is obviously a critical leader in the C&B consultant program and IAI, and his potential usefulness could be jeopardized by his direct consulting relationship with PM S&T. Dr. Skrabanek is a second example.

2023856321-6328 at 6321-6322 (U.S. Ex. 22,037).

765. Geoffrey Bible, then President and CEO of Philip Morris International, was kept informed about progress made by the Defendants dealing with their ETS concerns. In 1991

Helmut Gaisch, Philip Morris Director of Science & Technology, wrote to Bible stating that he believed that Bible would find the status of the projects interesting since most were initiated during Bible's tenure as President of PMI. Gaisch emphasized the ability of industry ETS consultants and their front groups to appear "independent" of the Cigarette Company Defendants. Clearly, Philip Morris's investment in Covington & Burling and the consultancy program was paying dividends:

> ARIA, an informal group, and IAI, a registered association, have made quite some progress during the recent months. It should be stressed that most act independently and are **seen to be independent of us.** IAI, Indoor Air International, who deal with the broad topic of the indoor environment, have a newsletter and a learned journal published by the respected Swiss scientific publishing house Karger. IAI have conducted large and successful international meetings in Lisbon and Montreux. IAI will jointly sponsor meetings in the near future with universities, government agencies and independent societies in Paris, Pavia, Perogia, Budapest, Prague, Bangkok, Bratislava, Athens and Rotterdam. . . . IAI members have met with governmental ministers and officials in several countries. . . . In all, no other resource gives the industry any similar access to the scientific community, government and those who make decisions about IAQ issues and standards. The key to this success is that an institution of growing professional authority was created, an institution that has developed an identity of its own.

2023856111A-6112 at 6111A-6112 (U.S. Ex. 23,708) (U.S. Ex. 75,237) (emphasis added).

766. In 1995, the IAI changed its name to the International Society of the Built Environment ("ISBE") and the IAI journal title was changed to "Indoor+Built Environment." The ISBE is still in existence today, continues to publish materials and hold conferences, and is still run by industry ETS consultants. TLT0500003-0506 (U.S. Ex. 65,083).

767. Philip Morris, JTI and R.J. Reynolds were sharing expenses for ISBE conferences

as late as 1998. 2063651094-1096 (U.S. Ex. 75,250).

768. In 1998, Ted Sanders, Director of Worldwide Scientific Affairs of Philip Morris, sent Richard Carchman, Vice President of Scientific Affairs of Philip Morris, a nineteen page document titled "WSA Consultant Evaluation exercise." The document explains how the ETS Consultancy program evolved after the early 1990s and eventually was subsumed by Philip Morris WSA ("Worldwide Scientific Affairs"):

> European Consultant Program: This program which WSA inherited approximately one year ago, has gone through and is continuing to go through significant changes. The program, which dates back about ten years, was originally administered through C&B [Covington & Burling]. Once the program was transferred to WSA, scientists took on an active role in managing the program. That role has continued to expand to the point that for the first time in the program's history, face to face contact between the three principal consultants involved in the program and WSA scientists has been initiated. The three principal consultants involved are Dr. George Leslie, Dr. John Hoskins, and Dr. Max Wetman [sic]. By the end of next week I will have CV's on each on these three individuals which will be transmitted to you. At that time I think that further discussions are necessary to determine both how best to utilize these consultants and to ensure that this can be done.

2063593946-3946 (U.S. Ex. 24,025) (U.S. Ex. 75,249).

769. Helmut Reif, Director of Scientific Affairs for Philip Morris, met with John A. Hoskins, Max Weetman and George Leslie to discuss future arrangements for their consultancy program with Philip Morris WSA on May 26, 1998. Additionally, in November 1999, the three consultants visited the Philip Morris Worldwide Scientific Affairs facility in Neuchatel, Switzerland and discussed areas of mutual interest, as well as coverage by paid consultants at scientific meetings in 1999. 2060565811-5814 (U.S. Ex. 75,247); 2078462906-2909 (U.S. Ex.

23,029) (U.S. Ex. 75,367); 2023054167-4167 (U.S. Ex. 75,232).

770. While Covington & Burling attorneys were locating "suitable" consultants to offer pro-industry views to the scientific community, Shook, Hardy & Bacon attorneys were infiltrating and orchestrating "conferences, symposia, and major public hearings . . . to assure representation of the industry position" on ETS issues worldwide. 2501474253-4259 at 4257 (U.S. Ex. 22,017) (U.S. Ex. 75,270).

771. Like Covington & Burling, Shook, Hardy & Bacon attorneys made certain that only pro-industry scientific consultants were recruited, that the lawyers served as intermediaries between the scientists and the companies, and that the companies worked in concert. In a letter dated June 28, 1988 from Donald Hoel, Shook, Hardy & Bacon attorney, to Todd Solis of Philip Morris, Hoel wrote with respect to the firm's ETS-related services that:

> One of the most important roles assumed by SHB in the scientific development of the ETS issue is that of liaison between the researchers and sponsoring members of the tobacco industry. By facilitating communication among all parties involved, maximum cooperation can be achieved. This helps assure PM of a ready source of scientists prepared to address the ETS issue at public hearings and scientific conferences as needed.
>
> Since 1974, SHB has been actively engaged in the organization and development of ETS conferences and symposia . . . . Once the proceedings from these conferences are published, they provide information that is useful in dealing with the attacks of anti-smoking activists.
>
> SHB is instrumental in organizing the tobacco industry's response to the ETS issue . . . . Only by a coordinated effort can PM and the tobacco industry effectively counter what has become the favorite issue of the anti-smoking zealots.

2015007199-7207 at 7206 (U.S. Ex. 20,311).

772. Similarly, David Remes, an attorney with Covington & Burling, stated in a memorandum that his firm for "legal and logistical" reasons could serve as a "hub of a multi-company ETS effort." 2501474253-4259 at 4259 (U.S. Ex. 22,017) (U.S. Ex. 75,270).

773. The need to use a law firm "buffer" was plain to Defendants. In a memorandum dated December 12, 1988 from Stig Carlson of Philip Morris, to Charles Lister, an attorney with Covington & Burling, Carlson listed some specific industry ETS initiatives in Scandinavia, emphasizing the need to use different "contact" points to "avoid the infamous 'fingerprints'" of the cigarette companies. 2501255446-5447 at 5446 (U.S. Ex. 85,562).

774. The covert method of recruiting industry-favorable ETS consultants to "maintain controversy" was described in an earlier BATCo document. This memorandum explained how the fact of tobacco industry funding was kept from scientists being recruited until the "screening" lawyers were confident that the scientist had a pro-industry slant:

> The mechanism by which they identify their consultants is as follows: they ask a couple of scientists in each country . . . to produce a list of potential consultants. The scientists are then contacted by these coordinators or by the lawyers and asked if they are interested in problems of Indoor Air Quality: tobacco is not mentioned at this stage. Cvs are obtained and obvious "anti-smokers" or those with "unsuitable backgrounds" are filtered out. The remaining scientists are sent a literature pack containing approximately 10 hours reading matter and including "anti-ETS" articles. They are asked for a genuine opinion as independent consultants, and if they indicate and interest in proceeding further a Philip Morris scientist makes contact.

2060563936-3941 at 3938 (U.S. Ex. 79,164).

775. The same memo clearly indicated that these scientists are not intended to act as "independent consultants." Rather, "Philip Morris [] expects the group of scientists to operate

within the confines of decisions taken by PM scientists to determine the general direction of research, which apparently would then be **'filtered' by lawyers to eliminate areas of sensitivity**." Indeed, Philip Morris's core strategy was that these scientists "should be able to produce research or stimulate controversy in such a way that public affairs people in the relevant countries would be able to make use of, or market: the information." 2060563936-3941 at 3938-3939 (U.S. Ex. 79,164) (emphasis added).

776. In a February 4, 1987 memorandum from Mary Pottorff, Manager of Corporate Affairs for Philip Morris International, to Bill Murray, Vice Chairman of Philip Morris, Pottorff reiterated Covington & Burling's method of anonymously asking scientists to comment on ETS literature in order to assess their suitability and value as potential tobacco industry ETS consultants. 2501152342-2344 (U.S. Ex. 20,017) (U.S. Ex. 75,184) (U.S. Ex. 75,263).

777. A letter from John Rupp of Covington & Burling dated January 25, 1988 to Philip Morris executives explained the same covert means of "recruiting," and that the Covington & Burling "recruiting" was to proceed are part of the European ETS Consultancy Program (also called the "whitecoat" program) in Scandinavia:

> [W]e met with the first three of our Nordic "whitecoat" recruits in December 1987. A meeting has been scheduled for February 1 in Stockholm with three additional recruits. The purpose of the February 1 meeting is essentially the same as the earlier meeting – that is, to explain fully the purpose of the project, to give the scientists who have been recruited the kind of assurances that scientists typically want before embarking on a project such as ours, and to begin to develop a personal relationship with the scientists. . . . Assuming that all goes well at the February 1 meeting, there will be a full meeting of all of our Nordic Region scientists on March 2 and 3. The primary purposes of the March

> meeting are training and further orientation. . . . Our goal is to leave the March training/ orientation session with seven scientists completely cognizant concerning the science of environmental tobacco smoke and prepared to share that knowledge with others at the industry's request.

2501474296-4301 at 4296-4297 (U.S. Ex. 27,955) (U.S. Ex. 75,273).

778. BATCo also emphasized the need for the cigarette manufacturers to hide behind a law firm "cover" in order to avoid a "direct association" between the manufacturers and the "independent" consultants. In a 1989 document titled "Industry ETS Consultancy Programmes," BATCo recommends the structure used by the industry in its Asia and Latin America programs, because they were "handled in such a way thanks to Covington & Burling that there was no direct association between the scientists and the tobacco industry." 300515335-5340 at 5336 (U.S. Ex. 46,568).

779. Throughout the existence of the ETS Consultancy Program, Defendants and law firms selected consultants on the basis of their industry-favorable views, not the strength of their resumes. See U.S. FPFF § IV.C (5) (c) (i); see also 2503001504-1519 at 1508-1509, 1517 (U.S. Ex. 85,542).

780. While Philip Morris was perhaps the largest force behind the global ETS Consultancy Program, the other Defendants participated in the Program as well. In a 1988 internal memorandum, BATCo scientist Sharon Boyse traced the genesis of the program. Boyse stated that the ETS strategy "had been established in the USA at a meeting between Philip Morris and Covington & Burling, the lawyers acting for the Tobacco Institute of the USA, at a later date R J Reynolds "w[as] also brought in to support some of their US activities, one of these being the

Centre for Indoor Air Research." 401247331-7336 (U.S. Ex. 29,377) (U.S. Ex. 79,190); 2060563936-3941 (U.S. Ex. 79,164); 321140944-0949 (U.S. Ex. 20,586).

781. BATCo recognized that the Cigarette Company Defendants needed to work together to create and perpetuate a secondhand smoke controversy. Boyse applauded Philip Morris for putting "vast amounts of funding into these projects . . . to keep the ETS controversy alive" and recognized that "[i]t is generally felt that this kind of activity is already giving them a market and public affairs advantage, especially in countries in which, until recently, they have played a rather low profile." 401247331-7336 (U.S. Ex. 29,377) (U.S. Ex. 79,190); 2060563936-3941 (U.S. Ex. 79,164); 321140944-0949 (U.S. Ex. 20,586).

782. Boyse provided the following critique of the excessive use of lawyers in Philip Morris' to this end:

> Although the industry is in great need of concerted effort and action in the ETS area, the detailed strategy of Philip Morris leaves something to be desired. The excessive involvement of external lawyers at this very basic scientific level is questionable and, in Europe at least, is likely to frighten off a number of scientists who might otherwise be prepared to talk to the industry. Also, the rather oblique initial approach may appear to be somewhat less than honest to many scientists.

401247331-7336 (U.S. Ex. 29,377) (U.S. Ex. 79,190); 2060563936-3941 (U.S. Ex. 79,164); 321140944-0949 (U.S. Ex. 20,586).

783. Nevertheless, BATCo participated in the international ETS Consultancy Program with Philip Morris, R.J. Reynolds, Brown & Williamson, and other cigarette manufacturers. 2500048508-8515 (U.S. Ex. 20,549).

784. The participating companies all knew why the law firms had injected themselves

between scientists and the companies. In October 1988, Kendrick Wells, Assistant General Counsel, Product Litigation for BATCo wrote to Nick Cannar, Secretary and Counsel of BATCo, regarding his discussions with Rupp regarding the role of the law firms with the consultants:

> I asked John why the U.K. industry should rely on a U.S. law firm to develop scientific consultants who would be active in Europe. John said it is important to have a law firm play the role of organizing because the firm can, in the process of organization and horse-shedding individual scientists, avoid product liability problems. The law firm also can serve as a buffer between the companies and the consulting scientists, providing both distance and some opportunities for work product protection.

401033325-3328 at 3326 (U.S. Ex. 24,099).

785. An undated Helmut Gaisch memo entitled "Proposal for the Organisation of the Whitecoat Project" described how the program was intended to be 100% pro-industry in its goals. In addition, Gaisch noted the need for Covington & Burling to act as a "legal buffer." Gaisch identified two elements to the consultant proposal:

> Pro-active element: a) to generate a body of scientific and technical knowledge in the field of ETS within the PM EEMA and EEC markets. The Project's activities and programmes will include fundamental research, IAQ and IFAQ studies. These will be undertaken by whitecoats, contract laboratories and commercial organisations such as ACVA. b) to disseminate and exploit such knowledge within specific communications programmes in these markets
>
> Reactive element: To provide scientific and technical resources to challenge existing laws; counter specific legislative and regulatory threats; and to respond to scientific misinformation and bias as it arises in these markets.

2501474262-4265 at 4262 (U.S. Ex. 75,271); 2501457517-7522 (U.S. Ex. 22,956); 2501254705-4708 (U.S. Ex. 75,267) (U.S. Ex. 75,382).

786. Gaisch also stated in his memorandum that the "whitecoat" consultancy program would "be independent from, but work cooperatively with, bodies such as INFOTAB and the US CIAR (Center for Indoor Air Research)." The plan provided for Covington & Burling to act as the "legal buffer" between, or "interface" with the cigarette companies and the "whitecoats." 2501474262-4265 (U.S. Ex. 75,271); 2501254705-4708 (U.S. Ex. 75,267) (U.S. Ex. 75,382).

787. A January 25, 1988 letter from John Rupp, Covington & Burling attorney, to Bradley Brooks, in-house counsel for Philip Morris, and Helmet Gaisch, Philip Morris scientist, referred to consultants obtained by the industry in the ETS Consultancy Program as "'whitecoat' recruits" and addressed a planned March 1988 training and orientation of these new recruits on ETS matters. Rupp stated that "[o]ur goal is to leave the March training/orientation session with seven scientists . . . completely cognizant concerning the science of environmental tobacco smoke and prepared to share that knowledge with others at the industry's request." 2501474296-4301 (U.S. Ex. 27,955) (U.S. Ex. 75,273).

788. Whitecoat recruits were intended to create and maintain the ETS controversy by publishing industry-favorable articles and infiltrating symposia to express a pro-industry view on ETS health effects. For example, in a letter dated January 25, 1988 from John Rupp, Covington & Burling attorney, to Bradley Brooks, in-house counsel for Philip Morris, and Helmet Gaisch, Philip Morris scientist, Rupp emphasized a proposed presentation by "whitecoat" scientist Sorell Schwartz:

> The topic of Dr. Schwartz's proposed presentation will be ETS and lung cancer in an occupation setting, a topic that should permit him also to comment on the evidence on ETS and respiratory problems. Dr. Schwartz has been working for the past couple of months on a

> article that he hopes eventually to submit for publication discussing the U.S. National Academy of Sciences' meta-analysis of ETS and lung cancer. He would hope to be able to present the substance of that draft article at the symposium.

2501474296-4301 at 4296-4298 (U.S. Ex. 27,955) (U.S. Ex. 75,273).

789. The direction of the ETS Consultancy Program was monitored by the Cigarette Company Defendants, both individually and collectively (e.g., through the Tobacco Institute). For example, to insure that proper resources were spent in countries where the tobacco industry was experiencing "problems" with regard to ETS issues, Shook, Hardy & Bacon attorney Anthony Andrade emphasized industry control over the research funded by the ETS Consultancy Program in a memorandum dated September 5, 1991:

> I believe we should recommend formal quarterly or semi-annual reviews of the Covington & Burling consultant program to ensure that resources are being appropriately allocated. For example, we need to be in a position to direct C&B to expend more of its resources on Eastern European matters if the problems in that area take a higher priority than ETS issues within the European Community nations.

2023856321 at 6328 (U.S. Ex. 22,037).

790. Many industry documents illustrate how Covington & Burling maintained a buffer between the Cigarette Company Defendants and scientific research done by their paid consultants. For example, a May 1992 Philip Morris document indicated that Covington & Burling had funded ETS research in England and Sweden that cost the industry some $400,000. The document also revealed that management of the ETS consultants was divided between Covington & Burling and Shook, Hardy & Bacon. 2028355892-5903 (U.S. Ex. 85,545).

791. Other documents illustrate how the purported "independent" consultants published

industry-favorable papers, letters, and other materials while avoiding any attribution to the cigarette companies or their law firms. See, e.g., 2505533679-3705 (U.S. Ex. 22,898); 2026127628-7634 (U.S. Ex. 85,564); 2046053072-3087 (U.S. Ex. 85,565); 2500019903-9911 (U.S. Ex. 25,337).

792. Following an adverse judgment in an Australian court, a group of international cigarette lawyers and public affairs people met in London to consider its implications for the industry. At this meeting,

> [o]ne conclusion that was very clear from the industry lawyers was that we [the tobacco industry] had to further develop our resources of independent spokespersons who were not directly associated with the tobacco industry, in order to minimise situations in which we respond as an industry and so potentially lay ourselves open to legal claims. It was agreed that the kind of program that had been going on in the Far East and was being developed in Latin America was ideal, because the scientists were of good quality, were largely prepared to enter a more public arena than scientists normally would, and **the programme was handled in such a way thanks to Covington & Burling that there was no direct association between the scientists and the tobacco industry.**

300515335-5340 (U.S. Ex. 46,568) (emphasis added).

793. Although the law firms had the direct contact with the industry's scientific consultants, so as to maintain a "buffer," the companies reviewed the consultants' progress and provided their input to the law firms. A July 25, 1991 letter from Aurora Marina Gonzalez of Philip Morris International Inc. to Patrick Davis, a Covington & Burling attorney, showed Philip Morris International Inc.'s active and direct involvement in the recruitment of tobacco industry-friendly consultants in the ETS Consultant Program in Latin America. The letter stated that Philip Morris International Inc.'s affiliates will "review [Covington & Burling's]

recommendations an[d] [sic] get back to [Philip Morris International Inc.] as soon as possible so that [Covington & Burling] can plan [its] training seminar in Rio." 2503001506-1507 at 1506 (U.S. Ex. 85,566).

794. Tobacco company control is also evident in a March 14, 1990 "SECRET" document from Sharon Boyse of BATCo to Asian subordinates titled "Far East ETS Project Update." Boyse recalled that the ETS Consultancy Program was truly a collective effort executed by Covington & Burling:

> The priorities and budget for the programme were subsequently discussed at a meeting of representatives from supporting companies (BAT/B&W, Philip Morris, R J Reynolds, Rothmans, and JTI) in Hong Kong on March 7th. Details of that meeting are now reported. . . . It was agreed that regular meetings of representatives from the five major supporting companies (BAT/B&W, PM, RJR, Rothmans, JTI) will be essential now that there are so many companies and countries involved. Setting of priorities and evaluating progress will of necessity be an ongoing process throughout the year. Meetings will therefore be held every 2-3 months in Hong Kong. Covington & Burling will continue to produce regular written reports.
>
> Communication within BAT. All queries and comments about the programme should be fed back to me at Millbank to simplify communications with Covington & Burling and other supporting companies.

300541874-1876 at 1874 (U.S. Ex. 85,567).

795. Boyse knew that concealment of the control of the ETS consultants by the cigarette manufacturers and Covington & Burling had to be maintained in order to create and sustain the illusion of a "controversy" among "independent" scientists. In a November 28, 1989 letter to her counterpart at Malaysian Tobacco, Boyse described the ETS Consultancy Program

and invited Malaysian Tobacco to participate. She wrote:

> I don't know whether you are aware that BAT are now funding a programme to identify scientific consultants in the Far East . . . . The programme is also funded by Philip Morris, Reynolds, Rothmans, and Brown & Williamson, and is organised by the US law firm Covington and Burling. Shaik Abbas may have heard John Rupp's presentation on the subject at the Infotab meeting in Hong Kong.
>
> We are trying to encourage the development of consultants in countries that are of interest to BAT – especially in countries where ETS is not yet a major issue. One of the UK scientific consultants who helps John Rupp identify potential candidates for consultancy, Dr. George Leslie, will be in Malaysia in early January with a view to beginning discussions with some of his contacts. Does this idea interest you at all . . . ? A copy of a recent progress report from John Rupp is enclosed for your information; **please do not circulate widely**!

300541877-1877 (U.S. Ex. 85,568) (emphasis added).

796. The Tobacco Institute monitored much of the domestic ETS Consultancy Program, developed in part to counter smoking restrictions through the use of "independent" experts. The Tobacco Institute members spent millions of dollars in this effort. TIDN0008912-8988 (U.S. Ex. 85,569).

797. Under this program, ETS consultants in the United States would bill their services through the law firms of Covington & Burling and Shook, Hardy & Bacon; the firms would then bill the Tobacco Institute, who would pay the law firms with the funding from the participating companies. Using this scheme, the Cigarette Company Defendants were able to avoid direct payments to the ETS consultants and create an attorney wall between them and the ETS consultants. See, e.g., TIMN 435262-5262 (U.S. Ex. 22,603); TIMN435265-5265 (U.S. Ex.

22,609); TIMN435237-5237 (U.S. Ex. 22,471); TIMN435263-5263 (U.S. Ex. 22,604); TIMN435240-5240 (U.S. Ex. 22,477); TIMN435266-5266 (U.S. Ex. 22,611); TIMN435238-5238 (U.S. Ex. 22,936); TIMN4352645264 (U.S. Ex. 22,606); TIMN435241-5241 (U.S. Ex. 22,479); TIMN435267-5267 (U.S. Ex. 22,613); TIMN435239-5239 (U.S. Ex. 22,476); TIMN435265-5265 (U.S. Ex. 22,609); TIMN435242-5242 (U.S. Ex. 22,937); TIMN435268-5268 (U.S. Ex. 22,615); TIMN4352435243 (U.S. Ex. 22,960); TIMN435269-5269 (U.S. Ex. 22,940); TIMN435244-5244 (U.S. Ex. 22,486); TIMN435270-5270 (U.S. Ex. 22,617); TIMN435242-5242 (U.S. Ex. 22,937); TIMN435245-5245 (U.S. Ex. 22,487); TIMN435271-5271 (U.S. Ex. 22,962); TIMN435221-5221 (U.S. Ex. 22,432); TIMN435220-5220 (U.S. Ex. 21,734); TIMN435250-5250 (U.S. Ex. 22,961); TIMN435223-5223 (U.S. Ex. 22,436); TIMN435222-5222 (U.S. Ex. 22,433); TIMN435224-5224 (U.S. Ex. 22,442); TIMN435253-5253 (U.S. Ex. 22,939); TIMN435250-5250 (U.S. Ex. 22,961).

798. The tobacco lawyers were deeply involved in the ETS consultants' written projects, such as letters to scientific journals and other publications. For example, written responses by industry ETS Consultant Peter Lee to James Repace and A. Judson Wells were revised by both Shook, Hardy & Bacon and Covington & Burling prior to submission to a journal. Similarly, Covington & Burling made revisions prior to submission to an article criticizing the EPA risk assessment by industry ETS consultants Flamm and Todhunter, and a letter to the editor by ETS Consultant Gio Gori criticizing an adverse study by Brownson. TIMN435250-5250 (U.S. Ex. 22,961); TIMN435222-5222 (U.S. Ex. 22,433); TIMN435223-5223 (U.S. Ex. 22,436).

799. Through the domestic consultancy program, Defendants were able to manage the a seemingly "independent" attack on any adverse ETS research or proposed legislation. The Tobacco Institute paid consultants for written submissions attacking legitimate scientific studies that identified ETS as a cause of disease, including lung cancer. For example, on January 6, 1993, the Tobacco Institute paid scientific consultant Gio Gori $3,555 to write a letter to the editor of the *Journal of the National Cancer Institute* ("*JNCI*") captioned: "Environmental Tobacco Smoke: The Price of Scientific Uncertainty. 2046591055-1056 (U.S. Ex. 20,473)." The Tobacco Institute paid Gori another $4,137.50 five days later to write an Op-Ed newspaper submission on the Environmental Protection Agency's Risk Assessment for the *Wall Street Journal* (although the newspaper declined to publish Gori's work). The Tobacco Institute paid Peter Lee $4,000 on January 29, 1993 to write a response to letters to the editor of *Environment International*, disputing the conclusion that ETS exposure caused lung cancer and mortality. On April 10, 1993, the Tobacco Institute paid Gio Gori $4,000 to write a letter to *Lancet*, disputing an editorial that had found the Environmental Protection Agency's Risk Assessment provided a firm regulatory basis for increased social action to minimize the public's exposure to ETS. In June 1993, the Tobacco Institute paid Peter Lee $5,000 to write a letter to the editor of *Journal of the National Cancer Institute* disputing results of an ETS study by Stockwell that post-dated the Risk Assessment and found a link between ETS exposure and lung cancer in nonsmoking women. The letter was published along with two other letters from Tobacco Institute consultants, Paul Switzer and Max Layard. All were critical of the Stockwell study. None of letters disclosed that tobacco industry money had funded the letters. TIMN0435220-5272 (U.S.

Ex. 21,734); 2046591055-1056 (U.S. Ex. 20,473); 2046342683-2686 (U.S. Ex. 20469).

800. The industry created and managed front groups such as IAI, and ISBE to carry out its mission of preventing the ETS issue from hurting its profits, yet appear independent and objective. In furtherance of this mission, Defendants made use of another group, both to spread the views of the "independent" consultants and to maintain distance from the Cigarette Company Defendants, namely the public relations firm Burson-Marsteller. In a memorandum dated October 10, 1988, Kendrick Wells, BATCo in-house counsel, to Nick Cannar, BATCo in-house counsel, stated that "A public relations firm has been retained in London and has begun to generate material for distribution which is intended to "leverage" the statements made by the consultants." 401033325-3328 at 3325 (U.S. Ex. 24,099).

801. Internal documents reveal that the public relations firm was in fact the London office of Burson-Marsteller, who tactically and proactively placed consultant statements in the European media through a contrived "News Bureau." Burson-Marsteller coordinated their media activities with Philip Morris and Covington & Burling. In particular, Covington & Burling attorneys often assisted Burson-Marsteller with its generation of pro-industry videos and other projects, from at least 1989 through 1991. 2501047768-7776 (U.S. Ex. 85,570); 2500048951-8955 (U.S. Ex. 85,571); 250048939-8941 (U.S. Ex. 85,572); 2500048926-8929 (U.S. Ex. 85,573); 2500048846-8847 (U.S. Ex. 85,574); 2500048931-8932 (U.S. Ex. 85,554); 2501474360-4360 (U.S. Ex. 85,575).

802. A 1989 Philip Morris document stated the Burson-Marsteller mission via the "News Bureau" was, entirely one-sided and industry favorable. This was logical given that the

firm was employed by Philip Morris. However, Burson-Marsteller admitted (and in fact intended) that the public relations firm would at times speak, not as the industry, but as "independent scientists":

> The overriding strategy of the Philip Morris news bureau operation, then, is to fill that gap; to take the raw material of scientific fact, opinion and commentary from across Europe and re-package it into a range of targeted communications products that articulate the "other side" of the debate. . . .
>
> At times, we will speak as Philip Morris; sometimes we will need to speak as independent scientists, scientific groups and businessmen; at other times we will talk as the industry; and, finally, we will speak as the smoker.

2021595842-5860 at 5844 (U.S. Ex. 85,576).

803. In the same 1989 Philip Morris document, Burson-Marsteller discussed the relationship with Covington & Burling and a targeted use of industry "independent scientists" in press interviews, with or without industry attribution:

> <u>Independent scientists</u>
>
> We will want to set up interviews for independent scientists. These will be set up under the name of Philip Morris or EGIL or any other group Covington & Burling recommends.
>
> Recommendation: Covington & Burling identifies these scientists and makes them available for training and placement.

2021595842-5860 at 5857 (U.S. Ex. 85,576).

804. The Burson-Marsteller independent "News bureau" was implemented on behalf of Philip Morris in "marketing [the] ETS message." According to a Boca Raton Action Plan Status Report dated January 31, 1989, a "Full Burson-Marsteller "News Bureau" programme for

EEC/EEMA [was] developed and budgeted with an annual price tag of £879,813. The Burson-Marsteller "News bureau" ETS marketing scheme was also planned for Asia and Latin America. 2021595753-5910 at 5763-5765 (U.S. Ex. 85,541); 2501204997-5021 at 5007-5009 (U.S. Ex. 22,858).

805. Indeed, the illusion of "independent" scientists disputing the health risks attributable to ETS was played by the industry in the press throughout the world. For example, articles in the Hong Kong Standard and South China Morning Post identified British ETS consultant and ARIA president George Leslie simply as the "head of Associates for Research on Indoor Air UK," and even identified Covington & Burling's John Rupp only as "a senior US scientific adviser and member of the American Civil Liberties Union." The writer of the article was apparently never informed that Leslie and ARIA were part of the industry-financed ETS consultancy program, or that Rupp was a paid tobacco attorney. 2501204903-4903 (U.S. Ex. 85,577); 2501204902-4902 (U.S. Ex. 85,544).

806. Many other examples abound of newspaper and journal articles where consultants are quoted without attribution of tobacco industry funding. See, e.g., 2500048784-8784 (U.S. Ex. 85,578); 2501205177-5179 (U.S. Ex. 85,579); 2501205175-5175 (U.S. Ex. 85,580); 2048551288-1289 (U.S. Ex. 85,581); TOMN343061-3061 (U.S. Ex. 85,582); 86022880-2880 (U.S. Ex. 85,583); 86022881-2881 (U.S. Ex. 85,584); 2021181923-1943 (U.S. Ex. 25,589).

807. The illusion of independence was also peddled by the Tobacco Institute in its press releases attacking research and conclusions implicating ETS as a cause of disease. These press releases, distributed over the course of years, referred to industry-funded and managed

consultants and conferences without reference to their tobacco industry source. Rather, the Tobacco Institute quoted favorable opinions from "independent scientific teams" (referring to IT Corporation, a Special Account 4 recipient), "an expert on substances in indoor air" (referring to David Weeks, a paid industry ETS consultant), "a prestigious panel of scientists at an international symposium" (referring to the hand-picked EST consultants at the McGill Symposium), and "a US lawyer specializing in antitrust and trade regulation law" (referring to John Rupp). 92756893-6894 (U.S. Ex. 85,585); 87697659-7661 (U.S. Ex. 85,586); 86002410-2413 (U.S. Ex. 85,716); 86002393-2396 (U.S. Ex. 86,359); 91806529-6529 (U.S. Ex. 88,597); 87697701-7703 (U.S. Ex. 85,587); 87698341-8342 (U.S. Ex. 85,588); 87780965-0967 (U.S. Ex. 85,589); 2021160078-0081 (U.S. Ex. 85,590).

808. Similarly, the Tobacco Institute used industry ETS consultants in its brochures and pamphlets to create a wholly unbalanced presentation of ETS research. ATX040667113-7126 (U.S. Ex. 85,591); TI00410250-0264 (U.S. Ex. 22,957); 520911538-1542 (U.S. Ex. 85,593); CTRPUBLICSTMT000355-0355 (U.S. Ex. 88,151).

809. Philip Morris used the industry consultants, again with no tobacco industry attribution, in its public statements disputing the health risks linked to ETS. 2500118008-8013 (U.S. Ex. 85,594).

810. Defendants also utilized their consultants in ETS and indoor air conferences around the world to ensure that the Defendants' point of view was represented and that, at a minimum, there was an illusion of "controversy" among independent scientists. See e.g., 2021012185-2192 (U.S. Ex. 85,595) (London Indoor and Ambient Air Quality Conference in

June 1988).

(iii) Despite Industry Public Promises to Find the Truth as to the Health Risks of Passive Smoking, Defendants Used the ETS Consultancy Program to Deny, Distort, and Dispute All Adverse ETS Research

811. As set out above, Defendants falsely promised publicly that they would conduct and support independent research into smoking and health issues, including the adverse health effects of ETS, asserting, for example, "Like you, we seek answers. The tobacco industry has committed more funds for independent research on smoking and health than any non-governmental group. . . . The researchers we fund are encouraged to publish whatever they find. Whatever the outcome." TI04591849-1855 at 1853 (U.S. Ex. 22,028).

812. Defendants' true goal with respect to passive smoking was not to support independent and valid research in order to answer questions about the link between ETS and disease; rather the goal was simply "to keep the controversy alive." 2063791182-1187 at 1182 (U.S. Ex. 85,516); see also 2021181803A-1812 at 1803 (U.S. Ex. 22,155) (U.S. Ex. 25,697) (noting specific ETS goals including "maintain the controversy").

813. Internal documents show that the real intent of the cigarette manufacturers was to dispute all adverse evidence and proclaim an absence of any risk posed by ETS. The ETS Consultancy Program supported this goal as well serve the industry's needs with regard to products liability defense and combating proposed regulations.

814. For example, in an effort to guide Philip Morris Science & Technology research regarding ETS, Anthony Andrade, a Shook, Hardy & Bacon lawyer, advised Philip Morris to "sponsor[] research . . . consistent with product liability, regulatory and public relations

considerations." To do so, Andrade stated that Philip Morris's Science & Technology division should develop a research plan that addresses "both primary issue and ETS research that S&T feels the company should be supporting." This research plan was to "be developed with input from legal, corporate affairs, etc." 2023856321-6328 at 6322-6323 (U.S. Ex. 22,037).

815. The plan was to attack and deny through the use of industry-controlled consultants, not to find the truth through the use of independent, objective science, as Defendants had publicly promised. David Remes, Covington & Burling attorney, described the ETS Consultancy Program in his February 20, 1988 "personal and confidential" memo as follows:

> The objective of the PM EEC/EEMA ETS Project is to prevent the imposition of smoking restrictions in the EEC/EEMA regions based on the asserted health hazards of ETS to non-smokers. To realize this objective, three audiences must be persuaded that the health claims by anti-smoking forces concerning ETS are groundless. Those three audiences are the scientific community, regulatory authorities, and the general public. . . . For this purpose, scientists must be available who can attack the studies relied on by the anti-smoking forces to justify smoking restrictions on health grounds.

2501474253-4259 at 4253 (U.S. Ex. 22,017) (U.S. Ex. 75,270).

816. Sharon Boyse, BATCo scientist, noted in a February 17, 1988 memorandum that the goal was to "filter" out and unsuitable scientists and "carefully select" those who would follow industry direction and support the industry view. In this manner, Defendants sought the exact opposite of what they publicly promised. While promising to seek answers via independent researchers, Defendants internally plotted a consultancy program that sought "controversy," a consultancy program that generated biased research results and commentary, and a consultancy program that "eliminate[d] areas of sensitivity" from the public. 2060563936-3941

(U.S. Ex. 79,164).

817. The Tobacco Institute played a pivotal role in the ETS Consultancy Program. In a 1990 summary report titled "Consulting Scientists on ETS and Indoor Air Quality," the Tobacco Institute updated its progress in the retaining of American and foreign consultants domestically:

> Scientific Witness Team. TI now has 23 consulting scientists whose businesses are to market their scientific expertise. Their principal mission is to testify before state and local legislative bodies on ETS and indoor air quality issues. They also respond to adverse articles in scientific technical, and general audience publications by submitting letters to editors. They attend and report on meetings of scientific organizations. . . . Members of the scientific witness team have made 48 legislative appearances and conducted 30 media tours to date this year. . . .
>
> Foreign Scientists. This strategy is to bring a "foreign" perspective on ETS science to U.S. journalists through the use of the industry's overseas consulting scientists. Through editorial board briefings and interviews with science and health reporters, these scientists will suggest that the U.S. understanding of ETS science is skewed by anti-smoker media hype, and that the U.S. response to ETS science is out of step with the rest of the world. . . . Next year we anticipate foreign scientists conducting at least one media tour per month in connection with attendance at scientific meetings.

TIDN004239-4248 at 4239-4240 (U.S. Ex. 65,550) (U.S. Ex. 75,287).

818. The Tobacco Institute's use of the foreign consultants to convey the message that the American scientists are unduly influenced by the anti-smoking forces in the United States is particularly egregious given Defendants' acknowledgment that the rest of the world was largely in line with the scientific consensus in the United States that ETS was harmful. A July 15, 1988 "Joint Meeting on ETS" in London reported that the World Health Organization, the EEC, the West German Health Ministry, and the Canadian legislature had publicly recognized that the link

between passive smoking and human disease was conclusively established, and that foreign government groups were seriously studying whether to impose ETS-based restrictions in public areas. This meeting was attended by Tobacco Institute representatives. 2021548222-8235 (U.S. Ex. 20,349).

819. The Cigarette Company Defendants never instructed Covington & Burling to carry out its work on their behalf objectively. To the contrary, Kendrick Wells, B&W General Counsel, acknowledged that the ETS consultants would be managed by Covington & Burling "to insure that their opinions support the industry's position on ETS and that their answers to inevitable questions about the primary issue do not undercut the industry." 401033325-3328 (U.S. Ex. 24,099).

820. Similarly, John Rupp, Covington & Burling attorney, admitted in a letter to the Tobacco Advisory Council (the British equivalent to the Center for Tobacco Research) that Covington & Burling was working for Philip Morris "to identify scientists in a number of European countries who would be prepared to consult with – and make presentations on behalf of – the tobacco industry, focusing on the ETS issue." 401033613-3615 at 3613 (U.S. Ex. 85,596).

821. Rupp was quoted by Shook, Hardy & Bacon attorney Don Hoel at a 1988 London joint industry ETS meeting; his statements were a frank admission of the true purpose of Defendants and their lawyers actions in orchestrating and supporting scientific work "guided by public relations needs":

> Rupp then engaged in a defense of existing scientific undertakings. He noted that epidemiological evidence is necessary if for no other

> reason than to effectively respond to anti-smoking groups, which are still engaged in epidemiological research. Furthermore, the industry has not yet adequately dealt with Hirayama's study. Also, Rupp defended studies monitoring air quality because they allow the industry to counter anti-smoking advocates' outrageously exaggerated figures with real world data. Rupp concluded by expressing the view that the industry should continue to emphasize the lack of substantive proof of causation.

2021548222-8235 at 8233 (U.S. Ex. 20,349).

822. The myriad examples discussed above clearly establish that Defendants used the worldwide ETS Consultancy Program as a mechanism to distort and deny the health risks associated with passive smoking. Defendants accomplished this by funding and developing a network of seemingly "independent" and "objective" scientists to advance the goals of the companies themselves, protect public smoking, and secure the continued profitability of the Cigarette Company Defendants.

823. The following table contains the names of many of the ETS consultants who were part of the covert plan who received tobacco industry funding from Defendants in exchange for their industry-favorable opinions.

PAID INDUSTRY IAQ/ETS CONSULTANTS
DEFENDANTS' ETS CONSULTANCY PROGRAMS

Consultant's Name	Origin/Affiliation	Defendants' Consultancy Program

Abenheim, Lucien	Epidemiologist, IMSERM, Paris	ETS Consultancy
Ahmed, Ahmed, E.	University of Texas Medical Branch - IAPAG	TI-CEHHT/IAPAG
Alfaro, Maria del Rosario	Costa Rica	ASIA
Alvarez, Carlos,	Argentina	Latin American
Ambio Consult	Venezuela	Latin American
Armitage, Alan	Toxicologist, Yorkshire England	ARIA
Aviado, D.M.	Pharmacologist, Atmospheric Health Sciences, USA	ETS Consultancy
Bacon-Shone, John	Professor of Statistics University of Hong Kong	ASIA
Baer, Albert	Bioresco Ltd, Switzerland	ARIA
Balter, Nancy J.	Toxicologist, CEHHT, Georgetown University, IAPAG	TI-CEHHT/IAPAG
Berger, Peter L.	Sociologist, Boston University	ETS Consultancy
Bieva, Claude	Laboratoire CDH-LAREM, Belguim	ARIA
Binnie, Peter	ACVA/Healthy Buildings	TI
Brenton, Dave	Airlines	TI
Brown, Robert C.	MRC Toxicology Unit, England	ARIA
Buchanan, James M.	Economist, George Mason University	ETS Consultancy
Burger, Bruno	Venezuela	Latin American
Butler, William	Failure Analysis, Inc.	TI
Butler, W.H.	Pathologist, BIBRA, Carshalton, UK	ETS Consultancy
Cardoso, Siqueira R.		Latin American
Carson, J.	Chemist International technology Laboratories	ETS Consultancy
Castranova, Vincent	West Virginia University IAPAG	TI-CEHHT/IAPAG
Cerioli, Angelo	Italy	ARIA
Chiappino, Gerolamo	Industrial hygienist University of Milan	ETS Consultancy
Crawford, W. Allan	Australia	ETS Consultancy
Crepat, Guy	Biologie Appliques, France	ARIA

Davis, Mike		TI
Decker, Walter	Walter J. Decker Toxicology Services	TI
Dilley, John	England	ARIA
DiNardi, Salvatore	Immunologist, School of Health Sciences, University of Massachusetts Amherst IAPAG	TI-CEHHT/IAPAG/ETS consultancy
Drake, John	Transportation Consultant, Purdue University	Consultancy
Eatough, D.J.	Chemist Bringham Young University	ETS Consultancy
Ecobichon, Donald	McGill University	TI/ETS Consultancy
Elias, P.	Physician, Hanover, FRG	ETS Consultancy
Faccini, John M.	Toxicologist, Lyon, France	ARIA
Fave, Andre	France	ARIA
Ferrer, Luis M.	Manila	ASIA
Feuer, George	University of Toronto, Ontario	ETS Consultancy
Flamm, Gary	Science Regulatory Services International	TI
Fleiss, Joseph	Columbia University School of Public Health	TI
Fox, John	Labor Law attorney	TI
Fritsch, Roland	Department Gestion des Enterprises, France	ARIA
Fustinoni, Osvaldo	Argentina	Latin American
Gardiner, Austin J.S.	Monkland District General Hospital, England	ARIA
Gil, Lionel	Chile	Latin American
Goldman, Marvin	University of California, Davis	TI
Gonzalez	Guatemala	Latin American
Goodfellow, Howard	Canada	ETS Consultancy
Gori, Gio	The Health Policy Center	TI
Gros, Eduardo	Argentina	Latin American
Gross, Alan	Medical University of South Carolina	TI

Halfen, Lawrence	Environmental Consultations, Inc	TI
Harrison, Roy	Chemist, University of Essed, UK	ETS Consultancy
He, Fengsheng	China	ASIA
Holcomb, Larry	Toxicologist, Holcomb Environmental Services, Olivet, Michigan	TI
Hood, Ronald	University of Alabama	TI
Hoskins, John A.	London	ARIA
Janczewski, Jolanda	Consolidated Safety Services	TI
Kassman, Alan		TI
Katzenstein, Alan	Katzenstein Associates	TI
Kessler, Irving	University of Maryland	TI
Kilpatrick, S. James.	Biostatistician, Medical College of Virginia	TI-CEHHT/IAPAG
Kim,Yoon Shin	Korea	ASIA
Koo, Linda		ASIA
Krainik, Francois	Leopold Bellau Hospital, Paris	ETS Consultancy
Lappenen, Annuka	Chemist, Finland	ETS Consultancy
Layard, Maxwell	Layard Associates	TI/ ARIA
Lee, Peter N.	P.N. Lee Statistics and Computing, Ltd.	TI/ETS consultancy
Lee, Dwight		TI
Leppanen	Finland	EGIL
Leslie, George B	Pharmacologis/Toxicologic, Bioassay Ltd, Biggleswade, UK	ARIA
Letzel, H.		ETS Consultancy
LeVois, Maurice	Environmental Health Resources	TI
Levy, Len	Occupational hygienist, University of Birmingham, England	ARIA
Lewis, Trent	Environmental and Occupational Toxicologist	TI

Liao, Sarah	EHS Consultants Hong Kong	ASIA
Liu, Guangguan	China	ASIA
Loiacono, G.	Department Di Igiene, Italy	ARIA
Lopez		Latin American
Lorimer, Ross	Glasgow Nuffield Hospital, Glasgow	ARIA
Luna, Alonso Armijos	Equador	Latin American
Lunau, Frank	Occupational hygienist, Kingston, Surrey, UK	ARIA
Malmfors, Torbjorn	toxicologist, Karolinska Institute, Sweden	ARIA/EGIL
Mantel, Nathan	American University	TI
Martin, Bernice	England	ARIA
Massoud, Professor Aly	Ain Shams University, Cairo, Egypt	ARIA
McIntyre, Alun	Asia & UK	ARIA
Meckler, Milton, P.E.	Meckler Engineering	TI
Miguel, Antonio Horacio	Brazil	Latin American
Mikaelsson, Bo	Lipkoping University, Sweden	EGIL
Mohr, Ulrich	Hannover Medical School, FRG (Germany)	ETS Consultancy
Motta, Celio Paula	Brazil	Latin American
Neurath, Georg	Hamburg, FRG	ETS Consultancy
Nicholls, Paul J.	Pharmacologist, University of Wales, The Welsh School of Pharmacy, Cardiff	ARIA
Nilssen, Odd G.	Toxicologist, Karolinska Institute, Sweden and Universitetet i Trondheim, Norway	ARIA/EGIL
Nobrega , Jari Cardosa		Latin American
O'Sullivan, Patrick	University College, London	ARIA
Oberdoerster, Guenter	Toxicologist, University of Rochester Medical Center	TI-CEHHT/IAPAG
Olge, Clive		ASIA
Ong, Choong Nam	Singapore	ASIA
Paustenbach, Dennis	McLaren Environmental Engineering	TI
Pedelty, Joseph	Holcomb Environmental Services	TI
Perry, Roger	Imperial College, London	ARIA
Peterson, Jack E.	University of Wisconsin & Medical College of Wisconsin & Peterson Associates-IAPAG	TI-CEHHT/IAPAG

Pott, Frederick	Medical Institute for Environmental Hygience, University Dusseldorf, FRG	ETS Consultancy
Pretchard, J.N.	Inhalation toxicology, Harwell Laboratory, UK	ETS Consultancy
Raad, Jean	Equador	Latin American
Radler de Aquino Neto Franciso	Brazil	Latin American
Rampal, Krishna	Malaysia	ASIA
Reasor, Mark	Toxicologist, West Virginia University Medical Center	TI-CEHHT/IAPAG
Reverente, Ben	Philippine Refining Company Inc., Manila	ARIA
Reynolds, Gillian	Imperial College Professor Andre Rico, Laboratoire de Toxicologic Brochimique et Metabolique, Ecole Nationale Veterinaire	ARIA
Roa, Camilo	Manila	ASIA
Robertson, Gray	ACVA Atlantic, Inc. /Healthy Buildings International IAPAG	TI-CEHHT/IAPAG
Roe, Francis	Toxicologist, London, UK	ARIA
Roh, Jung Koo	Korea	ASIA
Rue des Ducs de Bourgogne	Rouvres-en Plaine, France	ARIA
Rylander, Ragnar	Physician, University of Gothenburg, Sweden	ETS Consultancy
Schlipkoter, H.	Medical Institute for Environmental Health, University of Dusseldorf, FRG	ETS Consultancy
Schmahl, Dietrich	German Cancer Research Center, FRG	ETS Consultancy
Schneider, B.	Institute of Biometrics, University of Hannover, FRG	ETS Consultancy
Schwartz, Sorell	Toxicologist, Center Env. Health & Human Toxicology, IAPAG, Georgetown University	TI/CEHHT/IAPAG/ETS Consultancy
Seckler, Jeffrey	Healthy Buildings International	TI
Singh, Jarnail	Stillman College	TI

Skrabanek, Petr	University of Dublin, Trinity College, Dublin Ireland	ARIA
Somera, Lina	Philippines	ASIA
Souchon, Eduardo	Venezuela	Latin American
Spurny, K.	Fraunhofer Institute, FRG	ETS Consultancy
Starr, Thomas	Environ Corporation	TI
Sterling, E.M.	Statistician, Canada	ETS Consultancy
Sterling, Theodore	Simon Fraser University Canada	ETS Consultancy
Stevens, Kinglsey M.	Veterans Administration Medical Center IAPAG	TI-CEHHT/IAPAG
Stober, Werner	Fraunhofer Institute, FRG	ETS Consultancy
Sullivan, F.M.	Pharmacologist, Guy's Hospital Medical School, London, UK	ETS Consultancy
Switzer, Paul	Stanford University	TI
Taylor, Professor William Brent	Royal Free Hospital Medical School, London	ARIA
Thorburn, Daniel	Statistician, University of Stockholm, Sweden	ETS Consultancy
Thornburn	Sweden	EGIL
Tollison, Robert	Economist, George Mason University	TI /ETS Consultancy
Turner, Simon	Healthy Buildings International	TI
Uberla, KK Professor	Institut fur Medizinische, Informationsverarbeitung, Munich University, FRG	ETS Consultancy
Vaughn, Dennis		TI
Viala, Professor Alain	France	ARIA
Vobecky, Josef	Epidemiologist, Sherbrooke University, Sherbrook, Quebec	ETS Consultancy
Voss, Tage	Denmark	ARIA
Voytek, Peter	Clement Associates	TI

Wagner, Richard	Professor, Social Costs	TI
Weeks, David	Boise, Idaho IAPAG	TI-CEHHT/IAPAG
Weetman, Max	Pharmacologist, Department of Pharmacology, Sunderland Polytechnic, England	ARIA
Weinberg, Myron	Weinberg Consulting Group IAPAG/Washington Tech	TI-CEHHT/IAPAG
Werko, Lars	Cardiologist, Sweden	ARIA/EGIL
Westlin, Arne	Occupation Hygienist, Sweden	EGIL
Wexler, Lawrence	New York Medical College	TI
Will, James	University of Wisconsin	TI
Williams, Walter E.	Economist, George Mason University	ETS Consultancy
Witorsch, Philip	George Washington Medical Center & Georgetown IAPAG	TI-CEHHT/IAPAG/ ARIA
Witorsch, Ray	Medical College of Virginia	TI
Wongphanich, Malinee		ASIA
Wu, Joseph	New York Medical College	TI

TIDN0019217-9268 (U.S. Ex. 85,597); 2001208997-9010 (U.S. Ex. 85,598); 2023545366-5369 at 5367 (U.S. Ex. 23,680); TITX0025965-5968 (U.S. Ex. 85,522); 300538947-8954 (BAG429 131-138) (U.S. Ex. 85,556); 2500048508-8515 (U.S. Ex. 20,549); 2500048635-8640 (U.S. Ex. 20,550) (U.S. Ex. 75,255); 2500048643-8654 (U.S. Ex. 22,857); 2500048655-8662 (U.S. Ex. 27,900); 2500048976-8998 (U.S. Ex. 23,007); 2503017246-7260 (U.S. Ex. 22,766); 2503001504-1504 (U.S. Ex. 85,592); 2503001508-1519 (U.S. Ex. 85,595); 2023034933-4946

(U.S. Ex. 87,334); TLT015 0001-0390 (U.S. Ex. 65,706).

824. Defendants used the projects and programs discussed above to orchestrate a coordinated attack on mainstream science to further the commercial objectives of the Enterprise. Defendants denied and distorted the health risks associated with exposure to secondhand smoke in order to maintain the social acceptability of smoking, with the ultimate goal focused on the bottom line – Defendants' profits from the sale of cigarettes. Another scheme undertaken by the Defendants toward this end involved the work of industry consultant Healthy Buildings International ("HBI"), another integral component of Defendants' ETS strategy.

825. A review of published ETS research has shown that a vast majority of studies finding no link between ETS and disease are funded by the tobacco industry. See Deborah E. Barnes & Lisa A. Bero, Why Review Articles on the Health Effects of Passive Smoking Reach Different Conclusions, 279 J. Am. Med. Ass'n 1566, 1566 (1998) (U.S. Ex. 43,478) ("In multiple logistic regression analyses controlling for article quality, peer review status, article topic, and year of publication, the only factor associated with concluding that passive smoking is not harmful was whether an author was affiliated with the tobacco industry."); see also id. at 1569 ("The odds that a review article with tobacco industry-affiliated authors would conclude that passive smoking is not harmful were 88.4 times higher than the odds for a review article with non-tobacco-affiliated authors"); Deborah E. Barnes & Lisa A. Bero, Industry-Funded Research and Conflict of Interest: An Analysis of Research Sponsored by the Tobacco Industry through the Center for Indoor Air Research, 21 J. Health Politics Policy & L. 515 (1996) (U.S. Ex. 52,010).

(d) ACVA/Healthy Buildings International

826. In June 1985, Defendants recruited John Graham "Gray" Robertson, President of ACVA Atlantic, Inc., a building ventilation inspection firm that was later renamed Healthy Buildings International ("HBI"), to conduct residential air sampling in Boston and Florida at the recommendation of Donald Hoel. TLT0270555-0555 (U.S. Ex. 85,619); 2050987576-7576 (U.S. Ex. 27,065); 521028861-8861 (U.S. Ex. 52,692); TIDN0011695-1695 (U.S. Ex. 62,594), TIDN0011696-1704 (U.S. Ex. 62,594). Defendants funded the work through CTR Special Projects. By January 1986, Robertson had joined the Indoor Air Pollution Advisory Group ("IAPAG"), a group of scientists organized by John Rupp, Covington and Burling attorney, to advise the Tobacco Institute on scientific issues related to ETS exposure and to provide favorable testimony at legislative hearings. 2021005103-5125 (U.S. Ex. 85,601); 80421577-1738 at 1716 (U.S. Ex. 85,602); TI07560609-0610 (U.S. Ex. 85,603).

827. Like other members of IAPAG, Defendants paid HBI to provide favorable testimony at legislative and regulatory hearings on indoor smoking bans and to initiate pilot projects or studies that criticized the scientific evidence that underlay the medical consensus on the adverse health effects of second hand smoke. TIDN0002692-2701 (U.S. Ex. 85,605); TIDN0007373-7378 (U.S. Ex. 77,020); TIDN0016039-6045 (U.S. Ex. 75,289) (U.S. Ex. 75,441); TIDN0021311-1311 (U.S. Ex. 85,604). In fact, Defendants identified Robertson and HBI as "our foremost resources in our indoor air quality strategy." TI01140124-0133 at 0128 (U.S. Ex. 62,100).

828. Defendants hired Robertson to pose as a "building doctor" who was expert in "sick building syndrome." This was part of Defendants' effort to convince the public that

banning indoor smoking was not important for eliminating the health consequences of exposure to secondhand smoke in indoor spaces. TI01262206-2209 (U.S. Ex. 62,105); Caution: An Ill-Wind May Be Blowing in Your Office, Warns Building Doctor Gray Robertson People Weekly (Feb. 20, 1989) (U.S. Ex. 87,335); TLT088 0001-0024 (U.S. Ex. 87,336); 92746289-6292 (U.S. Ex. 87,337).

829. Robertson publicly denied the health risks associated with passive exposure and instead pointed to the presence of other substances found in indoor air, citing alleged health risks associated with substances other than cigarette smoke. TIDN0011695-1695 (U.S. Ex. 62,594), TIDN0011696-1704 (U.S. Ex. 62,594); TLT0860134-0170 (U.S. Ex. 86,719) ("Designation of Smoking Areas in Federal Buildings," Hearings Before the Subcommittee on Health and Environment of the Committee on Energy and Commerce, H.R. Serial 99-135, 99th Cong., 2d Sess. at 357 (June 12 and 27, 1986)); TLT0860133-0133 (U.S. Ex. 87,338) (Gray Robertson, President of Healthy Buildings International, Inc., Concerning the Contribution of Environmental tobacco smoke to Indoor Air Pollution, Environmental Quality Commission, Phoenix Arizona, September 3, 1991).

830. Robertson continually advocated ventilation as a means of addressing all the potential health risks associated with indoor air quality, as opposed to indoor smoking bans. TIOK0023878-3878 (U.S. Ex. 77,107); TIDN0002692-2701 (U.S. Ex. 85,605).

831. The "key objective of the HBI concept [was] to broaden the debate on indoor air quality to deflect the ETS challenges and to gain acceptance of a systems approach to maintaining indoor air quality." TLT0860040-0045 at 42-0045 (U.S. Ex. 87,339).

832. Philip Morris and the Tobacco Institute assisted HBI in procuring private and public contracts for building inspections in the United States and overseas, including buildings owned by Defendants. 2071977528-7528 (U.S. Ex. 85,629); TIILBC003774-3775 (U.S. Ex. 85,606); TIDN0022522-2522 (U.S. Ex. 85,607); TIDN0016673-6673 (U.S. Ex. 62,603); TLT0600046-0052 (U.S. Ex. 65,096). Indeed, Robertson suggested to the Tobacco Institute that it use its contacts to get HBI work inspecting "Government buildings [because they] have poor buying policies and lower quality maintenance. Thus, they are frequently in [indoor air quality] trouble due to bad filters, etc. Consequently they make a good target for us to focus on other problems rather than tobacco smoke." TIOK0023880-3883 at 3880 (U.S. Ex. 85,608). As a result, HBI grew from a mom and pop inspection firm to a multi-national business. Affidavit of Reginald Simmons, United States ex rel. Seckler v. Healthy Bldgs. Int'l., October 28, 1994, Civ. No. 93-0710 (WBB) (D.D.C.), TLT0860054-0064 (U.S. Ex. 85,639) (U.S. Ex. 87,340); Statement of Reginald B. Simmons to the Subcommittee on Health and the Environment, Dec. 9, 1994, TLT0600035-0039 (U.S. Ex. 65,093); see also TLT0860122-0129 (U.S. Ex. 87,341) (HBI profile downloaded from website, includes client list); 2501026750-6761 (U.S. Ex. 85,609); 94348745-8752 (U.S. Ex. 85,688); 2028404047-4049 (U.S. Ex. 85,610); 2503001929-1929 (U.S. Ex. 85,611); 2029370437-0437 (U.S. Ex. 26,896).

833. In addition, by 1987, HBI was on monthly retainer to the Tobacco Institute as well as receiving payments for expenses, including the costs incurred for services that were provided by Fleishman Hillard, the Tobacco Institute's public relations firm. TIDN0004200-4235 at 4202 (U.S. Ex. 77,018); TIDN0020081-0085 (U.S. Ex.85,612); TIDN0023739-3740 (U.S. Ex.

85,613); TIDN0008801-8801 (U.S. Ex. 85,614); TIDN0025605-5612 (U.S. Ex. 85,615); TIDN0025627-9564 (U.S. Ex. 85,616); TI14140449-0451 at 0449 (U.S. Ex. 62,423); TI47600861-0862 (U.S. Ex. 87,342). In return, HBI provided testimony and made media appearances that downplayed the adverse health effects of secondhand smoke and promoted "sick building syndrome" and better ventilation. In this way, the Tobacco Institute's Public Affairs Division organized and underwrote legislative and regulatory appearances and media tours for Robertson and HBI to present the industry position on air quality issues: "HBI would go somewhere, say Louisville, KY, and talk to the media about what their firm did; what they found in their business practices with respect to indoor air quality; how they saw environmental tobacco smoke, if that subject came up; how often smoking was a problem in buildings; and how building owners and managers mitigated that program." Deposition of Brennan Dawson, United States v. Philip Morris, et al., July 1, 2002, 119:6-14.

834. In 1990, at Fleishman Hillard's suggestion, the Tobacco Institute paid for HBI to expand by opening regional offices. TIDN0010086-0093 (U.S. Ex. 85,617); TIMN362721-2761 at 2731 (U.S. Ex. 85,618).

835. The Tobacco Institute was only one source of the funds supporting Robertson and HBI. HBI received a CTR Special Project grant of $13,800 in 1985. TLT0270555-0555 (U.S. Ex. 85,619); 504221588-1593 at 1591 (U.S. Ex. 85,620); 521028861-8866 (U.S. Ex. 52,692). Subsequently, in 1989, HBI received two grants totaling $186,000 from the Center for Indoor Air Research ("CIAR"), another tobacco industry group. 2505442777-2935 at 2894-2895 (U.S. Ex. 75,388). As a result of one of the CIAR grants, HBI received $550 to take readings each time it

performed a private or public building inspection of an office building, public building or commercial space. TLT0600046-0052 at 0046-0047 (U.S. Ex. 65,096). This data collection was made whether or not requested by HBI's client and formed the basis for the published study "The Measurement of Environmental Tobacco Smoke in 585 Office Environments." (U.S. Ex. 20,572).

836. In the 1990s, in addition to the Tobacco Institute retainer and its reimbursement of expenses, research grants and increased business, Defendants, through Covington & Burling, reimbursed costs incurred by HBI, including expenses associated with Healthy Buildings International Magazine. 2023590035-0036 (U.S. Ex. 85,621); TIDN0010768-0769 (U.S. Ex. 85,622); TIDN0011756-1756 (U.S. Ex. 85,623); 2029370155-0160 (U.S. Ex. 87,343). The full color, bi-monthly magazine presented Defendants' views to a wide range of recipients around the globe. HBI Magazine subscription database (Sept. 3, 1991), TLT0860028-0039 (U.S. Ex. 87,344); HBI Magazine subscription database (Aug. 5, 1991), TLT0860040-0050 (U.S. Ex. 87,345); seven color issues of HBI Magazine from Nov. 1990 to Dec. 1991, TLT0850001-0008 (U.S. Ex. 87,346); TLT0850009-0020 (U.S. Ex. 87,347); TLT0850021-0032 (U.S. Ex. 87,348); TLT0850033-0044 (U.S. Ex. 87,349); TLT0850045-0056 (U.S. Ex. 87,350); TLT0850057-0072 (U.S. Ex. 87,351); TLT0850073-0084 (U.S. Ex. 87,352).

837. Subsequently, Defendants also paid HBI's legal expenses of over $100,000 that it incurred as a result of a lawsuit filed against HBI by a former employee. Invoicing and payments were made through Covington and Burling. 2041222785-2786 (U.S. Ex. 85,628).

838. Initially, Robertson did not reveal any relationship between HBI and Defendants

when he made legislative or other public appearances. TIDN0011695-1695 (U.S. Ex. 62,594), TIDN0011696-1704 (U.S. Ex. 62,594); TIDN0009947-9947 (U.S. Ex. 85,625); "Designation of Smoking Areas in Federal Buildings," Hearings Before the Subcommittee on Health and Environment of the Committee on Energy and Commerce, H.R. Serial 99-135, 99th Cong., 2d Sess. at 357 et seq. (June 12 and 27, 1986), TLT086 0134-0170 (U.S. Ex. 86,719). But even when Robertson and HBI became known to some legislators and regulators as Tobacco Institute consultants, in order for Defendants' secondhand smoke strategy to include the full and effective participation of Robertson and HBI, Defendants warned that HBI must "be perceived to be at arm's length from the industry, including in media briefings. Its role at most should seem as yet another third party expert amongst others." 2046754737-4740 at 4739 (U.S. Ex. 21,646).

839. For example, on June 12, 1987, the Tobacco Institute evaluated Robertson's appearance before the Pittsburgh City Council – "Gray's testimony was excellently received" – and compared extremely favorably to TI's evaluation of the reception for R.J. Reynolds' employee Guy Oldaker – "Guy and his 'briefcase magic' were not well received by the city council membership. Although Guy's experiments are state of the art . . . it is my feeling that his objective endeavor fell upon deaf ears simply because he is an employee of the R.J. Reynolds Tobacco Company." TI07560609-0610 (U.S. Ex. 85,603).

840. In order to shield the financial relationship between Defendants and HBI, some projects and payments were handled through Covington & Burling. 2063935035-5035 (U.S. Ex. 39,877); 2023542571-2573 (U.S. Ex. 85,531). For Defendants, HBI acted as "a third-party presenting a message through briefings and publications which is complementary to our position

on IAQ and thus worthy of [Philip Morris's] financial support vis-a-vis certain projects. Covington & Burling was charged with ensuring that the financial support is utilized in appropriate ways; monitoring the impact of HBI's activities on issues of interest to us, and administering our program of support." 2063935035-5035 (U.S. Ex. 39,877); TIDN0021382-1383 at 1382 (U.S. Ex. 85,626); 2070332077-2104 (U.S. Ex. 85,627); 2041222785-2786 (U.S. Ex. 85,628); 2043709159A-9159A (U.S. Ex. 46,241); 2071977528-7528 (U.S. Ex. 85,629); 2041222825-2825 (U.S. Ex. 85,630); TI10160667-0667 (U.S. Ex. 87,353); TI10160671-0671 (U.S. Ex. 65,486); 2029370113-0113 (U.S. Ex. 87,354); 2029370138-0139 (U.S. Ex. 87,355); 2029370153-0161 (U.S. Ex. 87,356); 2029372111-2112 (U.S. Ex. 87,357); 2029378142-8142 (U.S. Ex. 87,358); 25003001929-1929 (U.S. Ex. 87,359).

841. On August 11, 1987, Robertson wrote, "Many felt that the media would quickly identify a link between [HBI] and the tobacco industry that would jeopardize my future testimony on legislative issues. However, despite massive media attention, to date no one has identified such a link, which reflects well on the tact and diplomacy of our public relations firm of Fleishman Hillard." 2061692011-2012 at 2012 (U.S. Ex. 85,631).

842. Even after some details of the true relationship between HBI and Defendants began to become known in the United States, Defendants still attempted to prevent the general public and smokers from becoming aware of that relationship. On June 29, 1992, Sharon Boyse, BATCo scientist, wrote in connection with a proposed $134,500 media tour of Argentina that would include HBI:

> [T]his is an extremely sensitive document! HBI are currently

> under a considerable amount of investigation in the US about their connections with the industry. All references to companies in the quote has therefore been removed. Please do not copy or circulate this in any way and please destroy this fax cover sheet after reading! I know this sounds a little like James Bond, but this is an extremely serious issue for HBI.

304058260-8263 at 8260 (U.S. Ex. 85,632).

843. At Defendants' expense, HBI became a member of the Business Council on Indoor Air ("BCIA"). TIDN0019909-9909 (U.S. Ex. 85,633). BCIA's members included DOW Chemical Company and Union Carbide Corporation as well as HBI. Jeffrey Seckler, Report on Business Council on Indoor Air ("BCIA") Meeting (March 15, 1989), TLT0860001-0001 (U.S. Ex. 87,360); Nancy G. Doerrer, Director of Scientific Affairs BCIA, to Technical Committee (May 2, 1989), TLT0860005-0005 (U.S. Ex. 87,361); Jeffrey Seckler, Report on BCIA Meeting (November 1, 1989), TLT0860006-0006 (U.S. Ex. 87,362); Minutes of Meeting, BCIA Board of Directors (November 1, 1989), TLT0860009-0009 (U.S. Ex. 87,363); Nancy G. Doerrer, Director of Scientific Affairs BCIA, to Technical Committee (November 22, 1989), TLT0860010-0010 (U.S. Ex. 87,364); TIDN0022874-2874 (U.S. Ex. 85,634); TIDN0011870-1870 (U.S. Ex. 85,635). BCIA took public positions on and lobbied the Environmental Protection Agency on indoor air quality. Paul A. Cammerer, President BCIA, to William K. Reilly, Administrator EPA (April 21, 1989), TLT0860002-0004 (U.S. Ex. 87,365); Nancy G. Doerrer, Director of Scientific Affairs BCIA, to Technical Committee (December 11, 1989), TLT0860011-0021 (U.S. Ex. 85,366); TIDN0011867-1867 (U.S. Ex. 85,636). HBI was one of Defendants' covert representatives in BCIA because "[t]obacco is not and must not be visible in

[BCIA]." TI01140124-0133 at 0129 (U.S. Ex. 62,100). Tobacco Institute consultants Sparber and Associates and Milton Meckler were also members. TIDN0022786-2788 (U.S. Ex. 88,598).

844. By 1994, Robertson and other HBI spokespersons had made over 125 legislative appearances. TLT0600106-0120 (U.S. Ex. 65,099); TLT0860022-0022 (U.S. Ex. 87,367); TLT0860023-0023 (U.S. Ex. 87,368). They had also given over 700 media interviews. TIDN0010792-0792 (U.S. Ex. 85,637); TIDN0012371-2373 at 2372 (U.S. Ex. 85,638).

845. Despite using Robertson and HBI, as "independent experts," internally Defendants admitted that Gray's "scientific" methodology did not withstand scrutiny and that his data was questionable. In a confidential note to employees of BATCo and Brown & Williamson, Boyse summarized a meeting between the ETS Advisory Group of the Tobacco Advisory Council and R.J. Reynolds on January 29, 1988. In this summary, Boyse stated that "RJR pointed out that although the abilities of Gray Robertson [a spokesperson and expert witness for the United States tobacco industry on ETS issues] as a presenter are undeniable, this is not the case for his scientific abilities. They felt, in particular, that his methodology could not stand up to scientific scrutiny, and that some of his data was questionable." BWBU242341-2343 at 2343 (U.S. Ex. 21,136); 80406377-6385 (U.S. Ex. 23,476); 87776358-6359 (U.S. Ex. 56,324); 87776361-6362 (U.S. Ex. 56,325).

846. Former HBI field technicians confirmed serious problems with Robertson's methodology and data. For example, Reginald Simmons, who was a senior technician from 1987 to 1989, stated that air samples for nicotine tests were taken in building lobbies and other places where ventilation was best or tobacco use was low; better ventilation was always recommended

as a solution to indoor air problems; and, banning cigarette smoking was never recommended as a solution. Final inspection reports were reviewed and edited by Robertson and his partner, Peter Binnie; it was a standard practice for field airborne particle counts and weighs of airborne particles to be changed during that process. Affidavit of Reginald Simmons, United States ex rel. Seckler v. Healthy Buildings International, Civ. No. 93-0710 (WBB) (D.D.C. October 28, 1994), TLT0860054-0064 (U.S. Ex. 85,639); Statement of Reginald B. Simmons to the Subcommittee on Health and the Environment (Dec. 9, 1994), TLT0600035-0039 (U.S. Ex. 65,093).

847. Gregory Wulchin, who was a field technician from 1988 to 1993, examined eight of his field reports and found that false, nonsensical entries had been made. In addition, the readings in two of his field reports demonstrated unacceptably high levels of particulates from cigarette smoking in rooms where there was good ventilation. Statement of Gregory A. Wulchin to the Subcommittee on Health and the Environment (Dec. 15, 1994), TLT0600139-0217 (U.S. Ex. 65,101).

848. In April 1991, Alexander Spears of Lorillard, Charles Green of R.J. Reynolds, and Bob Pages of Philip Morris (all board members at CIAR), discussed whether CIAR should fund a proposal by HBI to gather data on ETS and indoor air quality in 585 office buildings. Funding was provided to HBI for an "applied project." After the study "The Measurement of Environmental Tobacco Smoke in 585 Office Environments" was published by Simon Turner of HBI, the results and data were subject to a congressional examination. The Subcommittee on Health and the Environment obtained HBI's raw data and compared it to data submitted in an interim report to CIAR. The Subcommittee's analysis showed that measures of respirable

suspended particulates, which were used to estimate ETS levels, were substantially altered more than 25% of the time. Several other discrepancies were identified that would have tended to decrease the levels of ETS measured in rooms used for smoking. HBI employees confirmed that their data collection forms were routinely changed to minimize measurements of ETS. The Subcommittee requested an independent analysis of HBI's data, which concluded that "the data [are] so marred by unsubstantiated data entries, discrepancies, and misclassifications that it raises serious questions of scientific fraud." Deposition of Max Eisenberg, United States v. Philip Morris, June 20, 2002, 112:16-117:3; 87776361-6362 (U.S. Ex. 56,325); 87776358-6359 (U.S. Ex. 56,324); 2505528777-8786 (U.S. Ex. 20,572); 2047330959-0981 (U.S. Ex. 38,53); TLT0600053-0084 (U.S. Ex. 65,097); 2505528777-8786 (U.S. Ex. 20,572); 2505583630-3641 (U.S. Ex. 85,640); 2047330959-0981 (U.S. Ex. 38,593); TLT0600139-0217 (U.S. Ex. 65,101).

849. The Subcommittee also requested an independent analysis of HBI's data and that analysis concluded that "the data [are] so marred by unsubstantiated data entries, discrepancies, and misclassifications that it raises serious questions of scientific fraud." 2047330959-0981 at 0964 (U.S. Ex. 38,593). Indeed, subsequently on July 12, 1995, even Robertson reluctantly admitted to OSHA, where the previously published study had been submitted in connection with OSHA's proceedings on a workplace IAQ rule, that the authors of the study had "struck 10 out of 585 data sets used in the original paper." TLT0860092-0118 at 0093 (U.S. Ex. 86,720).

850. As late as April 1998, Robertson and HBI continued to act on behalf of Defendants in connection with secondhand smoke and indoor air quality issues. 2072439561-9564 (U.S. Ex. 41,540).

(e) CORESTA

851. In furtherance of the Enterprise's shared objectives to foil the notion that ETS was harmful, Defendants formed the Centre de Coopération pour les Recherches Scientifiques Relatives au Tabac translated as the Cooperation Centre for Scientific Research Relative to Tobacco (commonly known as "CORESTA"). CORESTA is discussed in detail at U.S. FPFF § I.H (7), supra.

(f) Association for Research on Indoor Air

852. Another group Defendants created was the Association for Research on Indoor Air ("ARIA"). This organization was a public relations ploy camouflaged as a scientific group. In keeping with Defendants' modus operandi, attorneys were involved in this group as well, and served as a buffer to maintain the group's ostensible "independence" of the tobacco industry.

853. In February 1988, ARIA was created as "an organisational situation analogue to the 'Center for Indoor Air Quality Research' in the USA." 2028441207-1221 at 1217 (U.S. Ex. 22,326) (U.S. Ex. 75,244) (U.S. Ex. 75,245).

854. Although ARIA hired scientists as consultants, according to Brown & Williamson counsel J. Kendrick Wells, "the consultants group operation is essentially a public relations program, not a scientific research operation." 401033325-3328 at 3326 (U.S. Ex. 24,099).

855. An October 10, 1988 faxed memorandum from Wells to BATCo Senior Counsel Nicholas Cannar explained that:

> [I]n the UK[,] the organization which sponsors the consultants is known as the Association for Research on Indoor Air ("ARIA"). A public relations firm has

> been retained in London and has begun to generate material for distribution which is intended to "leverage" the statement made by the consultants.

401033325-3328 at 3325 (U.S. Ex. 24,099).

856. Although ARIA was ostensibly a U.K. Industry organization, the scientific consultants were to be developed by the United States law firm of Covington & Burling, because:

> John [Rupp] said it is important to have a law firm play the role of organizing because the firm can, in the process of organization and horse-shedding individual scientists, avoid product liability problems. The law firm also can serve as a buffer between the companies and the consulting scientists, providing both distance and some opportunities for work product protection. Also, Covington is opening an office in London.

401033325-3328 at 3326 (U.S. Ex. 24,099).

857. Although ARIA was not explicitly run by Philip Morris, according to an October 31, 1988 memorandum from BATCo scientist Christopher Proctor (who shortly thereafter went to work for Covington & Burling), ARIA was a "Phillip Morris initiative of setting up a group of scientists in the U.K. that will comment on ETS issues." However, the individuals "operating for ARIA were totally independent and . . . there was to be no formal contact between the individuals (not to be termed consultants) and the industry." 400974548-4550 at 4548 (U.S. Ex. 47,525).

858. Christopher Proctor confirmed that the use of Covington & Burling as an intermediary between Philip Morris and ARIA was an attempt to allow "the members of each group to remain independent of the industry." 400974548-4550 at 4549 (U.S. Ex. 47,525).

859. Although it is unclear whether BATCo was a formal member of ARIA, BATCo smoking and health scientist Ray Thornton attended an ARIA meeting in October 1989.

300535886-5887 (U.S. Ex. 67,753); 300538971-8971 (U.S. Ex. 67,754).

(6) Defendants Used Their Jointly Controlled Organizations to Promote Their Agenda Through Symposia, Publications and a Roster of Long-time Paid Scientists

(a) Symposia

860. Defendants sponsored various symposia to manufacture evidence that they could later point to in order to falsely deny and distort the health risks of passive exposure. These symposia included, but were not limited to, the Geneva Workshop, the Vienna Symposium, and the McGill Symposium.

(i) The Geneva Workshop

861. The Tobacco Institute Executive Committee, the Tobacco Institute Committee of Counsel, and Shook, Hardy & Bacon explored, with industry consultant Ragnar Rylander's assistance, the need for and appropriateness of a symposium about secondhand smoke. 03554255 (U.S. Ex.85,641). In planning the conference with Hoel in 1982, Rylander acknowledged that he could not give environmental tobacco smoke a “clean bill of health” but believed that he could introduce “skepticism” to the claims about ETS’s health effects. 680542957-2962 (U.S. Ex. 85,718).

862. On March 18, 1982 the Tobacco Institute’s Committee of Counsel asked Don Hoel and Tim Finnegan, of Jacobs, Medinger & Finnegan (counsel to CTR and RJR) to present a specific proposal regarding a Rylander symposium to the Committee by April for possible further presentation to the Tobacco Institute’s Executive Committee on April 15. 01330613-01330613

(U.S. Ex. 26,461). On April 14, 1982, the Committee of Counsel approved the symposium, and the following day, the Executive Committee was informed of the plan to hold a symposium to review evidence with the goal of preparing articles for publication. 01330467-01330467 (U.S. Ex. 26,460); 013300468-0469 (U.S. Ex. 85,719). The symposium, a workshop addressing effects and exposure levels of ETS, was organized by Rylander and took place March 1983 in Geneva, Switzerland. 508750164-0314 (U.S. Ex. 85,642). Geneva was chosen as a "neutral" location to minimize attention to the involvement of the United States tobacco industry in the conference. 680542957-2962 (U.S. Ex. 85,718). The conference was estimated to cost the industry between $65,000 and $80,000. 502122726-2727 (U.S. Ex. 29,551).

863. After the Workshop, Rylander reported back to Donald Hoel of Shook, Hardy & Bacon that the event "went very well" because, *inter alia*, the consensus of the participants was that there was no evidence that environmental tobacco smoke causes lung cancer. TIMN269624-9624 (U.S. Ex. 85,643). This conclusion should have come as no surprise to Hoel, given that many of the participants were industry consultants prior to, and/or at the time of, the Workshop held in Geneva.

864. Rylander himself was a Special Account #4 (see U.S. FPFF § I.D (3) (b), supra) recipient at the time of the Workshop, receiving per diem payments for "[c]ontinuing literature review re environmental tobacco smoke." 03746173-6182 (U.S. Ex. 46,500). Rylander presented a paper on "ETS and Lung Cancer" at the Workshop. In addition, Rylander was a covert consultant for Philip Morris from the early 1970s until at least 1999. Defendants did not, however, disclose this relationship publicly. 500894287-4343 (U.S. Ex. 85,676); 500642763-

2772 (U.S. Ex. 85,644).

865. A number of other Special Account #4 and CTR Special Project (see U.S. FPFF § I.D (2), supra) fund recipients gave presentations at the symposium on work they had performed that was funded by the tobacco industry. The fact that the participants' work was funded by Defendants was not disclosed in the published report from the Workshop. 301153900-4051 (U.S. Ex. 85,645).

866. Melvin First was paid $10,000 from Special Account #4 for work that he performed in early 1983 which involved "Methods for Environmental Tobacco Smoke Measurement," the subject of First's presentation at the Geneva ETS Workshop. 03746253-6262 (U.S. Ex. 85,646); 1005125153-5154 (U.S. Ex. 36,085).

867. Theodor Sterling spoke at the Geneva ETS Workshop on smoking, levels of indoor pollution, the perception of health and comfort of office workers, and regulation. Sterling had received over $200,000 in CTR Special Project funding for work related to this topic that was largely completed by the time he presented at the Workshop. 03746173-6182 (U.S. Ex. 46,500); 92614155-4155 (U.S. Ex. 85,762). In addition, Sterling had been receiving CTR Special Project funding from the tobacco industry beginning as early as 1968, and this relationship continued into the 1990s. 2048925665-5704 (U.S. Ex. 38726); 2024699783-9808 (U.S. Ex. 85,647); 2024699781-9782 (U.S. Ex. 85,771). Sterling was also an Account #4 recipient and had received thousands of dollars from this fund prior to the Workshop to prepare a statement regarding public smoking. 1005045370-5383 (U.S. Ex. 85,648); 03638980-8982 (U.S. Ex. 85,649); 1005045322-5333 (U.S. Ex. 85,664).

868. Domingo Aviado gave a presentation at the Geneva ETS Workshop on carbon monoxide as an index of ETS exposure. Aviado was a long-time recipient of tobacco industry funds by this time. As early as 1977, Aviado: had been a CTR Special Project fund recipient. 92613920-4198 at 4107 (U.S. Ex. 32,132); 1005045322-5333 (U.S. Ex. 85,664); 2048925665-5704 (U.S. Ex. 38,726). In 1977, Aviado received $85,000 in CTR Special Project money to perform animal inhalation experiments on canines to study physical effects of constituents of tobacco smoke. 92614107 (U.S. Ex. 85,651). Moreover, Aviado received a significant sum of Special Account #4 money between 1974 and 1985. 2015029462-9463 (U.S. Ex. 85,652); 682070007-0008 (U.S. Ex. 87,369); 682070001-0002 (U.S. Ex. 36,081); 6820699976-9997 (U.S. Ex. 85,654); Jacob and Medinger Special Account #4 February 28, 1977, 1005122246-2249 (U.S. Ex. 20,216); 682069978-9979 (U.S. Ex. 85,656); 682069972-9973 (U.S. Ex. 85,657); 682069965-9967 (U.S. Ex. 85,658); 682069960-9961 (U.S. Ex. 85,659); 682069953-9954 (U.S. Ex. 85,660); 682069938-9940 (U.S. Ex. 85,661); 507875841-5843 (U.S. Ex. 85,662); 507875857-5859 (U.S. Ex. 20,795); 507876993-6994 (U.S. Ex. 20,799); 507875832-5834 (U.S. Ex. 20,794); 507876986-6987 (U.S. Ex. 20,798); 507875698-5700 (U.S. Ex. 22,953); 507875674-5674 (U.S. Ex. 20,793). He was on a retainer funded by Special Account #4 "for review of relevant smoking and health topics" at the time of the Workshop. 03746253-6262 (U.S. Ex. 85,646); 01347232-7243 (U.S. Ex. 75,293).

869. Anthony Cosentino presented a paper on ETS and pulmonary function testing. He had earlier received Special Account #4 funding for preparing a statement about public smoking. 1005045322-5333 (U.S. Ex. 85,664).

870. Defendants cited the conclusions from this workshop in advertisements, brochures, news releases, and submissions to Congress, OSHA, and EPA in support and furtherance of their fraudulent effort to deny and distort the health effects of secondhand smoke and seek to protect cigarette sales volumes. See. e.g., TINY0018174-8190 at 8177, 8179-8182 (U.S. Ex. 88,599); TINY0020573-0577 at 0575-0576 (U.S. Ex. 88,600); TIFL0055129-5139 at 5131-5132 (U.S. Ex. 88,601); TIMN0120782-0785 (U.S. Ex. 88,602); 517001328-1330 (U.S. Ex. 88,603); 2070140494-0630 at 0595-0596 (U.S. Ex. 88,604).

(ii) The Vienna Symposium

871. Defendants covertly supported another symposium addressing passive smoking and health in Vienna, Austria from April 9-12, 1984. TI12871546-1582 (U.S. Ex. 87,370). This symposium, "Medical Perspectives on Passive Smoking," was publicly portrayed as having been organized by the Austrian Society for Occupational Medicine, the German Society for Occupational Medicine, the American Health Foundation, and the Bavarian Academy for Occupational and Social Medicine in cooperation with the World Health Organization ("WHO") and the International Green Cross in Geneva. 04211608-1610 (U.S. Ex. 22,131). When WHO learned that the tobacco industry was promoting the organization as a participant of this symposium, WHO vehemently objected to this falsehood. Although WHO did send one observer to the symposium, that observer's impression was that the symposium was a "scholarly exercise in futility" and that WHO should "disassociate[] itself from this type of exercise." TI00681804-1804 (U.S. Ex. 88,605); see also TI00681800-1803 (U.S. Ex. 88,606). It was WHO's position that passive smoking was an indisputable health risk and ETS was one of the largest sources of

indoor air pollution that affected anyone "compelled to inhale smoky air." 2025989598-9598 (U.S. Ex. 85,665).

872. Ernst Wynder, founder of American Health Foundation ("AHF"), was one of the Vienna Symposium's organizers. Wynder had a long history with Philip Morris that was not disclosed to the symposium participants or the public at large. This relationship seemed to materialize around 1969, at which time Wynder described himself as one of the "best friends the cigaret [sic] industry has." 1000321438-1438 (U.S. Ex. 85,666). That year, Philip Morris offered Wynder use of a smoking machine for his work and further offered to "pursue within [Philip Morris] the consideration of additional support for the laboratory work." 1005070885-0885 (U.S. Ex. 85,667). Between 1976 and 1990, Philip Morris provided AHF with millions of dollars in research grants. 2021630793-0793 (U.S. Ex. 85,668); 1003710362-0363 (U.S. Ex. 85,669); 1003710347-0347 (U.S. Ex. 85,670); 2021636204-6204 (U.S. Ex. 85,671); 2021594926-4926 (U.S. Ex. 85,672). In 1991, Kraft General Foods, a subsidiary of Philip Morris Incorporated, continued support of AHF. That year, Kraft sent AHF $657,500 toward its five year commitment of nearly $2 million for a research and education program to be conducted from 1991 to 1995. This program studied the correlation between lifestyle and environmental exposures and major chronic illnesses, and the role of diet in cancers of the lung, oral cavity and bladder. 2046988683-8683 (U.S. Ex. 85,673); 2021630974-0975 (U.S. Ex. 87,371); 2046988682-8682 (U.S. Ex. 85,674).

873. The press release announcing the conclusion of the Vienna Conference stated that there was no proof that passive smoking presents a health hazard and "[s]hould lawmakers wish

to take legislative measures with regard to passive smoking, they will, for the present, not be able to base their efforts on a demonstrated health hazard from passive smoking." 04211608-1610 (U.S. Ex. 22,131); 2024967092-7093 (U.S. Ex.87,372). The industry publicly exploited this "conclusion" repeatedly. See e.g., 93766027-6027 (U.S. Ex. 85,675) (Tobacco Institute's memo to General Services Administration re opposition to Proposed rule 101-20.109-10 Smoking Regulations); 2070140494-0630 at 0596-0597 (U.S. Ex. 88,607) (Comments of Philip Morris, Inc. to EPA re EPA review draft: health effects of passive smoking: assessment of lung cancer in adults and respiratory disorders in children); TIFL0055129-5139 (U.S. Ex. 88,601) (Statement of the Tobacco Institute presented by R.J. Lewis, Sr. V.P. for Federal Relations before the U.S. House of Representatives); TIMN0120782-0785 (U.S. Ex. 88,602) (Tobacco Institute press release); TINY0018174-8190 at 8187-8190 (U.S. Ex. 88,599) (Tobacco Institute publication); TINY0020573-0577 at 0576 (U.S. Ex. 88,600) (Tobacco Institute press release); 500894287-4343 (U.S. Ex. 85,676); TOBAC00154331-4331 (U.S. Ex. 85,677); 300551794-1823 at 1799 (U.S. Ex. 88,608).

874. It was important to Defendants and their lawyers that the Vienna Symposium and its erroneous conclusion appear to be independent of the tobacco industry. John Rupp, Covington & Burling attorney, and Donald Hoel, Shook, Hardy & Bacon attorney, would later deny to Sorell Schwartz, a Georgetown University professor who received funding from the tobacco industry, that the Vienna symposium was a clandestine, tobacco-sponsored event. Mary Pottorff of Philip Morris eventually told Schwartz that Hoel had organized the symposium. Deposition of Sorell Schwartz, United States v. Philip Morris, et al., May 28, 2002, 168:10-

171:2. Further, after the symposium, the tobacco industry continued to hide the fact that Wynder and his foundation had a financial interest in the tobacco business, stressing that he was a physician and the president of AHF, but remaining silent on his connection with the industry. 500894287-4343 (U.S. Ex. 85,676); 500642763-2779 (U.S. Ex. 85,644).

(iii) The McGill Symposium

875. In 1989, Covington & Burling attorney John Rupp helped organize a private, invitation-only symposium on ETS and Health at McGill University in Montreal, Quebec, attended by number of scientists from both the United States and the international arena. Rupp hand-picked the invited scientists from the "scientific witness teams" that many Defendants had developed. The symposium was funded by Philip Morris and the Tobacco Institute, and the results of the symposium were made public and published. Deposition of John Rupp, United States v. Philip Morris, et al., June 28, 2002, 193:2-199:7.

876. Defendants sought to generate publicity to advance their ETS strategy by choreographing the symposium at McGill. Before the symposium began, Philip Morris planned its format to ensure that conclusions reached by participants would favor Defendants' position on ETS exposure. Defendants used the McGill Symposium to, in Rupp's words, "neutralize" a risk assessment on ETS being conducted by the United States Environmental Protection Agency by producing what they would champion as an authoritative monograph. 2023034633-4637 (U.S. Ex. 22,932) (U.S. Ex.75,231); TIDN002130-1305 (U.S. Ex. 22,731); 2500048508-8515 (U.S. Ex. 20,549); Deposition of John Rupp, United States v. Philip Morris, et al., June 28, 2002, 193:5-9, 195:5-196:21, 218:3-219:13.

877. Although Defendants did disclose publicly that they provided a grant to the McGill Symposium, all of the other co-sponsors were portrayed as being independent of the industry. TIDN0010803-0803 (U.S. Ex. 85,678). All of the co-sponsors of the symposium, however, had ties to Defendants that were not apparent.

878. Donald Ecobichon, the co-chair of the ETS symposium, represented the Department of Pharmacology and Therapeutics, McGill University. Ecobichon also participated in the press activities related to the symposium. He was an ETS and indoor air quality consultant for the Tobacco Institute at the time of symposium. TIDN007059-7063 (U.S. Ex. 65,551); 2023034633-4637 (U.S. Ex. 22,932); (U.S. Ex. 75,231).

879. Healthy Buildings International, a McGill symposium sponsor, had a long financial relationship with Defendants, as described at U.S. FPFF § IV.C. (5) (d), supra.

880. In furtherance of its goal of preventing smoking restrictions by generating research on ETS and mobilizing a team of scientists, Philip Morris had entered into contracts with co-sponsor Institut Fresenius, Neuhot. 2501474253-4259 (U.S. Ex. 22,017) (U.S. Ex. 75,270); 2026205322-5338 (U.S. Ex. 85,679); 2028364722-4722 (U.S. Ex. 23,804).

881. Representing co-sponsor Institut Universitaire de Technologie de Dijon, University de Burgonge was Guy Crepat, Ph.D., a professor at the institution. Crepat was also a tobacco industry consultant paid by Philip Morris through Covington & Burling. 2023591935-1938 (U.S. Ex. 22,855); 2023592986-2998 (U.S. Ex. 85,548); 2026127628-7632 (U.S. Ex. 85,680).

882. Co-sponsor Institute of Environmental and Industrial Medicine, Hanyang University sent Dr. Yoon Shin Kim, also an industry consultant, sponsored by Brown & Williamson, Philip Morris and R.J. Reynolds, with the assistance of John Rupp, Covington & Burling attorney, to "contribute to the debate on ETS issues." 300527928-9311 (U.S. Ex. 85,681); 2500048643-8654 (U.S. Ex. 22,857). At the time of the symposium, Kim was "desperate for funding," which Defendants supplied. 300527928-9311 (U.S. Ex. 85,681); 87595794-5805 (U.S. Ex. 85,682).

883. The National Energy Management Institute ("NEMI"), a non-profit organization sponsored by two sheet metal workers' unions, also co-sponsored the McGill Symposium. At the time of the symposium, Defendants were supporting NEMI as part of their comprehensive plan to combat the threat posed by the ETS issue. NEMI had an indoor air quality program that was used to raise the sheet metal industry's awareness of indoor air pollution as a problem and marketing opportunity. Defendants were closely involved with NEMI's indoor air program projects. For example, the Tobacco Institute contracted with NEMI to do indoor air quality work, assisted NEMI in producing its quarterly newsletter and other directives, and supported "an extensive 18 month program to train unionized sheet metal contractors and workers to diagnose and treat sick buildings." Defendants identified NEMI's spokespersons for the program. TIDN 0002692-2701 (U.S. Ex. 85,605); TIDN00117700-1784 (U.S. Ex. 85,683); 2024234164-4168 (U.S. Ex. 85,684); TIDN0025948-5957 (U.S. Ex. 62,612); TIMN0435220-5272 (U.S. Ex. 21,734).

884. The Tobacco Institute had partnered with its longtime ally and symposium co-

sponsor, The National Federation of Independent Business/Foundation, as early as 1981. TCAL0413532-3534 (U.S. Ex. 65,457); 2046554299-4300 (U.S. Ex. 85,685).

885. Co-sponsor Research and Consulting Company was represented by a toxicologist hand-picked by Defendants to attend the symposium Pamela Allen. Allen was a member of ARIA (an industry developed "trade group" described at U.S. FPFF § IV.C (5) (f), supra) and a consultant paid by Covington & Burling who had contributed a chapter to Defendants' book, "Other People's Tobacco Smoke," addressing ETS and pregnancy. In her paper, she falsely stated that "the data currently available on the effects of ETS exposure during pregnancy indicate either no adverse effect or only a weak association." 2023592989-2998 (U.S. Ex. 85,686); 2051809899-10096 at 10027 (U.S. Ex. 87,373).

886. D.F. (Max) Weetman represented co-sponsor Sunderland Polytechnic, School of Pharmacology. Weetman was an industry consultant who was paid by Covington & Burling through attorney John Rupp. 2023592793-2797 (U.S. Ex. 20,394); 2022850493-0506 (U.S. Ex. 36,883); 20638780058-0058 (U.S. Ex. 85,687); 2023856321-6328 (U.S. Ex. 22,037).

887. The McGill Symposium included as participants eighty of Defendants' consulting scientists from more than twenty countries. The participants, including Peter Lee, Gio Gori, and Gray Robertson, were carefully selected for the invitation only event, so that Defendants' consultants could present their views unopposed. Covington & Burling coordinated the accompanying publicity campaign, including determination of the best avenues for distributing the published proceedings within Asia, and distribution of the written proceedings by tobacco consultant symposium participants to public officials in their own countries. The editors of the

1989 McGill Symposium publication were paid industry consultants. 2500048976-8998 (U.S. Ex. 23,007); Deposition of John Rupp, United States v. Philip Morris, et al., June 28, 2002, 193:5-9; 195:5-198:7; 209:6-213:21; Deposition of Brennan Dawson, United States v. Philip Morris, et al., July 1, 2002, 51:3-17; TI10161302-1305 (U.S. Ex. 21,250).

888. Several Tobacco Institute paid academic scientists participated in the McGill ETS Symposium, and several of them presented keynote papers that were published as part of the proceedings. TIDN0025948-5957 (U.S. Ex. 62,612); TI01140124-0133 (U.S. Ex. 62,100).

889. All of the persons chosen to present papers at the symposium had well-established ties to Defendants. Co-chairman Donald Ecobichon of McGill University, delivered the opening remarks. TLT0150001-0390 (U.S. Ex. 65,706); Environmental Tobacco Smoke, Proceedings of the International Symposium at McGill University 1989 (Donald J. Ecobichon & Joseph M. Wu eds., 1990) (U.S. Ex. 65,706); 94348745-8752 (U.S. Ex. 85,688).

890. Delbert Eatough, a chemistry professor at Brigham Young University, presented the first paper entitled: “The Chemical Characterization of Environmental Tobacco Smoke.” TLT0150001-0390 at 0023 (U.S. Ex. 65,706). This presentation would be cited by the Tobacco Institute in its "Comments of The Tobacco Institute on Health Effects of Passive Smoking: Assessment of Lung Cancer in Adults and Respiratory Disorders in Children Review Draft, October 1, 1990." 300542191-2253 at 2226 (U.S. Ex. 85,689); see also "Comments of the Tobacco Institute to the United States Department of Labor, Occupational Safety and Health Administration Occupational Exposure to Indoor Air Pollutants: Request for Information," Docket No. H-122, RIN 1218-AB37, March 20, 1992, 87715488-5558 at 5493 (U.S. Ex.

85,690).

891. Eatough's presentation at the McGill Symposium is no surprise, given his history with Defendants. Eatough had been a long-time recipient of tobacco industry funding, dating back to at least 1985, when he had a contract with R.J. Reynolds. In1987, his work was funded through CIAR as an applied project, funded by CIAR's Board of Directors. 511282020-2022 (U.S. Ex. 85,691); 506527727-7732 (U.S. Ex. 85,692); 505625216-5217 (U.S. Ex. 85,693); 504971400-1401 (U.S. Ex. 85,694); 87823747-3750 (U.S. Ex. 85,695); 2015021830-1831 (U.S. Ex. 85,696); 2023555568-5568 (U.S. Ex. 85,697); 2505442777-2935 at 2813 (U.S. Ex. 75,388).

892. The remaining presenters at the Symposium were consultants to the Tobacco Institute, and included Joseph Wu, co-chairman of the symposium. TIDN0007059-7063 (U.S. Ex. 65,551) TIDN0007064-7110 **(U.S. Ex. 88,795)**; TLT0150001-0390 (U.S. Ex. 65,706); Environmental Tobacco Smoke, Proceedings of the International Symposium at McGill University 1989 (Donald J. Ecobichon & Joseph M. Wu eds.) (1990) (U.S. Ex. 65,706).

893. Upon conclusion of the McGill Symposium, consultant participants engaged in planned media interviews and other public relations exercises. The Tobacco Institute coordinated further public relations efforts, including having the consultants prepare opinion letters for publications. Deposition of Brennan Dawson, United States v. Philip Morris, et al., July 1, 2002, 131:13-133:16, 135:20-136:12; TIOK0017415-7416 (U.S. Ex. 85,698); TIOK0031615-1649 (U.S. Ex. 88,609).

894. The McGill ETS Symposium proceedings summary was published as planned. The publication contained no indication of Defendants' influence and control over the

proceedings. Environmental Tobacco Smoke, Proceedings of the International Symposium at McGill University 1989 (Donald J. Ecobichon & Joseph M. Wu eds., 1990) (U.S. Ex. 65,706); TLT015001-0390 (U.S. Ex. 65,706).

895. On February 5, 1990, the Tobacco Institute submitted to the United States Environmental Protection Agency ("EPA") its comments on the draft compendium regarding ETS being prepared by the EPA. As part of its official comment, the Tobacco Institute submitted a copy of the McGill proceedings, which it described as "a thorough, up-to-date discussion of the relevant literature." The Tobacco Institute urged the EPA to carefully consider the results of this symposium, "which concluded, overall, that ETS has not been shown to present a health hazard to nonsmokers" in its revisions of the draft. TI11951245-1685 (U.S. Ex. 85,699); TIMN0015305-5349 at 5311 (U.S. Ex. 88,610).

896. Likewise, in its own Comments to the EPA regarding the EPA Review Draft's classification of ETS as a Group A carcinogen, Philip Morris cited the McGill ETS Symposium to support its argument that ETS was not harmful:

> In his "Summary and Concluding Remarks" from the Proceedings of the International Symposium on ETS at McGill University 1989, (Montreal, Canada), co-organizer Dr. Joseph Wu concluded that the published data on ETS, when critically examined and evaluated, do not provide a scientific justification for the claim that ETS is a cause of disease in nonsmokers.

2070140494-0630 at 0598 (U.S. Ex. 88,455).

897. Defendants further exploited its fabricated McGill ETS Symposium. For example, Tobacco Institute press releases relied on the symposium as support for the industry's

false representation that ETS exposure was not harmful. See, e.g., TIFL0523989-3992 (U.S. Ex. 88,456) ("Majority Favors Smoking Sections in Most Public Places, Anti-smoking activists recycle old claims to add new pressure"); TIMN0125426-5428 (U.S. Ex. 88,457) ("Draft 'Risk Assessment' Described as Speculation, Underlying scientific foundation inadequate"). Consultants hired by Defendants to present statements before Congress likewise cited the McGill ETS Symposium to support their position that the pending legislature concerning ETS was unwarranted. See, e.g., TIMN358365-8377 (U.S. Ex. 88,458) (Statement of Larry Holcomb before the Committee on Finance, United States Senate, May 24, 1990) (attaching copy of McGill Symposium proceeding); TLT0150001-0390 (U.S. Ex.65,706) (Statement of W. Gary Flamm before the Committee on Energy and Commerce Subcommittee on Health and the Environment, United States House of Representatives).

898. In the summer of 1990, consultants were paid to prepare editorials comparing the results of the McGill Symposium to the public draft of the EPA ETS Risk Assessment. Many of these submitted editorials were published. Deposition of Brennan Dawson, United States v. Philip Morris, et al., July 1, 2002, 138:15-139:4; TI09911997-2033 (U.S. Ex. 22,367). At least one such editorial was published by a major newspaper without any indication that the author was a paid consultant to Defendants. Jack Peterson, 'Passive smoking' danger? Don't believe what you read (Editorial), Chicago Sun-Times, June 23, 1990, at 14 (U.S. Ex. 86,722); TIDN0007059-7063 (U.S. Ex. 65,551).

(iv) Essen Symposium

899. From October 23 to 25, 1986, the German Society of Occupational Medicine

hosted a scientific symposium in Essen, Germany run by Professor Karl Norpoth of the Institute of Hygiene and Occupational Medicine at the University of Essen (the "Essen symposium"). Researchers for Philip Morris sought approval to present research findings regarding environmental tobacco smoke at the Essen symposium, but ultimately lawyer review and opposition prevented their attempts to publicly present their findings. A leading board of German physicians, the German Society for Smoking and Health, ultimately concluded that the Essen symposium was so attached to the tobacco manufacturers that the proceedings were irretrievably tainted. In a formal statement, the German Society stated: "Apparently the symposium in Essen will once again serve as an organ for marketing manipulation by the tobacco industry. This conclusion is in no way minimized by the fact that a handful of eminent, independent scientists have also been invited to participate; In public they shall serve as an alibi." 2025989595-9596 at 9595 (U.S. Ex. 22,833).

900. Beginning in February, 1986, prior to the Essen symposium, scientists at INBIFO, Philip Morris's research facility in Cologne Germany, requested approval from Philip Morris to present three studies at the Essen symposium related to environmental tobacco smoke. 2501666835-6837 at 6835 (U.S. Ex. 87,027). Among other findings the studies found that "sidestream condensate is slightly (1.4-fold) more mutagenic than mainstream condensate . . . ." 2001225910 (U.S. Ex. 87,028); see also 2001225909-5909 (U.S. Ex. 87,029); 2001225911 (U.S. Ex. 87,030); 2501659066-9066 (U.S. Ex.87,031). On May 6, 1986, at least one of the studies was forwarded by Phillip Morris scientist Robert Pages to Donald Hoel, an industry lawyer at Shook, Hardy & Bacon for review and approval to present the paper. 2021654043-4045 at 4045

(U.S. Ex. 87,032). On May 20, 1986, Thomas Osdene, Director of Research for Philip Morris, sought approval from Philip Morris management to present the three studies at the Essen symposium. 2001225907-5908 at 5907 (U.S. Ex. 87,033). On May 28, 1986, Robert Pages reported back to the INBIFO scientists that, despite his efforts and the efforts of Osdene to gain approval, Philip Morris management would not allow the studies to be presented because a Philip Morris in-house lawyer, Frederic Newman, "said no." According to Pages, "that was the end of that." 2501459823-9823 (U.S. Ex. 87,034); see also, 2501459834-9834 (U.S. 87,035).

(b) Long-time Paid Scientists

(i) Ragnar Rylander

901. Ragnar Rylander, an environmental physician and researcher and lecturer at, variously, the University of Stockholm, University of Gothenburg, and University of Geneva, has had financial ties to the tobacco industry for at least thirty-five years, but endeavored to keep that relationship secret in order to preserve his public reputation as an “independent” researcher.

902. Rylander worked with Tore Dalhamn, Uppsala University, Institute of Hygiene, Stockholm, Sweden in the early 1960s when Dalhamn had an ongoing consultancy agreement with Lorillard. 91732351-2353 (U.S. Ex. 85,700). As early as 1967, Rylander’s expenses and fees were being paid by Lorillard in connection with Dalhamn’s and Rylander’s research relating to phenol methyl oxadiazole ("PMO"). 00104885-4886 (U.S. Ex. 85,701); 03541871-1871 (U.S.

Ex. 85,702). Arthur Stevens, Lorillard General Counsel, prepared and forwarded to Dalhamn an agreement "by which you can obtain the agreement of Doctor Rylander (and any other consultant) to the very same secrecy, confidentiality and patent provisions of your agreement with us." 01243432-3432 (U.S. Ex. 85,703).

903. Rylander became a paid consultant for Philip Morris in December of 1972. 2063590583-0584 (U.S. Ex. 88,459). Rylander and Philip Morris entered into a formal consulting agreement on December 7, 1972, pursuant to which Rylander became the "coordinator" of scientific activities between INBIFO (Philip Morris's European research facility) and Philip Morris's Research Center in Richmond, Virginia, beginning in 1973. 2063590583-0584 (U.S. Ex. 88,459).

904. Rylander's financial relationship with tobacco industry continued for thirty years, during which time he conducted several studies designed to downplay or obfuscate the effects of secondhand smoke on nonsmokers. He also sought to hide the fact of his substantial financial backing from Philip Morris in order to hold himself out as an "independent" scientist and avoid being disqualified from various university and public positions. In this "independent" capacity, he made presentations to public agencies in various countries. 2063590583-0584 (U.S. Ex. 85,704). The tobacco industry, in turn, promoted his work as "independent" in an effort to undermine other scientific studies linking secondhand smoke to disease. 503647216-7220 (U.S. Ex. 29,703); 2063590583-0594 (U.S. Ex. 85,704).

905. Rylander's work with Philip Morris was coordinated by Helmut Gaisch. Gaisch, a scientist, held a variety of positions within Philip Morris, including: Director, Science &

Technology, Philip Morris International from 1984-1990; Philip Morris Europe Scientist, Head of Laboratories, FTR/PME, Philip Morris International; and Philip Morris Representative on ASFC. Gaisch managed defensive and extra mural projects including INBIFO, and maintained contacts with individual "independent" scientists (such as Professors Leuchienberger, Wahren, Battig, Grandjean, Roe, Brendel, and Malkki). 2501001600-1606 at 1603 (U.S. Ex. 85,706).

906. In his capacity as Philip Morris's "representative" to INBIFO, Rylander proposed in 1973 to organize a conference on the effects of tobacco smoke on nonsmokers, which was held in Bermuda in 1974. 2063590583-0584 (U.S. Ex. 85,704); 1000053116-3116 (U.S. Ex. 85,707); 1000259865-9865 (U.S. Ex. 85,708); 1000259799-9803 (U.S. Ex. 85,709). The conference was sponsored by the University of Geneva but was financially supported by Philip Morris Europe, with participants chosen by tobacco industry counsel Donald Hoel of Shook, Hardy & Bacon. 1000259784-9784 (U.S. Ex. 85,717); 2015035615-5615 (U.S. Ex. 85,710). Correspondence among various Philip Morris scientists and lawyers both before and after the conference demonstrated that the purpose of the conference was to generate data purporting to show that secondhand smoke does not pose a threat to nonsmokers. 1000259794-9794 (U.S. Ex. 85,711); 2015035570-5570 (U.S. Ex. 87,374); 1000259789-9789 (U.S. Ex. 87,375); 1000259790-9790 (U.S. Ex. 87,036). Philip Morris hoped the data could be used to defeat proposed legislation restricting indoor smoking. 1000259794-9794 (U.S. Ex. 85,711); 2015035555-5556 (U.S. Ex. 87,376). A meeting summary submitted to, and ultimately published in, the journal *Science* under Rylander's name was actually "ghost written" by Philip Morris USA scientist Nick Fina, in consultation with Helmut Wakeham and Ray Fagan, who were also Philip Morris scientists.

2015035520-5520 (U.S. Ex. 85,712). Rylander also submitted drafts of his summary of the conference proceedings to Philip Morris personnel for review and comment before submitting them for publication in the *Scandinavian Journal of Respiratory Disease*. 1000259693A-9693A (U.S. Ex. 86,613); 1000259703-9703 (U.S. Ex. 85,713); 1000260272-0272 (U.S. Ex. 85,714). Donald Hoel, Shook, Hardy & Bacon attorney, Helmut Wakeham, Philip Morris scientist, and Alexander Holtzman, Assistant General Counsel for Philip Morris, were involved in editing the proceedings. 1000260272-0272 (U.S. Ex. 85,714).

907. Wakeham later provided a copy of the meeting summary to CTR's Industry Technical Committee. He described the published proceedings as a "very convenient piece of paper." ATX040168210-8212 at 8212 (U.S. Ex. 85,715).

908. Defendants put the proceedings to use by paying consultants to prepare papers and testify. For instance, two Special Account #4 consultants provided testimony that was submitted on September 7, 1978, before the Subcommittee on Tobacco of the House Agriculture Committee. This committee was chaired by Walker Jones, who held a closed hearing, where only one side of the story was presented on the effects of smoking on nonsmokers. Domingo Aviado, a long time paid tobacco industry consultant, stated in his presentation to Congress: "In 1974, I was one of 21 scientists, from seven countries, invited to attend an environmental workshop entitled, "Tobacco Smoke Effects on the Nonsmoker." All of the participants had previously investigated various aspects of tobacco smoking. During this three-day conference, not one conclusive observation was made to the effect that exposure to the nonsmoker tobacco smoke causes disease." 03684330-4679 at 4519 (U.S. Ex. 87,443). Hiram Langstrom's paper

quoted Rylander's conclusions at the workshop regarding carbon monoxide: "It can thus be concluded that the CO in environmental tobacco smoke does not represent a health hazard." 03684330-4679 at 4496 (U.S. Ex. 87,443).

909. The "findings" of the 1974 Bermuda workshop were incorporated into the public smoking position paper by the International Committee on Smoking Issues "ICOSI" and distributed at a Joint Meeting of National Associations and ICOSI, attended by fifty-three persons representing fifteen National Associations and thirteen countries. 500876807-6812 (U.S. Ex. 87,378). ICOSI was formed by the international tobacco manufacturers to deal with and try to reverse the declining social acceptability of smoking, which posed a major threat to the tobacco industry. 1000221521-1558 (U.S. Ex. 88,460). The position paper was described as "a fine example how ICOSI operates in developing countermeasures to offset attacks on smoking." 513886735-6773 (U.S. Ex. 87,377); 500876807-6812 (U.S. Ex. 87,378). The workshop was cited to in the 1986 Tobacco Institute's ETS booklet entitled, "Tobacco Smoke & The Nonsmoker: Scientific Integrity at the Crossroads." TIMN0284404-4413 (U.S. Ex. 77,088).

910. From 1975 to 1989, Rylander also received funding from Special Account #4, which was supported by American Brands, Inc., Brown & Williamson, Liggett, Lorillard, Philip Morris, Inc., and R.J. Reynolds. 1005122219-2222 (U.S. Ex. 20,214); 507875674-5674 (U.S. Ex. 20,793); 2015041994-1997 (U.S. Ex. 36,654); 03746173-6182 at 6178 (U.S. Ex.46,500); 86002393-2396 (U.S. Ex. 86,359); 507876993-6994 (U.S. Ex. 20,799); ATX140000938-0939 (U.S. Ex. 21,122); 86002410-2413 (U.S. Ex. 85,716); 507875857-5859 (U.S. Ex. 20,795).

911. Rylander also worked for Philip Morris's Robert Page to prepare and submit

materials to the EPA on the risk assessment. Page asked Rylander to encourage Dr. Linda Koo, a Covington & Burling ETS consultant, to write a letter to the EPA supporting the industry position. 2023533777-3777 (U.S. Ex. 85,720); 2023533779-3779 (U.S. Ex. 85,721).

912. Rylander received significant financial support from Philip Morris over the years, including annual fees and expenses ranging from $2,500 to $85,000 between 1972 and 1997, and grant allocations ranging from $40,000 to $80,000 between 1985 and 1997. 2063590583-0584 (U.S. Ex. 85,704). The focus of his grant work was to study confounding environmental factors that might be cited to explain away or diminish the role played by secondhand smoke in causing certain diseases in nonsmokers. 2063590583-0584 (U.S. Ex. 85,704); 2050754280-4280 (U.S. Ex. 85,723); 2073346074-6075 (U.S. Ex. 85,741). He was also budgeted to receive consulting fees of $120,000 in 1986, $125,000 in 1987, $130,000 in 1988, and $135,000 in 1989. 2001202325-2325 (U.S. Ex. 85,724). An internal 1991 Philip Morris Corporate Scientific Affairs memorandum stated that Rylander was on a "commitment" for $90,000 and that the $90,000 was to be paid "no matter what we asked him to do for us." 2023223287-3290 (U.S. Ex. 85,725). According to internal Philip Morris documents, Rylander was projected to receive $92,000 in 1999, 2073808584-8585 (U.S. Ex. 24,681), and submitted a "supplemental" budget for $12,424 in additional expenses incurred in 1999. 2073808587-8589 (U.S. Ex. 24,682). He submitted a budget for $92,500 in fees and expenses in 2000. 2073808584-8585 (U.S. Ex. 24,681). Philip Morris also funded a post-doctoral position in Rylander's department at the University of Gothenburg beginning in 1999, at the cost of $94,280 per year. 20738085762-5762 (U.S. Ex. 85,726); 2073808598 (U.S. Ex. 85,727); 2073808574 (U.S. Ex. 85,728); 2073808573

(U.S. Ex. 85,729); 2073808570-8570 (U.S. Ex. 85,730). Nevertheless, Rylander took care to limit his direct contact with Philip Morris-affiliated institutions and personnel in order "to retain as far as possible the image of an independent scientist." 2063590609-0609 (U.S. Ex. 85,731).

913. In June 1994, Philip Morris Europe approached Rylander and requested that he perform a study on lifestyle factors, including diet habits, between nonsmoking persons married to smokers and non-smokers in Europe. 2028381515-1515 (U.S. Ex. 26,880); 2028381516-1522 (U.S. Ex. 26,881). Rylander agreed and indicated he would see if CIAR would extend a current project. 2028381513-1514 (U.S. Ex. 26,879). Philip Morris agreed to fund the study through CIAR. 2028381480-1480 (U.S. Ex. 26,873). CIAR provided Rylander with a new contract, number 97-07, at a project cost of $333,031 for a questionnaire study in the Swedish and Swiss population. It was completed December 31, 1996. 2505442777-2960 at 2906 (U.S. Ex. 46,054) (U.S. Ex. 75,388).

914. In June 1997, Rylander wrote to Richard Carchman of Philip Morris Scientific Affairs: "Throughout the years I have always been very strict to report to Richmond only and particularly not get engaged in the activities of the Neuchatel group. Also regarding specific projects, I have also adhered uniquely to Richmond and to CIAR. Finally, I have never been involved with any Philip Morris executive in meetings or contacts with outside persons, to retain as far as possible the image of an independent scientist." 2063590609-0609 (U.S. Ex. 85,731).

915. In February 1998, Rylander submitted for publication in the *European Journal of Public Health* an article entitled "Dietary habits for non-smoking females living with smokers or non-smokers," which was published in 1999, with an acknowledgment of funding from CIAR

under contract number 94-07 and with appreciation to Linda Koo for her comments. 2067224066-4069 (U.S. Ex. 85,733). In his submission, Rylander affirmed that "no part of the research presented has been funded by sources that might lead to a conflict of interest." When this assertion was questioned, Rylander stated in writing in 2001 that he was never a "formal" consultant to Philip Morris and never received a "regular" payment for consultancy other than travel and per diem costs. June 26, 2001 letter from Ragnar Rylander to Martin McKee (U.S. Ex. 88,032).

916. On December 15, 2003, the Court of Appeals, Criminal Division, Republic and Canton of Geneva issued a decision against Rylander in a libel action resulting from his exposure as a Philip Morris consultant. Deithelm et al. v. Public Prosecutor, et al., Decision of the Court of Appeal, Criminal Division, Republic and Canton of Geneva, Dec. 15, 2003. The Court made the following significant findings:

a. Rylander was supported financially by Philip Morris for at least thirty years, beginning in 1973.
b. Rylander was to be paid by FTR, a wholly-owned subsidiary of Philip Morris International, and asked that his relationship with Philip Morris be kept confidential.
c. The main purpose of the 1974 and 1983 symposia organized by Rylander on Philip Morris's behalf was to lead both independent researchers and the general public to believe that there were insufficient data to show that cigarette smoke has any harmful effect on nonsmokers.
d. As late as 1999, Rylander's links to the tobacco industry were still largely unknown.
e. Rylander's 2001 statement to the editors of the *European Journal of Public Health* that he had never had a "formal" contractual relationship with Philip Morris or received financial compensation other than per diem and travel

expenses was a lie.

(U.S. Ex. 87,379); (U.S. Ex. 88,632).

917. A number of articles written by Rylander on CIAR sponsored studies appeared in an industry journal set up by Indoor Air International:

a. Rylander, R., Airway responsiveness and chest symptoms after inhalation of endotoxin of (1-3)-β-D-glucan., 5(2) Indoor and Built Environment. 106-111 (1996). (U.S. Ex. 86,725).
b. Rylander, R., Hsieh, V., Courteheuse, C., The first case of sick building syndrome in Switzerland, 3(3) Indoor Environment 159-162 (1994). (U.S. Ex. 86,726).
c. Rylander, R., Persson, K. Goto, H., Yuasa, K., Tanaka, S., Airborne β-1,3-glucan may be related to symptoms in sick buildings, 1(5) Indoor Environment 263-267 (1992). (U.S. Ex. 86,727).

Other CIAR sponsored work appeared elsewhere:

d. Rylander, Ragnar, Axelsson, G., et al., Dietary habits for non-smoking females living with smokers and non-smokers, 9 European Journal of Public Health 142-145 (1999). (U.S. Ex. 86,728).
e. Rylander, R., Indoor air-related effects and airborne(1->3)-beta-D-glucan, 107 Environmental Health Perspectives501-503 (Supplement 3) (1999). (U.S. Ex. 86,729).
f. Rylander, R., Airborne (1-3)-β-D-glucan and airway disease in a day-care center before and after renovation, 2(4) Archives of Environmental Health 281-285 (1997). (U.S. Ex. 86,730).
g. Rylander, R., Investigations of the relationship between disease and airborne (1->3)-beta-D-glucan in buildings, 6(4) Mediators of Inflammation 6(4) 275-7 (1997). (U.S. Ex. 86,731).
h. Rylander, R., Goto, H., Yuasa, K., (1->3)-β-D-Glucan in indoor air, its measurement and in vitro activity, 25(1)

American Journal of Industrial Medicine 81-83 (1994). (U.S. Ex. 86,732).

i. Rylander, R., Fogelmark, B., Inflammatory responses by inhalation of endotoxin and (1->3)-β-D-Glucan 25(1) American Journal of Industrial Medicine 101-102 (1994). (U.S. Ex. 86,733).

918. Rylander also co-authored an article with Geoffrey Kabat, Linda Koo, and others entitled: "Dietary and Lifestyle Correlates of Passive Smoking in Hong Kong, Japan, Sweden, and USA" that appeared in *Social Science Medicine* in 1997. 520595598-5608 (U.S. Ex. 85,734) (Rylander, Kabat, Koo, et al., Dietary and Lifestyle Correlates of Passive Smoking in Hong Kong, Japan, Sweden, and USA, 45:1 Social Science Medicine 159-169 (1997)). Rylander reported to Richard Carchman on meetings with Koo and the progress made on the study. 2028366233-6234 (U.S. Ex. 22,815). Koo was listed as a consultant to INBIFO at the time. 2029175611-5611 (U.S. Ex. 23,868). The pre-publication version of the final study was sent to Shook, Hardy & Bacon, by Joseph M. Wu, a Philip Morris consultant. 2073058357-8385 (U.S. Ex. 42,811); 2073058356 (U.S. Ex. 75,365).

919. Rylander, Kabat, Jenkins and Linda Koo were among the industry consultants who wrote papers for presentation at the International Symposium on Lifestyle Factors and Human Lung Cancer December 12-16, 1994, Guangzhou, People's Republic of China. The symposium was organized by industry consultant Wu. Shook, Hardy & Bacon and Wu edited the papers that were presented which were published in a special supplement to the *Journal of Lung Cancer*. Eighteen papers were published full-length and the remainder were published as abstracts. Kabat's paper was published in the regular issue of Lung Cancer. 2073058344-8348

(U.S. Ex. 85,735). The publications contained no attribution to Defendants. 700518532-8541 (U.S. Ex. 85,736); BAG064 2513-2522; 800143641-3730 (U.S. Ex. 85,737); BAG0471326-1415 (U.S. Ex. 85,737).

920. In 1998, CIAR funded a project: "Lung Cancer Among Nonsmoking Females in China - A Case Control Study to Evaluate the Role(s) of Indoor Air, Dietary Agents, and Personal Susceptibility Biomarkers." The principle investigator was Nan-Shan Zhong of Guangzhou Medical College in China. This was a one year pilot feasibility study. The Project duration was from January 1, 1998 to May 3, 1999 at a cost of $84,288. 2505442777-2935 at 2935 (U.S. Ex. 75,388). Mingda Zhan of Philip Morris provided Carchman, Ellis, and Sanders, (among others) with an English translation of the abstract from the study. 2076950459A-0459A (U.S. Ex. 85,738); 2076950460-0460 (U.S. Ex. 27,577).

921. Rylander submitted budgets to Philip Morris in 1999 and 2000, which included amounts for a Chinese lung cancer study. 2073808584-8585 (U.S. Ex. 24681).

922. CIAR sponsored a workshop in China on July 15-17, 1997, which was hosted by Dr. Du of Guangzhou Medical College on “Good Epidemiologic Studies.” 2063650515-0518 (U.S. Ex. 79,212). The workshop resulted in the publication of proceedings. 2063647953-8153 (U.S. Ex. 85,740). Rylander, Linda Koo, Joseph Wu, He Ling and K. Philips, all industry affiliated, were among the presenters.

923. A scientist by the name of Ling He (incorrectly identified in CIAR report as Heng Li) of Geneva University, received a post doctoral scholarship from CIAR in 1996 for $25,500 to test the hypothesis that the intake of food items influences the expression of genes regulated by

antioxidants. 2505442936-2959 (U.S. Ex. 25,642). In fact, the proposal was written with or by Rylander. 2063590922-0931 (U.S. Ex. 85,739). Rylander wrote to Rich Solana, Vice President, Scientific Affairs, Philip Morris, on February 26, 2000 stating: "You may remember the antioxidant project that CIAR sponsored in terms of a scholarship for Heng Li from Gungzkhou. That manuscript is accepted in the journal *Cancer*, causes and control and I read the galleys a few days ago. The project as such was enlarged and we just received the news that it was accepted by the EU program Europe and Cancer! See how CIAR pioneered important research projects!" 2073346074-6075 (U.S. Ex. 85,741). No mention was made of Rylander's involvement in this project on CIAR's list of projects funded. 2505442779-2960 at 2946 (U.S. Ex. 46,054).

(ii) Theodor Sterling

924. One recipient of a significant amount of funding from Defendants was Theodor Sterling, a professor of statistics and computing science who formed a private consulting firm called Theodor D. Sterling and Associates. The purpose of this funding, which began in the 1960s, was to enable Sterling to research and write about smoking and health issues and to persuade scientists and regulators through publications and conferences that ETS was not harmful and should not be regulated.

925. In the early 1980s, the industry increased the percentage of money that it gave to Sterling to work on ETS related matters. 2024699783-9808 (U.S. Ex. 85,647). Sterling's work focused on investigating factors that could confuse the association of secondhand smoke and adverse health consequences, and other research to discredit scientific findings that secondhand smoke is harmful. His research supported Defendants' view that ETS was not harmful and

should not be regulated. 03758840-8841 (U.S. Ex. 85,742); 1005143671-3674 (U.S. Ex. 85,743); 01338515-8517 (U.S. Ex. 26,570); 503645406-5408 (U.S. Ex. 85,778); 01338460-8462 (U.S. Ex. 85,744); 1005125800-5802 (U.S. Ex. 85,745); 521032586-2588 (U.S. Ex. 85,746); 86003336-3338 (U.S. Ex. 85,747); 2024699783-6808 (U.S. Ex. 85,765).

926. Between 1968 and 1990, Sterling received over $5.5 million from the tobacco industry in exchange for research and other work through the Center for Tobacco Research's ("CTR") Special Projects. 92613996-3997 (U.S. Ex. 85,748); 92614017-4017 (U.S. Ex. 85,749); 92614022-4023 (U.S. Ex. 85,750); 92614024-4025 (U.S. Ex. 85,751); 92614039-4039 (U.S. Ex. 85,752); 92614040-4042 (U.S. Ex. 85,753); 92614043-4043 (U.S. Ex. 85,754); 92614044-4045 (U.S. Ex. 85,755); 92614046-4047 (U.S. Ex. 85,756); 92614048-4072 (U.S. Ex. 85,757); 92614073-4073 (U.S. Ex. 85,758); 92614108-4111 (U.S. Ex. 85,759); 92614132-4132 (U.S. Ex. 85,760); 92614135-4135 (U.S. Ex. 85,761); 92614155-4155 (U.S. Ex. 85,762); 926141564156 (U.S. Ex. 85,763). Industry money funded Sterling's research that he then presented to state and federal legislative and regulatory bodies. 2015006938-6940 (U.S. Ex. 85,764). CTR Special Project money funded Sterling's preparation of articles that were published in scientific and trade journals, and his preparation and presentation of speeches at conferences. As a result of this CTR funded research, Sterling published over 200 articles and conference presentations. 2024966783-6808 (U.S. Ex. 85,765). In fact, Sterling boasted that he made "a major effort to disseminate our findings to scientists, engineers, architects and building managers at regularly scheduled and at specially convoked conferences and workshops" and that he shared these findings with agencies in the United States that were working toward establishing smoking

regulations for office buildings. CTRSP-FILES012593-2630 (U.S. Ex. 85,766). Sterling did not, however, disclose that his work was funded by the tobacco industry.

927. Sterling assisted Defendants in their effort to hide tobacco funding of conferences. In 1972, Sterling wrote to Shook, Hardy & Bacon attorney William Shinn, soliciting $5,000 to fund a panel on the "Effects of Pollutants on Human Health at the International Meeting of the Society of Engineering Science" to be held in Tel Aviv, Israel. In the letter, Sterling advocated awarding the funds to the ALEPH Foundation to "enable us to manage the arrangement of support in a proper and desirable manner." In a memorandum to other industry lawyers, Shinn recommended that Sterling's request be approved and funded through a "special project (non-CTR)." In support of his recommendation, Shinn submitted that the conference would advance Defendants' position that ETS is not dangerous because Sterling had been effective this way in the past. The request for $5,000 was granted through Special Account #4 (a lawyers' discretionary account used to fund certain types of special projects discussed in detail at U.S. FPFF § I.D (3) (b)). The arrangement enabled Defendants to control information presented at conferences without disclosing their involvement. 1005143719-3719 (U.S. Ex. 85,767); 1005143717-3718 (U.S. Ex. 85,768); Lauterstein & Lauterstein Special Account #4 Statements for six months ending August 31, 1972 (U.S. Ex. 87,380).

928. When making statements to Congress, Sterling hid the fact that he received large sums of funding from the tobacco industry to do his research. He did, however, disclose other consultancies. In statements before the House Committee on Energy and Commerce, he disclosed that he "served as a consultant on data processing and environmental problems to

various U.S. agencies, including the Federal Trade Commission, Food and Drug Administration, National Academy of Sciences, National Research Council, National Science Foundation and a number of state agencies." Yet Sterling was silent on the consultancy work he did for the Defendants. 680908171-8188 (U.S. Ex. 85,769).

929. On March 2, 1990, Arthur Stevens, Senior Vice President and General Counsel of Lorillard, sent a letter to Patrick Sirridge of Shook, Hardy & Bacon, enclosing a check for $46,461, which represented Lorillard's share of joint funding for Sterling. Stevens noted "that this is no longer a CTR project, but is now being funded directly by the Companies and administered as a Special Research Project through your firm." On March 19, 1990, Paul Randour, Vice President and General Counsel of American Tobacco, also sent a letter to Sirridge indicating approval of the joint funding of Sterling. Likewise, on July 23, 1990, Ernest Pepples, Senior Vice President and General Counsel of B&W, sent a letter to Sirridge enclosing a check for $65,579, which represented Brown & Williamson's share of funding for Sterling. 87598486-8486 (U.S. Ex. 21,096); ATX300004011-4011 (U.S. Ex. 21,131); 521100040-0040 (U.S. Ex. 20,893).

930. In March 1992, Bernard O'Neill, an attorney with Shook, Hardy & Bacon, sent a letter to Wayne Juchatz of R.J. Reynolds, Ernest Pepples of Brown & Williamson, Paul Randour of American Tobacco, Arthur Stevens of Lorillard, and Charles Wall of Philip Morris, and copied to Steven Parrish of Philip Morris, recommending extension of joint industry funding of Theodor Sterling, longtime CTR Special Projects grantee, for Sterling's work analyzing the "methodical weaknesses in the epidemiological data in the area of smoking and health" and

"issues relating to indoor air quality and ETS exposure." According to O'Neill, Sterling's work would "provide a much needed perspective on the possible meanings of these scientific reports" on smoking and health issues. 2015002947-2955 at 2947-2948 (U.S. Ex. 20,308); (U.S. Ex. 75,121).

931. On May 18, 1992, Philip Morris Companies sent a letter through the United States mails from Charles R. Wall, its Vice President and Associate General Counsel, to O'Neill of Shook, Hardy & Bacon, which was accompanied by a check representing Philip Morris Companies' contribution to Sterling's research efforts. 2023230770-0770 (U.S. Ex. 20,384).

932. Sterling continued to receive funding from the tobacco companies until at least 1993. 86003340-3340 (U.S. Ex. 85,770); 2024699783-9808 (U.S. Ex. 85,647); 2024699781-9782 (U.S. Ex. 85,771).

933. In addition to receiving CTR Special Projects funding, Sterling received extensive funding through Special Account #4. Sterling began receiving Special Account #4 funding no later than 1969 and received thousands of dollars until at least 1989. Lauterstein & Lauterstein Special Account #4 Statement of Cash Receipts and Disbursements for the Six Months Ended August 31, 1969 (U.S. Ex. 87,444); 80680301-0303 (U.S. Ex. 21,066); Lauterstein & Lauterstein Special Account #4 Statement of Cash Receipts and Disbursements for the Six Months Ended August 31, 1970 (U.S. Ex. 21,065); 80680218-0218 (U.S. Ex. 85,772); Lauterstein & Lauterstein Special Account #4 Statement of Cash Receipts and Disbursements for the Six Months Ended August 31, 1972 (U.S. Ex. 87,381); 2015028333-8336 (U.S. Ex. 20,314); 682070005-0006 (U.S. Ex. 85,773); 68207001-7002 (U.S. Ex. 36,081); 682069996-9997 (U.S. Ex. 85,774); 682069965-

9967 (U.S. Ex. 85,658); 682069960-9961 (U.S. Ex. 87,382); 507875841-5843 (U.S. Ex. 85,662); 507876993-6994 (U.S. Ex. 20,799); 507875832-5834 (U.S. Ex. 20,794); 507876986-6987 (U.S. Ex. 20,798); 86002496-2499 (U.S. Ex. 85,775); 507875698-5787 (U.S. Ex. 22,953); 86002454-2457 (U.S. Ex. 85,776); ATX140000938-0939 (U.S. Ex. 21,122); Shook, Hardy & Bacon Special Account Statement of Cash Receipts and Disbursements for the Twelve Months Ended March 31, 1989 (U.S. Ex. 21,122).

934. Sterling received Special Account #4 funding in exchange for such projects as preparing public statements for the tobacco companies. 1005045370-5383 (U.S. Ex. 85,777).

935. Attorneys monitored Sterling's work. In reviewing and recommending Sterling's proposal seeking over $200,000 to document the existence of "Office Building Syndrome" which could, in Sterling's words, "be useful with respect to the controversial issue of restriction of smoking in the workplace," Shook, Hardy & Bacon lawyer William Shinn chronicled Sterling's recent "accomplishments" *i.e.*, his publications, speeches, and Congressional testimony, all of which supported the Defendants' effort to deny and distort the health effects of exposure to secondhand smoke in order to maintain the social acceptability of smoking. 503645406-5408 (U.S. Ex. 85,778).

936. Further, Defendants monitored Sterling's public appearances:

> At a meeting on occupational health held earlier this month, [Sterling] gave a presentation titled 'Job Discrimination Based on Exposure Consideration and Smoking.' This meeting was monitored by one of our research analysts; she felt that Dr. Sterling's manner of presentation put his potentially hostile audience in a receptive mood and that the audience paid close attention to what Dr. Sterling had to say. He reviewed published

> evidence contrary to the idea that smoking heightens the risk of disease by interacting with certain substances to which workers are occupationally exposed. He also stated that the questions of whether other people's tobacco smoke is hazardous to nonsmoking workers, and whether smoking workers represent an additional cost to industry, are not settled and that the published reports in these areas are based on data which can be questioned on sound scientific grounds.

503645406-5408 (U.S. Ex. 85,778).

937. Another Sterling project addressed Defendants' desire to obtain "critical comments of the Repace and Lowrey papers into the published literature." 512309183-9189 (U.S. Ex. 24,751). Defendants paid Sterling to draft an evaluation of Repace and Lowrey's papers for publication. The members of the Tobacco Institute ETS Advisory Group reviewed the substance of Sterling's manuscript and determined the changes that needed to be made before his manuscript would be "publishable":

> Dr. Spears [of Lorillard] feels that the Sterling review made some very good points and would be publishable if a statement were included to point out that the linear model is not appropriate for the risk assessment made by Repace and Lowrey. Mr. Hoel and Dr. Kastenbaum will have further discussions with Dr. Sterling.

505347180-7186 (U.S. Ex. 85,779).

938. Donald Hoel spoke to Sterling and discussed Defendants' interests with regard to the Sterling's evaluation of the Repace/Lowery paper. Sterling made clear to Hoel his intent "to insert qualifying statements in the text after the paper has been accepted for publication," thereby conforming with the demands of Defendants' attorneys prior to publishing the results of his work. 512309183-9188 (U.S. Ex. 24,751).

(iii) James Enstrom

939. Defendants have spent hundreds of thousands of dollars sponsoring the research of long-time industry consultant James E. Enstrom, a research professor of the University of California at Los Angeles' School of Public Health. 515814425-4435 (U.S. Ex. 85,780); 40001947-1960 (U.S. Ex. 85,781); 40001775-1780 (U.S. Ex. 85,803); 40001787-1787 (U.S. Ex. 85,782); 40001901-1901 (U.S. Ex. 85,783); 40001940-1940 (U.S. Ex. 85,802); 40001973-1973 (U.S. Ex. 85,784); 40001923-1923 (U.S. Ex. 85,785); 40001769-1769 (U.S. Ex. 85,804); 566943549-3552 (U.S. Ex. 85,786); 2063610867-0867 (U.S. Ex. 85,787).

940. Enstrom's relationship with the tobacco industry dates as far back as 1975, when Enstrom first solicited funding from the Tobacco Institute and later the Center for Tobacco Research ("CTR") for proposed research on cancer mortality rates. 50207899-7899 (U.S. Ex. 85,788); 50207891-7892 (U.S. Ex. 85,789); HKQ2232075-2075 (U.S. Ex. 85,790); HKQ2232059-2059 (U.S. Ex. 85,791); HKQ2232055-2055 (U.S. Ex. 85,792); HKQ2232059-2066 (U.S. Ex. 85,793); 50265168-5168 (U.S. Ex. 85,794). Since then, Enstrom has become a key tobacco industry researcher and consultant. 2073736523-6523 (U.S. Ex. 85,795); 2073736520-6520 (U.S. Ex. 27,396); 2063610699-0699 (U.S. Ex. 27,128); 2065122068-2068 (U.S. Ex. 85,807); 2063610840-0841 (U.S. Ex. 85,796); 2063610840-0840 (U.S. Ex. 85,797).

941. Throughout the 1990s, the tobacco industry funded Enstrom's research, particularly in matters related to passive smoking, invited him to industry-sponsored conferences, and consulted with him during litigation. 2073736523-6523 (U.S. Ex. 85,795); 2073736520-6520 (U.S. Ex. 27,396); 2063610699-0699 (U.S. Ex. 27,128); 2065122068-2068 (U.S. Ex.

85,807); 2063610840-0841 (U.S. Ex. 85,796); 2063610840-0840 (U.S. Ex. 85,797). Specifically, R.J. Reynolds and Philip Morris consulted with Enstrom "in the context of EPA litigation" and "in the context of attorney work product." 206310699-0699 (U.S. Ex. 27,128); 2063610840-0840 (U.S. Ex. 85,797).

942. In 1991, Enstrom requested funding from Philip Morris to support a study that he claimed would clarify the issue of smoking-related diseases among nonsmokers. In a letter dated May 23, 1991, from Enstrom to Thomas J. Borelli, Manager of Scientific Issues, Philip Morris USA, Enstrom requested a grant to update his work on lung cancer mortality trends among nonsmokers. Enstrom wrote: "I still feel strongly that the issue of smoking-related diseases among nonsmokers needs more attention, because the etiology of these diseases among nonsmokers is not clear." 2021162691-2691 (U.S. Ex. 85,798).

943. Shortly thereafter, in November 1991, Enstrom applied for a research grant from CTR to study mortality trends among smokers and nonsmokers. Enstrom's application noted that over the past sixty-five to seventy-four years there had been a "10-fold increase" in the lung cancer death rate among nonsmokers but asserted that the "mortality changes among nonsmokers must be due to factors other than cigarette smoking." 4001949-1949 (U.S. Ex. 85,799); 515814426-4426 (U.S. Ex. 85,800). Enstrom's application proposed, *inter alia*, to use the American Cancer Society's Cancer Prevention Study I (CPS I) to understand the mortality trends of nonsmokers. 40001947-1960 (U.S. Ex. 85,801). Industry documents show that CTR granted Enstrom at least $94,500 from 1992 to 1997 to fund this research. 40001940-1940 (U.S. Ex. 85,802); 40001973-1973 (U.S. Ex. 85,784); 40001923-1923 (U.S. Ex. 85,785); 40001775-1780

(U.S. Ex. 85,803); 40001787-1787 (U.S. Ex. 85,782); 40001901-1901 (U.S. Ex. 85,783); 40001769-1769 (U.S. Ex. 85,804).

944. This close affiliation with the tobacco industry, however, led to questions regarding the adequacy of Enstrom's research and the scope of his independence. Documents produced from Philip Morris's files, which appear to be letters faxed to Philip Morris from Womble Carlyle, R.J. Reynolds's outside counsel, show that in 1996 Enstrom attempted to publish the article, "Environmental Tobacco Smoke and Lung Cancer in Nonsmoking Women: A Reanalysis," in the *Journal of the American Medical Association* ("*JAMA*"), a prestigious and peer reviewed academic journal. The article purported to expose "serious problems" with a recent study authored by Fontham and colleagues and published in *JAMA*, which found a significant increase in overall relative risk associated with exposure to secondhand smoke. See Fontham, E. et al., Environmental tobacco smoke and lung cancer in nonsmoking women: A Multicenter Study, 271(22) JAMA 752-59 (1994) (U.S. Ex. 86,734).

945. In an April 24, 1996 letter from Enstrom to Drummond Rennie, Deputy Editor of *JAMA*, Enstrom stated that his article demonstrated "a number of serious problems" with the Fontham study that "could alter its conclusions in a major way." The letter suggested, however, that Enstrom's connection to the tobacco industry was an issue of concern to Rennie, as it stated, "I understand that you would be receptive to a tobacco industry statement that delineates their current position on the risks of active smoking." 2065122068-2068 (U.S. Ex. 85,807).

946. In August 1996, *JAMA* refused to publish the article, stating that the "editors believe that [Enstrom's] opinion piece [wa]s full of speculative assumptions of doubtful scientific

value [and that they] could not judge the merits of [Enstrom's] criticisms because [his] own data and methods were so inadequately described." The editors added that Enstrom's article also contained "pejorative comments that should have no place in responsible scientific discourse." 2065122062-2062 (U.S. Ex. 85,808). An attached peer reviewer's comments questioned Enstrom's scientific independence, as well as the overall quality of his research. The reviewer wrote: "Is this paper supposed to be the independent confirmation, analysis and interpretation as is called for? If so it is woefully inadequate." The reviewer additionally stated that the "[g]ratuitously nasty comments" in Enstrom's article were "completely inappropriate in the peer review literature" and that Enstrom should not "be assessing the objectivity of the Fontham study in his highly rhetorical and insinuating article." 2065122063 (U.S. Ex. 85,805). Enstrom later provided responses to these comments and requested reconsideration, but *JAMA* still refused to publish the article. 2065122065-2066 (U.S. Ex. 85,806); 2065122068-2068 (U.S. Ex. 85,807); 2065122062-2062 (U.S. Ex. 85,808); 2065122063-2063 (U.S. Ex. 85,805); 2065122064-2064 (U.S. Ex. 85,809); 2065122065-2066 (U.S. Ex. 85,806).

947. Notwithstanding these criticisms, Enstrom solicited and obtained additional grants from Defendants. In a July 15, 1996 letter to Max Eisenberg of CIAR, Enstrom requested funding for proposed research on passive smoking. 2063610840-0841 (U.S. Ex. 85,796). Neglecting to explain the scope of the research or provide any information on the proposed research whatsoever, Enstrom advised Eisenberg that the proposed study would expand on the research he performed for Philip Morris and R.J. Reynolds pursuant to his consultations with those companies during litigation related to the EPA. Enstrom explained that this research has

led to "serious questions about several published findings on the relationship of passive smoking to lung cancer and other diseases" and would "yield important new findings on the health effects of passive smoking." 2063610840-0841 (U.S. Ex. 85,796).

948. In January 1997, Enstrom requested funding in the amount of $150,000 from Philip Morris for research on the "Relationship of Low Levels of Active Smoking to Mortality." In a January 15, 1997 letter from Enstrom to Richard Carchman of Philip Morris, Enstrom advised: "A level of trust must be developed based on my past research on passive smoking and epidemiology in general in order to work out the best way for me to conduct this research. A substantial research commitment on [Philip Morris'] part is necessary in order for me to effectively compete against the large mountain of epidemiologic data and opinion that already exists regarding the health effects of ETS and active smoking." 2063654073 (U.S. Ex. 85,811). A Philip Morris scientist had doubts about Enstrom's proposed methodology but recognized that Enstrom "seems to have good connections/resources which might be useful in the future for other issues." 2505415042-5043 (U.S. Ex. 85,812). Philip Morris overlooked any such flaws in Enstrom's methodology and awarded Enstrom $150,000 in support of the proposal. 2063610867-0867 (U.S. Ex. 85,787).

949. In October 1997, Enstrom again sought a substantial grant in the amount of $425,000 from CIAR to conduct a follow-up study of the American Cancer Society's Cancer Prevention study I ("CPS I") data. 566943549-3579 (U.S. Ex. 85,813). The proposal explained that the "two largest cohort studies in the US that have examined passive smoking and lung cancer have been the ACS [American Cancer Society] Cancer Prevention Studies. The first

study (CPS I) analyzed 153 lung cancer deaths among 177,000 nonsmoking women grouped by spousal smoking and the second study (CPS II) analyzed 362 lung cancer deaths among 111,000 nonsmoking men and 282,000 nonsmoking women. . . . [N]o relationship was found in CPS I and a small association was found in CPS II." Enstrom proposed restricting the follow-up study to the CPS I study participants. 566943560 (U.S. Ex. 85,814). CIAR funded the proposal. By August 31, 1999 the cost of the project had run to $525,000, with another twenty months before scheduled completion on May 31, 2001. 2505442777-2935 at 2815 (U.S. Ex. 75,388); 2505442936-2959 (U.S. Ex. 25,642); 250544260-2960 (U.S. Ex. 25,643). See also Deposition of Helmut Reif, United States v. Philip Morris, et al., March 30, 2004, 256:12-257:14, 261:11-22, 262:15-264:14; 2505789182-9183 (U.S. Ex. 88,754).

950. Industry documents show that Geoffrey C. Kabat participated in discussions with the tobacco industry on issues relating to secondhand smoke as early as 1992, when he appeared on a circulation list of industry researcher P.N. Lee. 2028375930-5934 (U.S. Ex. 85,815). Internal tobacco documents also show that CIAR Executive Director Max Eisenberg orchestrated Enstrom's collaboration with industry consultant Geoffrey C. Kabat in May 1997. 517578187-8188 (U.S. Ex. 85,816).

951. Enstrom and Kabat published the results of the CPS I follow-up study in the article, "Environmental tobacco smoke and tobacco related mortality in a prospective study of Californians, 1960-98," which appeared in the May 2003 issue of the *British Medical Journal* (*"BMJ"*). TKT0500029-0038 (U.S. Ex. 65,086).

952. As originally planned, the researchers conducted a follow-up study using only CPS I data to ascertain rates of reported cases of coronary heart disease, lung cancer, and chronic obstructive pulmonary disease for study participants identified as "never smokers married to smokers." The study yielded the following results: Never smokers married to smokers had a relative risk of 0.94 for developing coronary heart disease; 0.75 for developing lung cancer; and 1.27 for developing chronic obstructive pulmonary disease among men and 1.13 among women. Thus, according to the study, the relative risk of developing coronary heart disease and lung cancer *decreased* for never smokers married to smokers, and the relative risk of developing chronic obstructive pulmonary disease *increased* for male and female never smokers married to smokers. Based on these results, the researchers concluded that there is no significant association between passive smoking and tobacco-related diseases in never smokers married to smokers. 2851736-1745 (U.S. Ex. 65,086).

953. The results of this study have been widely criticized. Notably, the American Cancer Society issued a press statement on its website on May 15, 2003, shortly after the article appeared in *BMJ,* condemning the methodology of the study and the researchers' close affiliation with the tobacco industry. The statement questioned the reliability of the study, asserting that the researchers used "flawed methodology to falsely conclude environmental tobacco smoke (ETS) may not affect lung cancer risk." The statement further declared: "We are appalled that the tobacco industry has succeeded in giving visibility to a study with so many problems it literally failed to get a government grant. . . The American Cancer Society welcomes thoughtful, independent peer review of our data. But this study is neither reliable nor independent."

(quotations omitted). When identifying scientific flaws associated with Enstrom and Kabat's study, the American Cancer Society stated: "During the course of the analysis, Society researchers repeatedly advised Enstrom that using CPS-I data to study the effects of secondhand smoke would lead to unreliable results." The American Cancer Society further stated that the CPS II data, the data that Enstrom and Kabat chose to exclude from the follow-up study, provided "far more reliable data" and was a far more comprehensive study showing that secondhand smoke exposure increases the risk for tobacco-related disease in nonsmokers. http://www.cancert.org/docroot/MED/Content/MED_2_1x_American_Cancer_Society_Condemns_Tobacco_Industry_Study_for_Inaccurate_Use_of_Date.asp(U.S. Ex. 86,735).

954. Additionally, *BMJ* received voluminous responses from public health authorities and scientists regarding the study and its scientific value. For example, Lisa A. Bero, with Michael Cummings and Stanton Glanz, Professors at the University of California San Francisco, declared that the study was "the latest in a long stride of studies supported by the tobacco industry to deny the evidence about secondhand smoke and confuse the public." The authors noted that the study had frequently been cited by the lay press and that, even though public health officials dismissed the reliability of the study, the public was not in a position to understand the "flaws" of the study based on media reports:

> Using marriage to a smoker in 1959 as a measure for exposure to secondhand smoke over a 40 year period is invalid because virtually everyone during the follow-up period was exposed to secondhand smoke whether they were married to a smoker or not. The last of an unexposed control group assured a negative conclusion in this study and does not permit the authors to gauge the true effect of secondhand smoke exposure on cancer or heart

> disease risk. Thus, the conclusions of Enstrom and Kabat's paper are unwarranted.

httpL//bmj.bmjjournals.com/cgi/eletters/326/7398/1057#32596 (U.S. Ex. 88,056).

955. Similar criticisms appeared in a response written by Michael Thun, Vice President, Epidemiology and Surveillance Research of the American Cancer Society:

> Scientifically, the fatal flaw of the paper is that the information collected on environmental tobacco smoke (ETS) exposure is insufficient to distinguish person who were exposed from those who were not. . . . It is extraordinary that Dr. Enstrom persisted in his analysis of ETS exposure in the California subset of the Cancer Prevention Study I (CPS-I) despite repeated cautions from me . . . that his long-term follow-up of CPS-I would not be informative about the issue. Both he and Dr. Kabat are aware that CPS-I was not designed to study ETS.

http://bmj.bmjjournals.com/cgi/content/abridged/326/7398/1057 (U.S. Ex. 85,650).

956. Enstrom and Kabat's study has indeed been addressed at length in the popular media. Although the reports generally address that the study is controversial and was funded by the tobacco industry, the headlines of the reports often suggest that a question exists regarding the health effects of secondhand smoke or that the study settles that question. For instance, the following headlines were published in prominent media sources:

- *Chicago Tribune*, Friday, May 16, 2003: "Study questions harm from secondhand smoke" (U.S. Ex. 86,736)
- *The San Francisco Chronicle*, Friday, May 16, 2003: "Study disputes fears about secondhand smoke/ But critics say data is dated" (U.S. Ex. 86,737)
- *Birmingham Post*, Friday, May 16, 2003: "Passive smoking risks lower than generally believed" (U.S. Ex. 86,738)
- *The Wall Street Journal*, Monday, May 19, 2003: "Secondhand news: Passive smoke study prompts protests dangers are called overstated as spouses' rates of cancer show no significant difference" (U.S. Ex. 86,739)

- *BBC News, U.K Edition*, Friday, May 16, 2003: "Row over passive smoking effect, A study suggesting the damaging effect of passive smoking on health may have been overstated has sparked a furious row" (U.S. Ex. 86,740)
- *The Wall Street Journal Online*, Friday, May 16, 2003: "Does Passive Smoke Kill? Study Sparks Controversy" (U.S. Ex. 86,741)

Deposition of Helmut Reif, United States v. Philip Morris, et al., March 30, 2004, 374:16-376:23.

957. In addition, BATCo cites the report on its website in support of its position that "the claim that ETS exposure has been shown to be a cause of chronic disease is not supported by the science." BATCo states that a "very large study published in the *British Medical Journal* in May 2003 on environmental tobacco smoke in the home has found no increases in risk for the key smoking related diseases." The website provides a hyperlink to BAT's summary of the study and concludes as follows:

> In our view, this is an important study which confirms that many of the estimates of the risks of public smoking are overstated in the extreme, and that considerable doubts remain as to whether ETS exposure is associated with any risk of chronic diseases such as lung cancer and heart disease. We believe the study illustrates that calls for bans on public smoking cannot be justified on the basis of the suggestion of chronic health risk for non-smokers, although of course we believe that the needs of non-smokers should be also catered for with solutions such as good ventilation.

http://www.bat.com.oneweb/sites/uk__3mnfen.nsf/0/4d55281a0a7e6f1e48256d27005c8cf7?OpenDocument (U.S. Ex. 88,461).

(7) Defendants Fraudulently Relied on the Research and Symposia They Had Sponsored as "Independent" to Advance Their Public Relations and Commercial Agenda

958. Defendants used the industry-sponsored research and symposia in their submissions to the Federal Government. Based on this faulty science, Defendants argued that regulation was unwarranted.

959. Philip Morris submitted comments regarding EPA's "Review Draft: Health Effects of Passive Smoking, Assessment of Lung Cancer in Adults and Respiratory Diseases in Children" in September 1990. The submission contained a section entitled, "Scientific Symposia on ETS in the 1980's." Philip Morris states: "Contrary to the conclusions of the EPA Review Draft on ETS, the conclusion common to many of the various conference organizers is that the claim that ETS causes disease in nonsmokers is not scientifically justified." The submission cited conclusions of the industry sponsored conferences at Geneva, Vienna, Essen, Argentina, McGill, and Tokyo. 87654175-4289 at 4276 (U.S. Ex. 87,384). All of these conferences were also cited extensively in R.J. Reynolds's comments to EPA, as were the many works of its paid consultants: Franz Adlkofer, JR Carson, Theodor Sterling, W. Allan Crawford; Salvatore R DiNardi; Gio Gori; E.L. Wynder; Roger Perry; Linda Koo; Maxwell Layard, Peter N. Lee, H. Letzel, KK Uberla; Frank Lunau, and G.L. Reynolds. 87654420-4485 (U.S. Ex. 87,385).

960. Rylander submitted comments to EPA on the Redraft stating: "I am sorry to see our own workshops from 1974 [Bermuda] and 1984 [Geneva] are not cited, particularly as the former was the first to apply the terms environmental tobacco smoke (ETS)." 87656303-6309 (U.S. Ex. 87,387); see also 690019211-9302 (U.S. Ex. 88,462). Rylander also cited to his publication, "Assessing low risk agents from lung cancer: methodological aspects." This was, in

fact, the Proceedings of An International Workshop Held in Clearwater, Florida orchestrated by CIAR. 2023537229-7491 (U.S. Ex. 87,388).

961. During the late summer and early fall of 1990, some 3,300 pages of comments were submitted on behalf of Defendants to the EPA regarding two EPA documents: "A Guide to Workplace Smoking Policies," and " Health Effects of Passive Smoking: Assessment of Lung Cancer in Adults and Respiratory Disorders in Children." 87653565-6821 (U.S. Ex. 87,389). Among those pages were The Tobacco Institute's comments on EPA's Review Draft supporting the industry position that ETS was not hazardous. Also submitted were comments from forty-seven "Independent Scientists." All of these scientists had previous industry connections: Domingo Aviado; R.C. Brown; William J. Butler; Angelo Cerioli; Anthony V. Colucci; Guy Crepat; Salvatore R. DiNardi; John M. Faccini; George Feuer; Joseph L. Fleiss; Alan J. Gross; Arthur Furst; Howard D. Goodfellow; Gio Batta Gori; Alan J. Gross; Larry C. Holcomb; Ronald D. Hood; Raphael J. Witorsch; Philip Witorsch; Gary L. Huber; Alan W. Katzenstein; S. James Kilpatrick, Jr.; Peter N. Lee; George B. Leslie; Maurice E. LeVois; Maxwell W. Layard; Torbjorn Malmfors; Nathan Mantel; Dennis Paustenbach; Joe Pedelty; Mark J. Reasor; James A. Will; Francis J.C. Roe; Ragnar Rylander; B. Schneider; Jarnail Singh; Petr Skrabanek; Theodor Sterling; Paul Switzer; John A. Todhunter; Lawrence M. Wexler; and Joseph M. Wu. These scientist were all part of the Defendants' ETS Consultancy Program, Tobacco Institute consultants, and/or Special 4 Fund Recipients. Thomas J. Bucci, John Wesley Clayton, J.W. Daniel, Jean D. Gibbons, Richard Tweedie, Karl Jonas, and A. Springall, were paid consultants working with Shook, Hardy & Bacon and were paid for their submissions by Philip Morris, R.J.

Reynolds and Brown & Williamson. 2023590213-0299 (U.S. Ex. 87,390). E. Lee Husting had previously received funding from the Tobacco Institute ETS Advisory Group and continued to receive funding from CIAR. 2015018564-8568 (U.S. Ex. 87,391); 506813083-3088 (U.S. Ex. 87,392). Edward J. Faeder had previously been identified by R.J. Reynolds's outside counsel as a potential witness development scientist to use at hearings. 506254908-4921 (U.S. Ex. 87,393). J.W. Gorrod was working with Sorell Schwartz and Nancy Balter, both of CEHHT, on a project for Philip Morris for $526,559. 2023856259-6287 (U.S. Ex. 87,394); 2501151940-1955 (U.S. Ex. 85,557).

962. These forty-seven scientists submitted detailed comments, all voicing Defendants' views regarding the lack of necessity to regulate ETS, that there was still a debate regarding the risks of ETS or that ETS was not a proven carcinogen. As evidence in support of their comments, these "independent scientists" cited to various industry orchestrated symposia as well as to works of the other "independent scientists." Tobacco industry consultant Ecobichon submitted "Environmental Tobacco Smoke, Proceedings of the International Symposium at McGill University, 1989, Donald J. Ecobichon & Joseph M. Wu, Eds" directly to the U.S. Environmental Protection Agency, and urged that the EPA take full account of the proceedings. 2026134978-4978 (U.S. Ex. 87,395).

963. The following "independent scientists" cited to McGill as authority in support of their comments to the EPA: Salvatore DiNardi, J.L. Fleiss, A.J.Gross, Larry Holcomb, Ronald D. Hood, Raphael J. Witorsch, Philip Witorsch, Alan Katzenstein, James L. Kilpatrick, Peter N. Lee, Maurice E. LeVois, Maxwell W. Layard, Dennis Paustenbach, Mark J. Reasor, and James

A. Will, Francis Roe, John A. Todhunter, and Lawrence Wexler. All were part of the industry ETS consultants program with the exception of John Todhunter, who was a paid Tobacco Institute consultant.

964. In their comments to the EPA, the following tobacco industry consultants relied on "Indoor and Ambient Air Quality" (Perry and Kirk eds. Selper, Ltd., London, 1988): Elia Sterling, Dominic Aviado, George Feuer, Howard Goodfellow, Gio Gori, Larry Holcomb, Ronald D. Hood, Raphael J. Witorsch, James L. Kilpatrick, Peter N. Lee, John Todhunter, R.L. Tweedie, John Wesley Clayton, Jr., Gary Huber, and Lee Hustings. (U.S. Ex. 87,396). All were either members of the ETS Consultancy program, paid Tobacco Institute consultants, or paid through Shook, Hardy & Bacon on behalf of Philip Morris and Brown & Williamson.

965. The following tobacco industry consultants relied on "Present and Future of Indoor Air Quality, Proceedings of the Brussels Conference, 14-16 February 1989" in their EPA comments: Elia Sterling, Thomas Bucci, John Wesley Clayton, Jr. Gary Huber, Lee Hustings, Alan Katzenstein, James L. Kilpatrick, Peter N. Lee, Maurice E. LeVois, Maxwell W. Layard, Nathan Mantel, Mark J. Reasor, James A. Will, Ragland Rylander, and John A. Todhunter. (U.S. Ex. 87,397).

966. The following tobacco industry consultants relied on "Indoor Air Quality" by H. Kasuga from 1987 in their EPA comments: Dominic Aviado, Larry Holcomb, Gary Huber, James L. Kirkpatrick, Peter N. Lee, Maurice E. LeVois, Maxwell W. Layard, Nathan Mantel, R.L. Tweedie, George B. Leslie, F.J.C. Roe, and Theodor Sterling. (U.S. Ex. 87,398)

967. Tobacco industry consultants Larry Holcomb and Elia Sterling relied on "Indoor Air Quality and Ventilation" by Lunau, F. and Reynolds, published in 1990, in their comments to the EPA. (U.S. Ex. 87,399).

968. James L. Kilpatrick, Ragland Rylander, and R.L. Tweedie relied on "Medical Perspectives on Passive Smoking, a roundtable discussion," April 9-12, 1984 (Vienna Conference) in their EPA comments. TI12871546-1582 (U.S. Ex. 87,370).

969. In his comments to the EPA, Tobacco industry consultant R.L. Tweedie relied on "The Proceedings of the International Experimental Toxicology Symposium on Passive Smoking" published in Toxicology Letters, Vol. 35, No. 1, January 1987. (U.S. Ex. 87,401). This was the publication of the proceedings of a conference held in Essen, Germany, that was sponsored by the German cigarette industry group in cooperation with its American counterpart, the Tobacco Institute.

970. Maurice E. LeVois, Maxwell W. Layard, and Ragland Rylander relied on "Proceedings of An International Workshop Held in Clearwater, Florida," which was discussed at, and made part of the proceedings of, the 1990 Toxicology Forum. 509860001-0091 (U.S. Ex. 87,402).

971. The Tobacco Institute submitted comments, including the proceedings of the McGill Symposium, to the United States Department of Labor Occupational Safety and Health Administration in response to the "Occupational Exposure to Indoor Air Pollutants: Request for Information, Docket No. H-122, Rin 1218-Ab37, on March 20, 1992. (U.S. Ex. 87,403). The

Tobacco Institute's submission also cited to various papers generated through various industry-sponsored symposia. The Tobacco Institute cited to the works of their own paid consultants, including: Gio Gori, Nathan Mantel, D. J. Eatough, Mark Reasor, James Will, Roger Jenkins, Michael Geurin, Simon Turner, Peter Binnie, J. Carson, Theodor Sterling, J. Fleiss, Alan Gross, Peter N. Lee, E.L. Wynder, Nancy Balter, Michael Lebowitz, S. James Kilpatrick, Linda Koo, Ragland Rylander, Maxwell W. Layard, Sorell Schwartz, Franz Adlkofer, Alan Armitage, Max Weetman, Lawrence Wexler, Philip Witorsch, Sara. Liao, John Bacon-Shone, Yoon Shin Kim, and Gray. Robertson. MNAT00758595-8681 (U.S. Ex. 87,404).

972. On August 12, 1994, the Tobacco Institute, through Covington & Burling, submitted comments concerning "A Proposal to Regulate Occupational Exposure to Indoor Air Pollutants Made by the Occupational Safety and Health Administration, Docket No. H-122." The comments stated that the Tobacco Institute had submitted two volumes of comments from a number of “independent scientists.” These named “independent scientists" included George Feurer, Milton E. Meckler, Gary Flamm, Healthy Buildings International, Mark Reasor, Gio Gori, Larry Holcomb, Peter N. Lee, Maurice Levois, Maxwell Layard, John Todhunter, Alan Gross, Joseph M. Wu, Philip Witorsch, Ralph Witorsch, and Paul Switzer. Also cited was the industry-sponsored symposium held in Lisbon in April 1990. 500872392-2472 (U.S. Ex. 87,406); (U.S. Ex. 87,405).

973. In addition to EPA and OSHA, these symposia and consultants were offered in R. J. Reynolds’s submissions to the Federal Aviation Administration regarding a "Petition to Initiate Rulemaking to Amend Federal Aviation Regulations: Certification and Operation" (Subpart K -

Instrument and Equipment Requirements). R.J. Reynolds filed comments on "Petitioners' Request to Prohibit Tobacco Smoking on All U.S. Carriers Petition Docket No. 26566" on September 16, 1991. (U.S. Ex. 87,407). R.J. Reynolds cited to the following paid tobacco industry consultants: William Butler, W. Alan Crawford, Larry Holcomb, George Feuer, Donald Ecobichon, Joseph Fleiss, Alan Gross, Gio Gori, Nathan Mantel, Alan Katzenstein, Linda Koo, Maxwell Layard, Peter N. Lee, Torbjorn Malmfors, Daniel Thorburn, Arne Westlin, Dennis Paustenbach, Ragland Rylander, K.K. Uberla, James A. Wills, Lawrence Wexler, and E.L. Wynder. Also cited were the industry-sponsored symposia held in Lisbon in April 1990 and the McGill University symposium held in 1989. 2023216588-6626 (U.S. Ex. 87,407).

974. Sorell Schwartz received money from the Tobacco Institute in exchange for favorable public testimony about ETS matters before at least one United States Senate subcommittee, but the payment was not publicly disclosed. Deposition of Sorell Schwartz, United States v. Philip Morris, et al., May 28, 2002, 145:6-147:8; TI10590506-0514 (U.S. Ex. 21,252).

975. Defendants transformed their industry-funded and managed ETS conferences into published books. While these boos contained the papers prepared by the industry consultants, the authors omitted any connection to or funding by cigarette manufacturers, trade groups, and their industry attorneys. Indoor and Ambient Air Quality (U.S. Ex. 88,745); Indoor Air Quality and Ventilation (U.S. Ex. 88,746); Present and Future of Indoor Air Quality, Proceedings of the Brussels Conference, February 14-16, 1989 (U.S. Ex. 88,747); Indoor Air Quality, International Conference on Indoor Air Quality, Tokyo, November 4-6, 1987 (U.S. Ex. 88,748).

(8) Defendants Made – and Continue to Make – Numerous False Public Statements as Part of Their Effort to Deny and Distort Fraudulently the Health Effects of Exposure to Secondhand Smoke.

976. As detailed above, the combined activities of such groups as CTR, the ETS Advisory Group (and its incarnations), the Center for Indoor Air Research, the Tobacco Institute, Healthy Buildings International, ICOSI and INFOTAB, and CORESTA enabled Defendants to undertake and coordinate a massive fraudulent campaign regarding ETS exposure issues. This campaign produced numerous public statements and publications, each of which was issued with knowledge of its falsity or with reckless disregard for the truth of its substance. This section discusses some of the groups created by Defendants that they used to develop and disseminate their deceptive messages concerning ETS.

977. For instance, on March 14, 1973, Anne Duffin, Vice President of the Tobacco Institute, transmitted an "updated version of our 1971 pregnancy 'backgrounder' for use in government contact work" to David Hardy of Shook, Hardy & Bacon. Duffin observed that "it becomes increasingly clear that the questions of smoking and pregnancy and 'passive' smoking are and will be for some time the biggest problem we face in all aspects of our work." The pregnancy backgrounder stressed the position that controversy surrounded the issue of the effects of neonatal exposure by maternal smoking. TIMN254538-4538 (U.S. Ex. 21,488).

978. In 1976, the Tobacco Institute published: "Smoker or Non-Smoker? A few words for you from the Tobacco Institute." In its publication, the Tobacco Institute asserted: "Growing scientific research provides strong evidence that tobacco smoke does not affect nonsmokers' health." At that point in time, there was no such growing scientific research. To the contrary, the steadily growing body of smoking and health research indicated otherwise. TIMN0122133-2136 at 2135 (U.S. Ex. 21,883).

979. In September 1977, the Tobacco Institute created and caused to be published an advertisement focused on ETS exposure: "Some people are saying America needs a lot of new laws restricting smoking. Before you decide, you should know this: Other people's smoke has never been shown to cause disease in nonsmokers." This statement, like Defendants' myriad of near-identical statements about active smoking, was false. At the time it was issued, the ever-developing body of scientific study supporting the conclusion that ETS exposure caused lung cancer and other diseases was substantial. TI06430696-0696 (U.S. Ex. 21,247).

980. Having internationally consistent positions required each of the Defendants to ensure continuity in positions taken within their own companies. For instance, R.J. Reynolds held an executive meeting in 1977 where the company determined that a worldwide smoking and health strategy was necessary. Samuel Witt, Vice President, Secretary and General Counsel of R.J. Reynolds, was given the responsibility for R.J. Reynolds's world wide smoking and health communications. The plans for the formation of ICOSI were also discussed. As a member of ICOSI, Witt developed lines of communications within "Reynolds to the Tobacco Company and to RJR Industries." Ed Jacobs, R.J. Reynolds outside counsel, drafted the position papers for

ICOSI, and these papers were circulated to the R.J. Reynolds companies. 500298408-8410 (U.S. Ex. 87,409); 500297534-7541 (U.S. Ex. 29,457).

981. In furtherance of the Enterprise's effort to make sure that public statements on ETS exposure were uniform, ICOSI's Social Acceptability Working Party (SAWP) had the law firm of Jacobs & Medinger draft a "Public Smoking Position Paper," which was to be used by members and trade associations in their policy statements, in ad campaigns, and various other types of countermeasures. 1000208742-8828 at 8752 (U.S. Ex. 87,410).

982. On July 26, 1978, ICOSI members ratified a revised version of the public smoking position paper. The paper was not suitable to be used "publicly." If a member wished to use a shortened version of the lengthy position paper, "he was free to do so, providing that, in so doing, he did not say anything which was not covered by the basic paper and that he made nor reference to any other sources other than those contained in the paper." The ICOSI members recognized that it was necessary to keep the paper updated from time to time. 301079919-7998 (U.S. Ex. 87,411).

983. The Public Smoking Position Paper was distributed at a Joint Meeting of National Associations and ICOSI where fifty-three people representing fifteen national associations and thirteen countries were present. The position paper was described as "a fine example how ICOSI operates in developing countermeasures to offset attacks on smoking." Prior to distribution of the report, Ed Jacob, the attorney who drafted the paper, "emphasized that on the basis of the report it can be asserted unequivocally that smoking does not adversely affect non-smokers. It is planned to update the document periodically as new reports on public smoking are published."

The Public Smoking Position Paper was revised numerous times through at least 1991. 500876807-6812 (U.S. Ex. 24,168) (U.S. Ex. 75,398); 1005130966-1012 (U.S. Ex. 87,412); 500648688-8779 (U.S. Ex. 24,149) (U.S. Ex. 24,150); 2023238001-8172 (U.S. Ex. 87,413). In each iteration, the Public Smoking Position Paper falsely denied and distorted the disease risks of exposure to secondhand smoke or ETS.

984. An advertisement offered a free booklet, "TI SPECIAL REPORT-Smoking and the Public," which was described as "a collection of detailed medical evidence from around the world that should fully convince you that it's never been shown that smoke causes disease in the nonsmoker." Much of the cited material consisted of conferences and studies funded by Defendants, but the booklet did not disclose Defendants' connection to the meetings and research offered it as "evidence" of the absence of harm from ETS exposure. A 1977 Munich conference was one such meeting, as was a 1974 conference, which featured Domingo M. Aviado and Walter M. Brooker as participants, both of whom received Special Account #4 funds from Jacob & Medinger. TI06430696-0696 (U.S. Ex. 21,247).

985. In 1979, the Tobacco Institute published a pamphlet entitled "Two-Way Street." It argued: "First of all it is important to understand that there is no convincing evidence that tobacco smoke causes disease in nonsmokers." The statement disregarded the strong evidence linking ETS exposure and disease – evidence that scientists at the Cigarette Company Defendants privately acknowledged was legitimate. 2024299572-9575 (U.S. Ex. 20,401).

986. Evidence shows that long time industry consultant Peter N. Lee intentionally misrepresented evidence about the link between ETS and disease. Specifically, Defendants

developed and funded a plan to undermine the landmark 1981 study by Takeshi Hirayama, which found that nonsmoking wives of heavy smokers in Japan experienced a higher risk of lung cancer. Takeshi Hirayama, Non-smoking wives of heavy smokers have a higher risk of lung cancer: A study from Japan, British Medical Journal 183 (1981) 1000116287-6288 (U.S. Ex. 22,319). Recognizing the obvious threat that the Hirayama study presented, Defendants sponsored a paper by Lee that concluded that high rates of smoker misclassification undermined the results of epidemiological studies showing a link between ETS and disease in Japan. 900006054-6061 (U.S. Ex. 57,902).

987. While the paper acknowledged "financial support from several companies of the tobacco industry," it failed to reveal the fact that the industry was integrally involved in the project from start to finish. For example, R.J. Reynolds conducted the analysis for the study. 2501003237-3242 (U.S. Ex. 22,320). Although the industry used three Japanese scientists to work on the study, it was monitored by Covington & Burling, and senior scientist Chris Proctor, then with Covington & Burling and currently Head of Science and Regulation for BATCo, assessed the study's progress. 2023544546-4546 (U.S. Ex. 22,925); 2501003235-3235 (U.S. Ex. 22,322); 300512244-2245 (U.S. Ex. 67,752). In addition, Philip Morris scientist Robert Pages reviewed and commented on the draft report. 2025488374-8375 (U.S. Ex. 22,323).

988. Furthermore, the Hirayama study was funded by contributions by the following companies: Brown & Williamson ($36,000), Philip Morris ($36,000), R.J. Reynolds ($36,000), BATCo ($36,000), and Imperial ($20,000). 300512244-2245 (U.S. Ex. 67,752).

989. The Japanese scientists involved in the project eventually decided to distance themselves from the study and did not want it published because Lee changed their calculations to increase the misclassification rate from 10% to nearly 30%. 2028372914-2915 (U.S. Ex. 22,324); 2028372583-2596 (U.S. Ex. 22,926); 2501003237-3242 (U.S. Ex. 22,320). Despite these known misrepresentations, however, Lee published the paper and even cited to his faulty work in submissions to OSHA as part of the tobacco industry's concerted opposition to a proposed workplace smoke rule. TIBR0000567-0590 (U.S. Ex. 85,817); TIBR0006738A-6754 at 6750 (U.S. Ex. 62,553).

990. The Tobacco Institute also attacked the Hirayama study directly. In 1981, the Tobacco Institute published an advertisement that proclaimed: "Here's what's now being said about tobacco smoke in the air. . . . Scientist disputes findings of cancer risk to nonsmokers." In it, the Tobacco Institute declared that several eminent biostatisticians found an apparent statistical error in Hirayama's calculations which raised serious questions about the study. The Tobacco Institute knew, however, that the Hirayama data was correct – the statistical errors cited did not exist. TIMN0019293-9293 (U.S. Ex. 21,575).

991. Also in 1981, in response to Hirayama's landmark study, the Tobacco Institute issued a press release claiming that a George Washington University professor Nathan Mantel had found a mathematical error in the study which invalidated its conclusions. 03739919-9920 (U.S. Ex. 22,958). Prior to making the press release public, however, Peter Lee concluded that the suspicion of error in the study was "unfounded." 501622432-2433 (U.S. Ex. 88,150). Lee and Mantel further made it clear that the error, even if it did exist, did not invalidate the study's

results. 500631319-1320 (U.S. Ex. 22,825); 03029460-9461 (U.S. Ex. 22,830). Nevertheless, despite this information, the Tobacco Institute knowingly published its press release with its false claim of mathematical error and conducted an aggressive campaign to publicize this falsity, reaching an estimated 56.7 million people during the summer of 1981 alone. TITX0027702-7826 (U.S. Ex. 22,332).

992. Mantel later stated, "I didn't say that – the Tobacco Institute did." 2015029221 (U.S. Ex. 22,923).

993. Industry scientist Franz Adlkofer expressed internally his opinion that the Japanese study was accurate and that the Tobacco Institute issued its press release despite knowing that the study was accurate. 2050987570-7571 (U.S. Ex. 25,742). Yet, despite the opinion of such tobacco industry researchers of the validity of the Japanese study, the Tobacco Institute continued to insist falsely to the public that the study was flawed. TIMN0241999-1999 (U.S. Ex. 85,818).

994. In November 1984, Philip Morris executive William O'Connor, writing on behalf of the Tobacco Institute, published an article in *Business and Health* magazine titled, "In defense of smokers." He falsely declared: "Advocates who claim environmental tobacco smoke is a proven health hazard seem to ignore the scientific literature in this area." 2025365133-5133 (U.S. Ex. 20,415); 2025851895-1895 (U.S. Ex.20,419).

995. In 1986, the Tobacco Institute published an ETS booklet entitled, "Tobacco Smoke & The Nonsmoker: Scientific Integrity at the Crossroads." In the booklet, the Tobacco

Institute claimed that scientific integrity and academic freedom faced a serious threat from political pressures being applied by government health officials such as the Surgeon General and otherwise principled scientists and further asserted that ETS science was at the "mercy of politics." This attack on the Surgeon General, followed Defendants' pattern and practice of organizing public relations campaigns designed to undermine the public health efforts of the Surgeon General, was part of a practice that began with the 1964 Report. As with previous and future Reports, the public relations campaign directed at the ETS work done by the authors of the 1986 Report was designed to further the goals of the Enterprise by fraudulently denying the health effects of smoking. TIMN284404-4413 (U.S. Ex. 77,088).

996. In that 1986 ETS booklet, the Tobacco Institute falsely stated that the “tobacco industry is therefore devoting substantial resources to the investigation of indoor air quality generally and to the ways in which particular constituents of indoor air - including tobacco smoke - may affect human health." TI10422481-2540 at 2486 (U.S. Ex. 88,463).

997. One year later, continuing its fraudulent assault on the conclusions of the Surgeon General and scientific researchers, the Tobacco Institute published a booklet titled "Smoking Restrictions: The Hidden Threat to Public Health." It declared that the evidence did not support conclusions that ETS is harmful to nonsmokers and that more research is needed. Further, it questioned, "What's government's role in regulating behavior in the workplace?" The booklet quoted statements made by researchers at a March 1983 conference in Geneva, Switzerland, and at an April 1984 symposium in Vienna, Austria. Both of these conferences were conducted by

the tobacco industry but no such attribution was made in this booklet. TI05540699-0705 (U.S. Ex. 21,246).

998. Defendants also claimed publicly, through publications released by the Tobacco Institute as well as individual companies, that there was no proof that ETS or sidestream smoke contained any toxic constituents or could be hazardous to a nonsmoker's health. See, e.g., TI00410250-0264 at 0254 (U.S. Ex. 22,957); TIMN0245720-5722 (U.S. Ex. 23,026); 2024332622-2627 (U.S. Ex. 22,823); 2021183621-3621 (U.S. Ex. 22,115); 04211608-1610 (U.S. Ex. 22,131); 92349802-9802 (U.S. Ex. 22,922).

999. Among the advertisements used to advance this strategy, an August 1987 Philip Morris advertisement stated: "I know there's no proof my smoke can hurt you. But if it bothers you, please tell me. I think we can live with each other." 2500146093-6096 (U.S. Ex. 20,554).

1000. In 1989, R.J. Reynolds created a position paper which disputed not only the Surgeon General's Reports that cigarettes, including ETS exposure, cause cancer, but also disputed all evidence that ETS presents any health hazard to nonsmokers. The position paper attacked the science linking both smoking and ETS to disease. There was, of course, no basis for the attacks in the legitimate scientific research. 507605620-6239 (U.S. Ex. 20,781).

1001. An April 1990 INFOTAB publication titled "Children & Smoking-The Balanced View" states that "exposure to ETS has not been scientifically proven to adversely affect the health of children." 2501342105-2110 at 2109 (U.S. Ex. 20,565).

1002. In 1998, Martin Broughton, Chairman of BAT, stated that he stood by the company's assertion that passive smoking is not a health risk, and that "there is virtually no evidence at all to the contrary." BAT says: maintains 'no evidence' of health risks from passive smoking, AFX News, March 11, 1998 (U.S. Ex. 86,878).

1003. In 1998, Chris Proctor, BATCo Head of Science, stated that "while smoking in public may be annoying to some non-smokers, the science does not show that being around the smoker is a lung cancer risk." Passive Smoking Doesn't Cause Cancer - Official, Electronic Telegraph, March 8, 1998 (U.S. Ex. 39,764).

1004. Today, through the website of its parent company British American Tobacco, BATCo publicly disputes the scientific evidence establishing a link between ETS and disease:

> We believe, however, the claim that ETS exposure has been shown to be a cause of chronic disease is not supported by the science that has developed over the past 20 years or so. In our view, it has not been established that ETS exposure genuinely increases the risk of non smokers developing lung cancer, heart disease or chronic obstructive pulmonary disease.

ARU6432584-2586 (U.S. Ex. 78,269).

1005. Representatives of members of the Enterprise companies, including BATCo, Philip Morris USA and R.J. Reynolds, crafted public statements relating to ETS, particularly when ETS reports were forthcoming that were expected to have major international impact (e.g., the Environmental Protection Agency's Risk Assessment, the World Health Organization's IARC study). The members of the Enterprise wanted to convey consistent messages and "help each other out with scientific analysis of the reports." To this end, Defendants created a worldwide

network of scientific witnesses to perform research related to ETS. In the course of developing this global ETS scientific witness development effort known as the ETS Consultancy Program or Project White Coat, Philip Morris communicated directly with BATCo and other members of the Enterprise to "carry out work on ETS to keep the controversy alive." Deposition of Sharon Blackie (Boyse), United States v. Philip Morris, et al., April 29, 2002, 31:6-17, 132:17-134:18, 145:8-146:147:7; 2060563936-3941 at 3936, 3941 (U.S. Ex. 79,164); 401247331-7336 at 7336 (U.S. Ex. 29,377) (U.S. Ex. 79,190) (U.S. Ex. 86,890); Deposition of John Rupp, United States v. Philip Morris, et al., June 28, 2002, 136:6-21; 321651582-1589 at 1583 (U.S. Ex. 22,838); 300515335-5340 (U.S. Ex. 46,568).

1006. In March 1991, Defendants formed a group, called the International ETS Management Committee ("IEMC"), to "undertake better planning to deal with ETS related public policy. . . ." The purpose of the IEMC is not to execute public affairs programs but rather to ensure that:

> 1. Common position statements and policies are developed and adopted worldwide;
> 2. Major potential threats of smoking restrictions and bans are identified;
> 3. Strategies are developed to deal with them;
> 4. The necessary resources are made available to the staff in the markets and regions; and,
> 5. Finally, that optimal coordination and cooperation across the companies is promoted to ensure the best application of those resources.

2500061112-1113 (U.S. Ex. 22,821).

1007. Members of the IEMC included: BATCo, R.J. Reynolds, Philip Morris USA, American Brands/Gallahers, Imperial Tobacco, Reemstma, and Rothmans. Members contributed funds to finance IEMC projects. 500844318-4319 (U.S. Ex. 48,464); 2500061112-1113 (U.S. Ex. 22,821); 300512244-2245 (U.S. Ex. 67,752); 507782317-2318 (U.S. Ex. 20,788).

1008. In furtherance of the Enterprise's effort to ensure that public statements concerning ETS exposure were uniform, Covington & Burling prepared a position paper, the ETS White Paper, for the International ETS Management Committee ("IEMC"), yet another of Defendants' ETS committees. IEMC furthered the Enterprise and conspiracy by (a) maintaining and fostering the open question and myth of independent research with respect to ETS and (b) coordinating the industry position on ETS.

1009. Cigarette Company Defendants used IEMC to coordinate the industry position on ETS. For example, IEMC members galvanized to combat the threat they perceived by the impending IARC report regarding ETS.

1010. In a December 1, 1993 memorandum, Sharon Boyse, BATCo scientist, explained that the IEMC is developing a scientific and media strategy to “cope” with the IARC study. Boyse identified the International Agency for Research on Cancer ("IARC") as "an autonomous agency within the World Health Organization ("WHO") that is responsible for scientific research in the field of cancer causation and prevention and, in particular, classification of claimed carcinogens." Boyse further noted that the IARC is slated to publish, in 1994 or 1995, the largest epidemiological study of ETS carried out in eleven centres in North America and Europe and that it is likely that IARC will classify ETS as carcinogenic, "which would lead to a situation not

dissimilar to that with the EPA in the USA. It would certainly influence the EC and regulators within Europe and elsewhere." 500844318-4319 at 4318 (U.S. Ex. 48,464).

1011. The industry recognized that WHO's impact and influence was indisputable and called for countermeasures designed to contain, neutralize, and reorient the WHO. 2501045114-5115 (U.S. Ex. 88,472); 2501045143-5147 (U.S. Ex. 45,886).

1012. One of the industry efforts to "neutralize" the WHO was a multi-million dollar campaign to undermine a large-scale epidemiological study on the relationship between environmental tobacco smoke and lung cancer. The ETS study was conducted by the International Agency for Research on Cancer ("IARC"), an agency established under the auspices of WHO. The study was initiated in 1988 as an international, collaborative case control study to assess the relationship between exposure to ETS and other environmental risk factors and the risk of lung cancer in subjects who had never smoked tobacco. The industry became alarmed that if the study found that ETS causes cancer it could result in new smoking restrictions around the world. 2501117793-7797 (U.S. Ex. 27,932); 2500156109-6110 (U.S. Ex. 88,473) (Notes found in the file of Ann Daw, Director, Product and Marketing Services-Rye Brook, Philip Morris International read: "can we kill the credibility of the research up-front before publication?").

1013. There was great concern because "IARC is credible, the study is a REAL one and its results will have major impact and there needs to be a serious multi-country strategy that encompasses all 16 IARC member nations . . . ." In particular, Defendants were concerned because the United States was one of the countries in which the IARC study would have a major impact. 2025493295A-3296 (U.S. Ex. 26,839).

1014. The tobacco industry, with the help of its lawyers, mobilized the global ETS infrastructure it had designed. Philip Morris's IARC plan was to form the basis of the intra-industry plan that was to be implemented through Defendants' International ETS Management Committee ("IEMC"). 2024104596-4596 (U.S. Ex. 88,735). The IEMC agreed the industry would coordinate the scientific, regulatory and communications fronts regarding its response to the looming IARC threat. 2023693108-3108, PW02127520-7520 (U.S. Ex. 88,477). Shook, Hardy & Bacon and Covington & Burling were responsible for mobilizing the scientific resources. 2065565122-5138 (U.S. Ex. 88,755). An IEMC meeting to address the IARC plan met in conjunction with the CECCM/ETS meeting because the "same people will be involved with IARC. . . so it is a good fit." 2023693108-3108 (U.S. Ex. 88,477).

1015. Matthew Winokur chaired Philip Morris' IARC task force. Winokur also chaired a second inter-company IARC task force of the IEMC which was composed of: Wilfred Dembach and Rich Marcotullio of R.J. Reynolds, Chris Proctor of BAT, Christoff Walther of Reemtsma, David Rowland of Rothmans, and Paul Sadler of Imperial. 2028361781-1781 (U.S. Ex. 88,478); 2025495788-5788 (U.S. Ex. 22,856); 500805919-5919 (U.S. Ex. 88,479); 900006185-6185 (U.S. Ex. 88,480). In addition, all but Marcotullio served with Winokur on the CECCM's Working Group on Freedom to Smoke and the CECCM's IARC Working Group. 900006185-6185 (U.S. Ex. 88,480); 2065240327-0328 (U.S. Ex. 88,481).

1016. In January 1994, IEMC members considered a revised IARC Communications Plan for IEMC members and a set of the Tobacco Institute's talking points on an expected release

by the IARC regarding ETS and children. 2024210623-0629 at 0628-0629 (U.S. Ex. 37,094) (U.S. Ex. 37,095).

1017. IEMC worked closely with the Confederation of European Community Cigarette Manufacturers ("CECCM") on ETS issues. 2500061112-1113 (U.S. Ex. 22,821).

1018. CECCM is the industry association of European cigarette manufacturers. Its members are BAT, Philip Morris, Rothmans, Reynolds, Reemtsma, Gallahers and Imperial. 502601564-1567 at 1565 (U.S. Ex. 29,570).

1019. As stated above, IEMC and CECCM worked in concert. IEMC developed ETS messages globally and the CECCM IARC Working Group promulgated ETS messages developed by IEMC.. 900006204-6204 (U.S. Ex. 88,482); 900006205-6209 (U.S. Ex. 88,483); 900004185-4187 (U.S. Ex. 88,484). An ETS Communications Manual was compiled through the CECCM's IARC Communications's Working Group and contributed to by all of its members. 900006078-6080 (U.S. Ex. 88,485).

1020. Each CECCM member tobacco company had to provide "legal clearance" before any statement could be issued by the organization. On July 30, 1992, John Lepere of CECCM sent a telefax to representatives of several tobacco companies, including R.J. Reynolds, Philip Morris, and BAT. This telefax stated:

> Herewith are copies of the draft summaries of the three I.E.M.C. position papers on E.T.S. which have been approved for use by C.E.C.C.M. and its members. They have been drafted by Sharon Boyse as our Working Group on Smoking at the Workplace and in Public Places had requested. . . . Sharon has reduced the emphasis on science but, wherever possible, she has used wording extracted

> from the full papers. Each of the summaries is of course subject to legal clearance by each corporate member, but Sharon's approach should greatly facilitate this since the full papers have already been cleared by the corporate lawyers.

2501349357-9358 (U.S. Ex. 45,953).

1021. CECCM approved the IEMC position papers for use by all of its tobacco company members. 300545701-5705 (U.S. Ex. 88,464); 300543440-3445 (U.S. Ex. 88,465); 300545818-5819 (U.S. Ex. 88,466).

1022. On March 2, 1992, IEMC members adopted the White Paper, entitled "Environmental Tobacco Smoke: A Summary of the Scientific Literature." 2023581801-1801 (U.S. Ex. 20,392); 2023581802-1841 (U.S. Ex. 88,467).

1023. BATCo scientist Sharon Boyse, was designated as the primary contact by the various ETS groups regarding this White Paper, and at least two other position papers related to ETS. As such, she was tasked with distributing the papers to such groups as the CECCM, the Tobacco Document Center, and other company's representatives. 300543969-3970 (U.S. Ex. 88,468); 300543940-3942 (U.S. Ex. 88,469).

1024. Boyse received revised versions of the position papers from Covington & Burling, which she then "undertook to progress, in conjunction with the I.E.M.C., an up-dating of the CECCM position papers entitled 'ETS - A Summary of the Scientific Literature" and "ETS-Science or Politics?" and of the summaries of those papers." 500874371-4371 (U.S. Ex. 88,470); 300544202-4208 (U.S. Ex. 88,471).

1025. A redacted April 13, 1992 facsimile from Sharon Boyse of BATCo to representatives of Philip Morris International, R.J. Reynolds, Rothmans and Imperial demonstrated the way in which BATCo used the IEMC, CECCM, and TAC (the United Kingdom's counterpart to the Center for Tobacco Research in the United States) to coordinate the industry position on EPA documents:

> Attached are the versions of the EPA/politicisation and ventilation documents that, according to John [Rupp, attorney with Covington & Burling], incorporate all of your comments. I am still, unfortunately, waiting for final BAT Clearance. We are also awaiting clearance from Gallaher/Chadbourne, which is necessary as you know for CECCM. . . . I think it is important, however, that we agree that the issue is resolved. However, this means in theory that CECCM no longer has any excuse for not accepting the IEMC version and that TAC also should be able to use it as a basis should it require. . . .

300543968-3968 (U.S. Ex. 67,755).

1026. In June 1992, Covington & Burling helped Defendants attempt to shift public discussion of the health effects of ETS exposure from an examination of the deadly diseases caused by ETS to the issue of indoor air ventilation by writing a briefing paper for the Confederation of European Community Cigarette Manufactures ("CECCM") in conjunction with the IEMC titled, "Environmental Tobacco Smoke; Indoor Air Quality and the Need for Adequate Ventilation." 2504088209-8210 (U.S. Ex.20,571).

1027. In addition to its activities as a member of IEMC, Philip Morris mounted a multi-million dollar campaign to attempt to undermine a study on the dangers of ETS that had been undertaken by the International Agency for Research on Cancer ("IARC"), an affiliate of the

World Health Organization, beginning in the early 1990s. The campaign targeted researchers, the media, and government decision-makers. Its goals were to: "Delay the progress and/or release of the study. Affect the wording of its conclusions and official statement of results. Neutralize possible negative results of the study, particularly as a regulatory tool. Counteract the potential impact of the study on governmental policy, public opinion, and actions by private employers and proprietors." 2501341817-1823 at 1818 (U.S. Ex. 20,564).

1028. Philip-Morris launched its campaign to influence or contain the negative impact of the IARC study. To this end, a single "global strategy" was essential. 2501348679-8683 (U.S. Ex. 88,474). The plan was presented by David Greenberg, Philip Morris Services Inc., Brussels, to R.W. Murray, President and Chief Operating Officer, Philip Morris Companies, Inc. Objectives included: delaying the progress and or release of the study; affecting the wording or its conclusions; neutralizing possible negative results, and counteracting the potential impact of the study on governmental policy, public opinions and actions by private employers and proprietors. In addition to Philip Morris employees in Brussels, team members included Matthew Winokur of Philip Morris' Worldwide Regulatory Affairs; Anthony Andrade, an attorney with Shook, Hardy & Bacon; Chuck Lister, an attorney with Covington & Burling; and Helmut Reif, Richard Carchman, and Robert Pages of Philip Morris, Science & Technology Division. 2021184116-4116 (U.S. Ex. 26,730); 2021184117-4121 at 4118 (U.S. Ex. 36,718). Helmut Reif was to take the lead in organizing and coordinating all of the inter-industry scientific efforts. These efforts included preemptive assessment of the questionnaire to expose weaknesses; organizing with the law firms a team to identify and mobilize consultants, and

offering IARC industry funded study results and protocols through Max Eisenberg of CIAR. 2029174855-4855 (U.S. Ex. 88,475); 2024104538-4538 (U.S. Ex. 88,476); 2028381587-1588 (U.S. Ex. 26,883) (U.S. Ex. 26,884).

1029. The existence of a series of slides from a 1995 R.J. Reynolds Tobacco International Inc. presentation entitled "ETS: a global offensive and defensive strategy" in BATCo's files, reveals that the two companies coordinated in regard to using CIAR to pre-empt the upcoming IARC report, which was to be the largest epidemiological study of ETS. These slides state, in part:

> ETS Objectives: Pre-empt IARC with CIAR exposure studies . . .
> Counter directly with misclassification & confounder data . . .
> Build positive approach on IAQ – ventilation/ accommodation.
>
> ETS key messages: Threats related to ETS exposure grossly exaggerated . . . Adults have the right to be properly informed about smoking . . . Consumers favor separation and accommodation, not total bans . . . Tobacco industry will take lead on encouraging 'equal' accommodation.

502558482-8497 at 8489, 8491, 8493, 8496 (U.S. Ex. 29,562).

1030. Matthew Winokur's Philip Morris and IEMC Task Forces developed a set of strategies to achieve their objectives: influence IARC budgets or officials to cancel or delay the study; establish contacts with scientists carrying out the studies; conduct and promote counter research; promote scientific standards that would limit the use of epidemiology as a basis for public policy and create an "independent" coalition of scientists to criticize damaging studies; manipulate the public and regulatory response to the study results; cancel or influence the expected IARC monograph on ETS. 2025493459-3460 (U.S. Ex. 26,843); 2025493461-3466

(U.S. Ex. 88,486); 2025493309-3309 (U.S. Ex. 88,487); 2501344214-4214 (U.S. Ex. 88,488); 2501344215-4216 (U.S. Ex. 88,097); 2501344217-4221 (U.S. Ex. 88,098); 2501344222-4222 (U.S. Ex. 88,099).

1031. As part of Defendants' preparation for the expected IARC Report regarding ETS, they agreed to commission studies that were expected to yield results favorable to the industry and that would yield results prior to the IARC report's release. These industry proposed studies were to "be organized by and funded through" the ostensibly "independent CIAR," and one of them was an "exposure study" that would be an assessment of ETS exposure in sixteen cities. 2505443991-4000 (U.S. Ex. 22,202); 2028381588-1588 (U.S. Ex. 26,884); 2050751946-1950 (U.S. Ex. 88,100). The sixteen city study was funded through CIAR for $1,770,503 and resulted in at least four publications by Roger A. Jenkins, of Oak Ridge National Laboratory. 2505442777-2935 at 2836 (U.S. Ex. 75,388); 25054422936-2960 (U.S. Ex. 25,643).

1032. The IEMC arranged for the funding of ETS studies through the CIAR which were conducted at Hazelton or Covance Laboratories. These industry funded ETS studies cost $7.28 million. The research resulted in numerous publications, some of which appeared in the tobacco industry's journal *Indoor and Built Environment*. 2505442777-2935 at 2880-2885 (U.S. Ex. 75,388); 25054422936-2960 (U.S. Ex. 25,643). Covington & Burling was charged with developing a plan to get specific consultants in specific countries to disseminate the new scientific information from the studies and to market specific mechanizing (through consultants) aimed at interest groups like unions with the message that ETS is a non-issue for scientists, only an issue for politicians. Through the CECCM's IARC Communications Working Group, the

industry hired Spring O'Brien, an advertising and public relations firm, to publicize the results of these CIAR studies conducted by Hazelton. "It was stressed that it is important to tell the truth about the funding of the Hazelton Studies - if asked." 2046546263-6265 (U.S. Ex. 88,101); 2023522351-2352B at 2352B (U.S. Ex. 75,127); 2501003237-3242 at 3237, 3240-3242 (U.S. Ex. 22,320); 2501003235-3235 (U.S. Ex. 22,322).

1033. An internal electronic transmission within Philip Morris International, dated February 5, 1992, acknowledged that the Japanese Study came out of the IEMC and further indicated: "We agreed to sponsor the Japanese study first [before Hazelton] in the hopes that we could use results to undermine Hirayama conclusions in time for the EPA." 2023522351-2352C at 2352B (U.S. Ex. 22,851).

1034. At a July 21, 1992 IEMC meeting at Covington & Burling's London office, participants were scheduled to discuss "authorship/attribution" with respect to the "Japanese study" and to receive an "Update on EPA/OSHA." 2028454705-4705 (U.S. Ex. 22,852).

1035. In January 1993, a United Kingdom ETS study was funded by IEMC members through CIAR in the United States. 2021520165-0180 at 0167-0168 (U.S. Ex. 26,738) (U.S. Ex. 75,230).

1036. Handwritten notes of a May 18, 1993 IEMC meeting indicate that participants addressed "Key Findings" of the "Japanese Spousal Study" and that:

> [the] IEMC has commissioned two ETS studies but is unsure how to apply this information:
>
> 1. goal is to get this information out to NMA's, people in the field for the companies, etc.

> 2. Project APE (EPA backwards) will deal with the use of the information being developed; possible media use.

2501003237-3242 at 3237 (U.S. Ex. 22,320).

1037. Defendants established contacts with IARC investigators, through its law firms' ETS consultants and Philip Morris scientists to gather intelligence about the study, and influence the interpretation of the study results. The tobacco companies commissioned and promoted numerous studies (including the sixteen city study, Peter Lee's Japanese spousal study, the Hazelton/Covance CIAR Study and Genevieve Matanowski CIAR applied study on confounding factors) and conferences designed to cast doubt on ETS's toxicity and on the methods used in the IARC study. In many instances the tobacco companies appear to have successfully concealed their role in contacting IARC investigators and in their funding and marketing of counter research; tobacco companies worked for adoption of epidemiological standards (called General Epidemiological Practices, or "GEP") that would prevent governments from relying on the IARC study, and to form an ostensibly independent sound science coalition that would assist tobacco companies' legislative agenda by challenging the use of certain types of studies as the basis for policy making; tobacco companies developed and carried out an elaborate media and government strategy in which they managed to distort the study results spawning widespread inaccurate media reports that the study showed no risk of cancer from ETS; industry representatives worked to gain invitations for tobacco company consultants to participate in the expected monograph working group and to produce studies that would influence the monograph results. 2029231774-1774 (U.S. Ex. 88,102); 2501355931-5931 (U.S. Ex. 88,103); 2501355932-5944 (U.S. Ex.

88,104); 2501341817-1823 (U.S. Ex. 20,564); 2501347168-7173 (U.S. Ex. 27,944); 2025470123-0123 (U.S. Ex. 88,105); 2025470672-0725 (U.S. Ex. 26,829); 2060577609-7708 (U.S. Ex. 39,022); 2028363615-3616 (U.S. Ex. 37,366); 2026219003-9010 (U.S. Ex. 88,106); 2501347174-7176 (U.S. Ex. 45,951); 2025477955-7955 (U.S. Ex. 26,834); 2029260524-0539 (U.S. Ex. 26,895); 2063604594-4600 (U.S. Ex. 39,782); 2060566164-6165 (U.S. Ex. 20,505); 2025493019-3019 (U.S. Ex. 88,107); 2025493020-3030 (U.S. Ex. 88,108); 2025493201-3201 (U.S. Ex. 79,815); 2025493265-3278 (U.S. Ex. 26,837); 2025493202-3207 (U.S. Ex. 79,815); 2025493264-3264 (U.S. Ex. 88,109); 2024766404-6404 (U.S. Ex. 88,110); 2025493279-3283 (U.S. Ex. 88,111); 2501362541-2546 (U.S. Ex. 27,947); 2023299819-9819 (U.S. Ex. 26,785); 2023299820-9823 (U.S. Ex. 88,112); 2502251076-1076 (U.S. Ex. 88,113); 2502251045-1045 (U.S. Ex. 88,114); 2502250837-0838 (U.S. Ex. 88,115); 2502251309-1310 (U.S. Ex. 88,116); 2025493287-3287 (U.S. Ex. 37,265); 2500015757-5757 (U.S. Ex. 45,831); 2029041838-1839 (U.S. Ex. 37,435); 2501356071-6071 (U.S. Ex. 88,117); 2501356073-6076 (U.S. Ex. 45,959); 2501011400-1400 (U.S. Ex. 88,118); 2023693111-3111 (U.S. Ex. 88,119); 2029173981-3981 (U.S. Ex. 88,120); 2045930493-0504 (U.S. Ex. 26,961); 2024233677-3682 (U.S. Ex. 26,811); 2501355932-5944 (U.S. Ex. 45,954); 2025492898-2905 (U.S. Ex. 88,121); 2063600683–00688 (U.S. Ex. 27,119); 2063600689-0689 (U.S. Ex. 27,120); 2063600690-0695 (U.S. Ex. 27,121); 2063608546-8546 (U.S. Ex. 27,123); 2063608547-8547 (U.S. Ex. 27,124); 2028381627-1627 (U.S. Ex. 26,885); 2060566164-6165 (U.S. Ex. 20,505); 2028381444-1444 (U.S. Ex. 26,871); 2028446632-6632 (U.S. Ex. 26,890); 2072417030-7034 (U.S. .Ex. 88,122); 2063594010-4240 (U.S. Ex. 88, 123); 2063594009 (U.S. Ex. 39,763); 2025494653–4671 (U.S. Ex. 26,845) (U.S.

Ex. 26,846); 2502188231-8253 (U.S. Ex. 88,124); 2060564893-4893 (U.S. Ex. 88,125); 2063838042-8044 (U.S. Ex. 88,126); 2074587672-7683 (U.S. Ex. 88,127); 2072267831-7837 (U.S. Ex. 88,128); 2025535488-5489 (U.S. Ex. 88,129); 2505442777-2960 at 2862 (U.S. Ex. 46,053) (U.S. Ex. 46,054).

1038. Covington & Burling reported to Matthew Winokur of Philip Morris that at least one of "our consultants will be invited to be a member of the [IARC] expert working group which will carry out the evaluation and sign off on the published Monograph" on ETS. 2025493844-3844 (U.S. Ex. 88,756). The law firm recommended that in anticipation of IARC's ETS report that it would be:

> prudent to encourage useful additions to the ETS literature in peer reviewed journals. Those additions should be designed to show the problems created by confounders, the importance of other possible causes, and generally to provide materials of which IARC's working group will be obliged to take account. Absent such additions, there will be considerable pressure upon the monograph working group simply to endorse the conclusions already announced by Dr. Boffetta and others at IARC.

2028376562-6562 (U.S. Ex. 88,130).

1039. The IARC Release Plan involved all of the players: John Rupp of Covington & Burling was tasked with writing various white papers that would be included in the National Manufacturer's Association manual; Shook, Hardy & Bacon would provide legal clearance; Peter Lee would review IARC's ETS position and past practices to allow corporate affairs to identify weaknesses in the IARC methodology; the industry release plan would be shared with R.J. Reynolds and BAT prior to the February 14, 1996 IEMC meeting and presented to the CECCM

at the next IARC Communications Group meeting that was scheduled for February 16, 1996. Manuel Bourlas of Philip Morris was to liaise with CORESTA Board members to ensure participation of the monopolies. The plan identified the industry coordination teams. For example, the following employees of Cigarette Company Defendants would serve as spokespersons: D. Greenberg and R. Dempsey of Philip Morris, Chris Proctor of BAT, S. Sears of R.J. Reynolds. More than a dozen others would serve as members of Communications Support, Government Affairs, Science and Legal representing Philip Morris, BAT, R.J. Reynolds, Brown & Williamson, Imperial, and Rothmans. 2048381563-1574 (U.S. Ex. 88,131).

1040. A 1999 internal report to the Director General of the World Health Organization suggested that there was evidence in formerly confidential tobacco company documents that the tobacco companies had made "efforts to prevent implementation of healthy public policy and efforts to reduce funding of tobacco control within UN organizations." A committee of experts were assembled to research the documents and the committee issued a report finding that companies fought WHO's tobacco control agenda by, among other things, staging events to divert attention from the public health issues raised by tobacco use, attempting to reduce budgets for the scientific and policy activities carried out by WHO, pitting other United Nations agencies against WHO, seeking to convince developing countries that WHO's tobacco control program was a "First World" agenda carried out at the expense of the developing worlds, distorting the results of important scientific studies on tobacco, and discrediting WHO as an institution. 770007956-8214 (U.S. Ex. 88,132).

1041. According to the WHO report, the tobacco companies' communications strategy was the most successful element of its attempt to undermine the IARC study. By distorting the statistical underpinnings of the study results, tobacco industry officials managed to convince journalists around the world to write news stories that the study showed no increased risk of lung cancer from ETS exposure in non-smokers. According to the WHO report, tobacco companies' distortion of the study results continue to be repeated in media accounts and in tobacco company presentations to regulatory authorities and recommended that WHO assist member states in determining whether they have a legal or factual basis to seek restitution from tobacco companies for past misconduct. 770007956-8214 (U.S. Ex. 88,132).

1042. According to the WHO report, Industry officials have also distorted the IARC study results when addressing regulatory authorities. Philip Morris' intended testimony before the National Toxicology Program (NTP) sought to use its misrepresentation of the IARC ETS study as the basis for its argument that NTP lacked sufficient evidence to classify ETS as a carcinogen. 770007956-8214 (U.S. Ex. 88,132) (citing 2063594507-4508 (U.S. Ex. 27,115)). Deposition of Helmut Reif, United States v. Philip Morris, et al., March 30, 2004, 296:10-299:22.

1043. Defendants and their consultants published journal articles and letters to the editors disputing IARC findings, while the industry responded to the press that the study showed no increased risk of lung cancer. 2505445804-5804 (U.S. Ex. 88,133); 321926036-321926037 (U.S. Ex. 88,134); 321557020-7021 (U.S. Ex. 88, 135); 321560599-0599 (U.S. Ex. 88,136); 321560600-0616 (U.S. Ex. 88,137); 770002199-2215 (U.S. Ex. 88,138); 321958075-8075 (U.S.

Ex. 88,139); 321958123-8125 (U.S. Ex. 88,140); 321958126 (U.S. Ex. 88,141). BAT's ETS position paper was circulated to all of its companies stating that the study reported "no overall statistically significant increase in lung cancer risk for exposure to ETS at home, . . .at work, . . . and at home and at work combined. . . . 770002199-2215 (U.S. Ex. 88,138).

1044. Industry consultant P.N. Lee performed a review of the report for the ETS Working Group of the Tobacco Manufacturers' Association ("TMA"). The TMA was a trade association that represented the tobacco companies participating in the British market in dealings with the United Kingdom's government and other authorities on issues of concern to its members. Lee's review included S. B. Sears of R.J. Reynolds, R. Dempsey of Philip Morris, as well as employees of Imperial and Rothmans. 321556167-6167 (U.S. Ex. 88,142); 321556168-6168 (U.S. Ex. 88,143); 321556169-6182 (U.S. Ex. 88,144). Lee would write a letter to *Journal of the National Cancer Institute* criticizing the IARC report, but claiming that he was not paid by the industry to do so. 321557020-7021 (U.S. Ex. 88,135). Lee was however on retainer with the TMA at a cost of 36,000 pounds. 321556233-6234 (U.S. Ex. 88,145); 321556235-6235 (U.S. Ex. 88,146).

1045. Philip Morris also worked to "keep the controversy alive" when attacking the EPA's 1993 Risk Assessment. That year, Philip Morris unveiled its plan to discredit the EPA generally and the Risk Assessment in particular. First, Philip Morris planned to, and did, attack the EPA with litigation. Second, Philip Morris planned to, and did, go to the media with charges of "EPA corruption," excesses, and mistakes (even if unrelated to the substantive issue). Third, Philip Morris sought to get risk assessments banned from regulatory activities by approaching the

executive branch. Finally, in conjunction with Shook, Hardy & Bacon and the public relations firm Burson-Marsteller, Philip Morris planned an all out effort to prevent the Occupational Safety and Health Administration ("OSHA") from regulating smoking in the workplace. Notably, none of these efforts were backed by legitimate scientific evidence; the public positions of Philip Morris and other Defendants were taken with knowledge of their falsity or reckless disregard for the accuracy of their content. Deposition of Denise Keane, United States v. Philip Morris, et al., October 1, 2002, 32:25-33:17, 147:12-151:21; 2073778581-8596 (U.S. Ex. 20,530).

1046. In a July 22, 1993 document, BATCo argues that a united industry approach on environmental tobacco smoke issues was necessary to combat proposed legislation in a given country that would ban or severely restrict ETS. 502633959-3973 (U.S. Ex. 49,166) (U.S. Ex. 79,195); Deposition of Sharon Blackie (Boyse), United States v. Philip Morris, et al., April 29, 2002, 105:17-106:8.

1047. In 1993, the Tobacco Institute published an advertisement attacking the EPA's 1993 ETS Risk Assessment: "Announcing a revolutionary new solution to the secondary smoke controversy. Common courtesy. The endless debate in Washington over how to 'classify' secondary smoke seems to us just the tiniest bit pointless. The science doesn't support a classification, but the EPA does." 2024186165-6165 (U.S. Ex. 20,400).

1048. In July 1994, Philip Morris launched an advertising campaign against the EPA, referring to an article written by Jacob Sullum, "Passive Reporting on Passive Smoking," that appeared in the Summer edition of Forbes Media Critic. (U.S. Ex. 87,415); 2070422475-2478

(U.S. Ex. 87,416). Sullum had been asked by the Tobacco Institute to write an article on ETS in 1990. TI10260488-0489 (U.S. Ex. 87,417). In 1990, Fred Panzer, of Tobacco Institute Advertising, had contacted Sullum as a potential witness. TIMN0194351-4398 (U.S. Ex. 87,418). PM's plan for the advertisements indicated that the ads would create more skepticism of EPA and science. 2023919236-9240 (U.S. Ex. 87,419). The ads were comprised of a four part series based on Sullum's article. The first ad was a "teaser" and asked, "Were you mislead?" and talked about the EPA and "dangers" of secondhand smoke. 2022837132-7133 (U.S. Ex. 87,420). This was followed up with four consecutive days of ads:

1) SECONDHAND SMOKE: FACTS FINALLY EMERGE HOW SCIENCE LOST OUT TO POLITICS ON SECONDHAND SMOKE (part 1 of 4). 2047894746-4747 (U.S. Ex. 87,421).
2) SECONDHAND SMOKE: FACTS FINALLY EMERGE HOW THE EPA MANIPULATED SCIENCE TO SERVE A POLITICAL CAUSE (part 2 of 4). 2054400544 (U.S. Ex. 87,422).
3) SECONDHAND SMOKE: FACTS FINALLY EMERGE HOW SCIENCE AND POLITICS COLLIDED AND BALANCED REPORTING WAS THE CASUALTY (part 3 of 4) 2047894748-4749 (U.S. Ex. 87,423).
4) SECOND HAND SMOKE: FACTS FINALLY EMERGE HOW TO SPOT FLAWS IN SECONDHAND SMOKE STORIES (last of 4 part series). 2057248428 (U.S. Ex. 87,424).

1049. The Tobacco Institute also organized and funded the "Truth Squad," a group of scientific witnesses who made media appearances and provided legislative testimony on ETS exposure issues throughout the United States. The Truth Squad's activities were determined by the ETS strategy developed by Defendants to further the goals of the Enterprise, and focused on the work of the EPA. During the media tours, members of the Truth Squad would talk about

their purported areas of ETS expertise. Some of the interviews, or excerpts, were televised and some broadcast on the radio. Members of the Truth Squad also wrote editorials and opinions pieces on indoor air quality issues. Deposition of Brennan Dawson, United States v. Philip Morris, et al., July 1, 2002, 61:8-66:11.

1050. The Tobacco Institute paid numerous scientific witnesses for written submissions falsely attacking legitimate scientific research identifying ETS as a cause of disease, including lung cancer. For example, on January 6, 1993, the Tobacco Institute paid scientific consultant Gio Gori $3,555 to write a letter to the editor of the *Journal of the National Cancer Institute* captioned: "Environmental Tobacco Smoke: The Price of Scientific Uncertainty." The Tobacco Institute paid Gori another $4,137.50 five days later to write an Op-Ed page submission on the Risk Assessment for the *Wall Street Journal* (which *the Wall Street Journal* declined to publish). On April 10, 1993, the Tobacco Institute paid Gori $4,000 to write a letter to *Lancet,* disputing an editorial that had found the EPA Risk Assessment provided a firm regulatory basis for increased social action to minimize the public's exposure to ETS. The Tobacco Institute paid BATCo consultant Peter Lee $4,000 on January 29, 1993, to write a response to letters to the editor of *Environment International,* disputing the conclusion that ETS exposure caused lung cancer and mortality. In June 1993, the Tobacco Institute paid Lee $5,000 to write a letter to the editor of *Journal of the National Cancer Institute* disputing results of an ETS study by Stockwell that post-dated the Risk Assessment and found a link between ETS exposure and lung cancer in nonsmoking women. The letter was published along with two other letters from Tobacco Institute consultants, Paul Switzer and Max Layard. All were critical of the Stockwell study.

None disclosed the source of funding for the words submitted. TIMN0435220-5272 (U.S. Ex. 21,734); 2046591055-1056 (U.S. Ex. 20,473); 2046342683-2686 (U.S. Ex. 20,469).

1051. Defendants further advanced the goals of the Enterprise by attempting to change the way that scientific evidence of the health effects of ETS exposure could be analyzed. In July 1997, CIAR organized and sponsored a workshop in China called, "International Workshop on Risk Assessment and Good Epidemiological Practices," with the goal of imposing a tobacco friendly methods and standards for evaluating epidemiological data for scientists. With this standard, Defendants hoped, from a technical standpoint as opposed to a scientific one, to make it nearly impossible to link ETS with disease. 566946147-6175 (U.S. Ex. 88,757); 2029059645-9652 (U.S. Ex. 26,893); TLT0300761, 2063604594-4600 (U.S. Ex. 39,782); 2028446631-6631C (U.S. Ex. 26,889); 2028446632 (U.S. Ex. 26,890); 2025493118A-3119 (U.S. Ex. 88,760).

1052. In April 1998, a Philip Morris assessment of the Good Epidemiological Practices ("GEP") project characterized it as an attempt by Covington & Burling's to encourage a "grass roots" movement among epidemiologists to reform their science to ignore any study with a relative risk of less than 2.0 (the standard sought by Defendants). But "no epidemiological organization would agree to this [reform]." 2060566164-6165 (U.S. Ex. 20,505).

1053. In 1984, the Tobacco Institute published a document entitled "Environmental Tobacco Smoke Workshops 1983-1984." It focused on two industry-sponsored "workshops," noting that each one concluded that there were no demonstrated health effects of ETS exposure. 2025417473-7489 (U.S. Ex.20,416).

1054. In 1990, the Tobacco Institute revised and republished its publication "In the Public Interest . . . Three Decades of Initiatives by a Responsible Cigarette Industry." In this document (which had originally been created and published in 1986), the Tobacco Institute touted its promises to conduct "independent" research on ETS exposure: "In 1988 pursuing its effort to advance scientific knowledge, tobacco industry support led to establishment of the Center for Indoor Air Research (CIAR) to award funds to independent investigators in the field of air quality in enclosed spaces." TIMN0194781-4787 at 4784 (U.S. Ex. 21,397).

1055. In 1998, Philip Morris funded an ETS study entitled, "Parental Smoking and Sudden Infant Death Syndrome: A Review of the Evidence," written by Alison J. Thornton and Peter N. Lee. The study concluded that the existence of various study weaknesses and the likelihood of residual confounding meant that one could not infer with confidence that parental smoking increased the risk of SIDS. The paper was rejected for publication in Public Health Reviews "considering it not sufficiently unbiased." Bias was not a concern for Philip Morris, and the paper was published in *Indoor and Built Environment,* a journal put out by another organization funded by Defendants, the International Society of the Built Environment. 2502140306-0316 (U.S. Ex. 20,566); 2502159515-9516 (U.S. Ex. 20,567); 2505934225-4235 (U.S. Ex. 23,267).

1056. *Indoor and Built Environment* was used frequently to wage Defendants' fraudulent campaign regarding the health risks of ETS exposure. Another paper by Lee and Thornton titled "A Critical Commentary on Views Expressed by IARC in Relation to Environmental Tobacco

Smoke and Lung Cancer," was published in 1998. The study attacked IARC's work on ETS. 2063594510-4526 (U.S. Ex.20,513).

1057. In a proxy statement filed by Philip Morris with the Securities and Exchange Commission in 1995, Philip Morris stated that "[t]he Company strongly believes that the scientific evidence does not support claims that ETS is harmful to non-smokers." Definitive Proxy Statement, Annual Meeting of Stockholders, April 27, 1995 (U.S. Ex. 88,147).

(9) Defendants' Fraudulent Activity Continues to the Present Day

1058. In late 1998, Covington & Burling assisted CIAR (which was required to dissolve under the provisions of the Master Settlement Agreement ("MSA")) to complete its funding of ETS-related projects in 1998 and determine how a new organization would take over CIAR's duties and continue the funding in 1999. 86205377-5377 (U.S. Ex.21,092); 86205378-5378 (U.S. Ex. 56,150); 86205422-5422 (U.S. Ex. 21,093).

1059. To this day, Philip Morris, BATCo, Brown &Williamson, Lorillard, and R.J. Reynolds deny that ETS causes disease in nonsmokers. These assertions continue to be made in order to advance the goals of the Enterprise, despite the contrary conclusions of countless medical and scientific organizations, including the United States Surgeon General, the World Health Organization, and the American Medical Association. Defendant Philip Morris Incorporated's Responses to Plaintiff's Specific Interrogatories to Defendants Philip Morris, Inc. and Philip Morris Companies, Inc., United States v. Philip Morris, et al., (March 15, 2002) (U.S. Ex. 77,408) (U.S. Ex. 77,466); Defendant Philip Morris Incorporated's Responses to Plaintiff's

First Requests for Admission to All Defendants, United States v. Philip Morris, et al., (April 19, 2002) (U.S. Ex. 86,709); Response of Brown & Williamson Tobacco Corporation to the United States' First Set of Requests for Admission to All Defendants, United States v. Philip Morris, et al., (April 19, 2002) (U.S. Ex. 87,425); Response of Brown & Williamson to Plaintiff's Specific Interrogatories to Defendants Brown & Williamson Tobacco Corporation, The American Tobacco Company, and British American Tobacco (Investments) Limited, United States v. Philip Morris (March 15, 2002) (U.S. Ex. 87,426); Responses and Objections of British American Tobacco (Investments) Limited to Plaintiff's First Requests for Admission to All Defendants, Amended Pursuant to Order #119, United States v. Philip Morris, et al., (April 19, 2002) (U.S. Ex. 77,409); Defendant Lorillard Tobacco Company's Responses to the United States' First Set of Requests for Admission to All Defendants, Amended Pursuant to Order #119, United States v. Philip Morris, et al., (April 19, 2002) (U.S. Ex. 86,742); Defendant R.J. Reynolds Tobacco Company's Responses to Plaintiff's First Set of Requests for Admission to All Defendants, United States v. Philip Morris, et al., (April 19, 2002) (U.S. Ex. 77,413).

1060. R.J. Reynolds publicly disputes that smoking causes serious diseases in nonsmokers despite the contrary conclusions of countless medical and scientific organizations, including the United States Surgeon General; the National Cancer Institute; the Environmental Protection Agency; the Department of Health & Human Services' National Toxicology Program; the National Heart, Lung and Blood Institute of the National Institutes of Health; the World Health Organization; the American Cancer Society; the American Medical Association; the American Heart Association; the American Lung Association; and the American Academy of

Pediatrics. R.J. Reynolds's position on its website is that it believes "that there are still legitimate scientific questions concerning the reported risks of secondhand smoke." R.J. Reynolds's website further states:

> While most scientific studies looking at disease rates in adult nonsmokers who live or work with smokers have reported small elevations in the risk of lung cancer and heart disease, the great majority of these elevations are not statistically significant. Also, very few studies have made an attempt to correct for a number of factors (such as serious biases and confounding variables) that make data interpretation extremely difficult. . . . In addition, being in the room with a smoker is not the same as smoking a cigarette. Secondhand smoke is hundreds to thousands of times more diluted than the smoke that a smoker inhales. . . . Considering all of the evidence, in our opinion, it seems unlikely that secondhand smoke presents any significant harm to otherwise health nonsmoking adults at the very low concentrations commonly encountered in their homes, offices and other places where smoking is allowed. We recognize that exposure to high concentrations of secondhand smoke may cause temporary irritation, such as teary eyes, and even coughs and wheezing in some adults. In addition, there is evidence that secondhand smoke, like other airborn irritants, or allergens such as pollen and dust may trigger attacks in asthmatics.

(U.S. Ex. 78,285). Evidence shows that R.J. Reynolds's denial is consistent with its longstanding effort to deny and distort the health risks of ETS exposure in order to maximize the number of smokers and the number of cigarettes they smoke, an effort undertaken in coordination with other Defendants as part of Defendants' scheme to defraud.

1061. Brown & Williamson continues to deny that ETS causes disease in nonsmokers. Notwithstanding the consensus in the medical community that ETS causes disease in nonsmokers, Brown & Williamson uses its website to try to convince the public that ETS is not harmful. TLT0390003-0003 (U.S. Ex. 76,761).

1062. BATCo continues its deception by denying the harms of ETS to nonsmokers. On its website, BATCo states that ETS can be "annoying," but disputes that it presents any sort of danger to nonsmokers:

> [W]e believe the claim that ETS exposure has been shown to be a cause of chronic disease is not supported by the considerable body of research that has been conducted. In our view, there is no convincing evidence that ETS exposure genuinely increases the risk of non-smokers developing lung cancer or heart disease.

(U.S. Ex. 86,743).

1063. BATCo's website contains many other statements designed to mislead or misinform the consumer. For example, BATCo proclaims that a federal district court "rejected" the EPA's 1992 risk assessment which classified ETS and a Class A carcinogen, but BATCo's webpage fails to inform the reader that a federal appellate court vacated the district court's opinion with directions to dismiss the case. Flue-Cured Tobacco Coop. Stab. Corp. v. United States Envron. Prot. Agency, 313 F.3d 852 (4th Cir. 2002) (U.S. Ex. 86,744).

1064. Both the BATCo and R.J. Reynolds websites misleadingly claim that an ETS study of the International Agency for Research on Cancer ("IARC") of the World Health Organization, published in 1998, reported statistically non-significant results. Yet, in reality, the IARC study was considered to be evidence leading to "the inescapable scientific conclusion . . . that ETS is a low-level lung carcinogen." William J. Blot & Joseph K. McLaughlin, Passive Smoking and Lung Cancer Risk: What Is the Story Now? 90 J. Nat'l Cancer Inst. 1416, 1417 (1998) (U.S. Ex. 86,745). Furthermore, IARC has declared ETS to be carcinogenic. *IARC*

Monographs (Vol. 83) Tobacco Smoke and Involuntary Smoking (June 2002) (U.S. Ex. 86,746) (summary of IARC's findings); **(U.S. Ex. 88,141)** (IARC's published findings); Mortality in Relation to Smoking: 50 Years' Observations on Mail British Doctors, BMJ, doi:10.1136/bmj.38142.554479.AE (published 22 June 2004).

1065. BATCo's website also prominently features a recent study by James Enstrom and Geoffrey Kabat suggesting that there is no link between ETS and disease, but it fails to inform the reader that this study was funded largely by the tobacco industry. (U.S. Ex. 86,747); see also 519424878-5054, at 4926 (U.S. Ex. 22,942) (indicating that CIAR provided over $500,000 to fund this study).

1066. Philip Morris established an operation nearly identical to CIAR, called the Philip Morris External Research Program ("PMERP"). PMERP essentially reincarnated CIAR: the program operates out of the very same CIAR suite in Linthicum, Maryland, uses the CIAR phone numbers, employs former CIAR Executive Director Max Eisenberg to run the day to day operations (through a newly-created entity called Research Management Group LLC), funds the same types of research, uses a Scientific Advisory Board with members of the former CIAR SAB, and vests final approval authority of all research with the SAB. 2085317779-7809 (U.S. Ex. 22,200).

1067. According to Helmut Reif, director of Science and Technology at Philip Morris's Fabriques du Tabac Runies in Switzerland, the change in the research funding source from CIAR to PMERP was immaterial from his perspective. Deposition of Helmut Reif, United States v. Philip Morris, et al., July 30, 2003, 190:11-15, 193:10-19, 194:8-195:6.

1068. Moreover, after entering into the MSA, Philip Morris continued its efforts to jointly fund industry research through structures that existed prior to the MSA, undertaking joint funding of external research efforts with BATCo through Philip Morris's Scientific Research Review Committee. Deposition of Helmut Reif, United States v. Philip Morris, et al., July 30, 2003, at 70:13-71:15.

1069. The jointly funded research undertaken by Philip Morris and BATCo was part of a project called the DIANIDS 2000 project. DIANIDS 2000 researched the human papilloma virus (HPV) as a potential cause of cancers. The focus by DIANIDS 2000 on alternative causes to diseases caused by cigarette smoking is similar to the work performed by TIRC and CTR which, contrary to Defendants' public assertion that they would "aid and assistance to the research effort into all phases of tobacco use and health," constituted research that focused on mechanisms in cancers that are distant if not completely irrelevant to evaluating the risks and harms associated with smoking. 86017454-7454 (U.S. Ex.21,418).

1070. Other research that has been jointly funded by Defendants continues to yield results in published literature, which is then used by Defendants to support their fraudulent public positions on ETS and overall effort to perpetuate the notion that an open question exists regarding the health effects of secondhand smoke exposure to nonsmokers.

D. The Myth of Independent Research

1071. In the 1954 Frank Statement, and repeatedly since then, Defendants have promised the American public to conduct and disclose the results of disinterested and independent research on the health risks of cigarette smoking, touting that they were concerned about the claims of the adverse health effects of smoking and that they would do whatever was necessary to get to the truth on behalf of their consumers. This promise was false when made and has never been fulfilled.

1072. At the time that the promise was first made, and all times thereafter, the Cigarette Company Defendants have been part of a Gentlemen's Agreement: (a) that any company discovering an innovation permitting the manufacture of an essentially "safe" cigarette would share the discovery with others in the industry; and (b) that no company would perform or commission in-house biomedical research on animals investigating the relationship between smoking and health. By its very terms, this agreement prevented the promised independent and disinterested research. The first component of this agreement quashed the incentive to perform such research, and the second component of the agreement quashed the research itself.

1073. For years, Defendants propounded a myth – that the Tobacco Industry Research Committee ("TIRC") and its successor, the Council for Tobacco Research ("CTR"), functioned as independent bodies pursuing independent research – as proof that they were meeting their promise to the American people. In reality: (a) TIRC/CTR was biased from its inception; (b) the Cigarette Company Defendants acted to influence TIRC/CTR's activities and its Scientific Advisory Board ("SAB"); (c) the lawyers, both in-house and outside, for the Cigarette Company

Defendants controlled numerous TIRC/CTR Special Projects and then attempted to clothe them with TIRC/CTR's alleged independence; and (d) TIRC/CTR's true purpose was to create positive public relations for the Cigarette Company Defendants.

1074. Despite their promises, the Cigarette Company Defendants did not routinely employ or support scientists to conduct research into smoking and health. Lawyers working for the Cigarette Company Defendants watched and internally policed and restricted company research – all based on liability concerns. In the rare instances when they did conduct internal research into smoking and health, the Cigarette Company Defendants did so in secret and suppressed the results, in some cases by destroying documents and in other cases by taking steps to shield documents and materials from discovery in litigation and from disclosure to the American public.

(1) The Promise: We, the Cigarette Company Defendants, Will Conduct Independent Research to Find the Truth About Smoking and Disease

(a) The Gentlemen's Agreement and the Frank Statement

1075. In December 1953, the Presidents of American Tobacco, R.J. Reynolds, Lorillard, Brown & Williamson, and Philip Morris, among others, met in the Plaza Hotel in New York. This was the first step toward the formation and implementation of the Gentlemen's Agreement. HT0072119-2125 (U.S. Ex. 21,175) (U.S. Ex. 54,357); CTRBYL000001-0014 (U.S. Ex. 21,138).

1076. Consistent with the agreements reached at the December 1953 meeting at the Plaza Hotel, on January 4, 1954, a full-page statement called "A Frank Statement to Cigarette Smokers" was disseminated by Defendants to the American public through publication in 448

newspapers in the United States. 11309817-9817 (U.S. Ex. 20,277); TIMN0029907-9907 (U.S. Ex. 21,267); 505542772-2772 (U.S. Ex. 20,742).

1077. The Frank Statement promised, in part, that the Defendants would conduct a search for the truth through independent outside and in-house research:

> Regardless of the record of the past, the fact that cigarette smoking today should even be suspected as a cause of serious disease is a matter of deep concern to us. Many people have asked us what we are doing to meet the public's concern aroused by the recent reports. Here is the answer: **We are pledging aid and assistance to the research effort** into all phases of tobacco and health. This joint financial aid will of course be **in addition to what is already being contributed by individual companies**. For this purpose we are establishing a joint industry group consisting initially of the undersigned. This group will be known as TOBACCO INDUSTRY RESEARCH COMMITTEE. In charge of the research activities of the Committee will be a scientist of unimpeachable integrity and national repute. In addition there will be an Advisory Board of scientists **disinterested in the cigarette industry**. A group of distinguished men from medicine, science, and education will be invited to serve on this Board. These scientists will advise the Committee on its research activities.

11309817-9817 (U.S. Ex. 20,277); TIMN0029907-9907 (U.S. Ex. 21,267); 505542772-2772 (U.S. Ex. 20,742) (emphasis added).

1078. In a December 1958 press release, Timothy Hartnett, TIRC Chairman, repeated promises made in the Frank Statement by assuring the public: "At its formation in 1954, the Tobacco Industry Research Committee stated its fundamental position: 'We believe the products we make are not injurious to health. We are pledging aid and assistance to the research effort into all phases of tobacco use and health.' That statement and pledge are reaffirmed today by the members of the Tobacco Industry Research Committee." 500518759-8761 at 8761 (U.S. Ex.

20,636).

(b) Continuing Parallel False Promises from Members of the Enterprise, Including the Tobacco Institute

1079. The Cigarette Company Defendants went so far as to claim that they would stop selling tobacco if they determined that smoking was harmful or would change the product in order to make certain that it was no longer harmful. For example, George Weissman, Vice President of Philip Morris, issued a statement that was printed in the *St. Paul Dispatch-Pioneer Press* on March 31, 1954, that the cigarette industry would "stop business tomorrow" if it believed smoking was harmful. 2022239339-9343 at 9341 (U.S. Ex. 21,766).

1080. The Tobacco Institute, created by the Cigarette Company Defendants (except BATCo and Philip Morris Companies) and others as a joint trade association, made similar statements on behalf of the Cigarette Company Defendants and in furtherance of the Enterprise. Such statements were released to convince the public that the tobacco industry was making efforts to conduct its own research as well as to fund independent scientists.

1081. On June 7, 1962, the Tobacco Institute issued a press release welcoming an "impartial study" by the Surgeon General on smoking and health. George Allen, President of the Tobacco Institute, stated: "No one has a greater interest than the tobacco industry in helping medical science find solutions to the health problems of our country." Allen went on to cite the "extensive scientific research program" of TIRC, established to "provide grants to independent scientists." TIMN0123772-3772 (U.S. Ex. 85,928).

1082. In a December 27, 1962 press release, the Tobacco Institute publicly recognized the Defendants' "special responsibility to help science determine facts" regarding smoking and

health. The release went on to credit the Enterprise with taking the lead in "seeking the answers by setting up TIRC and turning full control of its research program to a group of outstanding, independent scientists." TIOK0000517-0521 at 0519-0520 (U.S. Ex. 85,929); 1005136953-6980 at 6955-6956 (U.S. Ex. 20,224); TIMN023775-3779 at 3777-3778 (U.S. Ex. 85,930).

1083. A November 3, 1963 Tobacco Institute press release stated that the industry was on a "crusade" to find answers to the "questions about smoking and health" and that it "should be a crusade neither for nor against tobacco. It is a crusade for research." TIMN0118245-8246 at 8245 (U.S. Ex. 62,882) (U.S. Ex. 77,055).

1084. On March 6, 1964, the Tobacco Institute sent a press release announcing the reorganization of TIRC and its new name, CTR. This press release represented that CTR's research policy would be set by doctors and scientists independent of the tobacco industry. 508775085-5088 at 5085 (U.S. Ex. 20,815).

1085. On January 12, 1965, the Tobacco Institute issued a press release stating, "[t]he industry will continue forcefully its support of responsible research efforts to establish the true facts." The statement continued, "[t]his research, which is supported by contributions from members of the tobacco industry, is being conducted by numerous independent, competent doctors and scientists associated with many institutions throughout the country." TIOK0034195-4195 (U.S. Ex. 85,931).

1086. On December 29, 1965, the Tobacco Institute stated in a press release that it was Defendants' belief that current research had not established whether smoking causes disease and that the matter is still an "open question." The press release stated: "If there is something in

tobacco that is causally related to cancer or any other disease, the tobacco industry wants to find out what it is, and the sooner the better." TIMN0123848-3851 at 3848 (U.S. Ex. 21,332).

1087. On June 7, 1966, in a speech regarding Philip Morris's efforts to sponsor independent research, Joseph F. Cullman III, President of Philip Morris, stated that "we feel a deep sense of responsibility to our cigarette smokers. All of us who work in this industry feel a deep concern over questions raised about cigarettes and health. We will not rest until we learn the scientific facts that will provide solutions to the medical problems in question. We intend to leave no research question unanswered in our quest for the truth. What have we done to help find the truth? This industry has allocated nearly twenty million dollars for the support of research projects by independent scientists, through The Council for Tobacco Research - U.S.A., and through the American Medical Association Education and Research Foundation. If more funds are needed for this research, I am sure the industry will provide them." 1000235218-5230 at 5227 (U.S. Ex. 20,083).

1088. On December 24, 1968, Shook, Hardy & Bacon, a tobacco industry law firm, authored the following statement for Joseph Cullman, Chairman of the Board of Philip Morris: "The cigarette industry recognizes its responsibility to the American people. It is anxious to seek the answer to the question of whether cigarettes are in fact the cause of any human disease. It is unfortunate that emotional propaganda against cigarettes has been permitted to suppress scientific inquiry and proof." 1000313777-3779 at 3777 (U.S. Ex. 20,093).

1089. A 1969 Tobacco Institute brochure stated that "[f]rom the beginning, the industry's policy has been to work – as dispassionately as possible – toward a conclusive,

scientific understanding of the actual facts, **whatever these facts turn out to be**." 620047929-7972 at 7963 (U.S. Ex. 20,945) (emphasis in original).

1090. In 1970, the Tobacco Institute issued a public statement, published as an advertisement in major American newspapers, publicizing the research efforts of the cigarette industry. The statement, titled "The Question About Smoking and Health is Still a Question," read in pertinent part:

> [A] major portion of this scientific inquiry has been financed by the people who know the most about cigarettes and have a great desire to learn the truth . . . the tobacco industry. And the industry has committed itself to this task in the most objective and scientific way possible. . . . 1115 reports in all. Through this work much valuable data have been produced about lung cancer, heart disease, chronic respiratory ailments and other diseases. However, there's still a lot more to be learned. . . . There are eminent scientists who believe that the question of smoking and health is an open one and that research in this area must go forward. From the beginning, the tobacco industry has believed that the American people deserve objective, scientific answers. With this same credo in mind, the tobacco industry stands ready today to make new commitments for additional valid scientific research that offers to shed light on new facets of smoking and health.

TIMN0081352-1352 (U.S. Ex. 21,305) (U.S. Ex. 21,367).

1091. A March 17, 1970 text from a television spot labeled "TI approved ad hoc" stated: "Today we in this industry support more impartial research on the vital question of tobacco and health than any agency of the Federal Government and more than all the voluntary agencies combined. We have great confidence that the findings of this research will lead the way in providing fair and accurate information regarding cigarette smoking . . . ." 2010008819-8822 at 8820 (U.S. Ex. 20,300).

1092. On November 30, 1970, in a statement to the Executive Committee of CTR, Henry H. Ramm, General Counsel of R.J. Reynolds, stated that the purpose of the organization was:

> To aid and assist research into tobacco use and health, and particularly into the alleged relationship between the use of tobacco and lung cancer and to make available to the public factual information on this subject. . . . When the products of an industry are accused of causing harm to users, certainly it is the obligation of that industry to endeavor to determine whether such accusations are true or false. Money spent for such purpose should not be regarded as a charitable contribution but as a business expense--an expense necessary to keep that industry alive. In view of the billions of dollars of annual sales of our industry our expenditures for health research have been of a minimal order.

1003057214-7220 at 7214, 7218 (U.S. Ex. 20,147).

1093. On December 1, 1970, Philip Morris, R.J. Reynolds, Brown &Williamson, Lorillard, and American Tobacco placed an ad through the Tobacco Institute in *The Washington Post* entitled "The question about smoking and health is still a question." The ad stated that "in the interest of absolute objectivity," Defendants have "supported totally independent research efforts with completely non-restrictive funding." The ad further created the false impression that all research results had been published. TIMN0081352-1352 (U.S. Ex. 21,305) (U.S. Ex. 21,367).

1094. In 1971, the Tobacco Institute issued a press release describing the "locked door" along the "statistical path" that linked smoking to ill health. In this press release, Tobacco Institute President Horace Kornegay noted that the tobacco companies would provide more than $4 million that year "for support of independent scientific research," and declared: "Any

organization in a position to apply resources in the search for those keys – and which fails to do so – will continue to be guilty of cruel neglect of those whom it pretends to serve." TIMN0121003-1007 at 1007 (U.S. Ex. 21,721); TIMN0123735-3739 at 3736, 3739 (U.S. Ex. 21,329).

1095. In a Tobacco Institute press release dated February 1, 1972, Kornegay stated that "[t]he cigarette industry is as vitally concerned or more so than any other group in determining whether cigarette smoking causes human disease . . . " and added that "despite this effort the answers to the critical questions about smoking and health are still unknown." TIMN0120596-0597 (U.S. Ex. 21,321).

1096. The Tobacco Institute continued to report to the public on the Defendants' alleged efforts to conduct research, fund independent science, and search for answers to the questions about smoking and health; although by 1975, every member of the Enterprise, in furtherance of its common objectives, would not admit that smoking could be the cause of some human illness. The Enterprise continued to communicate to the public its purported feeling of responsibility to consumers and its monetary contributions to scientific research. A January 14, 1975 Tobacco Institute press release reported that the Cigarette Company Defendants "have committed some $50 million to help support researchers who are seeking the truth." TIMN0120638-0639 at 0639 (U.S. Ex. 21,698).

1097. On August 16, 1976, James C. Bowling, Vice President of Philip Morris, explained in an interview in London that "it's up to us morally to find the answers. And that's why we're spending more on cigarette health research than the Federal government." He further

stated: "They [CTR] decide where the research needs to be done. They allocate the money, we read the results when it's printed in the literature. . . . We have no influence on them whatsoever." 1002410318-0351 at 0333, 0340 (U.S. Ex. 20,137).

1098. A 1977 R.J. Reynolds document stated: "**Objective:** What we want to convey can almost be summarized in one sentence: **The smoking and health controversy is just that – it is a controversy**," and that "[t]he smoking and health controversy is a very important question; our industry has been - and is, of course, trying to provide the answer. If there ever should be any component or components, as found in smoke, that can be proven to be, or contribute to be, a cause of any disease in man, we will of course, take them out." 500021655-1710 at 1658 (U.S. Ex. 20,614) (emphasis in original)

1099. In 1977, Addison Yeaman, General Counsel of Brown & Williamson, stated in a speech:

> My assignment today is to inform you of the measures the tobacco industry has taken to discharge its obligation to investigate the question of whether the use of tobacco in cigarettes is causative of, or materially contributes to a number of diseases that constitute major health problems throughout the world. . . . The companies fully recognized that the industry has an absolute duty and a heavy obligation to seek to determine what if any part its products play in disease. . . .
> I am utterly secure in saying to you that the tobacco industry recognizes its responsibility and its duty and that it will continue its every effort and at whatever cost to finding the answer to the question "what part, if any, does tobacco play in human diseases."

680212399-2407 at 2399, 2400, 2407 (U.S. Ex. 20,991).

1100. In 1978, the Tobacco Institute publication "ON SMOKING" addressed twenty-one questions. In response to the question "Do the tobacco companies control the research they

sponsor[,]" it claimed, "Absolutely not! The commitment of the tobacco manufacturers to resolve the smoking and health controversy has never been fully appreciated." TIMN0121442-1448 at 1447 (U.S. Ex. 21,278).

1101. On December 31, 1981, the Tobacco Institute published "Tobacco Industry Research on Smoking and Health: A $104 Million Commitment," which noted:

> Since the first questions were raised about smoking as a possible health factor, the tobacco industry has believed that the American people deserve objective scientific answers. The industry has committed itself to this task. . . . In the interest of strict objectivity, the tobacco industry has supported independent research efforts with completely nonrestrictive funding, mainly through the Council for Tobacco Research. . . . However, there is still a lot more to be learned . . . questions of smoking and health are unresolved . . . the tobacco industry stands ready today to make new commitments for additional scientific research that may shed light on the question of smoking and health.

The same promise was repeated the next year in the Tobacco Institute's publication "Tobacco Industry Research on Smoking and Health: A $111 Million Commitment;" and in 1984, the Tobacco Institute published its annual report entitled "Tobacco Industry Research on Smoking and Health; a $120 Million Commitment." 2046754709-4710 at 4710 (U.S. Ex. 20,474); 670500617-0620 (U.S. Ex. 20,968); 2045377870-7876 (U.S. Ex. 20,460); 60113387-3388 (U.S. Ex. 85,932).

1102. A January 22, 1997 BATCo document stated:

> [S]cience has yet to identify a genetic mechanism by which any substance in tobacco smoke causes lung cancer in humans. Enormous amounts of research continue in this area, including work funded by British-American Tobacco. . . . We continue to support academic research, particularly in the biological sciences, in the pursuit of an explanation of the relationship between

> smoking and lung cancer, and in the expectation that such an explanation could lead to changes in our product.

700805002-5011 at 5004, 5008 (U.S. Ex. 21,051).

1103. Defendants' representations concerning their public commitments continue to this day. Philip Morris's internet website, www.philipmorrisusa.com, states, in part, as follows: "Our goal is to be the most responsible, effective, and respected developer, manufacturer and marketer of consumer products, especially products intended for adults." The same Philip Morris web site also states: "We will be successful in achieving our goal when we: . . . Communicate Health Effects of Our Products – Communicate openly, honestly and effectively about the health effects of our products." http://www.philipmorrisusa.com/DisplayPageWithTopicd59b.asp at 1 (U.S. Ex. 80,795); ARU6411453-1455 (U.S. Ex. 80,795).

1104. BATCo recently prepared a "Social Report" and published the report on its internet website, www.bat.com. The "British American Tobacco Social Report 2001/2002" noted:

> The Scientific Research Group, comprising scientific experts from our Group companies' worldwide Research & Development facilities, meets regularly to review, with input from independent scientific experts, developments in the science of smoking and health and to consider external research proposals for funding in this field. External requests for Scientific Research Group funding are granted when the research proposed is relevant, of sufficiently high quality and where the area of investigations has not previously been comprehensively explored. We give independent researchers freedom to publish their findings with no editorial constraints.

British American Tobacco Social Report 2001/2002 at 35, www.bat.com; TLT0231830-1910 (U.S. Ex. 76,316).

1105. Defendants claimed that they would, in part, fulfill their promise to research and publish their findings about smoking and health by funding independent research through the TIRC/CTR. In the Frank Statement of January 1954, and repeatedly over the years since then, the Defendants told the public, Congress, federal agencies, and the courts that TIRC/CTR's purpose was to fund and to perform independent scientific research on the issue of smoking and health. 11309817-9817 (U.S. Ex. 20,277); TIMN0029907-9907 (U.S. Ex. 21,267); 505542772-2772 (U.S. Ex. 20,742).

1106. A 1954 TIRC statement published in *The Courier-Journal* of Louisville, Kentucky announcing the appointment of Timothy Hartnett as full-time Chairman of TIRC contained a statement from Hartnett that "[t]he tobacco industry is determined to find answers to the public's questions about smoking and health. The appointment of a full-time chairman completes an organization dedicated to carrying on comprehensive and objective scientific and statistical research to establish the facts and report them to the public. . . . The millions of people who derive pleasure and satisfaction from smoking can be reassured that every scientific means will be used to get all the facts as soon as possible." 01138996-8997 at 8997 (U.S. Ex. 20,037); TLT0901831-1832 (U.S. Ex. 88,043).

1107. A document entitled "Statement Concerning the Origin and Purpose of the Tobacco Industry Research Committee and Its Proposed Functions" stated that the Defendants formed TIRC "in the interest of the public as well as the industry to meet the challenge raised by widely publicized reports in the press, purporting to link tobacco smoking with the cause of lung cancer." TIRC was created to address "the appearance of certain publications claiming an

established relationship between cigarette smoking and lung cancer." The document further stated:

> In the light of the foregoing agitation and in the absence of authoritative findings, there is a responsibility on the part of the management of the tobacco manufacturers and others engaged in the tobacco industry to aid in the final determination of this controversy. It is the earnest wish of the industry to encourage competent scientific authority to find ultimate facts which will dispel the present confusion and to communicate authoritative factual information on the subject to the public.

TIMN0116378-6384 at 6378, 6380 (U.S. Ex. 21,277).

1108. On June 15, 1954, at a TIRC press conference discussing the organization's goals, Dr. Clarence Cook Little, Scientific Director of TIRC, stated:

> We want to learn all we can. . . . We haven't any axe to grind. . . . We respect differences of opinion. . . . This is not a partisan effort. We are not trying to prove anything. We are trying to find out the facts. . . . I don't have any personal preconceived notions at all. I am just anxious to find out everything we possibly can. . . We would not pick any man to be supported in whom we didn't have confidence enough to let him be a scientist. He will be left free. He will not be bossed. He will not be directed.

508775263-5299 at 5265, 5266, 5278 (U.S. Ex. 20,816).

1109. In a TIRC press release dated July 28, 1954, Dr. Little stated:

> In order to find conclusive facts concerning questions that have been raised about tobacco use and health . . . the Scientific Advisory Board of the Tobacco Industry Research Committee has adopted a three-fold policy which will direct research on: 1) Study of the physical and chemical composition of tobacco and accompanying products. 2) Study of tissue changes in humans and animals under various conditions. 3) Study of smoking and other tobacco habits and of the emotional and physical make-up of smokers.

The press release concluded by stating that the purpose of the TIRC was "to finance objective research on tobacco and health." CTRPUBLICSTMT000093-0095 at 0093 (U.S. Ex. 21,163).

1110. An October 9, 1956 Hill & Knowlton document entitled "Public Relations Report to the Tobacco Industry Research Committee" stated:

> Conforming with these principles, the public relations objectives of the TIRC are:
>
> 1. To moderate public alarm and fears resulting from sensational publication of inconclusive statistics and research findings.
>
> 2. To gain the broadest possible public understanding of these facts: that charges attempting to link cigarette smoking and lung cancer incidence are neither proved nor generally accepted by the medical and scientific world; and that the cause or causes of lung cancer are not yet known and may involve many factors of the individual and of modern-day living.
>
> 3. To impress upon the lay and scientific public – by reaching broad segments of doctors and scientists, the press, magazine and radio-TV writers and editors and the public in general – that the tobacco industry through the TIRC sincerely assumes a public responsibility for assisting in the scientific search for facts about lung cancer and for developing sound scientific knowledge concerning tobacco use and human health.

82106893-6906 at 6895 (U.S. Ex. 55,426); CTRMN039206-9218 at 9207 (U.S. Ex. 88,039).

The "Statement by the Chairman" also stated:

> In our own situation, the past several months have shown the value of the cooperative and coordinated efforts of the TIRC organization for dealing with the problem of public attacks as well as with developments in scientific research.
> As you all know, it is imperative that each decision be based on the soundest judgment. I would like to emphasize that our activities are the result of mutual planning and consideration by the TIRC

> administrative staff, scientific advisors, public relations counsel and, frequently, members of the Executive Committee.

82106885-6892 at 6889 (U.S. Ex. 55,425).

1111. On February 1, 1964, the by-laws of TIRC were amended to provide that the name of the organization be changed to "The Council for Tobacco Research-U.S.A." The purposes and objectives remained the same as in the 1954 by-laws, namely, to aid and assist research into tobacco and health, and particularly into the alleged relationship between the use of tobacco and lung cancer. 682631364-1368 (U.S. Ex. 21,024).

(2) The Reality: CTR Was a Front That Failed to Deliver on the Industry's Promise to Conduct Independent Disinterested Research

(a) Throughout TIRC/CTR's Existence, It Did Not Seek to Fulfill the Defendants' Promise to Conduct and Disclose Independent Research

1112. CTR provided a mechanism for the Defendants to say that they were conducting independent research. CTR was used, however, as a public relations tool to conduct self-serving research to support Defendants' litigation position and to provide witnesses in lawsuits, before Congress, and in other regulatory actions. CTR did not conduct research designed to answer the central question of great interest to the public, namely, whether there was a link between smoking cigarettes and adverse health effects such as cancer and other diseases.

1113. Cigarette company executives and counsel (both in-house and outside) exercised substantial control over the operating decisions, not only over their respective companies, but also of CTR, and frequently intervened in their business decisions. 01346193-6196 (U.S. Ex. 20,046).

1114. CTR funded research grants through its Scientific Advisory Board ("SAB"). CTR

also funded certain projects outside of the approval of its SAB – these projects, CTR Special Projects, were chosen because of their usefulness to the tobacco industry. These CTR Special Projects were not independent at all, but rather, targeted to reach findings favorable to the tobacco industry.

1115. Even before the formation of the CTR's SAB, TIRC issued a press release stating that "[m]any noted doctors and cancer research authorities deny that there is any proof establishing a link between smoking and lung cancer." CTRMN004924-4927 at 4924 (U.S. Ex. 21,152).

1116. Moreover, on October 19, 1954, Clarence Cook Little, TIRC's Scientific Director, advised TIRC's membership concerning the SAB's "viewpoint": "He declared that both he and the members of the Board were aware of the attacks which had been made on tobacco for over 200 years, and wished to build a foundation of research sufficiently strong to arrest continuing or future attacks." HT0145314-5316 at 5314 (U.S. Ex. 21,770) (U.S. Ex. 21,771).

1117. On April 14, 1954, TIRC published "A Scientific Perspective on the Cigarette Controversy," which reaffirmed the Frank Statement and set forth a number of brief statements from various scientists in an attempt to show that there was no consensus on the link between smoking and cancer. 1005039987-40008 (U.S. Ex. 20,192).

1118. On June 7, 1955, Little appeared on Edward R. Murrow's "See It Now" television show and was asked: "[H]ave any cancer-causing agents been identified in cigarettes?" He replied: "No. None whatever, either in cigarettes or in any product of smoking, as such." CTRMN005534-5541 at 5534 (U.S. Ex. 21,156).

1119. TIRC continually attacked the mounting evidence of the effect of smoking on disease. For instance, an undated TIRC press release denounced Alton Ochsner's book (Ochsner was one of the first scientists to investigate the relationship between cigarette smoking and lung cancer) as "[j]ust another propaganda device in the anti-tobacco crusade which the author has been carrying on for years." CTRMN004949-4952 at 4952 (U.S. Ex. 21,153).

1120. On June 13, 1955, TIRC Chairman Timothy Hartnett claimed in a Tobacco Institute press release that "[n]obody has produced evidence proving that cigarette smoking causes human lung cancer." CTRMN004981-4982 at 4981 (U.S. Ex. 21,154).

1121. On July 31, 1958, Hartnett reemphasized in a Tobacco Institute press release that: "The position of this country's cigarette industry is unchanged because the facts have not changed. Scientific evidence simply does not support the theory that there is anything in cigarette smoke known to cause human lung cancer." CTRMN004985-4986 at 4985 (U.S. Ex. 21,155).

1122. The SAB acknowledged in November 1957 that the "French have done a number of statistical inquiries that show a correlation between tobacco consumption in definite relation to the increase of lung cancer, to an increase of cancer of all sites and to other ailments. They see no alternative to giving these a causative interpretation." Despite this, TIRC did not make public these conclusions. CTRMN004324-4330 at 4329 (U.S. Ex. 21,149).

1123. TIRC never developed an approach to carcinogenesis and tobacco that could resolve the question of whether harms were induced by cigarette smoking. Although some researchers explored alternative hypotheses, the TIRC did not pursue direct research on cigarettes

and disease. Rather than directly addressing the constituents in tobacco smoke and their demonstrated effect on the human body, the TIRC directed most of its resources to either: (a) alternative theories of the origins of cancer centering on genetic factors and environmental risks, or (b) the basic mechanisms of disease. Most research projects funded through its SAB were irrelevant to the immediate questions of the harms of tobacco. At the same time, Little and the TIRC used truisms such as the "need for more research" and "how much more there is to learn" to deflect attention away from what was known. Expert Report of Allan Brandt, United States v. Philip Morris, et al. (R. 1147; filed May 10, 2002) at 39; 501773418-3466 (U.S. Ex. 20,686).

1124. The industry research plans to address health and smoking were largely driven by legal practicalities, including the risk of performing research that showed smoking caused cancer and then having to admit that in lawsuits. Deposition of Alexander Spears, State of Minnesota v. Philip Morris Inc., September 24, 1997, 413:2-414:3; 1003119099-9135 (U.S. Ex. 20,152).

1125. A 1968 CTR memorandum stated that "two points of view apply to all the work of [CTR]. . . . The problem therefore is to keep these two general factors – complexity of the diseases and the importance of the Host Factor – continually in mind, and to conduct the various specific pieces of research which we support in such a way as to add to the increasing body of experimental evidence which justifies this attitude [i.e., that causes other than smoking are to blame]." HT70135161-5164 at 5164 (U.S. Ex. 21,629).

1126. In January 1968, Addison Yeaman, General Counsel of Brown & Williamson, wrote a memo about whether to alter the "long established policy of CTR, carried out through SAB, to 'research the disease' as opposed to researching questions more directly related to

tobacco." LG2023842-3843 at 3842 (U.S. Ex. 21,211).

1127. The joint industry research conducted through CTR was admittedly not intended to get to the truth about smoking and health. As explained by Alexander Spears, Research Director of Lorillard, in a 1974 memorandum to Curtis Judge, Chief Executive Officer of Lorillard:

> Historically, the joint industry funded smoking and health research programs have not been selected against specific scientific goals, but rather for purposes such as public relations, political relations, position for litigation, etc. . . . In general, these programs have provided some buffer to public and political attack of the industry, as well as background for litigious strategy.

01421596-1600 at 1598 (U.S. Ex. 20,049); 01253619-3623 (U.S. Ex. 88,768).

1128. In a June 13, 1974 letter, Janet Brown, industry counsel, responded to a request for comment on industry-funded scientific research from David Hardy of Shook, Hardy & Bacon. Brown expressly acknowledged that "the industry has repeatedly reiterated its research commitments" to the public, dating back to the 1954 Frank Statement. Brown then cautioned that the "failure to meet this commitment,- which must be viewed as a pledge not simply to the public but to the SAB, CTR's scientific staff, and the entire scientific community - would involve grave risks, as I hardly need emphasize." Brown concluded her letter with two candid observations on the lack of truly independent tobacco industry-funded research. First, she stated that, "Where the industry is itself the arbiter of the amount and nature of research to be done, however, arguments that the research is self-serving . . . gain in force and acceptance." Second, Brown concluded her letter with the following:

> A juror, congressman, scientist, or anyone else may feel free to substitute his scientific judgment for that of manufacturers or of a manufacturer's scientific staff, since, whatever may be the capabilities and expertise of company employees, they are employees and arguably cannot command either the independence, depth, nor breadth of the great research institutions and career research personnel concerned with the objective elucidation of the nature and causes of chronic disease.

LWODJ9055578-5580 at 5579-5580 (U.S. Ex. 87,176); 03659023-9025 at 9024-9025 (U.S. Ex. 87,177).

1129. On November 30, 1977, Robert Seligman, Vice President of Research and Development for Philip Morris, sent a memorandum to Clifford Goldsmith, Executive Vice President of Operations for Philip Morris, concerning a memorandum he had received from Thomas Osdene, Director of Research for Philip Morris, on November 29, 1977. The subject of that memorandum was a CTR program review session Osdene had attended on November 22. Osdene claimed:

> I was amazed at the trend that the CTR work is taking. For starters, Dr. Donald H. Ford, a new staff member, makes the following quote[]: "We accept the fact that nicotine is habituating." It is my strong feeling that with the progress that has been claimed, we are in the process of digging our own grave. . . . I am very much afraid that the direction of the work being taken by CTR is totally detrimental to our position and undermines the public posture we have taken to outsiders.

2022246952-6952 (U.S. Ex. 36,865).

1130. A November 6, 1978 memorandum marked “Confidential - For Counsel Only” from Donald Hoel regarding “Industry Research Committee Meeting, October 26, 1978,

Lexington, Kentucky" stated: "After some further discussion, Janet [Brown] and Arnie Henson expressed American Tobacco Company's view that CTR must be maintained but needed new people. It must be more politically oriented. They felt that CTR must look at what is happening and what others are doing to see what questions can be raised, etc. The approach must be steady, slow and conservative. They must find skeptical scientists." 01347203-7209 at 7203, 7208 (U.S. Ex. 85,933); 2023918174-8180 at 8174, 8179 (U.S. Ex. 37,063).

1131. A memorandum written in November 1978 by Robert Seligman, Vice President of Research and Development at Philip Morris, contained the following historical account: "Bill Shinn [attorney at Shook, Hardy & Bacon] described the history, particularly in relation to CTR. . . . It was set up as an industry 'shield' in 1954. . . . CTR has helped our legal counsel by giving advice and technical information, which was needed at court trials. CTR has provided spokesmen for the industry at Congressional hearings. The monies spent on CTR provides a base for introduction of witnesses." 2045752106-2110 at 2107 (U.S. Ex. 20,467).

1132. James F. Glenn, Chairman of the Board and Chief Executive Officer of CTR, wrote a letter on February 15, 1995 responding to a prior letter from James Todd, Executive Vice President of the American Medical Association. In it, Glenn insisted:

> Your letter of November 8, 1994, addressed to the deans of a number of medical schools, has been brought to my attention. I feel that a response is required in view of the serious inaccuracies in your letter and, in particular, your misleading portrayal of the Council for Tobacco Research-U.S.A., Inc, as a public relations pawn of the tobacco industry . . . Did you mean to imply that CTR is not "really" a research institute? . . . You state that "tobacco research institutions such as the . . . Center [sic] for Tobacco Research . . . all funded fully by tobacco companies are used by the

> tobacco industry as part of its overall public relations strategy . . . ." The tobacco industry, to the best of my knowledge, has not used CTR in this manner during my tenure. Indeed, the tobacco industry does not review the grant applications to CTR or select the research sponsored by CTR, nor does the industry seek to influence CTR grantees in any fashion. On the contrary, CTR encourages these independent investigators to publish their research findings, whatever they may be.

88024854-4857 (U.S. Ex. 56,357) (emphasis in original).

1133. In that November 8, 1994 letter, James Todd, Executive Vice President of the American Medical Association, wrote,

> Between 1954 and 1991, the Council for Tobacco Research spent over $185 million for 1,246 original articles by more than 850 scientists. While this seems to be a considerable sum, it should be compared with the advertising budget of the tobacco industry, about $5.2 billion in 1993 alone. . . . A survey of industry-funded scientists revealed that nearly 80% of them indicated that none of their research had ever examined the health effects of tobacco use . . . US District Court Judge H. Lee Sarokin, after reviewing tobacco industry "research" data in two tobacco product liability cases in the early 1990's, wrote that ". . . the creation of [the tobacco industry research institutes] and the work performed was nothing but a hoax created for public relations purposes with no intention of seeking the truth or publishing it."

88024858-4859 (U.S. Ex. 56,358).

(b) <u>CTR Used Its Scientific Advisory Board as a Smokescreen</u>

1134. By directing attention to the CTR's SAB, Defendants were able to appear to be furthering independent research efforts while their true aim was to preserve and foster false doubt about the adverse health effects of smoking in order to dissuade existing smokers from quitting

and encourage non-smokers to start. TIMN0077551-7554 (U.S. Ex. 21,269).

1135. Members of the SAB were initially screened and selected by representatives of Hill & Knowlton, a public relations firm (retained by TIRC), Defendants' attorneys, and Cigarette Company Defendants' research directors. 689103383-3437 (U.S. Ex. 54,275); State of Washington v. American Tobacco Co., 96-2-15056, Exhibit No. 52 (U.S. Ex. 86,772).

1136. Defendants and their agents represented in public and in court that the SAB grant process functioned independently from industry influence and was the mechanism by which they were fulfilling the obligations they had undertaken in the Frank Statement and elsewhere. In fact, Defendants "deliberately isolated" the SAB from the activities ongoing in other parts of CTR so that the SAB could be held out as a group of independent scientists, while the rest of CTR operated under Defendants' control. 670307892-7894 at 7893 (U.S. Ex. 20,967); 680262162-2162 (U.S. Ex. 20,996); 512678701-8710 at 8709-8710 (U.S. Ex. 20,847).

1137. Contrary to the public claim that the companies were seeking to get to the bottom of the smoking and health controversy, SAB-funded research steered far away from smoking and health issues toward other questions, including examinations of other potential causes of cancer. Defendants were aware that CTR's research did not fulfill their commitment to the public. As one industry document maintained, "[m]ost of the TIRC research has been diffuse and of a broad basic nature not designed to specifically test the anti-cigarette theory." http://energycommerce.house.gov/tobacco/docs/bw/0012695326.tif at 13 (U.S. Ex. 87,221); BWX0011174-1187 (U.S. Ex. 21,773); ATX110005290-5303 (U.S. Ex. 21,774).

1138. Consequently, the research that was funded through the SAB addressed general

issues of cancer causation and incidence – without a focus on smoking or its role in causing disease, or on the relationship between smoking and disease or on other science that might result in findings that were harmful to Cigarette Company Defendants. Other parts of TIRC/CTR funds also were not used for objective research on the link between smoking and disease. http://energycommerce.house.gov/tobacco/docs/bw/0012685353.tif at 6, BWX0005283-5288 (U.S. Ex. 76,025).

1139. Addison Yeaman, General Counsel of Brown & Williamson, wrote on January 12, 1968, about the need to reorient CTR from more basic research to that with specific application to tobacco. He admitted: "Review of SAB's current grants indicates that a very sizable number of them are for projects in what might be called 'basic research' without specific orientation to the problem of the relationship of the use of tobacco to human health." 00552837-2839 at 2837 (U.S. Ex. 22,968).

1140. A Lorillard memorandum dated June 22, 1970, written by Arthur J. Stevens, Vice President and General Counsel of Lorillard, to Curtis Judge, President of Lorillard, described a "B&W Proposal for CTR Reorganization" and recommended Lorillard's support. Stevens noted:

> In summary, B&W's proposal, which concerns itself with a number of the same questions raised by Henry Ramm at the May 15th meeting of the Tobacco Institute, suggests the following:
>
> 1. CTR's results thus far, while productive of some "good science," have not been of the type useful in defending the industry against smoking and health critics, nor in waging any offensive program.

00552952-2953 at 2952 (U.S. Ex. 87,222).

1141. On March 16, 1978, Arthur J. Stevens, Vice President and General Counsel of Lorillard, prepared a conference summary of Defendants' concerns about whether the CTR should be an independent organization. Stevens wrote:

> Does Industry still want/need independent, objective SAB and Staff. . . . American and other companies dismayed at direction of CTR research. (Heimann letter) opposed to contract research. American (and apparently others) convinced that Gardner and Kreisher are committed to attempting to demonstrate **how** tobacco smoke causes disease, rather than **whether** it causes disease. (Yeaman disputes this impression). Question whether CTR can be said to be independent when it is conducting its own proposed research, through contracts, rather than through grants.

80410972-0976 at 0972, 0974 (U.S. Ex. 21,058) (emphasis in original).

1142. Contract research was undertaken at the specific request of the CTR staff. An undated document with a handwritten notation at the top "CTR" discussed the CTR contract work. The document stated: "We made the assumption that work should be self-serving to the industry, therefore, it should be **contract** work so that the disposition of the results will be under **complete control** of the industry. Divided into three categories: 1) Knowledge would benefit the tobacco industry. 2) Knowledge would be more broadly beneficial. 3) Work which should be avoided." 1003718457-8457 (U.S. Ex. 85,934) (emphasis in original).

1143. On December 6, 1977, Robert Heimann, CEO of American Tobacco, sent a letter to Addison Yeaman, President of CTR, expressing his discontent with the direction of CTR. According to Heimann, CTR no longer upheld its promise to the American people, as pronounced in the Frank Statement. He wrote:

> This we can no longer say since what is called "directed" or "contract" research has been brought into the picture. As I remarked at the September 1976 meeting, the original concept of TIRC did not embrace the idea of contract research but envisioned industry support of research on a **pro bono publico**, arms length basis. I believe the current movement toward contract research is a violation of our advertised pledges to the public and I also believe industry support of objective and independent scientific research is of cardinal importance in maintaining a statesmanlike stance. I do not think it would be an exaggeration to say that the current shift to contract research bastardizes a fine concept of objectivity which many good people in past years worked long and hard to establish.

1000255934-5936 (U.S. Ex. 20,084) (emphasis in original).

1144. An internal Brown & Williamson letter from Ernest Pepples to J.E. Edens, C.I. McCarty, I.W. Hughes and DeBaun Bryant dated April 4, 1978 also discussed CTR's contract research. Pepples reported:

> American, RJR and PM continue to harbor doubts concerning the operation and direction of CTR. . . . [Heimann's] letter took strong exception to the program of directed, contract work under which the staff of CTR plans and directs the research. Heimann says CTR should be a grantor organization and nothing more. In Heimann's view, CTR should make grants to reputable scientists who are exploring areas of interest in the smoking and health controversy and the grantees, as opposed to CTR, should be responsible for the plan of research. It is a distinction without much difference but American embraces it warmly nonetheless.

680212421-2423 (U.S. Ex. 54,024); 682338651-8653 (U.S. Ex. 22,899).

1145. Contract research at CTR began as early as the late 1960s. In 1968, researcher Fred Homburger sent a letter to Robert Hockett, Associate Scientific Director of CTR, discussing CTR research undertaken by Homburger's company, Bio-Research Consultants, Inc. Homburger

stated in his letter:

> We discussed certain administrative aspects of this contract. You pointed out that within CTR, this contract was actually being handled as a grant. It appears to me that this may confuse your scientific advisors, as well as your administrative personnel. They may not realize that under this contract, we are conducting work planned specifically at the request of CTR, and closely monitored by CTR.

50071067-1069 (U.S. Ex. 88,836).

By 1970, there were indeed signed contracts between CTR and Bio-Research Consultants, Inc. related to experiments concerning smoke inhalation in Syrian golden hamsters. CTRCONTRACTS005617-5624 (U.S. Ex. 25,876).

1146. In 1973, CTR decided not to renew its contract with Bio-Research Consultants, Inc., which greatly upset Fred Homburger. Homburger alleged that members of the tobacco industry attempted to censure his work, which he contended produced results of pre-invasive carcinoma in the larynx and two malignant tumors of the nasopharynx. MB000253-0253 (U.S. Ex. 76,114); CTRCONTRACTS005712-5713 (U.S. Ex. 25,880); 11225453-5454 (U.S. Ex. 25,880); CTRCONTRACTS005716-5717 (U.S. Ex. 25,881); CTRCONTRACTS006038-6038 (U.S. Ex. 25,888); CTRMIN-SAB000399-0407 (U.S. Ex. 25,891); CTRCONTRACTS006059-6059 (U.S. Ex. 85,936); CTRCONTRACTS005962-5962 (U.S. Ex. 25,886); CTRMIN-SAB000419-0420 (U.S. Ex. 25,892); MB000255-0255 (U.S. Ex. 26,031); CTRCONTRACTS005639-5642 (U.S. Ex. 25,878) CTRCONTRACTS005643-5646 (U.S. Ex. 25,879); 01195572-5573 (U.S. Ex. 26,443); MB000256-0256 (U.S. Ex. 26,032); MB000257-0257 (U.S. Ex. 26,033); 1000283966-3966 (U.S. Ex. 26,081); CTRCONTRACTS005628-5629

(U.S. Ex. 25,877); 503654905-4906 (U.S. Ex. 85,938); ZN23135-3135 (U.S. Ex. 66,274); CTRCONTRACTS005769-5769 (U.S. Ex. 25,884); CTRCONTRACTS005463-5463 (U.S. Ex. 25,875); CTRCONTRACTS005815-5815 (U.S. Ex. 25,885); ZN6241-6244 (U.S. Ex. 85,939); ZN19604-9605 (U.S. Ex. 64,797); 682631395-1398 (U.S. Ex. 30982); ZN23133-3133 (U.S. Ex. 85,940); CTRCONTRACTS005740-5741 (U.S. Ex. 25,882); CTRCONTRACTS005742–5742 (U.S. Ex. 25,883); 682631398-1405 (U.S. Ex. 30,983); ZN19604-9605 (U.S. Ex. 64,797); 1005075456-5456 (U.S. Ex. 26,188); 2025498564-8597 (U.S. Ex. 26,851); 2025498577-8586 (U.S. Ex. 66,671); HHS0681984-1986 (U.S. Ex. 85,941).

1147. CTR continued, however, to do contract research. For many years, CTR entered into long-term contracts with Microbiological Associates ("MA") to perform inhalation experiments on mice, expending "some 12 million dollars into the contracts with MA." The first proposal submitted by MA was in 1969. CTR staff routinely went on site visits to monitor the contract work performed at MA, which received millions of cigarettes from CTR to use in connection with the contract research it performed on CTR's behalf. CTRCONTRACTS026327-6363 (U.S. Ex. 85,942), CTR98CONG00077-0114 (U.S. Ex. 32,521); CTRCONTRACTS001667-1667 (U.S. Ex. 32,554), 11221384-1384 (U.S. Ex. 85,943); CTRCONTRACTS001654-1654 (U.S. Ex. 32,553), 11221371-1371 (U.S. Ex. 86,616); CTRCONTRACTS003278-3278 (U.S. Ex. 32,556), 11223018-3018 (U.S. Ex. 86,617); CTRCONTRACTS003211-3212 (U.S. Ex. 32,555), 11222951-2952 (U.S. Ex. 85,944); CTRCONTRACTS003858-3858 (U.S. Ex. 32,558), 11223598-3598 (U.S. Ex. 85,945); SF0370024-0024 (U.S. Ex. 65,434), 10012558-2558 (U.S. Ex. 85,946);

CTRCONTRACTS003491-3491 (U.S. Ex. 32,557), 11223231-3231 (U.S. Ex. 85,947); SF0370027-0027 (U.S. Ex. 65,435), 10012561-2561 (U.S. Ex. 85,948); CTRCONTRACTS028836-8838 (U.S. Ex. 32,561), 11248586-8588 (U.S. Ex. 85,949); HK1118020-8021 (U.S. Ex. 33,047), 10115448-5449 (U.S. Ex. 85,950); SF0040004-0006 (U.S. Ex. 65,430), 10006317-6319 (U.S. Ex. 86,618); SF0826731-6731 (U.S. Ex. 65,441), 10215369-5369 (U.S. Ex. 86,619); HT0124049-4053 (U.S. Ex. 33,056), 10036226-6230 (U.S. Ex. 86,620); CTRCONTRACTS026364-6364 (U.S. Ex. 32,559), 11246113-6113 (U.S. Ex. 86,621).

1148. By the late 1970s, there was growing concern about the contract work performed for CTR at MA. A November 30, 1976 memorandum from Janet Brown, attorney at Chadbourne & Parke, to Arnold Henson, counsel for American Tobacco, detailed then current concerns with the contract research being performed at MA. BWX0003940-3948 (U.S. Ex. 36,215).

1149. A November 29, 1977 Philip Morris Inter-Office Correspondence from Thomas Osdene to R.B. Seligman offered his comments on the CTR research program. Osdene observed:

> It is my strong feeling that with the progress that has been claimed, we are in the process of digging our own grave. I believe that the program as set up has the potential of great damage to the industry and I strongly urge that the whole relationship of our Company to CTR be carefully reviewed. I am very much afraid that the direction of the work being taken by CTR is totally detrimental to our position and undermines the public posture we have taken to outsiders.

1000036635-6635 (U.S. Ex. 85,951).

1150. A December 12, 1977 "Confidential" Brown & Williamson memorandum from Ernest Pepples to J.E. Edens and C.I. McCarty also described the nature of the growing concern.

Pepples advised that there were individuals who took "exception to the program of directed, contract work under which the staff of the CTR has laid out a plan of research" and explained that the concern stemmed from a request by a CTR staff member to conduct "certain short term tests on smoke fractions." Pepples explained that these were:

> **[R]ed light tests**. They have been developed for use by FDA and other agencies in possibly identifying harmful ingredients and substances in products which are available to the consuming public. **They show only a probability of trouble but are used as a signal in determining whether products should be yanked off the market**. . . . American evidently is concerned, and I share the concern to some extent, that a finding under a CTR contract of red lights in one of these tests as it applies to cigarette smoke fractions would be very difficult to explain away . . . **the fact of the red light in our own hands would be a serious burden to the tobacco industry if it came out in legislative hearings or in litigation**.

282002087-2088 (U.S. Ex. 28,074) (emphasis added).

1151. In a memorandum to the file dated January 10, 1978, Thomas Osdene of Philip Morris reported that "[a]t Mr. Goldsmith's request, Dr. Seligman, Mr. Holtzman, and I met with Dr. Gardner, Dr. Hockett and Mr. Hoyt at the CTR offices in New York. The objective was to review the contracts carried out by Microbiological Associates[.]" With respect to the contract involving human studies involving aryl hydrocarbon hydroxylase ("AHH"), Osdene stated: "I believe that even if a standardized test is perfected for the determination of AHH in humans, its use could well be manipulated to obtain simplistic deductions on cause and effect relationships. It is my recommendation that CTR cease work in this specific area of human studies." 1000041904-1905 (U.S. Ex. 35,103).

1152. The issue of contract research at CTR was discussed at a Meeting of Counsel on February 1, 1978. In attendance at the meeting were: Stevens (Lorillard); Ahrensfeld and Holtzman (Philip Morris); Shinn and Sirridge (Shook, Hardy & Bacon); Roemer, Crohn, and Jacob (R.J. Reynolds); Pepples (Brown & Williamson); and Janet Brown (Chadbourne & Parke). Yeaman, Chairman and President of CTR, was also present. Brown argued that CTR contract research was problematic because:

> Contract research results and their publication, by contrast, would be argued by the industry's opponents to be industry findings. Outright disavowal, particularly on the issue of "relevance," is going to be utterly unconvincing. On what basis would the industry underwrite contracts for "saccharin-type" (or any other) research if it did not believe the research to be material to problems of "smoking carcinogenicity"? Publication of contract research exacerbates the problem, since CTR's contracts give it control over publication.

At the meeting, Jacob also acknowledged that:

> CTR independence is arguably belied by several of its functions. CTR Special Projects, though perfectly sound research, are frankly designed to support industry argument. The Information Storage and Retrieval System, a part of the CTR Library, is designed and maintained as a legal, rather than as a "scientific" literature research tool.

Shinn opined that:

> [T]he whole current force of the industry's [TI's] appeal to its supporters – as well as its answers to its critics – is assertion of industry dedication to research. The research effort is now the vital element in Kornegay's position with Congress, the Executive, HEW, NIH, and in TI's response on the "public smoking issues" and to the various governmental and voluntary agency anti-smoking drives.

It was also apparent that there were serious disagreements with Kreisher's viewpoints at CTR.

Brown reported that:

> Yeaman felt that much of the members' current dissatisfaction really reflected dissatisfaction with Kreisher and his attitudes. Kreisher is also a cause of internal staff dissatisfaction and Yeaman would have no difficulty in recommending to Gardner that Kreisher be separated. Gardner himself complains that Kreisher goes off on "junkets" without telling Gardner where or when he is going, and that Kreisher never files reports on time. Kreisher has been openly critical to outside scientists of Gardner – whom he has called incompetent – of Yeaman – whom he has called "absolutely controlled by the industry" – and of CTR, which he has said is run by the lawyers. Yeaman feels that this conduct constitutes ample reason to fire Kreisher for cause. . . . The real dispute was whether Kreisher should be given a "generous termination" [e.g., a years' salary] together with a consulting contract (for a year or more). . . . Roemer would want a clause providing that Kreisher would not do anything against the interests of CTR and the industry.

12698560001-0032 (U.S. Ex. 36,250).

1153. Another internal Brown & Williamson letter from Ernest Pepples to J.E. Edens, C.I. McCarty, I.W. Hughes and DeBaun Bryant dated April 4, 1978 also discussed concern over CTR contract research. Pepples reported that:

> Dr. Charlie Sommers believes that some of the contract work [at CTR] has gone too far afield – "It seems to have a life of its own." He recently found that the massive, expensive inhalation program being conducted at Microbiological Associates was not going forward in areas which he understood it would be by this time and that it was doing some things that surprised him. Dr. Sommers is the Chairman of the Scientific Advisory Board. He will lead the SAB later this month in a review of the contract work[.]

680212421-2423 (U.S. Ex. 54,024); 682338651-8653 (U.S. Ex. 22,899).

1154. John Kreisher was abruptly terminated from CTR without notice to anyone at MA in May 1978. 70000249-0253 (U.S. Ex. 31,074); 70000256-0259 (U.S. Ex. 31,076).

1155. A November 13, 1978 inter-office correspondence memorandum, drafted by Thomas Osdene of Philip Morris, recommended restructuring CTR because "CTR as originally structured may have outlived its usefulness, especially in the area of P.R." Osdene proposed that "CTR should be controlled both legally and scientifically by representatives of the industry. . . . CTR should fund work largely by means of contracts, thus reserving the right to control publications which might be detrimental to the industry. . . . The long-term scientific program should be carefully planned such that the results obtained should not be able to harm the industry. . . . There should be greater participation by industry scientists in contracts and/or grants given by CTR." Osdene included a list of "Potential Long-Term Scientific Studies" and under the heading, "Subjects To Be Avoided," Osdene listed: "1. Developing new tests for carcinogenicity. 2. Attempt to relate human disease to smoking. 3. Conduct experiments which require large doses of carcinogen to show additive effect of smoking." The list of potential long-term scientific studies and list of subjects to be avoided were shared with Alexander Spears of Lorillard. 2021016008-6010 (U.S. Ex. 85,952); 1003718406-8408 (U.S. Ex. 35,899).

1156. A January 8, 1979 inter-office memorandum, drafted by Thomas Osdene of Philip Morris, also commented about the MA contract work: "I am forced of the opinion that the program seems to be misdirected since its main mission seems to be to prove that smoking causes cancer." 2075573037-3038 (U.S. Ex. 24,708).

1157. A letter dated June 23, 1980, from Ernest Pepples, Vice President and General

Counsel of Brown & Williamson, to Bowling, Holtzman, Spears, Shinn, Jacob, Tucker, Henson, and Brown stated that "Add Yeaman advises that the Executive Committee of the SAB has decided to terminate the massive inhalation program at Microbiological Associates." Completion of research begun under contract between CTR and MA continued through approximately 1982. 01347166-7166 (U.S. Ex. 85,953); SF0220081-0082 (U.S. Ex. 65,431), 10010345-0346 (U.S. Ex. 85,954); SF0280056-0109 (U.S. Ex. 65,432), 10011127-1170 (U.S. Ex. 85,955); CTRCONTRACTS026409-6409 (U.S. Ex. 32,560), 11246158-6158 (U.S. Ex. 86,622); CTRCONTRACTS026364-6364 (U.S. Ex. 32,559), 11246113-6113 (U.S. Ex. 86,621).

1158. In 1983, CTR requested a final manuscript concerning the work performed at MA. After manipulating the text of the manuscript and adding a forward drafted by Sheldon C. Sommers, CTR Scientific Director, CTR published the manuscript as a book entitled "Chronic Exposure of Mice to Cigarette Smoke." CTRCONTRACTS026364-6364 (U.S. Ex. 32,559), 11246113-6113 (U.S. Ex. 86,621); SF0280114-0114 (U.S. Ex. 65433), 10011185-1185 (U.S. Ex. 86,623); CTRCONTRACTS025100-5100 (U.S. Ex. 85,956), CTR98CONG00067-0067 (U.S. Ex. 32,517); CTRCONTRACTS025186-5186 (U.S. Ex. 85,957), CTR98CONG00071-0071 (U.S. Ex. 32,519); CTRCONTRACTS025188-5188 (U.S. Ex. 85,958), CTR98CONG00073-0073 (U.S. Ex. 32,520); CTRMIN-BD 000147-0152 (U.S. Ex. 32,590); TI05120118-0120 (U.S. Ex. 85,959); TI0512-0131-0149 (U.S. Ex. 85,960).

1159. Richard Kouri, former Director of Research of MA, and Carol Henry, researcher with MA, were the primary researchers involved with the contracts between CTR and MA. They have both alleged that the contracts were terminated prematurely, that their work on the final

report was overseen on a regular basis by William Gardner of CTR and attorney Timothy Finnegan of Jacob, Medinger & Finnegan, and that CTR manipulated the final manuscript when it published the book, "Chronic Exposure of Mice to Cigarette Smoke." 70000256-0259 (U.S. Ex. 31,076); 70000249-0253 (U.S. Ex. 31,074); 2023253139-3140 (U.S. 36,990).

1160. Carol Henry, former Director of Inhalation Toxicology at MA, stated in a sworn affidavit dated June 6, 1997:

> It was and is my conclusion that the results of this inhalation experiment were strongly supportive of the biological effects of cigarette smoke and the hypothesis that cigarette smoking causes lung cancer although the results were not conclusive. . . . It is my opinion that termination of the CTR contract, initiated to improve understanding of the biological effects of cigarette smoke and its relationship to lung cancer, was premature and scientifically ill-advised.

In addition, Henry stated:

> It is my opinion that CTR and its attorneys were able to control the interpretations of our research at MAI through release of the book and press release (all without our knowledge). Further, through these public relations efforts they shifted the focus to only one endpoint – bronchogenic squamous cell carcinoma – which was not observed in our study. With such a shifted focus, it is my opinion that CTR and its attorneys were able to dismiss our study as not important, even while it demonstrated significant and diverse biological activity for cigarette smoke, including increases in other types of lung cancer. CTR and its attorneys were then able to dismiss the results and implications for cigarette smoke related diseases in human smokers.

70000249-0253 (U.S. Ex. 31,074).

1161. Richard Kouri stated in a sworn affidavit dated June 6, 1977: "While Dr. Henry

and myself were primarily responsible for the drafting of the report, Mr. Finnegan influenced how it was phrased. In my opinion he was faced with data that said cigarette smoke was a weak carcinogen and he tried to figure out a way of saying that without saying it." In discussing Sommers' introduction to the book, Kouri stated: "I have reviewed the Introduction to the book and do not agree with the statements made in the introduction by Dr. Charles Sommers. While his statements may be technically true, as far as they go, they are seriously misleading because of the conclusions that are drawn and the failure to include the context in which the research was carried out." He further stated: "I understand that the CTR and members of the tobacco industry have cited the Microbiological Associates Inhalation research as support for the proposition that cigarette smoking does not cause lung cancer. As one of the primary researchers involved in the inhalation projects, I disagree with this representation." 70000256-0259 (U.S. Ex. 31,076).

(c) In Reality, CTR Was Controlled by Industry Executives and Lawyers for Their Own Purposes

(i) General Control of CTR

1162. Cigarette Company Defendants, through their attorneys and other agents, took an active role in controlling TIRC/CTR's research and other priorities. 686052385-2387 at 2386 (U.S. Ex. 21,035).

1163. Despite all of their efforts to channel research away from anything that might be damaging to the industry, some of CTR's research efforts, however, did generate results showing that smoking causes disease. In those instances, the evidence shows that Defendants actively sought to restrict, and did restrict, the dissemination or publication of adverse research.

2048924986-5018 at 5001 (U.S. Ex. 21,694).

1164. As a cable sent on July 3, 1963 from Addison Yeaman, Vice President and General Counsel of Brown & Williamson, indicated, William Hoyt, Executive Secretary of CTR, had:

> agreed to **withhold disclosure** [of] Battelle report to [CTR] members **or SAB until further notice from me**. Finch [CEO of Brown & Williamson] agrees submission Battelle or Griffith developments to Surgeon General undesirable and we agree continuance of Battelle work useful but disturbed at its implications re cardiovascular disorders. We believe combination Battelle work and Griffith's developments have implications which increase desirability [of] reevaluation [of CTR] and reassessment fundamental policy re health.

689033421-3421 (U.S. Ex. 31,045); 689033422-3422 (U.S. Ex. 22,734) (emphasis added).

1165. On November 18, 1965, Liggett counsel Frederick Haas wrote a memo titled "CTR - U.S.A.," discussing the proposed budget for 1966 for studies in "Whole smoke," "Oral Cavity," and "Epidemiology. " Haas noted:

> [a]s a result of a conference held by the General Counsel, we broached another subject with the Council staff. In view of the present posture of the industry with Congress, FTC, etc., it was suggested that the organization of the Council be further implemented by creating an Industry Projects Advisory Board, which could feed suggestions for research to the staff. [The Board] would consist of General Counsel with the aid and advice of the Ad Hoc Committee and . . . the staff of the Council . . . would evaluate whether the project would be likely to obtain SAB approval.

LG2002635-2638 at 2637 (U.S. Ex. 21,201).

1166. A 1966 Brown & Williamson document attaching the minutes of a meeting of

General Counsel from December 17, 1965, described how CTR research proposals were reviewed and approved by lawyers: "The Ad Hoc Committee submitted its 'priorities' selected from the recommendations for specific research presented to General Counsel at an earlier meeting. . . . The Ad Hoc Committee divided the proposals referred to into three categories: Category A: Projects essentially of an 'adversary' value. These are considered to have a relatively high priority. Category B: Research having a generally defensive character. Category C: Basic research." CTRMN041346-1350 at 1349 (U.S. Ex. 21,944).

1167. During the 1970s, CTR's Industry Research Committee – comprised of attorneys and public relations employees of the cigarette manufacturers – considered what research CTR should conduct and developed research projects accordingly. A memorandum dated November 4, 1978, from Janet C. Brown, an attorney for American Tobacco, explained that the industry had "moved closer to becoming the arbiter of the amount of CTR research done (by reason of its control of CTR's budget) and the type of research done (by reason of the changes in scope and direction of research, as dictated by [Addison] Yeaman)." http://energy commerce.house.gov/tobacco/docs/bw/0012690844.tif at 15 (U.S. Ex. 36,238).

1168. A March 23, 1973 handwritten note from Helmut Wakeham, Director of Research and Development for Philip Morris, to Robert C. Hockett, CTR Scientific Director, rated forty-four scientists as to "which ones might be the greatest benefit to the [tobacco] industry." The note ended, "[u]se [the ratings] for what you think they might be worth and throw the paper away." 87657627-7629 at 7627 (U.S. Ex. 21,097).

1169. On August 23, 1973, Edwin J. Jacob wrote: "CTR has determined that it does not

wish to participate in Homburger's sub-committee effort at establishing smoking machine standards for biological smoking . . . we might be in an unfortunate posture if CTR did not participate and the committee formulated standards at substantial variance with CTR's ultimate results. After some discussion of the details, it was agreed that Hockett would talk to Homburger with the objective of getting Homburger to postpone his effort." 680252584-2584 (U.S. Ex. 20,994).

1170. There were instances when Defendants encouraged scientists to change the wording of their proposed publications to downplay the significance of the research findings. For example, in the summer of 1973, CTR Research Director Robert Hockett and CTR lawyer Edwin Jacob traveled to Fred Homburger's summer home in Maine. There they requested that Homburger modify and moderate wording in the proposed publication of his research results from "invasive cancer" to "pseudo-epitheliomatous hyperplasia, a euphemism of lesions preceding cancer." At that same meeting, Jacob threatened to cease all further funding if Homburger published his findings of cancer of the larynx without the changes. In 1974, Homburger compromised on the language and published his results using the term "micro invasive cancer" instead of "invasive cancer." Trial Testimony of Fred Homburger, Cipollone v. Liggett, Civil Action No. 83-2864(SA) (D.N.J.), February 23, 1988 at 2718-2729.

1171. There were also instances when Defendants attempted to stifle the dissemination of a scientist's opinions. In April 1974, Leonard Zahn, CTR's public relations advisor, "got [Homburger's] press conference killed without his knowing why or how." In a confidential memorandum from Zahn to CTR President Henry Ramm and CTR employee W. Thomas Hoyt,

Zahn described how he found out that a press conference had been scheduled for Homburger during the American Society of Experimental Pathology ("ASEP") meeting in Atlantic City at which Homburger was going "to tell the press that the tobacco industry was attempting to suppress important scientific information about the harmful effects of smoking" and "was going to point specifically at CTR." Zahn spoke unfavorably about Homburger with his "long-time friend" Judy Graves, the ASEP public information officer, and a few hours later, Graves called Zahn at his hotel; gave Zahn permission to arrange to cancel the press conference (which he did); and called Homburger and told him the press conference had been canceled because of "scheduling difficulties in the press room." Zahn also spoke with the head of the press room so that when Homburger came to the press room the day after presenting his paper at the meeting, he was given a cordial welcome and was "nicely hastened out the door." Zahn ended his memo with the following post script: "P.S. I doubt if you or Tom will want to retain this note." CTRMNZN475-477 at 477 (U.S. Ex. 21,160); ZN19604-9605 at 9605 (U.S. Ex. 64,797); 2022886197-6198 at 6198 (U.S. Ex. 20,367).

1172. In 1978, Sheldon Sommers, Chairman of the CTR Scientific Advisory Board, complained to William Gardner, CTR Scientific Director, that he (Sommers) was unable to understand the legal counsel he was being given. The clear import of Sommers' letter was that the CTR lawyers were controlling tobacco research by CTR based upon legal considerations. Sommers also stated, "I think CTR should be renamed Council for Legally Permitted Tobacco Research, CLIPT for short." 11319256-9256 (U.S. Ex. 20,281).

1173. On April 4, 1978, Ernest Pepples, Senior Vice President and General Counsel of

Brown & Williamson, wrote a letter to Joseph Edens, President of Brown & Williamson; Charles McCarty, Chairman and CEO of Brown & Williamson; I. W. Hughes, Senior Vice President of Research & Development of Brown & Williamson; and DeBaun Bryant, Vice President and General Counsel of Brown & Williamson, regarding American Tobacco's conclusion "that part of the central nervous system/nicotine work poses a question with respect to the assurances which the companies gave to the Justice Department to the effect that none of the scientific work at CTR would have commercial application. Philip Morris and Lorillard concur in the view that some of the central nervous system (CNS) work has commercial overtones, specifically work which would lead to blocking agents or substitutes for nicotine." The Committee of Counsel worked out a compromise: the ongoing CNS work under contract would continue, but before CTR embarked on any new work, research applications in the CNS/nicotine area would be pre-screened before being submitted to the CTRSAB82338651-8653 at 8651 (U.S. Ex. 22,899).

1174. At a special meeting on April 21, 1978, CTR's Board of Directors adopted the following resolution: "RESOLVED, that funds may be committed to any research project only when, in the opinion of the Corporation's legal counsel, that commitment is within the scope of the Corporation's legally permissible activities." CTR-MIN-BD-000130-0134 at 0132 (U.S. Ex. 21,463); Third Amended Response of Defendant CTR to United States' Second Set of Individual Interrogatories, Interrogatory Nos. 3 and 4 (March 29, 2004) (U.S. Ex 86,773).

1175. Beginning in April 1978, W. Thomas Hoyt, CTR's Executive Vice President and then President after October 1980, determined which grant applications should be reviewed by CTR's legal counsel, Jacob & Medinger. At least eight CNS research proposals were reviewed

by CTR lawyers and not sent on to the CTR SAB. At least fifteen additional CNS research proposals were reviewed by lawyers without being sent to, or before copies were sent to, the full SAB for their review, or even after review of those same proposals by the SAB Executive Committee. Some SAB members reacted angrily to being told that a lawyer would review certain grant applications. Third Amended Response of Defendant CTR to United States' Second Set of Individual Interrogatories, Interrogatory Nos. 3 and 4 **(March 29, 2004) (U.S. Ex. 86,773).**

1176. An October 25, 1978 Philip Morris inter-office correspondence from Robert B. Seligman to the CTR File regarding the October 18-20, 1978 CTR meeting began: "I discussed the recent CTR meeting with Preston Leake. As Chairman of the Industry Technical Committee, he was present at the grant approval meeting of CTR. As a matter of background, Preston indicated that at the mid-1978 meeting Ed Jacobs appeared to warn the SAB against approving work in the area of CNS stimulation. The SAB reacted vehemently claiming it was a legal problem and leave the science to them. They also indicated that they were not being paid adequately. At the most recent meeting, Ed Jacobs was not present but Ad Yeaman said that certain grants would be 'reviewed' by counsel after receiving SAB approval. The CNS study grant would certainly fall in that category." 95522152-2153 at 2153 (U.S. Ex. 56,818); 1003718500-8500 (U.S. Ex. 35,904); 2075573034-3034 (U.S. Ex. 43,681).

1177. Lorraine Pollice, Assistant Treasurer and Secretary of CTR, stated that CTR maintained a "cases and inquiries log" which indicated whether a preliminary application related to CNS/nicotine research had been sent to CTR's lawyers for review. For several years, beginning in the late-1970s, CNS/nicotine grant applications were screened by lawyers.

Deposition of Lorraine Pollice, United States v. Philip Morris, et al., July 27, 2002, 109:20-119:21.

1178. There are also numerous industry documents demonstrating correspondence among Defendants concerning what research CTR should and should not conduct. For example, a November 13, 1978 Philip Morris "confidential" interoffice correspondence recommended long term plans for CTR, stating that "CTR should be controlled both legally and scientifically by representatives of the industry. . . . CTR should fund work largely by means of contracts, thus reserving the right to control publications which might be detrimental to the industry . . . [t]he long-term scientific program should be carefully planned such that the results obtained should not be able to harm the industry . . ." The memorandum further specified "Subjects to be Avoided – 1. Developing new tests for carcinogenicity. 2. Attempt to relate human disease to smoking. 3. Conduct experiments which require large doses of carcinogen to show additive effect of smoking." 1000036500-6502 at 6500, 6502 (U.S. Ex. 35,094) (U.S. Ex. 35,095).

1179. An undated slide presentation outlined five "Funding Sources of Tobacco Industry Research" and focused on the 1980 to 1982 expenditures, but mentioned research programs covering dates from 1971 to 1986. The five funding sources were: (1) Council for Tobacco Research-U.S.A., Inc.; (2) CTR Special Projects; (3) Special Research-Multiple Companies; (4) Individual Companies; and (5) Special Account No. 4 (litigation/legislation oriented). Recommendation 3 stated: "Be prepared to increase industry funding of special projects to address scientific problems and develop witnesses." 01334642-4655 at 4642, 4655 (U.S. Ex. 34,528).

1180. On April 23, 1990, Charles Wall, a Shook, Hardy & Bacon lawyer, sent a letter to Arthur J. Stevens, Senior Vice President and General Counsel of Lorillard, advising on a possible name change for CTR, the appointment of non-tobacco industry scientific board members, and the use of a public relations firm so that CTR would have a more favorable perception in litigation. He hoped "it will be more difficult for plaintiffs to mischaracterize the true independence and objectivity of the scientific research effort." TIMN0015297-5299 at 5298-5299 (U.S. Ex. 21,287) (U.S. Ex. 62,692).

1181. On October 15, 1991, Shook, Hardy & Bacon attorney Bill Allinder wrote to transmit the proposed CTR Defensive Statement "to be used in the event further inquiries are made about the articles appearing in the American Journal of Public Health." Allinder went on to comment about the draft and stated that he and Robert Northrip (a colleague at Shook, Hardy & Bacon) "do not object to [the] changes except for the sentence [] added to the second paragraph: 'CTR's grantees publish the results of their research in peer reviewed scientific journals.' Taken at face value, this statement is not entirely accurate." 86000272-0278 at 0272 (U.S. Ex. 22,205).

(ii) CTR Special Projects

1182. While Defendants promoted the SAB as an "independent" board, they funneled funds through TIRC/CTR to conduct non-SAB approved research projects that were not objective or independent as the Defendants had promised, but instead were designed to conclude that there was no link between smoking and disease and to develop favorable research and expert witnesses to defend the industry in court. These research projects, known as TIRC/CTR Special

Projects, were initiated and developed by Defendants through their agents, including outside counsel, who used them to provide research funding for scientists and doctors who might be willing to provide testimony favorable to the cigarette companies on smoking and health matters. The funding of Special Projects was handled by Defendants' agents, including the law firms of Jacob, Medinger & Finnegan and Shook, Hardy & Bacon. 92456261-6268 at 6262 (U.S. Ex. 21,658) (U.S. Ex. 75,420); 2045752086-2093 (U.S. Ex. 20,466); Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 56:9-57:18.

1183. CTR Special Projects were often funded when the SAB would not approve grant funding for a proposed research project or when the cigarette companies needed favorable research performed for litigation purposes, and wanted it done quickly. Special Projects were sponsored and approved by Defendants' attorneys and used to defend health litigation. LG2002635-2638 at 2637 (U.S. Ex. 21,201); 504480626-0629 at 0628 (U.S. Ex. 20,730); 512678702-8710 at 8703, 8706 (U.S. Ex. 20,847); http://energycommerce.house.gov/tobacco/docs/bw/0012685353.tif at 4, BWX0005283-5288 (U.S. Ex. 76,025).

1184. CTR Special Projects came into being in the mid-1960s when "it was decided to undertake various special projects in the form of contract research, pilot and exploratory studies, short-term research projects and other projects – such as preparation of bibliographic reviews and analytical monographs – whose character would render them narrower in scope than broader objectives of the Advisory Board's grants-in-aid program." CTRMN007485-7490 at 7486 (U.S. Ex. 21,157).

1185. A February 22, 1980 letter from Arthur J. Stevens, Senior Vice President and General Counsel of Lorillard, to Timothy M. Finnegan, Jacob & Medinger attorney, responded to Finnegan's earlier memorandum seeking approval for a project to be funded from Special Account #4. Stevens agreed to participate in the funding of the project, and noted:

> I am mindful of the continuing mandate with which your office, Shook, Hardy and others have been charged by your respective clients on behalf of the Industry; that is, to find witnesses and researchers – and, if necessary in order to determine the feasibility of developing a relationship with them, engage them as consultants, or as researchers on initially modest projects . . . There resides within the Company a good deal of tobacco chemistry expertise. Perhaps some effort should be made by us, as lawyers, to the extent consistent with our concerns about legal privilege and related protections, to more frequently tap that knowledge, by using our own scientists as consultants to our litigation counsel regarding the research methodologies and proposals suggested by those scientists we engage to conducting independent research.

TI1710-1942-1944 (U.S. Ex. 62,476); LG2006048-6050 (U.S. Ex. 85,961).

1186. Defendants knew that CTR Special Projects work was not independent science. Internal company documents expressed concern about the "degree to which [Special Projects] make advocacy primary and science becomes secondary," and that, to aid in litigation, the companies, through Special Projects, were funding science that was "not worth a damn." 2045752086-2093 at 2086, 2090 (U.S. Ex. 20,466).

1187. The General Counsel of Philip Morris, R.J. Reynolds, Lorillard, Liggett, Brown & Williamson, and American Tobacco began using research funds to pay for CTR Special Projects in large numbers. From at least 1965 to 1993, there were hundreds of mail and wire

communications among the members of the Committee of Counsel, Jacob, Medinger & Finnegan, and Shook, Hardy & Bacon regarding information and funding approval for individual CTR Special Projects. 92456261-6268 (U.S. Ex. 21,658) (U.S. Ex. 75,420); 01335358-5358 (U.S. Ex. 26,485).

1188. Attorneys approved Defendants' funding of CTR Special Projects and CTR President Thomas Hoyt assigned each project a number. 11330520-0520 (U.S. Ex. 20,282).

1189. CTR Special Projects were funded based on contributions received from interested CTR member tobacco companies and these company contributions were specifically earmarked for Special Projects. Shook, Hardy & Bacon attorney Donald Hoel found that the CTR Special Projects were much more useful in supporting tobacco liability positions than the projects funded through the SAB. Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 65:9-19; 67:3-7.

1190. Starting in the mid-1960s, Shook, Hardy & Bacon developed smoking and health literature databases within its law firm to help the lawyers pick scientists friendly to the tobacco industry liability positions so that these scientists could receive industry funding through the CTR Special Projects method. Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 61:16-62:24.

1191. As early as June 15, 1966, General Counsel were approving CTR Special Projects. 2015059798-9798 (U.S. Ex. 20,333).

1192. An April 14, 1967 memorandum to Addison Yeaman, General Counsel of Brown & Williamson, revealed: "We have deliberately isolated the SAB from those areas of research

which they might consider were of a controversial or adversary nature and I see no reason why that isolation cannot and should not be maintained to the fullest preservation of the scientific integrity and dignity of the SAB, but with the release of funds from the SAB portion of CTR's budget to both research directly related to tobacco and to the so-called Special Projects." 321668053-8055 at 8054 (U.S. Ex. 20,591).

1193. On October 3, 1968, Alexander Holtzman, Assistant General Counsel of Philip Morris, sent a letter to David Hardy of Shook, Hardy & Bacon proposing that CTR Special Projects funding be approved for a scientist, Richard Hickey, whose application to CTR for funding was previously turned down but who was likely to produce data useful to Defendants. The letter stated: "Dr. Hickey is willing to prepare a statement for Congress provided that he is put in a position to complete the analysis of data which he has in-hand and he would, in my opinion, make an excellent witness." 1005084784-4786 at 4784 (U.S. Ex. 22,988).

1194. The evidence shows that control by the Defendants' attorneys increased over time. The Research Liaison Committee formed in 1974, approved, recommended, and monitored CTR Special Projects. 686052385-2387 at 2386 (U.S. Ex. 21,035).

1195. A November 17, 1978 memo written by Robert B. Seligman, Vice President of Research and Development for Philip Morris, noted that William Shinn, a Shook, Hardy & Bacon attorney, believed "that 'special projects' are the best way that monies are spent. On these projects, CTR has acted as a 'front'. . . ." 2045752106-2110 at 2107 (U.S. Ex. 20,467).

1196. Industry lawyers categorized research depending on whether the outcome was adverse to the industry, allowing the industry to avoid publication as well as production in

litigation. For example, one document discussed the difference between CTR Special Projects and Lawyers Special Projects. This document described the notes from a September 10, 1981 discussion at a meeting of the Committee of Counsel between Arthur Stevens, General Counsel for Lorillard, and Edwin Jacob, outside counsel for the industry:

> STEVENS: I need to know what the historical reasons were for the difference between the criteria for lawyers' special projects and CTR special projects. . . . JACOB: When we started the CTR Special Projects, the idea was that the scientific director of CTR would review a project. If he liked it, it was a CTR special project. If he did not like it, then it became a lawyers' special project. STEVENS: He took offense re scientific embarrassment to us, but not to CTR. JACOB: With Spielberger, we were afraid of discovery for FTC and Aviado, we wanted to protect it under the lawyers. We did not want it out in the open.

LG2000741-0750 at 0745-0746 (U.S. Ex. 36,269).

1197. A September 10, 1981 memorandum from Arthur J. Stevens was titled "CTR and Non-CTR Special Projects - General Information." Under the topic of "Special Projects," Stevens stated: "We mean those projects which are initiated by lawyers, for advocacy purposes." He further noted: "CTR's Scientific Director reviews any project which the lawyers propose for funding through CTR to be certain it will not be a scientific embarrassment to CTR – but which, for a variety of reasons, may not be suitable for grant by CTR." 03746184-6185 (U.S. Ex. 20,600).

1198. As explained by one of Defendants' lawyers in a July 13, 1984 memorandum, CTR Special Projects were:

> Initiated and developed through outside counsel. A major purpose

> is to provide research funding for scientists who might be willing to act as consultants or provide testimony on smoking and health related areas. Sometimes the research subject is outside the scope of the CTR grants-in-aid program. Also, some scientists may have published findings not supportive of the causal theory or have views along these lines and may have problems of receiving support from NIH or other funding organizations. . . . In practice, outside counsel and the scientists develop the protocol and the budget for the project. This is sent to the CTR Scientific Director (currently Dr. Sommers) for review. If he has no objection, the proposal is then sent to the General Counsel of the companies for their approval. Once the General Counsel have approved the project, the scientist is advised to submit application to CTR for funding. Other than providing the funding, CTR is not further involved in the project. Monitoring of the research and contact with the scientist is done through outside counsel. Funding ranges from $20,000 to as much as $400,000 for one year of Dr. Sterling's project.

92456261-6268 at 6262 (U.S. 21,658) (U.S. Ex. 75,420).

1199. When Special Projects came under scrutiny in the 1990s, Defendants ceased to fund them. In fact, counsel for Lorillard suggested in an internal document that using CTR Special Projects to "purchase favorable judicial or legislative testimony . . . [was] perpetrating a fraud on the public." 87715637-5638 (U.S. Ex. 21,102); 87715635-5636 at 5636 (U.S. Ex. 21,101); 521100040-0040 (U.S. Ex. 20,893); 521100027-0027 (U.S. 22,969); 521100176-0176 (U.S. Ex. 20,894); 2015002730-2730 (U.S. Ex. 20,305); 2501190758-0759 (U.S. Ex. 20,562); 2015002731-2732 (U.S. Ex. 20,306).

1200. When CTR Special Projects became the focus of a grand jury investigation in the Eastern District of New York in the 1990s, a memorandum disclosed that Special Projects were no longer administered under the auspices of the CTR "pursuant to legal advice." 87715637-

5638 (U.S. Ex. 21,102).

1201. Defendants continued to fund such projects by placing them directly under the auspices of their agents and attorneys, who had long been involved in control of CTR Special Projects. Defendants continued to pay for the same projects through their outside law firms on a market share basis. 2015002730-2730 (U.S. Ex. 20,305); 2501190758-0759 (U.S. Ex. 20,562); 2015002794-2794 (U.S. Ex. 20,307); 521100040-0040 (U.S. Ex. 20,893); 521100027-0027 (U.S. Ex. 22,969); 521100176-0176 (U.S. Ex. 20,894); 680713140-3140 (U.S. Ex. 21,011).

1202. A February 25, 1992 R.J. Reynolds memorandum from Daniel W. Donahue to Wayne W. Juchatz, both R.J. Reynolds in-house counsel, contained a detailed history of the CTR and the use of Special Projects. The memorandum provided a number of important reasons for the existence of Special Projects, and indicated that it was Defendants' belief that it could protect the projects through the attorney-client privilege and work product doctrine. CTR Special Projects were sponsored and approved by the Cigarette Company Defendants' attorneys and used to defend health litigation. The memorandum stated: "The role of lawyers in CTR Special Projects appears to have continued to grow as time progressed." The memorandum further stated: "Lawyer involvement cannot be denied or minimized, it was simply too pervasive." 512678701-8710 at 8707, 8709 (U.S. Ex. 20,847).

1203. On April 28, 1992, David M. Murphy of Wachtell, Lipton, Rosen & Katz, counsel to Lorillard, drafted an internal memorandum to partners requesting guidance on a question raised by Arthur Stevens of Lorillard and Bill Allinder of Shook, Hardy & Bacon regarding Lorillard's participation in CTR Special Project funding of Bennett Jensen despite legal advice to

discontinue Special Project contributions. Murphy explained that Jensen "faces funding problems at Georgetown that . . . have something to do with his ties to the industry . . . and could use some funds to tide him over until he can find a new home." Murphy stated "the Jensen issue raises a larger question -- whether 'CTR Special Projects' funds . . . were used to purchase favorable judicial or legislative testimony, thereby perpetrating a fraud on the public." 87715635-5636 (U.S. Ex. 21,101).

1204. On May 11, 1993, Kendrick Wells (B&W) sent a memo to S.P. Chaflen (an in house lawyer for B.A.T. Industries), Peter L. Clarke (General Counsel of BATCo), Andrew Foyle (Lovell White Durrant law firm), and Mick McGraw (B&W) providing a brief description of CTR Special Projects. In this memo, Wells described that in the early 1960s, the accounting work of collecting money from the companies and paying researchers was moved inside CTR, where it was called CTR special projects. The special projects continued to be directed by the litigators, with only the grant money moving through CTR. The document stated to BAT that details of the CTR "story" " . . . should not be talked to the public during the pendency of litigation in the U.S. involving assertions of fraud in connection with CTR's operations." 536300013-0014 (U.S. Ex. 53,132); Deposition of Michael McGraw, United States v. Philip Morris, et al., October 24, 2002, 223:3-223:21; 229:19-230:4.

1205. A Brown & Williamson memorandum dated June 16, 1993 stated that, when litigating cases in the United States asserting fraud in connection with CTR, attorneys should not disclose the existence of Special Projects. 680900035-0045 at 0039 (U.S. Ex. 21,013).

1206. Harmon McAllister, former Vice President of Research at CTR, admitted that

industry consultant Dr. Theodore Sterling received approximately $4,760,878 in CTR Special Project funds over 17 years (on a number of ETS-related matters), which was quite large in comparison to other CTR funding. According to McAllister, "for whatever reason, the industry felt that that was worth a special consideration over and above any other consideration that had been given." Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 24, 2002, 122:9-125:15.

1207. Lorraine Pollice, Assistant Treasurer and Secretary of CTR, admitted that CTR did not include information about CTR Special Project research in its Annual Reports, which were widely distributed and contained information about current and terminated grants-in-aid, grantees, and their institutions. Pollice admitted that CTR administered Special Project funding through a separate checking account and received direction and funding from the sponsor companies or their attorneys, specifically Shook, Hardy & Bacon. Deposition of Lorraine Pollice, United States v. Philip Morris, et al., June 27, 2002, 24:11-27:2, 43:10-54:18, 69:21-70:2.

(iii) CTR Was More Concerned About Public Relations Than Science

1208. Internal documents show that CTR was intended to operate as a public relations "front" and a "shield" for the Defendants, despite the Defendants' contrary public statements. 680260940-0941 (U.S. Ex. 20,995).

1209. In fact, certain recipients of CTR funds may have been "kept on the payroll," to maintain favorable relations, either for their testimony or the testimony of their colleagues. 01335922-5922 (U.S. Ex. 20,045).

1210. In an attempt to create a public relations plan to distract smokers from smoking and health related concerns, Hill & Knowlton, a public relations firm retained by TIRC, stated the following in an undated document: "There is only one problem – confidence, and how to establish it; public assurance, and how to create it – in a perhaps long interim when scientific doubts must remain. And, most important, how to free millions of Americans from the guilty fear that is going to arise deep in their biological depths – regardless of any pooh-poohing logic – every time they light a cigarette." The document also set forth various problems confronting the industry regarding public relations issues on smoking and health. "Problem 4" displayed a number of tactics to respond to the findings of noted scientists like Wynder, Rhoads, and Ochsner. According to this document, "we have a choice, as previously indicated, of: (a) Smearing and belittling them; (b) Trying to overwhelm them with mass publication of the opposed viewpoints of other specialists; (c) Debating them in the public arena; or (d) We can determine to raise the issue far above them, so that they are hardly even mentioned; and then we can make our real case." JH000493-00501 at 0495, 0498 (U.S. Ex. 21,179); TLT0901532-1540 at 1534, 1537 (U.S. Ex. 87,224).

1211. Timothy Hartnett, President of Brown & Williamson, summarized the crisis of the industry in December 1953 in the following terms: "But cancer research, while certainly getting our support, can be only half an answer. . . . The other side of the coin is public relations . . . [which] is basically a selling tool and the most astute selling may well be needed to get the industry out of this hole. . . . It isn't exaggeration that no public relations expert has ever been handed so real and yet so delicate a multi-million dollar problem. . . . Finally, one of the

roughest hurdles which must be anticipated is how to handle significantly negative research results, if, as, and when they develop." 501773418-3466 (U.S. Ex. 20,686); 1005039779-9783 (U.S. Ex. 20,190); Expert Report of Allan Brandt, United States v. Philip Morris, et al. (R. 1147; filed May 10, 2002) at 20; VXA0050045-0134 (U.S. Ex. 77,117).

1212. A December 15, 1953 Hill & Knowlton memorandum entitled "Background Material on the Cigarette Industry Client" described how Defendants' representatives "have agreed to go along with a public relations program on the health issue." In the section entitled "The Industry's Position," it stated: "They feel that they should sponsor a public relations campaign which is positive in nature and is entirely 'pro-cigarettes.' They are confident they can supply us with comprehensive and authoritative scientific material which completely refutes the health charges." JH000502-0506 at 0502, 0503 (U.S. Ex. 21,411); TLT0901541-1545 at 1541, 1542 (U.S. Ex. 87,225).

1213. Hill & Knowlton's June 21, 1954 "Public Relations Report and Recommendations for the TIRC" stated that TIRC "now has the basis needed for carrying on a long-range plan of public relations activities aimed at establishing the TIRC in the public mind as a constructive force in scientific research. These activities will endeavor to keep the following facts before the Public: 1. That there is no proof that smoking is a cause of lung cancer." 514806129-6131 at 6130 (U.S. Ex. 20,860).

1214. Members of TIRC recognized its public relations function. Timothy Hoyt, Executive Secretary of TIRC, stated on April 28, 1955, that "[e]ssentially, the major purposes of TIRC are Research and Public Relations. Our job is to maintain a balance between the two, and

to continue to build soundly so that at all times Research and Public Relations complement each other. In that way we intend to assume the mantle of leadership and, ultimately, to create a condition where the public will look to the TIRC for the answers rather than to others." CTRMN003816-3835 at 3826 (U.S. Ex. 21,147).

1215. Statements from TIRC meeting minutes and letters attest to Defendants' satisfaction at having successfully influenced the public to believe that there was a legitimate scientific controversy regarding smoking and health and that Defendants openly and honestly participated in that debate. An April 28, 1955 Confidential Hill & Knowlton Public Relations Report to TIRC stated that "an increasing number of scientists and researchers are anxious to report on their works involving cigarettes. Of late, most of these have been anticipated and when necessary, steps are taken to deal with the findings. These reports include studies on the relation of tobacco and heart as well as tobacco and lung cancer." CTRMN039137-9143 at 9138 (U.S. Ex. 21,158).

1216. A letter dated July 30, 1957 from Edward A. Darr, President of R.J. Reynolds, to Paul Hahn, President of American Tobacco, praised Hahn for having the foresight to argue in favor of the creation of the TIRC in December 1953. The letter also stated:

> It now appears, however, that the tobacco industry should go on the offensive in bringing the truth about cigarette smoking to the public. . . . I am convinced that an organization of tobacco manufacturers formed for the narrow and well-defined specific purpose of presenting facts and information helpful to the industry can and should be formed and that such an organization be entirely separate from the TIRC, which would continue its activities in connection with the Scientific Advisory Board grants but would discontinue the major part of the public relations activity, leaving

> this to be handled by the new organization, whatever name might be given to it. Certainly, no one can question the necessity of our going on the offensive without delay.

BBAT030581-0582 (U.S. Ex. 22,058).

1217. In addition to the false statements made by Defendants individually and in furtherance of their scheme to defraud, in 1958, Defendants created the Tobacco Institute, a public relations organization whose function was to make certain that Defendants' false and misleading positions on issues related to, among other things, the connection between smoking and disease, were kept constantly before the public, doctors, community leaders, the press, and the government. At all times, Defendants controlled the Tobacco Institute, including its public statements made on behalf of Defendants.

1218. During the February 14-15, 1958 meeting of the CTR SAB, Timothy Hartnett informed the SAB that Hill & Knowlton "is acting as public relations counsel for both organizations [TIRC and the Tobacco Institute]. He pointed out the desirability of this from both organizations' standpoints." CTRMN004331-4335 at 4332 (U.S. Ex. 21,150).

1219. Further, Bowman Gray, Chairman of the Tobacco Institute, announced "a tentative decision to let the matter of the respective functions of the two organizations [the Tobacco Institute and TIRC] be decided upon a case by case basis under the guidance of public relations counsel." 04209323-9326 at 9323 (U.S. Ex. 47,370).

1220. One section of a report dated February 19, 1963 described a meeting of industry representatives from TIRC, R.J. Reynolds, and Philip Morris at which a debate took place about the accuracy and the legal and public relations implications of whether TIRC should disseminate

the statement that "the causes of lung cancer are not known to science." XBW0010811-0826 (U.S. Ex. 26,458).

1221. Leonard S. Zahn, one of Hill & Knowlton's former employees, was appointed Public Relations Consultant to CTR at the SAB meeting in September 1969. CTRMN004539-4544 (U.S. Ex. 21,151).

1222. A June 1, 1970 letter to Henry Ramm, Vice President and General Counsel of R.J. Reynolds, acknowledged:

01188151-8153 (U.S. Ex. 34,493) (Confidential).

1223. On June 1, 1970, a private conference was held in CTR's offices to discuss with several CTR grantees the "Effects of Nicotine and/or Smoking on the Central Nervous System." On June 17, 1970, Philip Morris researchers Helmut Wakeham and William Dunn called CTR offices to suggest planning a scientific conference on the benefits of smoking. CTR Associate Scientific Director Robert Hockett and others at CTR "reacted quite favorably to this suggestion"

since the private June 1st conference "had brought out several effects in this area that can be regarded as beneficial." On July 1, 1970, Hockett sent a letter to Henry H. Ramm, Vice President and General Counsel of R.J. Reynolds, suggesting and requesting financing for such a conference to be held in the West Indies. 503654893-4894 at 4893 (U.S. Ex. 20,719).

1224. A CTR memorandum in 1970 confirmed that CTR's "primary purpose" was for public relations and stated that "the nature of the projects [CTR] supports make it unlikely that there will be drastic anti-tobacco developments." http://energycommerce.house.gov/tobacco/docs/bw/0012685353.tif at 2, 6 (U.S. Ex. 76,025); BWX0005283-5288 (U.S. Ex. 76,025).

1225. In a letter dated April 4, 1978 from Ernest Pepples, Senior Vice President and General Counsel of Brown & Williamson, to C. I. McCarty, Chief Operating Officer of Brown & Williamson, I. W. Hughes, Chairman of Brown & Williamson, and DeBaun Bryant, CTR Director, Pepples admitted:

> Originally, CTR was organized as a public relations effort. The industry told the world CTR would look at the diseases which were being associated with smoking. There was even a suggestion by our political spokesmen that if a harmful element turned up the industry would try to root it out. The research of CTR also discharged a legal responsibility. The manufacturer has a duty to know its product. The Scientific Advisory Board composed of highly reputable independent scientists constitute a place where the present state of the art is constantly being updated. Theoretically SAB is showing us the way in a highly complex field. There is another political need for research. Recently it has been suggested that CTR or industry research should enable us to give quick responses to new developments in the propaganda of the avid anti-smoking groups. For example, CTR or someone should be able to rebut the suggestion that smokers suffer from a peculiar disease, as

> widely alleged in the press some few months ago. A properly designed research effort should encompass the need for instant response on subjects of public interest in the smoking and health controversy. Finally the industry research effort has included special projects designed to find scientists and medical doctors who might serve as industry witnesses in lawsuits or in a legislative forum. All of these matters and more should be considered in asking what kind of research the industry should do.

686052362-2364 at 2363 (U.S. Ex. 21,034).

1226. On October 11, 1985, R.J. Reynolds attorneys received a memorandum regarding a meeting held August 8, 1985 to discuss the history of industry Research & Development, especially the history of CTR, and also the issue of (CTR) document production. The document made clear that CTR, the Tobacco Institute, Special Projects, and Special Account #4 Projects were initiated to protect industry interests in litigation and public relations. 512678484-8499 (U.S. Ex. 51,653).

(iv) The Recognition: SAB Members, CTR Employees, and Defendants' Representatives All Recognized that CTR's True Purpose Was Public Relations, Not Science

1227. By as early as 1958, Defendants recognized that TIRC was doing research that would add little in the way of constructive conclusions regarding smoking and health issues. In May 1958, a BATCo scientist (and others from the British tobacco industry) visited representatives of the United States tobacco industry and found that:

> Liggett & Meyers stayed out of the T.I.R.C. originally because they doubted the sincerity of T.I.R.C. motives and believed that the organization was too unwieldy to work efficiently. They remain convinced that their misgivings were justified. In their opinion T.I.R.C. has done little if anything constructive, the constantly

> reiterated "not proven" statements in the face of mounting contrary evidence has thoroughly discredited T.I.R.C., and the S.A.B. of T.I.R.C. is supporting almost without exception projects that are not related directly to smoking and lung cancer.

105408490-8499 at 8495 (U.S. Ex. 21,135) (U.S. Ex. 76,169).

1228. As early as 1962, TIRC employees were aware that TIRC had been created as a public relations tool to help preserve the tobacco industry. In an April 9, 1962 TIRC memorandum from Associate Scientific Director J.M. Brady to Little, Brady indicated: "Historically, it would seem that the 1954 emergency was handled effectively. From this experience there arose a realization by the tobacco industry of a public relations problem that must be solved for the self-preservation of the industry." The memorandum suggested that in the future the industry would need to revise and expand the efforts of the TIRC. Brady made a number of suggestions, including increasing the budget of the TIRC to $5 million per year and making an educational television film. HK0039151-9152 at 9151 (U.S. Ex. 21,784).

1229. By 1964, members of the worldwide tobacco industry recognized that CTR research was less scientifically valid than that of other research organizations. In a trip report written in October 1964 by British scientists, it was stated "both L&M and Lorillard scientists told us quite bluntly that they considered TRC [the British trade group] research was on the correct basis and CTR largely without value." 1003119099-9135 at 9115 (U.S. Ex. 20,152).

1230. In 1967, W.W. Bates, Director of Research at Liggett, wrote to the President of the Tobacco Institute, claiming the smoking and health problem "is basically a scientific one." Bates further stated that "so far, however, the major efforts of the industry to cope with this

problem have been other than scientific." Bates also stated that: "The CTR and AMA programs suffer from almost the same fault. Most of their projects have only a peripheral connection to tobacco use." LG0208295-8299 at 8295, 8296 (U.S. Ex. 36,261).

1231. A November 14, 1967 CTR memorandum acknowledged the lack of scientific validity in the industry's so-called research: "This work may be characterized as 'glorified testing' rather than basic scientific research. Such work, however, has a necessary place in our program. . . ." 1001609300-9300 (U.S. Ex. 20,113).

1232. Each year CTR issued a report summarizing the results of its research. These summaries were written by one CTR employee from 1969 until 1989. When interviewed later by *The Wall Street Journal*, the author stated that "[w]hen CTR researchers found out that cigarettes were bad and it was better not to smoke, we didn't publicize that. . . . The CTR is just a lobbying thing. We were lobbying for cigarettes." TI16601796-1799 at 1796 (U.S. Ex. 21,238).

1233. A March 11, 1970 industry document disclosed that Thomas Osdene, a Philip Morris scientist, questioned the worth of the CTR research: "Osdene's view (Philip Morris's view?) was that the C.T.R. did virtually no useful work and cost a vast amount of money." 110316203-6205 at 6204 (U.S. Ex. 20,274).

1234. In a memorandum dated December 8, 1970, Helmut Wakeham, Vice President of Research and Development for Philip Morris, admitted that the industry's interest in smoking and health research was to find evidence to deny allegations of a link between cigarettes and disease, and argued, "[i]t has been stated that CTR is a program to find out 'the truth about smoking and health.' What is truth to one is false to another. CTR and the Industry have publicly and

frequently denied what others find as 'truth.' Let's face it. We are interested in evidence which we believe denies the allegation that cigaret smoking causes disease." 1000255938-5940 at 5938 (U.S. Ex. 20,085).

1235. A letter written by a high-level CTR employee who had retired from Brown & Williamson in 1972 was addressed to "Gentlemen" regarding "The Present State of CTR." The letter stated, in part: "It is my sober judgment that CTR, as it now operates, is the greatest public relations **asset** you have in the problem of tobacco and health. But the moment CTR becomes, or the attempt is made to use it, as a public relations instrumentality, your asset will lose its value because it will have lost its scientific integrity." 682631405-1421 at 1407 (U.S. Ex. 21,025) (emphasis in original).

1236. A September 29, 1978 memorandum from Ernest Pepples, Senior Vice President and General Counsel of Brown & Williamson, to C. I. McCarty, Chief Operating Officer of Brown & Williamson, discussed a memorandum written by William Shinn, Shook, Hardy & Bacon attorney, concerning the value of CTR to the industry. According to Pepples, "CTR is our window on the world of smoking and health research. This avoids the research dilemma presented to a responsible manufacturer of cigarettes, which on the one hand needs to know the state of the art and on the other hand cannot afford the risk of having in-house work turn sour." Pepples further stated: "The point here is the value of having CTR doing work in a nondirected and independent fashion as contrasted with work either in-house or under B&W contract which, if it goes wrong, can become the smoking pistol in a lawsuit." 680260940-0941 at 0940 (U.S. Ex. 20,995).

1237. A draft opening statement prepared by Shook, Hardy & Bacon in 1990 admitted that the TIRC "was a public relations gimmick because the industry controlled the research from 1954 right up until today." The document further stated: "This so-called independent research corporation has been led for 36 years by nothing but industry executives and lawyers carrying out the orders of the tobacco companies." TIMN0015300-5301 (U.S. Ex. 21,293).

1238. Undated handwritten notes stated that "CTR is the best & cheapest insurance the tobacco industry can buy and without it, the industry would have to invent CTR or would be dead." MNAT00770694-0695 (U.S. Ex. 21,395).

(3) The Reality: Defendants Closely Controlled Research on Environmental Tobacco Smoke to Reach Findings Favorable to Their Litigation Strategies

1239. Defendants' response to the emerging scientific evidence on environmental tobacco smoke ("ETS") was closely controlled by their attorneys, who were involved in nearly every step of the process of Defendants' concerted actions. Attorneys were involved in the selection and management of "research" projects through front organizations like CTR and various ETS committees; attorneys were involved in the management of misinformation campaigns through the Tobacco Institute and international organizations like the International Tobacco Information Center/Centre International d'Informatin Du Tabac ("INFOTAB"). Donald Hoel of Shook, Hardy & Bacon and John Rupp of Covington & Burling were predominant among the lawyers involved with the Enterprise's efforts regarding ETS. Hoel worked in a number of Defendants' ETS committees from the 1970s until 1993. In an internal Shook, Hardy & Bacon memorandum, Hoel admitted that his law firm was "instrumental in organizing the

tobacco industry's response to the ETS issue." Deposition of Donald Hoel, United States v. Philip Morris, et al., June 27, 2002, 122:1-123:8, 144:13-146:8; 2015007199-7207 at 7206 (U.S. Ex. 20,311); 2023590167-0174 (U.S. Ex. 20,393).

1240. The stated mission of the Center for Indoor Air Research ("CIAR") was to be a focal point organization to sponsor and foster quality, objective research in indoor air issues with emphasis on ETS and to communicate effectively pertinent research findings to the broad scientific community. While Philip Morris, Lorillard, and R.J. Reynolds represented that CIAR was independent, its by-laws revealed otherwise. The by-laws required that charter members be tobacco companies; they dictated that only charter members have the power to choose CIAR's officers; and, significantly, gave charter members the exclusive power to decide what research the organization would fund.

1241. CIAR's by-laws were not the only source that belied the stated purpose of the organization. On April 25, 1988, Thomas Osdene, at that time the Director of Science at Philip Morris, explained to the Tobacco Institute's president that the purpose of CIAR was to provide Defendants with ammunition for legal and legislative fora where ETS exposure was at issue. CIAR was intended to allow Defendants to perpetuate a "scientific controversy" surrounding the health effects of ETS exposure. As Rupp explained in March 1993: "In sum, while one might wish it otherwise, the value of CIAR depends on the industry's playing an active role (1) in identifying research projects likely to be of value and (2) working to make sure that the findings of funded research are brought to the attention of decision makers in an appropriate and timely manner." According to a former CIAR board member, "ETS was a litigation issue and a PR

issue." TIBU30949-0968 (U.S. Ex. 21,396); 86205444-5452 (U.S. Ex. 21,827); 506662315-2316 (U.S. Ex. 20,762) (U.S. Ex. 75,277); 2021012384-2388 (U.S. Ex. 20,340) (U.S. Ex. 75,227) (U.S. Ex. 75,331); 2023053717-3720 at 3719 (U.S. Ex. 20,373); Deposition of Robert L. Suber, United States v. Philip Morris, et al., June 18, 2002, 76:8-77:6.

1242. Starting in the late 1980s, Defendants, led by Hoel, Rupp, and Philip Morris, intensified their efforts to identify and fund industry-friendly scientists around the world to attack the science linking ETS exposure to disease. This ambitious undertaking was referred to as, among other things, the ETS Consultant Program or the "White Coat Project." The project description revealed its scale and focus:

> In every major international area (USA, Europe, Australia, Far East, South America, Central America & Spain) they [Philip Morris] are proposing, in key countries, to set up a team of scientists organized by one national co-ordinating scientist and American lawyers, to review scientific literature or carry out work on ETS to keep the controversy alive. They are spending vast sums of money to do so. . . . Because of the heavy financial burden, Philip Morris are inviting other companies to join them in these activities.

321140944-0949 at 0944 (U.S. Ex. 20,586); 2021001643-1645 (U.S. Ex. 20,338) (U.S. Ex. 75,223); 2500017054-7063 (U.S. Ex. 20,543) (U.S. Ex. 75,093); Deposition of John Rupp, United States v. Philip Morris, et al., June 28, 2002, 136:6-13; Deposition of Steven Parrish, United States v. Philip Morris, et al., June 25, 2002, 48:24-50:8, 51:25-52:7, 189:9-19.

1243. A document entitled "Note on a special meeting of the UK Industry on Environmental Tobacco Smoke, London, February 17th, 1988," written by Dr. Sharon Boyse (now Sharon Blackie), a senior scientist who has worked for both BATCo and Brown &

Williamson, contained the following summary:

> Philip Morris presented to the UK industry their global strategy on environmental tobacco smoke. In every major international area (USA, Europe, Australia, Far East, South America, Central America & Spain) they are proposing, in key countries, to set up a team of scientists organised by one national coordinating scientist and American lawyers, to review scientific literature or carry out work on ETS **to keep the controversy alive**. They are spending vast sums of money to do so, and on the European front Covington & Burling, lawyers for the Tobacco Institute in the USA, are proposing to set up a London office from March 1988 to coordinate these activities.

2060563936-3941 at 3936 (U.S. Ex. 79,164); 401247331-7336 at 7331 (U.S. Ex. 29,377) (U.S. Ex. 79,190) (emphasis added).

1244. On September 18, 1991, Sharon Boyse, a senior scientist at BATCo, wrote to G. Symmes of W.D. & H.O. Wills in Australia instructing him that until he made changes to the scientific content of a document prepared by the Tobacco Institute of Australia ("TIA") the document was "NOT acceptable to BAT until those changes are made!" The letter demonstrates BATCo's control over public statements and document production by its sister companies, and that it obstructed knowledge related to the true health effects of cigarette smoke from being made available to the public. In the letter, Boyse instructed scientists at W.D. & H.O. Wills, to remove any suggestion from a document that scientific articles had "claimed a statistical association between ETS exposure and the development of lung cancer." The letter went on to require removal of any suggestion that tobacco smoke contained carcinogens because the studies that suggested that tobacco smoked contained carcinogens "are animal studies . . ." Deposition of Ulrich Herter, United States v. Philip Morris, et al., May 28, 2002, 195:4-196:14 and

197:1-197:6; 304002839-2840 at 2839 (U.S. Ex. 46,611) (U.S. Ex. 79,027).

(4) The Reality: The Cigarette Company Defendants Actively Concealed Adverse Scientific Findings, Entered into Agreements Not to Conduct Research, and Used Lawyers to Control Research so that it Would Serve the Purposes of Litigation and Public Relations

1245. Despite their promises to the contrary, and as they had foreseen and intended, Defendants failed to conduct independent research, sequestered adverse scientific findings, and, as a result, failed to warn the public about the true results of scientific research. Because of this, many Americans, including millions of children, became addicted to cigarettes, and many people who were already smoking continued to smoke or had difficulty quitting, with resulting profits for the Cigarette Company Defendants and damage to the health of smokers, former smokers, their spouses and dependents.

1246. Defendants' promise to conduct independent research, when coupled with their suppression of truthful information about the adverse health effects of smoking and tobacco's addictiveness, had a natural result of influencing the decisions of people to begin or continue smoking.

1247. The pervasive and consistent involvement in and control of science by the Cigarette Company Defendants and their lawyers demonstrates that, contrary to their continuing promise to the American public, the Cigarette Company Defendants were not engaged in independent disinterested research into the health impact of smoking.

1248. Defendants' in-house and outside counsel acted to control scientific research in order to further the interests of the Enterprise, including:

- creating the impression that an "open question" existed regarding whether smoking caused disease;
- preventing and hiding adverse scientific findings to avoid or limit the Cigarette Company Defendants' exposure in smoking and health related products liability lawsuits; and
- creating a positive public relations position for the Cigarette Company Defendants despite the harmful effects of smoking cigarettes.

(a) Defendants Concealed Scientific Documents, Opinions, and Findings Adverse to Their Interest

1249. The biological research that the cigarette companies did perform was closely controlled to ensure that, if it resulted in additional evidence that smoking causes disease or that nicotine is addictive, it would not become public or subject to discovery in court proceedings. This control included (a) performing research outside the United States in order to keep documents and witnesses hidden and out of the reach of state and federal courts, and (b) taking other steps to shield documents and materials from discovery, including attempts to cloak scientific documents in the attorney-client privilege.

1250. In 1969, the R.J. Reynolds Research Department confirmed to the Legal Department that it would destroy documents to protect the company's position in smoking and health litigation. The Research Department indicated that it did "not foresee any difficulty in the event a decision is reached to remove certain reports from research files. Once it becomes clear that such action is necessary for the successful defense of our present and future suits, we will promptly remove all such reports from our files . . . . As an alternative to invalidation, we can have the authors rewrite those sections of the reports which appear objectionable." 500284499-4499 (U.S. Ex. 21,677).

1251. A February 19, 1969 letter from W.L. Dunn, Jr., to Helmut Wakeham noted, "[a]nother sign that the winds are shifting. R & D is coming into its own right in the industry, being finally differentiated from the public relations activities!" Dunn further stated,

> Our position should obviously be supportive of Jet's for the primitive reason of, "Who ain't for more money?" and the more impelling urgency of generating substantive research, the results of which can be increasingly valuable as the current hysteria subsides. I predict public recoil and a readiness for a more objective look at the issue before the mid-70's. We've got 3-5 years to put Philip Morris in the saddle with good data.
>
> I would be more cautious in using the pharmic-medical model – do we really want to tout cigarette smoke as a drug? It is, of course, but there are dangerous F.D.A. implications to having such conceptualization go beyond these walls.

The letter concluded, "[p]erhaps this is the key phrase: the reinforcing mechanism of cigarette smoking. If we understand it, we are potentially more able to upgrade our product." 83826859-6861 (U.S. Ex. 55,889).

1252. Philip Morris conducted in-house research in Europe in order to avoid disclosure of unfavorable results to the public. 501543061-3096 at 3077 (U.S. Ex. 21,462); 1000119925-9933 at 9933 (U.S. Ex. 87,226).

1253. On February 24, 1970, Joseph Cullman III, Chairman and Chief Executive Officer of Philip Morris, sent an internal memorandum to Helmut Wakeham, Vice President of Research and Development for Philip Morris, concerning Philip Morris's research activities at INBIFO, a research facility in Cologne, Germany. He noted that "[t]he possibility of getting answers to certain problems on a contractual basis in Europe appeals to me and I feel presents an

opportunity that is relatively lacking in risk and unattractive repercussions in this country." 1000216742-6742 (U.S. Ex. 20,081).

1254. On April 7, 1970, Wakeham sent a memorandum to Clifford Goldsmith, President of Philip Morris, regarding the acquisition of INBIFO. He stated: "Since we have a major program at INBIFO, and since this is a locale where we might do some of the things which we are reluctant to do in this country, I recommend that we acquire INBIFO either in toto or to the extent of controlling interest." 2022244451-4453 at 4451 (U.S. Ex. 20,361).

1255. In 1970, Philip Morris purchased INBIFO, a research facility in Cologne, Germany. Philip Morris determined that through INBIFO, it could control the research conducted there and that overseas experiments could be terminated at will. Philip Morris took steps to conceal this arrangement. Company scientists shipped documents from locations in the United States to Cologne for storage in order to remove unfavorable or embarrassing research results from Philip Morris's files in the United States during and in advance of litigation and thereby to avoid discovery of adverse documents. Discussing how to handle records relating to the INBIFO arrangement, Thomas Osdene, a senior Philip Morris scientist, characterized the arrangement as follows: "Ship all documents to Cologne . . . . Keep in Cologne . . . . If important letters have to be sent please send to home & I will act on them and destroy." 1000130803-0803 (U.S. Ex. 34,424) (U. S. Ex. 35,160).

1256. A 1970 legal memorandum from David Hardy of Shook, Hardy & Bacon to Brown & Williamson contained a thinly veiled instruction that employees be told that they could not make statements suggesting that smoking caused health problems, regardless of their

personal beliefs. Hardy wrote that:

> It is our opinion that statements such as the above constitute a real threat to the continued success in the defense of smoking and health litigation. Of course we would make every effort to "explain" such statements if we were confronted with them during trial.
>
> As you know, with the testimony of independent and well-informed doctors and scientists, it has been repeatedly demonstrated in court to the satisfaction of impartial jurors that cigarette smoking has not been scientifically proved to cause disease . . . . We have been able to show this to be the case when such suspicion has been claimed by our known enemies to be established fact. Obviously our problem becomes entirely different and far more serious when agents or employees of the defendant cigarette company or its parent become the spokesmen against us.
>
> In conclusion, I would like to emphasize that, in our opinion, the effect of testimony by employees or documentary evidence from the files of either BAT or B&W which seems to acknowledge or tacitly admit that cigarettes cause cancer or other disease would likely be fatal to the defense of either or both companies in a smoking and health case.
>
> We, of course, know that the position of BAT as well as B&W is that disease causation by smoking is still very much an open question. Cigarettes have not been proven to cause any human disease. Thus, any statement by responsible and informed employees subject to a contrary interpretation could only result from carelessness. Therefore, employees in both companies should be informed of the possible consequences of careless statements on this subject.

322078971-8978 at 8973, 8978 (U.S. Ex. 21,671).

1257. Similar guidance was presented to BATCo by Hardy in 1974. He advised BATCo against admitting to the public what its scientists knew internally – namely, that smoking causes

disease. At the time, BATCo was considering placing a warning on cigarette packages sold in England – with no government attribution – that stated smoking "causes lung cancer, bronchitis, heart disease." In a letter addressed to BATCo, Hardy advised that this admission of fact would impede the defense of litigation in the United States. He wrote:

> The proposed new warning removes the attribution of the warning to "H.M. Government," and instead appears to be a voluntary and direct admission by the cigarette manufacturer that the cigarettes contained in the package cause "lung cancer, bronchitis, heart disease." A wholly owned subsidiary of the manufacturer would, in our opinion, be adversely and prejudicially effected by such a voluntary warning even though it is a separate entity.
>
> . . . .
>
> Once the fact and content of the warning got before a jury in the United States in a case involving the subsidiary, the defense of "no proof of causation" would be lost for all practical purposes. Such a result would indeed be unfortunate in view of the fact that in every instance where the matter has been explored in our Court through expert testimony and otherwise, the cigarette manufacturer has prevailed.

110318156-8157 (U.S. Ex. 34,974).

1258. A February 25, 1974 letter from Edwin J. Jacob, outside counsel, to H.C. Roemer, Vice President and General Counsel of R.J. Reynolds, noted that Jacob had modified a scientific research report previously provided to him by Roemer to make it suitable for publication, and set forth Jacob's thoughts on why three other scientific research reports should not be published. He explained:

> There are several reasons, however, why the other three reports should not be published. Each deals with a specific bioassay from which it is concluded, more or less explicitly, that cigarettes made with tobacco expanded by the G-13 process are in one way or

> another less hazardous to smokers than those made with conventional tobacco. The problem this presents appears clearly from the Introduction to report II. There, the purpose of all three experiments is said to be to compare results with and without residual fluorotrichloromethane. But the aim of the G-13 process is suggested to be development of a "safer" cigarette in that less tobacco per rod is used – and therefore less "tar" is delivered.
>
> The myriad problems raised by the concept of a "safer" cigarette do not require elaboration here. It is sufficient to observe that, since it has not been scientifically established that cigarette smoking is "unsafe", the suggestion that certain cigarettes are "safer" than other is unwarranted. And, moreover, even those who claim that cigarette smoking is "unsafe" have been unable to demonstrate either criteria or methodology by which the comparative "safety" of cigarettes can be determined. In these circumstances, claims for a "safer" cigarette are unsound.
>
> It would be possible, of course, to edit these reports of biological research so that no explicit reference to "safer" cigarettes is made. And, further, explicit disclaimers of any such implications could be made. Even then, I believe publication would be unwise. . . .

503652147-2150 at 2147-2148 (U.S. Ex. 29,706).

1259. On March 31, 1977, Robert Seligman, Vice President of Research and Development of Philip Morris, wrote a letter to Max Hausermann, Vice President of Research and Development of Philip Morris International, concerning procedures for sending samples to INBIFO. He specifically noted, "you know that Helmut [Wakeham] was requesting that we send samples directly to INBIFO. This suggested procedure is in direct conflict with our communications from the New York Office. We have gone to great pains to eliminate any written contact with INBIFO, and I would like to maintain this structure . . . perhaps we should consider a 'dummy mailing address' . . . for the receipt of samples." 2000512794-2795 at 2794 (U.S. Ex. 20,295) (U.S. Ex. 20,296).

1260. In a memorandum dated July 29, 1977, Alexander Spears of Lorillard advised C.I. Lewis, Supervisor of the Analytical Development Section of Lorillard's Research Department,

516967038-7038 (U.S. Ex. 22,232) (Confidential).

1261. A Philip Morris inter-office correspondence stamped "Personal & Confidential" dated November 3, 1977 from W.L. Dunn to Thomas S. Osdene on the subject of a "Proposed Study by Levy" stated: "I have given Carolyn [Levy] approval to proceed with this study. If she is able to demonstrate, as she anticipates, no withdrawal effects of nicotine, we will want to pursue this avenue with some vigor. If, however, the results with nicotine are similar to those gotten with morphine and caffeine, we will want to bury it. Accordingly, there are only two copies of this memo, the one attached and the original which I have." 100128680-8680 (U.S. Ex. 22,285).

1262. A February 16, 1978 memorandum from Thomas Osdene, Director of Research at Philip Morris, to Robert Seligman, Vice President of Research and Development at Philip Morris, stated: "The Roper Proposal to the Tobacco Institute sounds good and I believe the thesis is probably valid. However, there are several implications inherent in such a study which lead me to conclude that the study should not be done." Osdene noted, "[a]n admission by the industry

that excessive smoking is bad for you is tantamount to an admission of guilt with regard to the lung cancer problem." 1000764700-4701 at 4700 (U.S. Ex. 21,459).

1263. A November 9, 1979 Brown & Williamson memorandum from Kendrick Wells, in-house Brown & Williamson attorney, to Ernest Pepples, General Counsel of Brown & Williamson, discussed "various alternatives for handling BAT scientific reports which come to B&W in a way that would afford some degree of protection against discovery." Wells recommended routing all scientific documents from BATCo through a Brown &Williamson scientist designated as an agent of the General Counsel. The scientist would "separate reports which were relevant to smoking and health, or otherwise sensitive, for special handling" and the documents "designated as sensitive" would be "sequestered." 521016231-6232 (U.S. Ex. 20,886).

1264. In the 1980s, BATCo lawyers rewrote research reports prepared by the British equivalent of CTR, the Tobacco Advisory Council ("TAC"), to remove what were perceived as damaging statements. Attaching a heavily edited version of the TAC annual research review, BATCo attorney Anne Johnson wrote: "There are serious concerns in the USA with regard to this document as it stands at the moment for reasons I mentioned in my note, especially as all the tobacco manufacturers in the States are now involved in litigation on the primary issue of causation of disease." 107317952-7953 at 7953 (U.S. Ex. 20,249).

1265. In late-1982 and early-1983, R.J. Reynolds's lawyers undertook to influence the positions on smoking and health taken by G. Robert DiMarco, Vice President of Research and Development at R.J. Reynolds.

1266. A series of documents from R.J. Reynolds's files discussed concerns that some managers and lawyers had over the efforts of DiMarco to research a "safer" cigarette and his willingness to concede that a dose response relationship existed between cigarette exposure and lung cancer. Ultimately, the company lawyers recommended that DiMarco be retained because "[h]e is beginning to understand the tobacco business," "[h]e is beginning to cooperate with the lawyers," and "[h]e is saying the right things now to us and others." Within a four month period, R.J. Reynolds came to the conclusion that it had resolved its "problems" with DiMarco and that he had become willing to subscribe to the company and industry position on causation of cancer, and smoking and health more generally. 505741150-1153 (U.S. Ex. 23,009); 505741143-1147 at 1144 (U.S. Ex. 20,747); 505741141-1142 (U.S. Ex. 20,746); 505745988-5992 (U.S. Ex. 20,748).

1267. A 1982 R.J. Reynolds memorandum describes DiMarco's initial refusal to remove ammonia from a list of ingredients R.J. Reynolds was preparing to submit to the United States Department of Health and Human Services ("HHS") under the statutory mandate to disclose cigarette ingredients. Initially, DiMarco "stated that he would 'quit' before he let us take it off the list because, in his view, it was just what HHS was looking for and to exclude it on some technical (word smithing) grounds would be 'misleading' and 'dishonest.'" Ultimately, DiMarco "somewhat reluctantly" acquiesced to removal of ammonia from the list because, as R.J. Reynolds's in-house lawyer Wayne W. Juchatz put it, "[h]is response was 'does it matter' (implying that we would do it anyway)." 505741150-1153 at 1152-1153 (U.S. Ex. 23,009).

1268. In 1982, DiMarco indicated that R.J. Reynolds's "medical/scientific witnesses will say whatever [the lawyers] want them to say – clearly implying (if not stating) that they lacked

credibility and integrity." 505741150-1153 at 1151 (U.S. Ex. 23,009).

1269. On March 29, 1983, attorney Timothy M. Finnegan of Jacob, Medinger & Finnegan revised a draft summary of a meeting, attended by Finnegan and attorneys Edwin Jacob and Sam B. Witt, to discuss Finnegan's prior "all-day" meeting with DiMarco. Meeting participants identified "two major risks" concerning DiMarco: "The risk that if he is called upon to testify in litigation or legislative hearings as the Company's chief scientist, he could not support the Company's/Industry's position, (i.e. smoking has not been scientifically established to be the cause of any disease in man). We agreed this could be devastating . . . [and] [t]he risk that, as the person responsible for establishing scientific policy and directing our R&D efforts, he would commission scientific work (i.e. establish a record) that if subpoenaed would jeopardize our legal defense or at a minimum prove embarrassing or hard to handle." 505741143-1147 at 1143 (U.S. Ex. 20,747).

1270. A 1984 letter from Ernest Pepples, General Counsel of Brown & Williamson, to BATCo's Deputy Chairman, expressed concern about a BATCo scientific report on addiction and requested that BATCo lawyers work "more closely" with the BATCo scientists involved:

> In developing and carrying forward the position that a "simple" addiction model cannot explain smoking behavior, the report seems to concede that many potential criteria for addiction identification are met by smoking behavior.
>
> . . . .
>
> Throughout the report unfortunate concessions appear regarding "tolerance and withdrawal." The report frequently expresses the view that smoking has certain "therapeutic properties" and nicotine is compared to the action of tranquilizers, alcohol, etc. In addition, smoking is referred to as one form of "drug usage", "psychoactive substance usage", or "psychoactive drug usage".

> As you know in the current legislative and litigation environment in the U.S., claims of addiction have been and will be used against Brown & Williamson by our adversaries. Such claims have been vigorously opposed in order not to give a claimant an unjustified weapon to use against the company or the industry.
>
> In addition, the possibility for involvement by the U.S. Food and Drug Administration would be heightened by company or industry promotion of the theme of this report, as it will be generally perceived.
>
> If such matters as the "Functional Significance" document and the Conference binders, enclosed herewith, are not already routinely vetted with BATCo lawyers, you may want to consider involving them more closely in both the conceptual and the drafting stages of these projects. Thank you very much for your help in this area of great concern for us.

521016787-6788 (U.S. Ex. 22,129).

1271. In 1985, J. Kendrick Wells, Associate General Counsel of Brown & Williamson, directed members of the Brown & Williamson Research & Development Center to collect certain documents he had identified on an attached list relating to the behavioral and biological studies area for shipment to BATCo once all such documents had been gathered. Wells directed Earl Kohnhorst, Vice President for Research, Development and Engineering at Brown & Williamson, to tell the research personnel that the removal of the documents "was part of an effort to **remove deadwood from the files** and that **neither he nor anyone else in the department should make notes, memos, or lists**." 680530888-0890 at 0888, 0889 (U.S. Ex. 21,772) (U.S. Ex. 76,193) (emphasis added).

1272. The documents included the Janus studies, a secret program of biological research on the effects of smoking which showed tumor growth in animals. 680530888-0890 (U.S. Ex. 21,772) (U.S. Ex. 76,193).

1273. On January 9, 1985, Mike Hardwick, BATCo Research Manager, wrote a memorandum about a call the same day from Ray Pritchard, Chairman and Chief Executive Officer of Brown & Williamson, who had received a letter from I.W. Hughes, former Chief Executive Officer of Brown & Williamson, "indicating a mechanism for our sending scientific information to B&W." He noted, "[i]n principle it will mean our mailing contentious information to a legal man called Maddox [of the law firm of Wyatt, Tarrant & Combs] . . . with a covering letter from us saying that Millbank [BATCo research facility] has asked that he (Maddox) receive it." He went on to say that Pritchard "is aware of our present control procedure, i.e. that material is vetted by Research Managers and, where **non-contentious**, sent; where **contentious**, referred to Millbank." Hardwick concluded, saying: "I believe that he [Pritchard] will agree with this procedure continuing for **non-contentious** material in the future." 107444869-4869 (U.S. Ex. 34,840) (emphasis in original).

1274. On September 10, 1985, Nick Cannar and Anne Johnson, BATCo in-house lawyers, sent a restricted memo to E.A.A. Bruell and D.G. Heywood, Executive Director of Finance for BATCo, advising that the United States litigation involving Brown & Williamson would inevitably result in discovery of research documents held at BATCo's research and development facility "because of the past funding arrangements . . . and the financial contribution made by B&W over the years." In-house counsel added they were concerned about the "recent

minutes of the biological conference in Canada" and that "elements of the draft 1986 programme . . . cause us further concern e.g. research into biological activity and the selective filtration of certain constituents of cigarette smoke." 107333990-3991 (U.S. Ex. 34,833).

1275. On February 17, 1986, J. Kendrick Wells, Associate General Counsel of Brown & Williamson, sent a memorandum to Ernest Pepples, General Counsel of Brown & Williamson, on BATCo Science, discussing the policy on Brown & Williamson's receipt of reports of ongoing research from certain projects being conducted at laboratories of affiliated companies, and balancing the benefits of information against the dangers posed in light of ongoing litigation. He noted: "While the brevity of the reports will reduce the potential for receipt by B&W of information useful to a plaintiff, disadvantageous information could be included and the reports could serve as road maps for a plaintiff's lawyer." 282002796-2797 at 2796 (U.S. Ex. 28,079).

1276. A June 14, 1991 memorandum to BATCo scientist Sharon Boyse on the 8th World Conference on Smoking and Health indicated that Defendants hoped to generate "controversy" among the participants and then broadcast these disputes to the public to create controversy on issues where none existed. The industry planned to be careful not to appear to sponsor any of the participants by using "independent institutions" to fund them. 321651598-1599 at 1598 (U.S. Ex. 20,590).

1277. In October 1991, Bob Pages, a Philip Morris scientist, forwarded a note to Chuck Wall, Vice President and Associate General Counsel of Philip Morris Companies, and Steven Parrish, Senior Vice President and General Counsel of Philip Morris. The note related to Philip Morris-sponsored research on nicotine's role in *in vivo* nitrosamine formation (and whether

presence of nitrosamines in urine supports the theory), and the decision to disallow publication of the research results at a conference. After an initial agreement was made to allow publication of the results (because no smokers were found to have nitrosamine tracer in urine), the tracer for nitrosamine was found in one out of ten smokers. After Philip Morris confirmed that the scientist would not include data about the one smoker in the abstract, the sponsoring group of cigarette companies (WPA) approved funds. Then, the nitrosamine tracer was found in three additional smokers. "As this [sic] sensitive results were generated within the industry and not available to others, WPA decided that poster presentation based on Abstract submitted should be given [without disclosure of the conflicting subsequent results] and **project work terminated**." 2023222878-2880 at 2879 (U.S. Ex. 20,382) (emphasis added).

1278. On September 21, 1994, H.A. Morini, BATCo in-house counsel, sent a note to L.C.F. Blackman, Director of Research at BATCo, regarding a conversation with Ernest Pepples about the procedure for communications between Brown & Williamson and the BATCo research department. Morini instructed Blackman that "'[c]ontentious' items emanating from GR&DC [BAT Group Research & Development Centre], particularly in regard to biological activity should be given legal clearance before dissemination" and that "transmission to B&W should be through me to Pepples thus maintaining the legal privilege - 'attorney work product.' " Morini also advised that " '[n]on contentious' issues can be sent direct from GR&DC to B&W care of Gil Esterle." Esterle was a Brown & Williamson scientist. 503114322-4322 (U.S. Ex. 21,695).

1279. During the 1990s, Liggett scientists were directed to label their work as privileged and confidential in order to prevent its discovery in civil litigation. Deposition of Dennis Dietz,

United States v. Philip Morris, et al., July 1, 2002,150:1-155:12.

(b) Defendants Entered into Agreements That Limited Scientific Research and Actively Policed Those Agreements

1280. Defendants entered into agreements (1) not to conduct in-house research, including basic biological research; (2) not to compete on health issues; and (3) to share any discoveries related to reducing the harmful effects of cigarettes. In many cases, these agreements precluded research; in others, they destroyed the incentive to conduct research.

1281. Defendants actively enforced the agreements that stifled and precluded research efforts of the Cigarette Company Defendants.

1282. In the 1960s, R.J. Reynolds established a facility in Winston-Salem, North Carolina, to research the health effects of smoking using mice. In the facility that R.J. Reynolds nicknamed the "Mouse House," R.J. Reynolds scientists researched a number of specific areas, including studies of the actual mechanism whereby smoking causes emphysema. Internally, an R.J. Reynolds-commissioned report favorably described the Mouse House work as the most important of the smoking and health research efforts because it had come close to determining the underlying mechanism of emphysema. 515744448-4451 (U.S. Ex. 23,011); 507928501-8691 at 8517 (U.S. Ex. 20,804).

1283. Philip Morris scientist R.D. Carpenter sent an internal memorandum to Helmut Wakeham, Vice President of Research & Development at Philip Morris, describing the R.J. Reynolds biological facilities, which were shown to him on October 1, 1969. He noted, "[i]n summary, R.J. Reynolds has animal experimentation facilities, a staff of 10 - 12 people doing

animal experimentation work, and is doing smoke inhalation studies." 1000220888-0891 at 0889 (U.S. Ex. 21,435).

1284. In 1970, Joseph Cullman III, President of Philip Morris, complained to R.J. Reynolds about the work going on in the Mouse House. Despite the progress made there, R.J. Reynolds responded to the complaint by closing the Mouse House – disbanding in one day, without notice to the staff and the entire research division, firing all twenty-six scientists working there, and destroying years of smoking and health research. 503950745-0750 (U.S. Ex. 21,672).

1285. Although they recognized that research and testing were essential to evaluating the health risk posed by their products, Defendants, pursuant to the Gentlemen's Agreement, generally did **not** perform biological research on smoking and health. In a secret internal communication in 1964, Helmut Wakeham, Vice President of Research and Development for Philip Morris, acknowledged the legal jeopardy inherent in Defendants' joint agreement, when he (unsuccessfully) recommended that "[t]he industry should abandon its past reticence with respect to medical research. Indeed, the failure to do such research could give rise to negligence charges." Despite Wakeham's warning, Defendants persisted in their agreement. 1000335612-5623 at 5622 (U.S. Ex. 22,986) (U.S. Ex. 63,579).

1286. Defendant American Tobacco long adhered to this shared policy not to conduct in-house biological research. In 1965, William Harlan, Director of Research and Development for American Tobacco, and Edward Harlow, Assistant Director of Research and Development for American Tobacco, proposed initiation of a Biological Research Program for Defendant American Tobacco. Since the 1930s, American Tobacco had performed no biological research

on animals in its own laboratories.

http://energycommerce.house.gov/tobacco/docs/bw/0012699136.tif (U.S. Ex.21,478) (U.S. Ex. 76,201).

1287. In response to Harlan and Harlow's proposal, an August 25, 1965 American document explained the "fundamental problems a program of the nature indicated . . . would pose for the Company in its public, medical and legal positions in the health controversy." The author claimed that any undertaking by American Tobacco of a biological research program would be an assertion of competence to conduct such research and "[s]uch a position is fundamentally in conflict with the Company's past policy and position respecting its proper function in scientific research regarding tobacco products . . . the most serious consequences appear to [be] the degree to which the Company thereby undermines and perhaps even negates its legal position respecting the 'reasonableness' of its past conduct of scientific research (including not doing such 'biological' research)." http://energycommerce.house.gov/tobacco/docs/bw/0012699136.tif (U.S. Ex. 21,478) (U.S. Ex. 76,201).

1288. According to an August 25, 1965 memorandum written by Janet Brown, outside counsel for American Tobacco, American's past position and policy was one of "supporting work by independent men in independent institutions while itself pursuing the study of smoke and tobacco, its own field of special competence," essentially the same "policy hitherto enunciated in the law suits by other members of the industry [and] no jury has yet found any member of the industry negligent in pursuing such a policy with respect to biological research." The author noted that American's sponsorship of independent investigators and institutions who chose to

conduct animal experiments "carries no necessary admission in and of itself that the Company considers such research significant in terms of human health." http://energycommerce.house.gov/tobacco/docs/bw/0012699136.tif (U.S. Ex. 21,478) (U.S. Ex. 76,201).

1289. The author of this August 25, 1965 memorandum also contended that "[w]hen the Company asserts competence to conduct its own biological research into certain aspects of human health it opens for jury evaluation the question whether it acted reasonably in not instituting biological research long before." If a "reasonably prudent manufacturer capable of conducting biological research would not have instituted biological testing programs in the 1920's, or 1930's or 1940's . . . it should at least have been begun in 1950-1953, with publication of the four retrospective studies showing association with lung and other cancers; or in 1953, with publication of the Wynder mouse-painting experiments, or in 1954, with publication of the first Hammond-Horn report, or in 1957, with publication of the Study Group report on Smoking and Health . . . or in 1958, with publication of the final Hammond-Horn report, or in 1959, with the publication by the Surgeon General of an official statement pronouncing a causal link between smoking and certain diseases, or in 1962, with publication of the report of the Royal College of Physicians, or [in 1964], with publication of the Report of the Surgeon General's Advisory Committee." http://energycommerce.house.gov/tobacco/docs/bw/0012699136.tif (U.S. Ex. 21,478) (U.S. Ex. 76,201).

1290. The August 25, 1965 memorandum concluded that in-house animal research could not be initiated by American because it "would make the Company's past and current

position in the health field 'untenable'" and "while the program was important and [Harlow] wanted very much to do it, he would certainly not want to do anything that 'has an impact on the Company's position or if it makes that position any less sound than it now is.'" http://energycommerce.house.gov/tobacco/docs/ bw/0012699136.tif (U.S. Ex. 21,478) (U.S. Ex. 76,201).

1291. In November 1968, Helmut Wakeham, Director of Research for Philip Morris, wrote to Clifford Goldsmith, President of Philip Morris, in at least three memoranda, that he believed that Defendants American, R.J. Reynolds, Liggett, Lorillard, and Brown & Williamson were performing in-house biological research in violation of the "gentlemen's agreement." On November 12, 1968, Wakeham wrote that "in spite of previous arrangements within the tobacco industry at least some of the major companies have been increasing biological studies within their own facilities." In a November 15, 1968 memorandum, Wakeham wrote that "[w]e have reason to believe that while this proposal to carry out biological research and testing may seem a radical departure from previous policy and practice, we are in fact only advocating that which our competitors are also doing." An undated Philip Morris memorandum stated: "We have reason to believe that in spite of the gentlemen's agreement from the tobacco industry in previous years that at least some of the major companies have been increasing biological studies within their own facilities." Examples given were American, R.J. Reynolds, and B&W. 1000217064-7067 (U.S. Ex. 86,606); 85868118-8121 (U.S. Ex. 86,607); 1000126979-6984 (U.S. Ex. 21,631); 1001607055-7061 (U.S. Ex. 76,155).

1292. A September 1970 memorandum by David G. Felton, a BATCo scientist,

concerning a meeting between BATCo personnel and Wakeham, reported that

> One result of the greater influence which Wakeham has with Mr. J[oseph] Cullman [President of Philip Morris] has been the agreement, albeit reluctant, to permit Philip Morris to do 'in-house' biological work. When this was first mooted, Wakeham was told that there was a tacit agreement between the heads of the US Companies that this would not be done. Wakeham had countered by saying he knew that Reynolds, Lorillard and American were all undertaking some and that Liggett and Myers had never been party to the agreement. Cullman had been incredulous and had phoned Galloway, the President of R.J. Reynolds, who had denied Reynolds were doing any bioassay. When Cullman had told Wakeham this, Wakeham's response had been to quote the work on the Senkus smoking machine and to claim that he had floor plans showing outline area allocations. This too had been relayed to Galloway by Cullman, incredible though it may seem, and Galloway had visited the Reynolds Research Dept. to find it was substantially true. There had been a sudden reorganization at Reynolds, resulting in the closure of the biological section, the severance of product development (which remained with the tobacco division) from the research department.

110315968-5971 (U.S. Ex.26,378) (U.S. Ex. 26,379).

1293. On August 13, 1971, R.J. Reynolds scientist Frank Colby informed H.C. Roemer, General Counsel of R.J. Reynolds, that Philip Morris was conducting in-house animal research. 503955904-5904 (U.S. Ex. 20,724).

1294. On December 3, 1976, Hugh Cullman, Executive Vice President of Philip Morris, memorialized a suggestion for a discreet meeting of the heads of certain tobacco companies, including BATCo, R.J. Reynolds, and Philip Morris International, "to develop a defensive smoking and health strategy." The initial objective of this group was to develop a smoking and health agreement which would include a voluntary agreement, that no concessions beyond a

certain point would be voluntarily made by the members and if further concessions were required by respective governments, that these not be agreed to, and that governments be forced to legislate. These leaders met in 1977, and the meeting was called "Operation Berkshire." The group formed what was called the International Committee on Smoking Issues ("ICOSI"). 2025025286-5286 (U.S. Ex. 20,407) (U.S. Ex. 75,142) (U.S. Ex. 78,987); 2501020298-0303 (U.S. Ex. 21,903) (U.S. 75,180); 2025025288-5289 (U.S. Ex. 20,408); 2025025347-5348 (U.S. Ex. 20,410) (U.S. Ex. 75,149); 2025025369-5369 (U.S. Ex. 20,411); 2501024571-4575 (U.S. Ex. 21,904); 500269225-9228 (U.S. Ex. 20,622) (U.S. Ex. 75,188); 2025024797-4803 (U.S. Ex. 20,406).

1295. Herschel H. Cudd, Jr., member of the Board of Directors of R.J. Reynolds, gave voice to the notion of the Gentleman's Agreement in 1978. He noted: "A wholly-owned subsidiary in Cologne, Germany engages in carcinogenic biological research, such as mouse painting, in violation of the verbal agreement among domestic companies not to perform animal testing in-house." 503940653-0688 at 0669 (U.S. Ex. 21,436).

1296. According to a 1980 Philip Morris memorandum on the nicotine receptor program, Philip Morris continued to **claim** adherence to the gentlemen's agreement – "the original carte blanche avoidance of all biological research" – because the legal strategy successfully employed by the tobacco industry over the years in defending deceased smoker lawsuits had been that "[w]e within the industry are ignorant of any relationship between smoking and disease. Within our laboratories no work is being conducted on biological systems." 1003724290-4291 (U.S. Ex. 20,178) (U.S. Ex. 35,912).

1297. R.J. Reynolds scientist Frank Colby wrote in 1981: "There is a clear-cut agreement among all U.S. cigarette manufacturers that any scientific discovery made within the companies, or otherwise sponsored by a single company, which might have a positive impact on the smoking and health controversy, would have to be freely shared, without any costs to the other manufacturers. There would, therefore, be no incentive for RJR to sponsor the Cohen project . . . At this time, RJR does not fund directly in the U.S., any directly smoking and health related research. All such requests are answered by referring the applicants to CTR." 500534388-4389 (U.S. Ex. 29,467).

1298. A December 9, 1981 memorandum from Colby listed the research-related highlights of the week. In it, he flatly stated: "Information was obtained that Philip-Morris-U.S.A. does not live up to the alleged 'gentlemen's agreement' of not having animal laboratory facilities on their premises in this country. PM indeed has had such facilities for at least 3 - 4 years and continues to operate them. This information was communicated to all concerned." 501626469-6469 (U.S. Ex. 21,576).

1299. On September 20, 1983, E.A.A. Bruell, Chairman of BATCo, wrote a "Letter to All No. 1s of Operating Companies" titled "Relations with INFOTAB, National Manufacturers Associations ("NMA"s) and Competitors." Related to a September 1983 ad placed by a Philip Morris affiliate in Holland regarding Barclay, Bruell noted that the ad "is the first occasion of which we are aware when a competitor has: 1. Raised the health issue to gain competitive advantage. 2. Quoted and thereby endorsed a report of an anti-smoking lobby . . . to attack another company in the industry." As a result and in protest of Philip Morris's violation of the

Gentlemen's Agreement, BATCo pulled out of INFOTAB and affiliates were instructed to limit contacts with Philip Morris via National Manufacturing Associations in their countries of operation. 104576617-6620 at 6617 (U.S. Ex. 78,985).

1300. On October 26, 1983, Bruell and Hugh Cullman, Chairman and Chief Executive Officer of Philip Morris, had a telephone conversation in which the participants agreed to continue the cigarette companies' internal agreement not to compete with one another on issues relating to smoking and health. 301030943-0944 (U.S. Ex. 46,577).

1301. For many years, despite Defendants' promise that TIRC/CTR research would be "in addition to" in-house research, Defendants failed to perform in-house smoking and health research relevant to the issue of the link between smoking and disease, including biological research. Helmut Wakeham defined the type of research prohibited at the tobacco companies as "[s]tudying a relationship which might exist between smoking and diseases such as were tabulated in the Surgeon General's report." Deposition of Helmut Wakeham, State of Minnesota v. Philip Morris, May 29, 1997, 91:8-10.

(c) To Prevent Adverse Scientific Findings and to Ensure That Research Focused on Litigation and Public Relations, Lawyers and Business Executives Controlled the Minimal Research Conducted by the Cigarette Company Defendants

1302. In many instances, attorneys for the Defendants, not scientists, directed the limited scientific research and other scientific matters of the Cigarette Company Defendants. Industry lawyers were the driving force behind both the direction and suppression of scientific research. Lawyer control was used in large part in an improper attempt to "create" attorney-client privilege

or work product protection for scientific documents and information where none existed.

1303. For example, a 1964 trip report prepared by British scientists visiting the United States described how a powerful committee of United States lawyers were dominant in the smoking and health arena, including scientific research:

> [T]he Policy Committee of lawyers exercises close control over all aspects of the problems.
>
> This Committee is extremely powerful; it determines the high policy of the industry on all smoking and health matters – research and public relations matters, for example, as well as legal matters – and it reports directly to the presidents.
>
> The lawyers are thus the most powerful group in the smoking and health situation.

1003119099-9135 at 9101, 9105, 9106 (U.S. Ex. 20,152) (emphasis in original).

1304. A December 17, 1965 memo entitled "Meeting of General Counsel on 12/17/1965" made clear that the General Counsel were attempting to influence what research should be done with regard to smoking and health. 01124441-2444 (U.S. Ex. 20,034).

(i) Lawyer Control of Science within the Cigarette Company Defendants

a. Brown & Williamson and BATCo

1305. Lawyers exerted great influence over smoking and health research at Brown & Williamson and BATCo. In a letter written by David Hardy, a Shook, Hardy & Bacon lawyer, to the General Counsel of Brown & Williamson, Hardy instructed Brown & Williamson on what

should not be in the company's files or testified to by company scientists:

> Fundamental to my concern is the advantage which would accrue to a plaintiff able to offer damaging statements or admissions by persons employed by or whose work was done in whole or in part on behalf of the company defending the action. A plaintiff would be greatly benefitted by evidence which tended to establish actual knowledge on the part of the defendant that smoking is generally dangerous to health, that certain ingredients are dangerous and should be removed, or that smoking causes a particular disease. This would not only be evidence that would substantially prove a case against the defendant company for compensatory damages, but could be considered as evidence of willfulness or recklessness sufficient to support a claim for punitive damages.
>
> In conclusion, I would like to emphasize that, in our opinion, the effect of testimony by employees or documentary evidence from the files of either BAT or B&W which seems to acknowledge or tacitly admit that cigarettes cause cancer or other diseases would likely be fatal to the defense of either or both companies in a smoking and health case. I am afraid that any attempted explanation to a jury that such statements were made only in the context of a "working hypothesis" for the further development of our products would fall on deaf ears. . . . Certainly such evidence would make B&W the most vulnerable cigarette manufacturer in the United States to smoking and health suits.

301097079-7085 at 7081-7082, 7085 (U.S. Ex. 46,580).

1306. A June 4, 1963 letter from BATCo consultant Charles Ellis to multiple attorney recipients stated that the results of research conducted at Battelle Memorial Institute in Geneva on the physiological effects of nicotine were being forwarded to the attorneys before any critical review by scientific experts. 110313093-3096 at 3093 (U.S. Ex. 20,272).

1307. A 1976 internal memorandum by a scientist at BATCo, S.J. Green, discussed the extent to which "legal considerations" dominated scientific research:

> The public position of tobacco companies with respect to causal explanations of the association of cigarette smoking and diseases is dominated by legal consideration . . . . By repudiation of a causal role for cigarette smoking in general they [the companies] hope to avoid liability in particular cases. This domination by legal consideration thus leads the industry into a public rejection in total of any causal relationship between smoking and disease and puts the industry in a peculiar position with respect to product safety discussions, safety evaluations, collaborative research etc.

109938433-8436 at 8433 (U.S. Ex. 34,938) (U.S. Ex. 79,024).

1308. The BAT "Group Research and Development Centre" ("GR&DC") was a cooperative research effort of all operating tobacco companies within the BAT Group, and the companies controlling and funding GR&DC include BATCo and Brown & Williamson. During a visit to Brown & Williamson in 1979, GR&DC scientists were informed that GR&DC "will be supported positively in the future" by Brown & Williamson only if "[w]e become more 'politically sensitive' in the areas of smoking and health, e.g., reporting of 'nasties' and biological studies generally." To reinforce the point, the Brown & Williamson hosts were directly quoted as having reminded the visiting scientists: "Remember what pays all our salaries." 107469003-9005 at 9003 (U.S. Ex. 34,849).

1309. Despite repeated public statements and promises to conduct independent research on the health effects of smoking and to provide the results to the American public, in an August 5, 1980, memorandum, J. Kendrick Wells suggested revisions to a BAT position paper to avoid an invitation of "public scrutiny of all BAT research contributions" because "[t]he effect of statements against interest found in in-house research could be disastrous because it is difficult to escape them. Contrast this with the United States industry research through CTR, which was

planned with the intention of publicity and designed for maximum positive public reaction. . . ." Deposition of J. Kendrick Wells, United States v. Philip Morris, et al., July 1, 2002, 142:11; 680050983-1001 at 0993-0994 (U.S. Ex. 20,981).

1310. At a meeting in May 1984, Brown & Williamson in-house counsel and outside litigation counsel convinced the BATCo Legal Department that lawyer involvement in Project Rio, a scientific project, was necessary to "control the risk of generating adverse evidence admissible in U.S. lawsuits." Indeed, Brown &Williamson lawyers suggested that "[d]irect lawyer involvement [was] needed in all BAT activities pertaining to smoking and health from conception through every step of activity." 521015673-5675 at 5674 (U.S. Ex. 52,687).

1311. In 1984, J. Kendrick Wells wrote to H.A. Morini, BATCo's corporate counsel, regarding an article proposed by BATCo scientist Lionel Blackman. Wells's letter instructed that all references or citations to scientists who had concluded that smoking caused disease, including lung cancer and heart disease, or articles that referred to cigarettes as a drug be removed from the article. The references to be removed included references to a publication by Doll and Peto, who Wells admits were "two of the most highly respected and widely published and widely regarded researchers on the cause of smoking and health. . . ." Deposition of J. Kendrick Wells, United States v. Philip Morris, et al., July 1, 2002, 260-263 and 264:3-16; 68052499-2507 (U.S. Ex. 86,881).

1312. In 1985, BATCo instituted a policy of having lawyers clear all scientific documents that were released outside the production group. 516003171-3171 (U.S. Ex. 20,872); 516003172-3172 (U.S. Ex. 21,732); 516003173-3174 (U.S. Ex. 22,076).

1313. The handwritten notes of Richard Binns, the former Manager of BATCo's Group Research & Development Centre at Southampton, reveals the expansive role lawyers have taken in BATCo's science, writing that:

> I am being asked to make significant and sometimes swingeing [sic] changes in documents produced recently by R&D staff. It is suggested that this must be done by finding a 'managerial explanation' for the changes, without reference to the involvement of Legal Department. I will find this impossible to do. Senior R&D staff will not be so easily deceived. Personally, I am not prepared to lie to staff for very doubtful reasons. Therefore, the current lack of clarity about the relationship between R&D and Legal Dept. has raised questions which for me are ethically disturbing, particularly if extended beyond the present localized situation.

109878083-8089 at 8089 (U.S. Ex. 21,767).

1314. In 1986, Brown & Williamson – through its Chairman and Chief Executive Officer Ray Pritchard and General Counsel Ernest Pepples – requested that BATCo discontinue research on smoking and health because "discovery of such research could prejudice B&W's chances of defending litigation." Moreover, document distribution was to be kept "to a minimum to avoid documents becoming available to plaintiffs in litigation." 109870594-0596 at 0594 (U.S. Ex. 34,873) .

1315. In 1990, the BAT Group announced a policy whereby to improve the quality of "scientific documents," they would be subject to "[r]egular lawyer reviews and audits." 202347085-7086 at 7086 (U.S. Ex. 20,391) (U.S. Ex. 22,032).

1316. A May 2, 1991 “file note” drafted by J. Kendrick Wells, Associate General Counsel of Brown & Williamson, and copied to M.J. McGraw, in-house counsel for Brown &

Williamson, stated: "I told Jeff [Wigand] that hiring a certified toxicologist (Scott) [Appleton] had implications for our management of him. Because of his credentials, any unfortunate statements he makes on key issues have the potential to be particularly troublesome in the hands of an adversary. This means that Scott should work especially closely with me for some time and that Jeff should be wary in how he manages Scott in terms of areas and types of assignments and authority given to Scott." 680901663-1665 at 1663 (U.S. Ex. 79,219); BWX0037432-7434 at 7432 (U.S. Ex. 79,219).

1317. In a November 23, 1993 letter, J. Kendrick Wells asked Robert E. Northrip, a Shook, Hardy & Bacon lawyer, and Gordon A. Smith, a King & Spalding lawyer, about the proper role for Scott Appleton:

> To further our conversation in Louisville on the subject, please put your two wise heads together and advise us on the following issues:
>
> Is Scott Appleton's current practice regarding information about scientific developments adequate? Among other considerations, should he attend some of the scientific conferences normally attended by a toxicologist? Would it be helpful if he talked with scientists outside the companies?
>
> What answer do you recommend for Mr. Sandefur when asked how he knows causation has not been proven? Among other considerations, should the Vice President of R&d be included in Mr. Sandefur's circle of advisors in addition to Dr. Appleton? Should Mr. Sandefur talk with some independent scientists on the question of causation? What routine communications should be occurring between Mr. Sandefur and his advisors?

293002121-2121 (U.S. Ex. 28,116); BWX0017237-7237 (U.S. Ex. 28,116).

1318. Jeffrey Wigand, former Vice President of Research and Development for Brown & Williamson, testified that J. Kendrick Wells, Associate General Counsel of Brown & Williamson, with the support of Thomas Sandefur, President of Brown & Williamson, altered, on several occasions, scientific research to prevent it from being discoverable, and "pre-screened" scientific reports received from BATCo's Southampton research facility prior to disseminating the information to the "R&D folks" at Brown & Williamson. Deposition of Jeffrey Wigand, In re Mike Moore, Attorney General ex rel. State of Mississippi Tobacco Litigation, November 29, 1995, 67:6-68:4; 69:18-71:4.

b. Lorillard

1319. In 1977, Lorillard leadership advised a scientist who was to deliver a research paper that he must delete data from a study related to human smoking habits or he was not permitted to deliver the paper. 01416267-6267 (U.S. Ex. 20,287) (U.S. Ex. 34,560).

c. Liggett

1320. As early as 1968, Liggett was concerned about, and acted to prevent, public statements about the effects of smoking on humans. In a 1968 draft statement from Liggett's Chairman to its shareholders, a proposed quote from *Fortune* magazine regarding smoking and health and relating to "irritant gases in cigarette smoke" was deleted by the editor of the statement. LG2008516-8528 at 8518 (U.S. Ex. 21,630).

1321. In 1978, the Legal Department at Liggett took control of an important less hazardous cigarette research project known as Project XA. Joseph H. Greer, General Counsel of Liggett, sent a memorandum to several high ranking members of Liggett management, including

Robert L. Kersey, Jr., the head of tobacco research at Liggett, advising them of the creation of a "Legal Project team" to take control of Project XA and that the "[t]he Legal Project team will report directly to the Law Department." LG2001536-1536 (U.S. Ex. 21,481).

1322. In 1978, the creators of Liggett's experimental XA cigarette (A.D. Little, scientist, Dr. Charles Kensler, and James Mold, Director of Research) sought to present a paper relating to the XA at a public International Cancer Congress and to publish the paper in the scientific journal *Science*. Biological research on the XA had convinced Liggett that the cigarette was less carcinogenic than traditional cigarettes. Company management agreed to allow the presentations. However, Liggett's attorneys did not give approval for the paper to be presented or published, and it was not allowed to go forward. LG2013608-3608 (U.S. Ex. 21,438); Deposition of James Mold, Cippollone v. Liggett Group, Inc., No. 83-2864 (D.N.J.), 21-24.

d. Philip Morris

1323. In 1980, William Dunn, a Philip Morris Principal Scientist, wrote to Robert Seligman, Vice President for Research & Development at Philip Morris. In the letter, Dunn attempted to explain to Seligman why the lawyers had previously limited and would continue to limit the research that could be conducted by industry scientists. He stated that psychopharmacology of nicotine "is where our attorneys least want us to be, for two reasons." As Dunn warned, despite the fact that "[w]e are now being allowed to conduct research on the immediate effects of nicotine . . . we must not be visible about it." Dunn was quite blunt about the secret nature of research in this area when he stated: "Our attorneys, however, will likely continue to insist upon a clandestine effort in order to keep nicotine the drug in low profile."

2046754714-4715 at 4714, 4715 (U.S. Ex. 20,475).

1324. In December 1989, Steven Parrish, former partner at Shook, Hardy & Bacon and Vice President of Philip Morris Corporate Scientific Affairs, received a letter about a funding proposal for research which stated: "Dr. Syrjanen has deleted all references to cigarette smoking and no longer plans to pursue the possible role of smoking in the development of cervical cancer." The letter also stated that "[f]uture considerations suggest that we may wish to be in a position of being able to say the company scientists, not lawyers, reviewed and approved the proposal based on scientific content and merit" and raised the issue of whether Philip Morris should require access to "pre-publication manuscripts" and regular visits to be sure research was proceeding consistent with the proposal (as modified to exclude study of smoking's role in cervical cancer). Deposition of Steven C. Parrish, United States v. Philip Morris, et al., June 25, 2002, 81:4-20; 2024961742-1744 at 1742-1743 (U.S. Ex. 22,046).

1325. In March 1990, Covington & Burling wrote to Philip Morris about a possible recommendation that Philip Morris's Science & Technology research plan "should be developed with input from legal, corporate affairs, etc., to ensure that the program of sponsored research is consistent with product liability, regulatory and public relations considerations." Deposition of Steven C. Parrish, United States v. Philip Morris, et al., June 25, 2002, 195:14-196:3; 2023856321-6328 at 6322-6323 (U.S. Ex. 22,037).

1326. In September 1992, when Steven Parrish was General Counsel for Philip Morris, he retained control (for a period of time) over "approval for all new S&T [Science & Technology] projects." Parrish included Philip Morris's Richard Carchman, Vice President of

Research and Development and Engineering, and James L. Charles, Vice President of Research, in the review process to get scientific recommendations, but made the ultimate decisions himself. Deposition of Steven C. Parrish, United States v. Philip Morris, et al., June 25, 2002, 97:2-98:25; 2026227112-7112 (U.S. Ex. 20,422).

e. R.J. Reynolds

1327. In 1982, G. Robert DiMarco, Vice President of Research and Development at R.J. Reynolds, expressed his belief that lawyers were improperly controlling the course of scientific research at Reynolds. As summarized by an in-house R.J. Reynolds lawyer: DiMarco "believes that this [research regarding safer cigarettes] is the prudent/responsible thing to do but has been told by the 'lawyers' (Ed Jacob) that he can't do this work." DiMarco also made comments to the in-house lawyer to the effect that "rigid legal positions . . . had restricted the proper functioning of the R&D Department." DiMarco's comments reflected the reality as set forth in a document prepared by R.J. Reynolds in-house lawyers in which they indicated that DiMarco would have to accept that "the Law Department will be an important part of the R&D 'team' on all projects of this nature. No work in these areas will be commenced until a protocol (setting forth the purpose, steps and procedure to be followed) is drafted and **approved by the Law Department**. Thereafter all first drafts of written work will also be reviewed by the Law Department." The document further stated: "It should be made very clear to Dr. DiMarco that, while he will have an input, the 'medical research program' will not be directed or controlled by him." 505741150-1153 at 1150 (U.S. Ex. 23,009); 505741143-1147 at 1145 (U.S. Ex. 20,747) (emphasis added).

1328. On December 31, 1985, industry counsel issued Volume III of "RJR Research and

Development Activities Fact Team Memorandum," which included Section IX on "Monitoring Smoking and Health Literature," and Section X on "Management and Legal Supervision and Control of R&D Activities." Lawyers summarized all pertinent documents, depositions, and attorney interviews with key R.J. Reynolds employees from 1950 through 1985. Section IX detailed "the function of the R&D library," the roles of R.J. Reynolds scientists Alan Rodgman and Frank Colby, and "the procedures by which management was kept aware" of health issues. Section X detailed management and attorney oversight of Research and Development and "publication controls imposed on . . . researchers." 515873805-3929 at 3807, 3841 (U.S. Ex. 21,922).

(ii) "Independent" Scientists and Suppression of Nicotine Research

1329. The lawyers on the Committee of Counsel also controlled research conducted by allegedly "independent" scientists. In the 1970s, the tobacco manufacturers sponsored research at Harvard University. The funding of this research was controlled by the Committee of Counsel and executives of the companies. A 1976 letter from senior industry counsel, David Hardy, stated:

> In Bill Shinn's letter to you of May 21, he solicited at my request, any observations or comments that you may have with regard to the renewal of the Harvard University project. This project has been handled in the past by the Committee of Counsel and the executives of the companies, but I wanted to find out if any member of the Research Liaison Committee had any observations.

03748208-8208 (U.S. Ex. 20,601).

1330. A “confidential” memorandum dated February 1, 1974 from Janet C. Brown to

Cyril Hetsko regarding the "Harvard Project Report of Dr. Gary L. Huber at the Tobacco Institute Meeting of January 31, 1974, the Regency Hotel, New York City" summarized the status of Dr. Huber's industry-sponsored research. It stated: "I asked Shinn if it had not been one of the agreed conditions of the industry grant that Channing would consult only Hardy in the event Huber needed help from the industry, that Hardy would take the matter up with the counsel for the companies involved, and that counsel would then decide what assistance would be given and by whom. Shinn's reply was 'Fifth Amendment.'" 968003194-3198 at 3196 (U.S. Ex. 58,194).

1331. Gary Huber was the principal investigator in charge of the research program at Harvard University relating to smoking and health. The program was funded in part by a five-year grant, and a three-year extension of that grant, from the Defendants. Huber has stated that, in approximately 1980, he met with Defendants' lawyers in a hotel in Boston who told him that his research was "getting too close to some things." Huber identified these attorneys as lawyers from Shook, Hardy & Bacon, as well as lawyers from Lorillard and Brown & Williamson. Trial Testimony of Gary Huber (via deposition), Dunn & Wiley v. RJR Nabisco Holding Corp., No. 18D01-9305-CT-06 (Ind.), March 3, 1998, 5503:6-5504:4.

1332. In confirming that industry lawyers controlled the funding for his research, Huber testified as follows:

> Q. Were the [Harvard] studies important information, in your opinion, when you reported those findings to scientists?
>
> A. Yes.
>
> Q. An did you stress their importance to industry officials?
>
> A. Very much so.
>
> Q. And did you want to go forward and do further studies with

animals?

A. Absolutely.

Q. Why?

A. Well, we found - - we found very important results and we felt that they should be pursued and they had impact on a number of very serious and important considerations that deserved answers.

Q. Was money forthcoming from the cigarette company sponsors later for you to complete your animal studies after Harvard?

A. It was promised, but it never came.

Q. Were you, in fact, ever able to finish your experiments?

A. No.

. . .

Q. Did you ever have a meeting in a hotel in Boston with industry officials who expressed concern that your research was, quote, "getting too close to some things," end of quote?

A. Yes.

Q. And who was that, sir?

A. It was with the industry attorneys.

Trial Testimony of Gary Huber (via deposition), Dunn & Wiley v. RJR Nabisco Holding Corp., No. 18D01-9305-CT-06 (Ind.), March 3, 1998, 5498:4-5499:1, 5503:6-13.

1333. Defendants' lawyers have attempted to prevent research on nicotine addiction and nicotine manipulation issues. Given that the issue of nicotine addiction was potentially explosive in smoking and health litigation, lawyers began their attempts to curtail or direct the research. As a 1980 Tobacco Institute document stated: "Shook, Hardy reminds us, I'm told, that the entire matter of addiction is the most potent weapon a prosecuting attorney can have in a lung cancer/cigarette case. We can't defend continued smoking as 'free choice' if a person was

'addicted.'" TIMN0107822-7823 at 7823 (U.S. Ex. 77,053).

1334. Edwin Jacob, long-time tobacco industry counsel, "advised a total embargo on all work associated with the pharmacology of nicotine" in a meeting with the European tobacco industry. Jacob's advice was based in part on "[t]he pending California lawsuit which indicted nicotine as an addictive substance." 110083647-3650 at 3649-3650 (U.S. Ex. 22,993) (U.S. Ex. 76,174).

1335. A Philip Morris memorandum conceded that Defendants' concerns about research into the pharmacological action of nicotine arose from fear of regulation, i.e., "the increasingly favorable prospects for the success of a legislative effort to transfer authority for the regulation of tobacco manufacture to a Federal agency (FDA) known to have interests and powers antithetical to the interests of the industry." While this legislative effort was unfolding, any action on the part of the tobacco industry, such as "research on the psycho-pharmacology of nicotine, which implicitly or explicitly treats nicotine as a drug, could well be viewed as a tacit acknowledgment that nicotine is a drug." 1003724290-4291 at 4290 (U.S. Ex. 20,178) (U.S. Ex. 35,912).

(iii) Admissions and Internal Complaints Regarding Lawyer Control and Manipulation of Science

1336. A 1976 internal memorandum written by S.J. Green, a scientist at BATCo, discussed the extent to which "legal considerations" dominated scientific research:

> The public position of tobacco companies with respect to causal explanations of the association of cigarette smoking and diseases is dominated by legal considerations. . . . By repudiation of a causal role for cigarette smoking in general they [the companies] hope to avoid liability in particular cases. This domination by legal consideration thus leads the industry into a public rejection in total

> of any causal relationship between smoking and disease and puts the industry in a peculiar position with respect to product safety discussions, safety evaluations, collaborative research etc.

109938433-8436 at 8433 (U.S. Ex. 34,938) (U.S. Ex. 79,024).

1337. The tobacco industry's own characterization of a 1977 Brown & Williamson document describes Brown & Williamson's General Counsel as attempting to prevent or curtail CTR funded research which he believed was "putting the industry at risk." The danger he foresaw was that "if such tests are conducted, and the results were negative for the industry, it would be a major liability in legislative hearings or in litigation." 682764441-4461 at 4443 (U.S. Ex. 21,030).

1338. Handwritten notes from a Lorillard document dated April 21, 1978, contained the heading "Scientific Research Liason [sic] Committee" and stated:

> Should re-convene because: 1) We have again "abdicated" scientific research directional management of the Industry to the "Lawyers" with virtually no involvement on the part of scientific or business management side of the business. 2) Lorillard's management is opposed to the total Industry future being in the hands of the Committee of Counsel - - it's reminiscent of late 1960's when Ramm's group ran the TI, CTR and everything else involved with Industry's public posture.

01346204-6205 at 6204 (U.S. Ex. 34,532) (emphasis in original).

1339. In an undated memorandum written by lawyers regarding "Considerations Concerning Ingredients" for R.J. Reynolds, the authors noted, "[a] recent memo by a Lorillard employee (Alex Spears) to Dr. Hayes at RJRT suggests that in 1984 the Committee of Counsel thwarted the industry scientists' desires to assure the safety of the product by testing ingredients

adequately." LG2008121-8141 at 8127 (U.S. Ex. 21,204).

(iv) Decisions Regarding Research and Publication Were Based upon Litigation Concerns and Desires to Enhance Public Relations, Not Scientific Judgment

1340. A letter dated May 2, 1963 from a White & Case attorney to Addison Yeaman of Brown & Williamson acknowledges Yeaman's letter of April 29, 1963 and its enclosure. The White & Case letter noted: "I have carefully considered the draft of a proposed report prepared by you in cooperation with Dr. Robert B. Griffith [Director of Research at Brown & Williamson], and I am of the opinion that, with the exception explained below, it contains no material which would prove detrimental to the defense of a lung cancer case." The White & Case attorney urged Yeaman to avoid any "implied admission" because "with the passing of time, the defenses of assumption of risk and contributory negligence will loom increasingly important; yet the validity of these defenses is being whittled down by tobacco company utterances – to the effect that there is no risk, or that it is remote." 680249787-9788 at 9787 (U.S. Ex. 23,012).

1341. On April 20, 1971, Ralph Rowland, R.J. Reynolds scientist, sent an interoffice memorandum to managers and section heads concerning rewards and recognition procedures discussed at a management meeting held March 22, 1971, and forbidding publication of certain types of papers due to the "intangible legal situation." 500910506-0507 at 0506 (U.S. Ex. 20,657).

1342. On May 12, 1972, Helmut Wakeham prepared a draft memorandum to Joseph Cullman III, Chairman of the Board of Philip Morris, on an "Industry-Sponsored Smoke Inhalation Program" which was being considered for several different types of animals and would

cost $1,500,000 per year for five years in order to provide the industry "with a **defensive position** in the field of smoke inhalation." 1005109006-9007 at 9006 (U.S. Ex. 20,210) (emphasis added).

1343. On October 17, 1973, in debating whether or not to give a grant for a proposed research program at the University of California, Frank Colby, R.J. Reynolds scientist, suggested to Murray Senkus, Director of Research for R.J. Reynolds, that "[a] decision whether or not to recommend a substantial Tobacco Industry grant for the above program should be based more on public relations than on purely scientific grounds." 500529893-9893 (U.S. Ex. 20,637).

1344. On June 24, 1974, Alexander Spears of Lorillard, in a confidential memorandum, acknowledged Defendants' joint industry effort to fund smoking and health research for public relations purposes: "Historically, the joint industry funded smoking and health research programs have not been selected against specific scientific goals, but rather for various purposes such as public relations, political relations, position for litigation, etc. Thus, it seems obvious that reviews of such programs for scientific relevance and merit in the smoking and health field are not likely to produce high ratings. In general, these programs have provided some buffer to the public and political attack of the industry, as well as background for litigious strategy." 01421596-1600 at 1598 (U.S. Ex. 20,049).

1345. Charles W. Nystrom, assistant to Frank Colby, R.J. Reynolds scientist, prepared a job description dated May 1, 1978. The description was for a "Research Section Head Scientific-Legal Information Section" which stated in part: "Primary areas of responsibility are to search, interpret, and evaluate information and ideas to protect the Company in the area of the

smoking-health controversy." 500885570-5573 at 5571 (U.S. Ex. 20,655).

1346. A July 21, 1978 document contains the typewritten "confidential" notes of Charles L. Waite of the Tobacco Institute, in which he stated:

> Finally, Morgan reiterates the obvious fact that we must continue to rebutt (sic) every **major critical** study (government funded or otherwise) in a **timely manner** using the biggest 'scientific guns' available to us.
>
> To meet this requirement, the following conditions must prevail:
>
> a. Advanced copy of paper, speech, article, etc. must be available to comment on. This is basically an information gathering function, not scientific.
>
> b. Availability of quality credible scientific rebuttal. This requires a stable of consultants in various fields of scientific endeavor who are willing to provide such assistance. Additionally, the utmost in cooperation between all segments of the industry is required in developing and sharing such assets.

TI04280175-0176 at 0176 (U.S. Ex. 62,174) (emphasis in original).

1347. A September 28, 1978 document contained notes of an R.J. Reynolds representative's meeting with German industry representatives near London Heathrow Airport on September 11, 1978 for talks "devoted mainly to those aspects of the German nicotine research . . . [affecting] the legal position of RJR in the United States." The document noted that R.J. Reynolds "forcibly and deliberately . . . [extracted] from them an 'unequivocal promise' that before any effort which was made to commence or in any other way start a specific research project RJR . . . would have a minimu[m] of three months to evaluate such proposals."

503240503-0514 at 0503, 0504 (U.S. Ex. 20,713).

1348. On July 27, 1983, Patrick Sirridge, a Shook, Hardy & Bacon attorney, sent a memorandum to Fredric S. Newman, a Philip Morris International attorney, regarding several reports from the Philip Morris Research Center. He noted:

> Research engaged in, as well as some possibly under consideration, by Philip Morris has undesirable and dangerous implications for litigation positions the industry takes in regard to smoking behavior. The pharmacological nature of the research implies strongly a view of the importance of nicotine. What is worse, research reports under Philip Morris's sponsorship contains claims of physiological tolerance to nicotine, as well as claims of unequivocal demonstrations of reinforcement by nicotine in animals. This kind of research is a major tool of our adversaries on the addiction issue; the irony is that industry-sponsored research is honing that tool. In the final analysis, the performing and publishing of nicotine related research clearly seems ill-advised from a litigation point of view.

2046754720-4731 at 4731 (U.S. Ex. 20,476).

1349. On March 3, 1988, R.J. Reynolds prepared the "Independent Scientists Program" to identify non-R.J. Reynolds scientists who would cooperate with its litigation and public relations strategies. 506254908-4921 (U.S. Ex. 20,754).

1350. On November 15, 1988, Defendants considered the dangers of issuing a new proposed Frank Statement with their law firms, such as Arnold & Porter and Shook, Hardy & Bacon. It was noted that while the new Frank Statement made it appear that Defendants' position on smoking and health had changed over the years, this had not happened. Further, they argued the new statement could hurt the industry in its litigation strategies. David R. Kentoff, an Arnold

& Porter attorney, noted "the basic problem with the new Frank Statement is that it sets forth a revisionist and internally inconsistent view of history. . . . If it is still the industry's 'belief' that smoking is not injurious, how can it now contend that it is not a member of the Flat Earth Society? . . . [T]he client should be advised to share its plans for the new Frank Statement with National Coordinating Counsel. Certainly, the statement has potential litigation implications which are of legitimate interest to all members of the industry." 2021156932-6936 at 6932-6933, 6935-6936 (U.S. Ex. 20,341).

1351. Liability litigation concerns drove Liggett's research program throughout the 1990s and controlled the type of research that would be done and whether or not research would be done. Dennis Dietz, Manager of Scientific Issues for Liggett, from 1991 to 1999, testified that "instead of doing independent research into the question of smoking and health, the Company focused on insuring its products were no less harmful than those of its competitors." Dietz had regular product liability meetings with Liggett's outside counsel. When Dietz began working for Liggett, he had an "orientation" meeting with outside counsel wherein they "open [ed] his eyes up to the fact that we were involved with research that wasn't just pure, really, academic, that we need to be focused on all these issues." Dietz explained that the issues he was referring to were "health related issues . . . that potentially could – could impact on – on product litigation." Deposition of Dennis Dietz, United States v. Philip Morris, et al., July 1, 2002, 51:16-18, 169:21-177:10.

E. The Addictive Properties of Nicotine

(1). Nicotine and Addiction

1352. Cigarette smoking is an addictive behavior, a dependency characterized by drug craving, compulsive use, tolerance, withdrawal symptoms, and relapse after withdrawal. Underlying the smoking behavior and its remarkable intractability to cessation is the drug nicotine. Nicotine is the primary component of cigarettes that creates and sustains addiction to cigarettes. While Defendants now seek to hide behind self-serving interpretations of scientific definitions of addiction over time, the underlying known facts about the addictive quality of smoking and the importance of nicotine to the addiction have not changed.

1353. Defendants have long researched and recognized, decades before the scientific community, that nicotine is an addictive drug, that cigarette manufacturers are in the drug business, and that cigarettes are drug delivery devices. Nicotine largely explains why people use tobacco products. Moreover, Defendants have sought to exploit the addictive quality of smoking and nicotine for decades in order to develop new products and increase sales.

1354. Notwithstanding the understanding and acceptance of each Defendant that smoking and nicotine were addictive, Defendants have publicly denied and distorted the truth as to the addictive nature of their products. Defendants' public fraud has included externally relying on a self-serving definition of addiction, suppressing research showing the addictiveness of nicotine, and parroting misleading statistics as to the number of smokers who have quit.

1355. Defendants have intentionally maintained and coordinated their fraudulent position on addiction and nicotine as an important part of their overall efforts to influence public

opinion and persuade people that smoking was not dangerous; in this way, the companies could keep more smokers smoking, recruit more new smokers, and maintain or increase their profits. Additionally, defendants have sought to discredit proof of addiction in order to preserve their "smoking is a free choice" arguments in smoking and health litigation.

1356. Defendants continue to publicly deny and distort the truth as to the addictiveness of cigarette smoking and nicotine's role in the addiction. Defendants refuse to acknowledge their internal statements acknowledging and exploiting nicotine addiction. While nicotine shares many attributes of heroin, cocaine, and other drugs, Defendants continue to assert that smoking is only addictive to the same extent as coffee, chocolate, and the like, and (with the limited exception of Philip Morris) continue to deny that nicotine is addictive at all.

(a) Cigarette Smoking is Addictive and Nicotine is the Primary Component of the Addiction

1357. There is an overwhelming consensus in the scientific and medical community that cigarette smoking is an addictive behavior and that nicotine is the component in cigarettes that causes and sustains the addiction. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 8; Expert Report of David Burns, United States v. Philip Morris, et al. (R. 664; filed November 15, 2001) at 18.

1358. The Surgeon General, the National Institute on Drug Abuse ("NIDA"), the World Health Organization ("WHO"), the American Psychiatric Association ("APA"), the Food and Drug Administration ("FDA"), the Harvard School of Public Health, and others have declared that tobacco use is a form of addiction that shares many similarities with the use of cocaine or heroin. Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682, filed

November 15, 2001) at 7-10.

1359. "Drug addiction" is a common language term for what many researchers clinically refer to as "drug dependence." The term "dependence" was never intended to imply a lesser or watered-down condition than "addiction." Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 25-27.

1360. In fact, organizations such as NIDA, the American Association of Addiction Medicine, and the College on Problems of Drug Dependence use the terms "drug addiction" and "drug dependence" interchangeably. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 25.

1361. Scientific and medical literature support the conclusion that nicotine ingested via cigarette smoking has significant pharmacological effects on the structure and function of the human body - pharmacological effects that create dependence in the smoker. Industry documents show that these effects have been known to the industry since the early 1960s. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 27, 39.

1362. In commonly understood terms of addiction, smokers become dependent on the significant pharmacological and psychoactive effects of the nicotine in cigarettes, resulting in craving, compulsive use, difficulty in quitting, and relapse after withdrawal.

1363. There is compelling evidence that smoking behavior is motivated by a need to maintain a preferred "fix" or level of nicotine intake, leading to the phenomenon of nicotine compensation, or titration, in response to the use of cigarettes with lower nicotine yields.

1364. Contrary to Defendants' view as expressed in numerous public statements, uncertainties concerning the addictiveness of tobacco products that existed in the 1960s and 1970s were not resolved by changing definitions of "addiction" to fit nicotine. Rather, the scientific and medical understanding of drug addiction and assembly of data has advanced considerably since the release of the 1964 Surgeon General's Report, which relied upon World Health Organization ("WHO") criteria that emphasized intoxication and essentially construed drug addiction as a personality disorder. In fact, the prominence given to personality disorder and the intoxicating effects of the drug as essential determinants of addiction were abandoned by the WHO itself in 1964, but too late to serve the authors of the 1964 Surgeon General's Report. This concept and others were replaced by criteria and diagnostic techniques to measure addictive effects including physiological dependence, withdrawal, reinforcement, and psychoactive effects. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 25, 27-36.

1365. In the 1964 Report, the Surgeon General, using the criteria established for "addiction" and "habituation" by the WHO, concluded that smoking, nicotine, and cocaine were not "addictions." Smoking in particular was termed a "habituation" rather than an "addiction" because it did not induce a state of intoxication, there was no evidence of "overpowering" need to ingest nicotine, and there was no evidence of significant physical dependence. The 1964 report concluded, based on the WHO definition and the limited data available at the time, that smoking produced only a "psychiatric but not physical dependence." VXA1601844-2232 (U.S. Ex. 64,057); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681;

filed November 15, 2001) at 29-31.

1366. As described below, Defendants knew better. In-house tobacco industry research, research kept hidden from the writers of the Surgeon General's report, showed drug addiction-like effects, including tolerance, withdrawal, compulsive use, and craving. The actions of BATCo and Brown & Williamson, described below, are particularly illuminating on the issue of the Cigarette Company Defendants' far superior knowledge of nicotine and its behavioral effects in 1964, as well as the uninformed conclusion of the advisory committee to the Surgeon General who acted without that research.

1367. The subsequent WHO expert committee published a report in 1964 abandoning its prior definitions of habituation and addiction, definitions that had been largely adopted in the 1964 Surgeon General's Report. Instead, the committee recommended the adoption of the term "dependence." 682639369-9385 (U.S. Ex. 31,011).

1368. Since 1964, notwithstanding Defendants' attempts to deny or distort the evidence, data has unequivocally demonstrated that nicotine in cigarettes is addictive by the same criteria that heroin and morphine were concluded to be addictive. Moreover importantly, and regardless of the conclusion of the 1964 Report, Defendants have continued to generate internal research results confirming their pre-1964 knowledge and acceptance that smoking and nicotine are in fact addictive. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 39-46.

1369. While Defendants well understood the primary role of nicotine in sustaining smoking addictiveness by the 1960s, and designed their products to deliver sufficient nicotine for

this purpose, the understanding of the preeminence of nicotine developed more slowly outside the tobacco industry. For example, it was not until 1980 that clinical psychiatrists determined that there was sufficient evidence of dependence and withdrawal from smoking to include these in the APA's Diagnostic and Statistical Manual ("DSM-III"). Even then, the syndromes were called "tobacco dependence" and "tobacco withdrawal" rather than "nicotine dependence" and "nicotine withdrawal," because of psychiatrists' insufficient knowledge and understanding of the specific role of nicotine. It was clear to the developers of the DSM-III that nicotine played a role in making smoking addictive, but there were unresolved questions as to the importance of nicotine, as opposed to the numerous other constituents of tobacco smoke and behavioral components of smoking. It was not until 1982 that NIDA concluded that scientific evidence demonstrated that nicotine is addictive. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 31-33.

1370. Therefore, by the early to mid 1980s, leading scientists and organizations with expertise in tobacco and drug addiction had come to the conclusion that nicotine was an addictive drug and that cigarette smoking was maintained by nicotine addiction. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681, filed November 15, 2001) at 31-36.

1371. In 1987, the APA published the Diagnostic and Statistical Manual of Mental Disorders III-R ("DSM-III-R"), which changed its terminology to refer to "nicotine dependence" and "nicotine withdrawal." The DSM-III-R stated that at least three of the following nine symptoms had to have persisted for at least one month (or repeatedly over a longer period of

time) for the diagnosis of psychoactive substance dependence:

> – the substance is often taken in larger amounts or over a longer period than the person intended;
> – persistent desire or one or more unsuccessful efforts to cut down or control substance use;
> – a great deal of time spent in activities necessary to obtain the substance, taking the substance (e.g. chain-smoking), or recover from its effects;
> – frequent intoxication or withdrawal symptoms when expected to fulfill major role obligations at work, school or home. . . .
> – important social, occupational, or recreational activities are given up or reduced because of substance use;
> – continued substance use despite knowledge of having a persistent or recurrent social, psychological, or physical problem that is caused or exacerbated by the use of the substance. . . .
> – marked tolerance . . . .
> – characteristic withdrawal symptoms; and
> – substance often taken to relieve or avoid withdrawal symptoms.

American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders III-R* (1987) at 167-168, 2501196125-6132 (U.S. Ex. 27,935).

1372. Importantly, nicotine was now specifically identified in the DSM-III-R as a drug of dependence, with degrees of severity: mild, moderate and severe. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders III-R* (1987) at 168, 2501196125-6132 (U.S. Ex. 27,935).

1373. The 1988 Surgeon General's Report, titled "The Health Consequences of Smoking - Nicotine Addiction," concluded that smokers smoke because they are addicted to nicotine. Upon an exhaustive review of the literature on nicotine and smoking behavior, the report found that cigarettes and other forms of tobacco are addicting, and that nicotine is the substance in tobacco that causes the addiction. "The Health Consequences of Smoking: Nicotine Addiction:

A Report of the Surgeon General" (1988), VXA0300208-0848 (U.S. Ex. 64,591).

1374. The 1988 Surgeon General's Report set forth three primary criteria to determine whether a drug, in this case nicotine, is addicting: (1) use is highly controlled or compulsive; (2) the use of the drug produces mood altering (psychoactive) effects; and (3) the drug reinforces behavior, resulting in continued intake or drug-reinforced behavior. "The Health Consequences of Smoking: Nicotine Addiction: A Report of the Surgeon General" (1988) at 7, (U.S. Ex. 64,591); Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001) at 8.

1375. The first criterion, highly controlled or compulsive use, refers to drug-seeking and drug-taking behavior that is driven by strong, often irresistible urges. Such use persists despite a desire to quit or even repeated attempts to do so. This type of behavior has also been described as "habitual." Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001) at 8.

1376. Drug addiction, however, is distinguished from habitual behaviors not involving drugs -- such as habitual exercising or overeating -- by the second criterion, the presence in the blood stream of a drug with psychoactive or mood-altering effects on the brain. Food, for example, which is necessary to sustain life, is not a drug and does not satisfy the second criterion. Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001) at 8.

1377. Finally, the mood-altering drug must be capable of functioning as a reinforcer that can directly strengthen behavior leading to further drug ingestion. Such reinforcement exists

where, for instance, the drug produces pleasant or rewarding sensations like stimulation, relaxation, or euphoria, or mitigates unpleasant withdrawal sensations experienced when a person stops using the drug. Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001) at 8.

1378. Defendants claim that the Surgeon General discounted tolerance and withdrawal in concluding that nicotine was addictive; however, the 1988 report documented both tolerance and withdrawal and determined that nicotine met these additional criteria. However, neither is primary criterion of drug dependence/addiction as defined by the Surgeon General, WHO, APA, or FDA.

1379. Defendants also cling to the long outdated and abandoned idea that significant intoxication or impairment is required to sustain addiction. Intoxication was abandoned by the WHO, the APA, and the Surgeon General because many intoxicating substances are not addicting and because many addictive drugs are used and abused at doses that do not cause intoxication. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 34-35.

1380. In 1994, the APA published its Diagnostic And Statistical Manual of Mental Disorders-IV ("DSM-IV"). DSM IV defined "substance dependence" as "a pattern of repeated self-administration that usually results in tolerance, withdrawal, and compulsive drug-taking behavior." DSM IV continued to recognize the diagnoses of both "nicotine dependence" and "nicotine withdrawal." American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders IV* (1994) at 176-181; 2072201185-1198 (U.S. Ex. 41,374)**;** 2057062419-2429

(U.S. Ex. 38,861).

1381. In the DSM IV section titled "Nicotine-Related Disorders," the APA concluded that nicotine can produce dependence in people who use all forms of tobacco, including cigarettes, because the following criteria are present: tolerance, withdrawal, a desire to quit, a great deal of time spent using nicotine, and the continued use despite medical problems. American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders IV* (1994) at 176-181, 242-247 (U.S. Ex. 38,861); 2072201185-1198 (U.S. Ex. 41,374); 2057062419-2429 (U.S. Ex. 38,861).

1382. Defendants long claimed publicly that nicotine and smoking were not addictive or dependence-producing because smoking did not result in tolerance. However, in describing the diagnosis of "Nicotine Dependence," the DSM IV authors stated that, "Tolerance to nicotine is manifested by the absence of nausea, dizziness, and other characteristic symptoms despite using substantial amounts of nicotine or a diminished effect observed with continued use of the same amount of nicotine-containing products." American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders IV* (1994) at 243; 2072201185-1198 (U.S. Ex. 41,374); 2057062419-2429 (U.S. Ex. 38,861).

1383. The DSM IV authors also met head on Defendants' oft-repeated public claim that smoking cigarettes does not produce withdrawal: "Cessation of nicotine use produces a well-defined withdrawal syndrome that is described below. Many individuals who use nicotine take nicotine to relieve or avoid withdrawal symptoms when they wake up in the morning or after being in a situation where use is restricted." In addition, withdrawal symptoms "are typically

more intense among individuals who smoke cigarettes than among individuals who use other nicotine-containing products." American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders IV* (1994) at 243-244; 2072201185-1198 (U.S. Ex. 41,374); 2057062419-2429 (U.S. Ex. 38,861).

1384. Further reflecting the consensus judgment that nicotine is addictive, the investigation by the FDA leading to its Final Tobacco Rule issued in August 1996 confirmed that even by the most stringent criteria employed by the FDA, nicotine in cigarettes is an addictive drug. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 35-36.

1385. The FDA concluded in its August 1996 Final Rule that, "All major public health organizations in the United States and abroad with expertise in tobacco or drug addiction now recognize that the nicotine delivered by cigarettes and smokeless tobacco is addictive." See Executive Summary to August 28, 1996 FDA Jurisdictional Determination, 61 Fed. Reg. 44619 (August 1996) at xv, (U.S. Ex. 64,323).

1386. The scientific community further recognizes that nicotine is addictive under the outdated 1964 Surgeon General's Report / WHO definition as well as the 1988 Surgeon General's Report's definition. August 28, 1996 FDA Jurisdictional Determination, 61 Fed. Reg. 44619 (August 1996) at 96-102, (U.S. Ex. 64,323).

1387. Today, most daily cigarette smokers satisfy the Surgeon General's primary criteria for addiction. The first criterion, highly controlled or compulsive use, is demonstrated by the fact that addicted smokers smoke numerous cigarettes throughout the day. Second, the nicotine in the

cigarette tobacco stimulates the nicotinic receptors in the smoker's brain, a psychoactive effect that affects the smoker's mood. Third, the smoking behavior is reinforced by the pleasurable effects of nicotine and/or by the mitigation of unpleasant withdrawal sensations triggered by the need for nicotine. Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001) at 8-9.

1388. Published research indicates that 77 to 92% of smokers are addicted to nicotine in cigarettes. The FDA proposed rule and jurisdiction determination annex, i.e., "Regulations Restricting the Sale and Distribution of Cigarettes and Smokeless Tobacco to Protect Children and Adolescents," 61 Fed. Reg. 44396 (August 1996) (final rule), (U.S. Ex. 64,323); "Nicotine in Cigarettes and Smokeless Tobacco Products Is a Drug and These Products Are Nicotine Delivery Devices Under the Federal Food, Drug, and Cosmetic Act: Jurisdictional Determination," 61 Fed. Reg. 44619 (August 1996) (jurisdictional determination annex) at 44635 (U.S. Ex. 64,323).

1389. In addition, persons who have smoked at least one cigarette are about twice as likely to develop dependence on nicotine as are persons who have ever tried cocaine or alcohol to develop a dependence on those drugs. The FDA proposed rule and jurisdiction determination annex, i.e., "Regulations Restricting the Sale and Distribution of Cigarettes and Smokeless Tobacco to Protect Children and Adolescents," 61 Fed. Reg. 44396 (August 1996) (final rule) (U.S. Ex. 64,323); "Nicotine in Cigarettes and Smokeless Tobacco Products Is a Drug and These Products Are Nicotine Delivery Devices Under the Federal Food, Drug, and Cosmetic Act: Jurisdictional Determination," 61 Fed. Reg. 44619 (August 1996) (jurisdictional determination annex) at 44703, (U.S. Ex. 64,323).

1390. Many smokers and potential smokers are unaware of or do not fully appreciate the addictive nature of nicotine and the addictiveness of cigarette smoking, and the extent to which nicotine delivery and dosage is highly controlled and engineered. Expert Report of Neil Weinstein, United States v. Philip Morris, et al. (R. 675; filed November 15, 2001) at 20-22.

1391. Every year, nearly 20 million people in the United States attempt to quit smoking, but only 3% have long-term success. Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001) at 6.

1392. Most smokers smoke cigarettes regularly in order to experience nicotine's effects on the brain and the body, and therefore become addicted to nicotine. People who try to quit smoking often experience withdrawal symptoms that can be extremely disruptive. Accordingly, it is usually very difficult for the smoker to stop smoking cigarettes. Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001)at 6.

1393. Most smokers who desire to quit require several quit attempts before they are successfully able to give up cigarettes, and many smokers die of smoking-related diseases before they are able to quit. Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001) at 6.

1394. The fact that cigarette smoking is addictive is particularly troublesome in light of the fact that most smokers become addicted to smoking as teenagers. 88% of daily smokers tried their first cigarette before reaching age 18, and 70% of people who have ever smoked daily began smoking daily before they were 18 years old. Thus, because nicotine addiction develops in the first few years of cigarette smoking, most smokers become addicted to nicotine during

adolescence or early adulthood. Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001) at 6-7.

1395. Underage smokers and potential smokers are particularly vulnerable to nicotine addiction because they are not capable of making a fully informed decision whether to start or continue smoking for a variety of reasons, including the fact that they underestimate personal risks and lack judgment which is developed through experience. Youth also fail to appreciate the risks and consequences of addictions. "The Health Consequences of Smoking: Nicotine Addiction: A Report of the Surgeon General" (1988), VXA0300208-0848 (U.S. Ex. 64,591); Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682, filed November 15, 2001) at 23-25; Expert Report of Neil Weinstein, United States v. Philip Morris, et al. (R. 675; filed November 15, 2001) at 20-22; "SGR 4 Kids: The Surgeon General's Report for Kids About Smoking" (1994) (U.S. Ex. 86,689).

(b) Within the Tobacco Industry and Among These Defendants, Internal Documents and Statements by Defendants Establish That Each Defendant Well Knew That Smoking and Nicotine Are Addictive

1396. The chronicle of documentary evidence in this section reveals that for decades Defendants knew and internally acknowledged that nicotine is an addictive drug, cigarettes are a nicotine delivery device, and that addiction can be enhanced and perpetuated through manipulating both nicotine and nicotine delivery. Much of Defendants' wealth of nicotine knowledge was procured via in-house and industry-funded research into the pharmacological effects of the drug. This knowledge rendered their public statements over this same period of time on the subjects of addiction and nicotine false, deceptive, and fraudulent when made.

1397. For example, internal documents reveal that Philip Morris researchers knew that nicotine was "a powerful pharmacological agent" and that the company operated on the "premise that the primary motivation for smoking is to obtain the pharmacological effect of nicotine." 1003033413-3417 at 3413 (U.S. Ex. 20,143); 1003287836-7848 at 7837 (U.S. Ex. 22,848). R.J. Reynolds's lead nicotine researcher stated that nicotine is the "sine qua non of smoking" and that the industry was based on the sale of "attractive dosage forms of nicotine." 500915683-5691 at 5684-5685 (U.S. Ex. 20,659) (U.S. Ex. 76,185) (U.S. Ex. 77,216). BATCo's sophisticated research from the early 1960s demonstrated that "smokers are nicotine addicts." 301083862-3865 at 3863 (U.S. Ex. 20,577). Brown & Williamson, BATCo's subsidiary, had the BATCo data, and marketed cigarettes with the understanding that they "must provide the appropriate levels of nicotine." 501011512-1515 at 1513 (U.S. Ex. 85,309). Lorillard researchers accepted the scientific consensus in the 1970s that "the most probable reason for the addictive properties of the smoke is the nicotine." 82396938-6939 (U.S. Ex. 22,012). Liggett, like its larger cigarette manufacturer counterparts, was actively seeking ways to manipulate the nicotine delivery to smokers. LG0262125-2126 (U.S. Ex. 59,994).

1398. Defendants claim that they defrauded no one because the federal government never officially said nicotine was "addictive" until the 1988 Surgeon General's Report. This is not relevant. Defendant's own knowledge and acceptance is what made their public statements fraudulent. Moreover, had Defendants come forward and disclosed their physiological and behavioral research on nicotine, the Government and other medical authorities would likely have placed nicotine in the addiction/dependence category decades earlier. Expert Report of Jack E.

Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 68-73.

1399. Defendants have studied nicotine and its effects since the 1950s, and the documents describing their examination and knowledge of nicotine's pharmacological effects on smokers – whether they characterized that effect as "addictive," "dependence" producing or "habituating," –demonstrate unequivocally that defendants understood the central role nicotine plays in keeping smokers smoking, and thus its critical importance to the success of their industry.

1400. Additional internal records demonstrate that Defendants knew that cigarette smoking and tobacco generally was the vehicle for delivering nicotine, which was the critical component in maintaining the addiction (sometimes referred to as "satisfaction") necessary to sustain and enhance their profits. Indeed, Defendants purposefully designed and sold products that delivered a pharmacologically effective dose of nicotine in order to create and sustain nicotine addiction in smokers. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681, filed November 15, 2001) at 8-24.

1401. Other documents demonstrate Defendants' understanding and acceptance of nicotine's role in maintaining cigarette smoking by showing their recognition that smokers adjust their smoking behavior in order to obtain their necessary nicotine intake. This behavioral adaptation of smokers is known as "compensation," or "titration," a concept Defendants have been well aware of for many years. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 46-51.

1402. As evidenced by these documents, Defendants understood that their cigarettes did

produce powerful pharmacological effects on the user, that nicotine was the principal agent responsible for these effects, and that to have a chance at success in the marketplace, a cigarette had to be able to deliver enough nicotine to trigger the desired physiological effects.

1403. These industry documents also support the conclusion that Defendants knew early on in their research that if a cigarette did not deliver a certain amount of nicotine, new smokers would not become addicted, and "confirmed" smokers would quit.

1404. Defendants recognized that while genuinely low-yield cigarettes could lead smokers away from smoking altogether because they would lack sufficient levels of nicotine to keep smokers addicted to cigarettes, smokers were nonetheless concerned about their exposure to tar and nicotine. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 53.

1405. To address smokers' concerns and to avoid losing consumers from the marketplace, Defendants took advantage of the Federal Trade Commission ("FTC") testing system by designing purportedly low-yielding cigarettes to register low FTC tar and nicotine yield values that would be acceptable to cigarette smokers while at the same time facilitating the efforts of smokers to get their desired levels of nicotine. That is, the cigarettes were designed to make it easy for consumers to obtain higher tar and nicotine yields than those obtained using the FTC testing method. See Section IV D; Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 46-54.

1406. Defendants also collectively concealed their knowledge and understanding of nicotine because they wished to avoid liability for diseases caused by their products and to avoid

FDA regulation of their products.

1407. The following statements demonstrate Defendants' vast scope of knowledge regarding nicotine's addictive effects on smokers since the 1950s, their use of that information to maintain and increase the sale of cigarettes, and their decades-long efforts both to deny the truth and to conceal internal research.

(i) Philip Morris

1408. Internal documents show Philip Morris's extensive history of conducting nicotine research, acknowledging addiction, and exploiting nicotine for commercial advantage.

1409. In a November 15, 1961 presentation, Philip Morris's Vice President for Research and Development Helmut Wakeham addressed the company's ability to control the nicotine content of its cigarettes. He stated that "low nicotine does stimulate, but high doses depress functions, and "continued usage develops tolerance." Wakeham further stated that, "Even though nicotine is believed essential to cigarette acceptability, a reduction in level may be desirable for medical reasons." 1000277423-7447 at 7438, 7441 (U.S. Ex. 20,088).

1410. On March 5, 1964, William L. Dunn, a Philip Morris scientist/psychologist who later became the Principal Scientist for the company, commented at length on the possibility of developing a "surrogate" for cigarettes based on the importance of nicotine. He wrote:

> The pharmacological need [for cigarettes] is readily definable. The smoker seeks the subjective state that results from the introduction of nicotine into the bloodstream. There are some specifiable, some not specifiable changes in the physiological state accruing from the presence of nicotine. . . . There are undoubtedly other physiological reactions which are responsible for the sense of euphoria, or well-being, that the novice smoker experiences in the exaggerated form of dizziness. Without belaboring a most

> complex and little understood set of phenomena, suffice it to say that it is this subjective state which is sought by the smoker as he lights up.

1003700128-0133 at 0129 (U.S. Ex. 20,177).

1411. In the same document, Dunn also stated that any less hazardous cigarette product developed by Philip Morris "must induce the psychopharmacological state now induced by nicotine absorption into the bloodstream." 1003700128-0133 at 0132 (U.S. Ex. 20,177).

1412. A handwritten summary by Philip Morris researcher Ronald Tamol of a February 1, 1965 brand development meeting/presentation recorded the conclusion that the cigarette manufacturer who could come up with a "flavorful" low tar cigarette with "enough nicotine to keep smokers hooked . . . will reap huge benefits." 0002862-2867 at 2867 (U.S. Ex. 88,761).

1413. In a June 1966 report titled "Market Potential of a Health Cigarette," Philip Morris researchers Dunn and Myron Johnston stated that without nicotine, a health cigarette would not sell: "[A]ny health cigarette must compromise between health implications on the one hand and flavor and nicotine on the other. . . . Flavor and nicotine are both necessary to sell a cigarette. A cigarette that does not deliver nicotine cannot satisfy the habituated smoker and cannot lead to habituation, and therefore would almost certainly fail." 1001913853-3878 at 3860 (U.S. Ex. 20,123).

1414. With this understanding in the mid-1960s and armed with the knowledge of nicotine's addictiveness, Philip Morris was already manipulating the pH of tobacco to enhance the psychoactive effects of nicotine on the brain. In fact, R.J. Reynolds was able to verify that Philip Morris had been increasing the nicotine "strength" of its Marlboro brand by increasing its

pH since 1964. 500606138-6153 (U.S. Ex. 48,334); 509314122-4154 (U.S. Ex. 51,456).

1415. In a May 7, 1968 Philip Morris memorandum titled "TPN Intake by Smokers," Dunn wrote that "since there is evidence that the smoker adapts his puff, it is reasonable to anticipate that he adapts to maintain a fairly constant daily dosage." This document demonstrates that Philip Morris has known for over 35 years that smokers would "compensate" in order to maintain a constant intake, or dosage, of nicotine. 1003293548-3555 (U.S. Ex. 35,743).

1416. Philip Morris was well aware that nicotine shared many attributes of an addictive drug. In a February 19, 1969 memorandum from Dunn to Wakeham, Dunn cautioned that nicotine was a drug with FDA implications. He also discussed the "dual action" of nicotine as a drug with pharmacological "stimulant-tranquilizer" effects that caused a "pleasant state of dizziness so clearly experienced by the beginning smoker and by the habituated smoker following abstention." 1003289921-9922 at 9921 (U.S. Ex. 20,167).

1417. In a Fall 1969 draft of the annual report titled "Why One Smokes," and presented to the Philip Morris Board, Wakeham emphasized the role of nicotine in smoking. He flatly stated:

> We share the conviction with others that it is the pharmacological effect of inhaled smoke which mediates the smoking habit. . . .
>
> We have then as our first premise, that **the primary motivation for smoking is to obtain the pharmacological effect of nicotine.**
>
> In the past we at R & D have said that we're not in the cigarette business, we're in the smoke business. It might be more pointed to observe that the cigarette is the vehicle of smoke, smoke is the vehicle of nicotine, and nicotine is the agent of a pleasurable body response.

> This primary incentive to smoking gets obscured by the overlay secondary incentives, which have been superimposed upon the habit. Psychoanalysts have speculated about the importance of the sucking behavior, describing it as oral regression. Psychologists have proposed that the smoker is projecting and ego-image with puffing and his halo of smoke. One frequently hears "I have to have something to do with my hands" as a reason. **All are perhaps operative motives, but we hold that none are adequate to sustain the habit in the absence of nicotine.**
>
> We are not suggesting that the effect of nicotine is responsible for the initiation of the habit. To the contrary. The first cigarette is a noxious experience to the noviate. To account for the fact that the beginning smoker will tolerate the unpleasantness, we must invoke a psychosocial motive. Smoking for the beginner is a symbolic act. The smoker is telling the world, "This is the kind of person I am. . . . "
>
> As the force from the psychosocial symbolism subsides, the pharmacological effect takes over to sustain the habit . . . .

1003287836-7848 at 7837-7839 (U.S. Ex. 22,848) (emphasis added).

1418. Wakeham stated further in the same report that the purpose of Philip Morris smoking psychology research was to "discover ways to exploit the benefits of smoking to the advantage and profitability of our major company business." 1003287836-7848 (U.S. Ex. 22,848).

1419. In the final version of Wakeham's presentation, dated November 26, 1969, he largely restated material from the draft quoted above. In summarizing nicotine's dual effect as stimulant and depressant, Wakeham stated that smoking maintenance depended solely on the pharmacological effects on smokers:

> We are of the conviction, in view of the foregoing, that the ultimate explanation for the perpetuated cigaret habit resides in the pharmacological effect of smoke upon the body of the smoker, the

> effect being most rewarding to the individual under stress.

1000273741-3771 at 3752 (U.S. Ex. 26,080).

1420. Philip Morris also produced a February 16, 1970 Research and Development report titled "Some Methods Notes on the Past Research on Cigarette Smoker Motivation" in which the author acknowledged that the smoking "pattern is strongly resistant to extinction." Later in the report, the author referred to the "puffing act" as an "injection of nicotine." 1003287849-7856 at 7849, 7853-7854 (U.S. Ex. 85,246).

1421. Philip Morris's awareness of nicotine as the crucial ingredient in cigarettes was also made plain in a November 1, 1971 research report authored by Thomas Schori and approved by Dunn. It accepted a 1943 scientific study's results which suggested that a habitual smoker continues to smoke because of the pharmacological effects of nicotine in the cigarettes. 1000350158-0188 (U.S. Ex. 20,176).

1422. Notwithstanding its longtime public denials that smoking cessation induces withdrawal – one of the classic hallmarks of addiction – Philip Morris knew the extreme difficulty of quitting and the physical and mental effects of cessation attempts on the smoker. Scientists Dunn and Frank Ryan described some of the withdrawal effects of nicotine in a 1971 study on cessation in the following colorful terms:

Even after eight months quitters were apt to report having

> neurotic symptoms, such as feeling depressed, being restless and tense, being ill-tempered, having a loss of energy, being apt to doze off. They were further troubled by constipation and weight gains which averaged about five pounds per quitter . . . This is not the happy picture painted by the Cancer Society's anti-smoking commercial which shows an exuberant couple leaping into the air

> and kicking their heels with joy because they have kicked the habit. A more appropriate commercial would show a restless, nervous, constipated husband bickering viciously with his bitchy wife who isnagging him about his slothful behavior and growing waistline.

1000348671-8751 at 8676, 8708 (U.S. Ex. 20,097).

1423. With respect to the phenomenon of nicotine "compensation," Schori and Dunn wrote in a January 1972 Report titled "Tar, Nicotine, and Cigarette Consumption" that their research:

> supports the notion that smokers develop a daily nicotine intake quota and that when smoking cigarettes differing in nicotine delivery from that to which they are accustomed they tend to modify their consumption rate in order to maintain their normal quota. No support was found for the analogous notion of a daily tar intake quota, however.

1003285403-5416 at 5403 (U.S. Ex. 20,159).

1424. In a 1972 "Confidential" research report titled "Motives and Incentives in Cigarette Smoking," Dunn asserted that people smoke in order "to obtain nicotine," and that nicotine "is the industry's product," adding that "without nicotine, the argument goes, there would be no smoking." In the "Confidential" report, Dunn summarized a 1972 CTR-sponsored conference held on the Caribbean island of St. Martin. He wrote:

> The majority of the conferees would go even further and accept the proposition that nicotine is the active constituent of cigarette smoke.
> Without nicotine, the argument goes, there would be no smoking.
> Some strong evidence marshaled to support this argument:
>
> 1) No one has ever become a cigarette smoker by smoking cigarettes without nicotine.
>
> 2) Most of the physiological responses to inhaled smoke have

> been shown to be nicotine-related.

2023193286-3304 at 3289 (U.S. Ex. 22,967); 503654881-4885 (U.S. Ex. 88,413); 105394371-4388 (U.S. Ex. 88,414).

1425. Most graphically, Dunn urged the industry to view the cigarette pack as the "storage container for a day's supply of nicotine," the cigarette as the "dispenser for a dose unit of nicotine," and the puff of smoke as the "vehicle of nicotine":

> The cigarette should be conceived not as a product but as a package. The product is nicotine. The cigarette is but one of many package layers. There is the carton, which contains the pack, which contains the cigarette, which contains the smoke. The smoker must strip off all these package layers to get to that which he seeks. . . .
>
> Think of the cigarette pack as a storage container for a day's supply of nicotine. . .
>
> Think of the cigarette as a dispenser for a dose unit of nicotine: it is readily prepped for dispensing nicotine. . . .
>
> Think of a puff of smoke as the vehicle of nicotine . . . .
>
> Smoke is beyond question the most optimized vehicle of nicotine and the cigarette the most optimized dispenser of smoke.

2023193286-3304 at 3290-3291 (U.S. Ex. 22,967); 2501200383-0401 at 0387-0388 (U.S. Ex. 85,247).

1426. During a presentation of his paper delivered at St. Martin and at the 1972 CORESTA/TCRC Joint Conference, Dunn summarized his conclusions from current research on why people smoke. Dunn wrote that, "It is contended in this paper that nicotine, specially packed, is the cigarette industry's product." Dunn added that, "The smoker takes nicotine into his

system in order to obtain the salutory effects of nicotine upon body function." 1001820498-0500 at 0498 (U.S. Ex. 26,121); 2021423403-3497 at 3484 (U.S. Ex. 36,743); 89285181-5188 at 5181 (U.S. Ex. 23,583).

1427. In another version of his paper, Dunn replaces "nicotine" with "cigarette smoke" when describing the "salutory effects" sought by smokers. 2024273959-3975 at 3961 (U.S. Ex. 21,461) (U.S. Ex. 76,198).

1428. A March 1973 Philip Morris Research Report titled "Smoking Behavior: Real World Observations," written by Philip Morris scientists Dunn, Thomas Schori and Janet Duggins, reported that a Philip Morris in-house study had shown that, "the smokers in this study are now smoking cigarettes delivering less tar and nicotine than those they smoked in 1968 and that they are smoking both more rod per cigarette and more cigarettes." This demonstrates that Philip Morris's research continues to confirm the existence of nicotine compensation in the early 1970s. 1000353355-3410 at 3361 (U.S. Ex. 35,242).

1429. In a presentation to Philip Morris USA President Clifford Goldsmith dated May 8, 1974, Dunn explained how in-house research suggested that smokers titrate or regulate their smoke intake to get what they want out of the smoke. In recommending additional research, Dunn also attributed titration and the hold of cigarettes to more than a mere habit:

> I'm sure you are aware of our belief that people smoke for rewards they get from smoke at the pharmacological level. . . . It's simply not an adequate explanation to say that smoking is a habit, or that it is social behavior. A smoker is introducing something into his system that he wants. Certain components of smoke, most likely nicotine, act upon his system in some undetermined way to give him some undetermined pleasure. If this is true, then we expect the smoker to seek to take in that amount of smoke that does the job

> best for him. He is going to regulate his intake to suit his need. . . We are hypothesizing that the smoker titrates (regulates) his smoke intake to suit his dosage needs.

100324972-4976 at 4972-4973 (U.S. Ex. 85,248).

1430. Research conducted at the Philip Morris Research Laboratory in June 1974 using high nicotine and low nicotine cigarettes "showed the existence of a definite compensation mechanism" among smokers. According to the report, titled "Human Smoking Habits," these findings were consistent with:

> evidence in literature that the nicotine of cigarette smoke exerts a distinct pharmacological effect on the smoker which reinforces the smoking behavior. **The smoker doses himself with nicotine according to his personal needs** which depend on the level of arousal, external stress, his personality and, possibly, a number of other factors.

1001812883-2903 (U.S. Ex. 85,249) (emphasis added).

1431. In an undated handwritten memo, probably penned in the 1970s, Dunn voices his surprise that the industry could not fully separate nicotine from tar, given what the company knew of nicotine at that time:

> It is also remarkable that nicotine delivery has not been liberated from tar delivery, particularly in view of the importance of nicotine as the significant, if not the primary gratification component of the smoke. This is not to say that the task is simple: it is not simple. Consider the ways currently available for altering the nicotine delivery level, with accompanying reasons why these ways do not readily permit independent nicotine variation.

1003285420-5424 at 5420 (U.S. Ex. 85,250); 2021423403-3497 at 3464 (U.S. Ex. 36,743).

1432. Dunn then listed the methods at Philip Morris's disposal to manipulate nicotine

delivery in its products, including air dilution, filtration, nicotine extraction/addition, leaf selection, and base additives to increase pH. 1003285420-5424 at 5421-5422 (U.S. Ex. 85,250).

1433. R.J. Reynolds studied Philip Morris's efforts to deliver nicotine to smokers and concluded that "Philip Morris has been closely controlling the pH level of its products for several years, and appears to place emphasis on maintaining a high level of 'free nicotine,' the nicotine actually available to the smoker." 503940669-0672 at 0669 (U.S. Ex. 50,541).

1434. In March 1975, Helmut Wakeham proposed an industry scientific conference on "The Regulatory Influence of Smoking Upon Human Behavior" to discuss research ideas into the effects of stimulant and calming effects of smoking on the smoker. LWODJ9056332-6332 (U.S. Ex. 87,072); LWODJ9056318-6323 (U.S. Ex. 87,071).

1435. Philip Morris knew that nicotine delivery translated not only into addiction among "seasoned" smokers, but into bottom line sales. In a May 14, 1975 report evaluating the relationship between a steep short-term decline in sales of Marlboro to a concurrent decline in nicotine, Dunn wrote:

> Nicotine has been singled out for attention because many investigators of smoking behavior, including some P.M. R&D people, have contended that the seasoned cigarette smoker smokes for the nicotine in the smoke. In view of that contention, the question has been raised as to whether the declining nicotine delivery values reported for Marlboro Red could be responsible for the declining sales increment.

1003391322-1328 (U.S. Ex. 87,073).

1436. In a September 8, 1975 letter to Philip Morris-funded researcher Stanley Schachter, a psychology professor at Columbia University, Dunn discussed a reduction in

nicotine in Marlboro cigarettes and acknowledged the existence of smoker's compensation to obtain more nicotine, which he referred to as "the goodies":

> Thus to accommodate to the 15% reduction in available Marlboro nicotine, the smoker who was getting 50% of the available nicotine into his blood from the Marlboro delivering 1.3 mg of nicotine into a smoking machine and now must get 59% of what the current Marlboro offers him. He can take bigger puffs, or inhale more from the supply drawn into the mouth (we have varying quantities of residual smoke in the mouth at the end of an inhalation) or for more efficient extraction of the goodies, he can draw it in deeper or hold it in longer.

1000738509-8510 at 8510 (U.S. Ex. 85,251).

1437. Schachter was a Philip Morris-funded researcher for many years. However, his studies of nicotine and human behavior led him to conclude eventually that smoking was indeed addictive. He reported to Philip Morris in 1977 that, "We propose instead that virtually all long-time smokers, heavy or light, are addicted and suggest that many, perhaps all, exceptions to the addiction model can be understood in terms of such notions as self-control, concern with health, restraints, etc." 1003291155-1191 at 1189 (U.S. Ex. 87,074); 1003291151-1153 (U.S. Ex. 87,075).

1438. An October 1, 1975 Philip Morris research memorandum titled "Smoke Impact, Part I: Cigarette Smoking and Heart Rate" stated that, "Nicotine is the main determinant for sustaining the smoking habit" and "there is an optimal dose of nicotine, too little or too much is rejected by tobacco smokers." 1003294245-4261 at 4246 (U.S. Ex. 20,170).

1439. In approximately 1976, Philip Morris researcher Frank Ryan explained why people smoke in terms of habit versus need. In Ryan's view, the habit of smoking was very

distinct from a smoker's need for nicotine. In a November 11, 1977 memorandum titled "Smoker Psychology," Ryan described nicotine intake as the "critical mainstay of tobacco consumption," and provided the following background for research to be carried out at Virginia Commonwealth University:

> Many of [a smoker's] cigarettes will be smoked out of habit (i.e., will be conditioned responses triggered by external cues) rather than out of any nicotine need (i.e., will be conditioned responses triggered by internal cues). All these cigarettes contribute to the total nicotine in the system, so that **a cigarette smoked out of habit will delay the time until a cigarette is smoked out of need**.

1003287995-7995 (U.S. Ex. 35,702) (emphasis added).

1440. In a March 1, 1977 memorandum, Philip Morris-funded researcher Stanley Schachter described a smoker as an "addict" who smokes to maintain his nicotine levels:

> To the extent that [he is] an addict, he is probably smoking to keep nicotine or one of its active metabolites at some optimal level. If, then, the heavy smoker does switch to low nicotine brands, he may very well end up smoking more cigarettes and taking more puffs of each.

1003724353-4387 at 4353 (U.S. Ex. 21,887).

1441. In a November 29, 1977 memorandum, Philip Morris Director of Science and Technology Thomas Osdene discussed his concerns about statements made by a CTR staff member who had acknowledged that "Opiates and nicotine may be similar in action," "We accept the fact that nicotine is habituating," and "There is a relationship between nicotine and the opiates." 1005045000-5000 (U.S. Ex. 20,194).

1442. In a December 19, 1977 interoffice memorandum titled "Behavioral Research

Accomplishments - 1977," and sent to Osdene, Dunn acknowledged the importance of nicotine for the smoker, when he listed as one of Philip Morris's 1977 successes the fact that the company had "shown that [it] can distinguish between regulator and nonregulator smokers and that after being deprived, the regulators do indeed try to make up for lost intake." "Regulators" were defined as smokers who "smoke for nicotine." 1003293322-3330 at 3322, 3324-3325 (U.S. Ex. 35,741).

1443. From approximately 1977 to 1981, Philip Morris carried out internal nicotine behavioral research establishing that nicotine functioned as a positive reinforcer of smoking. This research, conducted by Dr. Victor DeNoble and others, demonstrated that both nicotine and acetaldehyde in cigarette smoke were positive reinforcers and that animals self-administered nicotine to obtain its effects. 1003293284-3293 (U.S. Ex. 85,252); 1002973585-3614 (U.S. Ex. 35,632).

1444. Aware of nicotine's importance to the company and the industry, Osdene voiced concerns at a meeting with the scientific director of CTR in New York on January 5, 1978. Philip Morris had sent Osdene and Seligman to CTR to discuss several contract research programs, one of which concerned nicotine antagonists (as opposed to nicotine analogs). Seligman's comments revealed the importance of nicotine to the future of cigarette manufacturing. According to Osdene's memorandum of the meeting:

> Dr. Seligman brought up the grant by Dr. Abood in which one of the stated aims was to make a clinically acceptable antagonist to nicotine. This goal would have the potential of putting the tobacco manufacturers out of business.

1000286213-6214 at 6213 (U.S. Ex. 35,204).

1445. A December 1, 1978 Philip Morris report by researcher James L. Charles titled "The Nicotine Program" stated that "[n]icotine, a powerful pharmacological agent with multiple sites of action, is the most important component of cigarette smoke" and that "[n]icotine and an understanding of its properties are important to the continued well-being of our cigarette business . . . ." 1003033413-3417 at 3413 (U.S. Ex. 20,143); 2022954925-4929 at 4925 (U.S. Ex. 85,253).

1446. The ongoing "Nicotine Program" described in the 1978 report was carried out by Philip Morris well into the 1980s. This major research initiative studied nicotine's effects on the central and peripheral nervous systems, nicotine analogs, and "behavioral effects" of nicotine. 1003033413-3417 (U.S. Ex. 20,143); 1003289974-9975 (U.S. Ex. 21,553); 1000125871-5872 (U.S. Ex. 35,146); 1000127789-7790 (U.S. Ex. 34,422) (U.S. Ex. 35,151); 2022150943-0951 (U.S. Ex. 85,254).

1447. In a March 1978 report titled "Exit-Brand Cigarettes: A Study of Ex-Smokers," scientist Frank J. Ryan of the Philip Morris Research Center in Richmond again flatly admitted Philip Morris's substantial understanding of the role of nicotine in tobacco use at that time: "We think that most smokers can be considered nicotine seekers, for the pharmacological effect of nicotine is one of the rewards that come from smoking. When the smoker quits, he foregoes his accustomed nicotine. The change is very noticeable, he misses the reward, and so he returns to smoking." 1000368057-8080 at 8060 (U.S. Ex. 20,098).

1448. In the same March 1978 report, Ryan stated that, "If the industry's introduction of acceptable low-nicotine products <u>does</u> make it easier for dedicated smokers to quit, then the wisdom of the introduction is open to debate." 1000368057-8080 at 8060 (U.S. Ex. 20,098)

(emphasis in original).

1449. Wakeham, having apparently read a review of the Philip Morris Nicotine Program by Dunn, wrote a memorandum of concern to Seligman dated February 22, 1979. While Wakeham disagreed with the primary focus of the program on nicotine, he admitted that, "I do not deny that many smokers maintain the habit for psychopharmacological reasons." 1003293238-3239 at 3238 (U.S. Ex. 26,150).

1450. In a February 3, 1979 letter to Philip Morris President and CEO Hugh Cullman titled "The Slow Motion Self-Suicide of the Tobacco Industry," D. Todorovic, a retired Philip Morris International researcher, stressed the negative impact of "cigarette substitutes" on conventional cigarette sales and recommended against their development:

> It is obvious that such a tremendous sales gain of 'cigarette substitutes' is done at the expense of normal, conventional cigarettes, and there lies all the danger in the near future for the very survival of [the] Tobacco Industry, because these 'cigarette substitutes' are unable to make smokers addicts to tobacco. The present smokers of 'cigarette substitutes' are the future smoker quitters.

2010064696-4699 at 4697 (U.S. Ex. 20,303).

1451. Given the company's understanding of the importance of nicotine in maintaining smoking addiction, and thus its profits from cigarette sales, this anti-"cigarette substitute" sentiment was prevalent at Philip Morris. Ian Uydess, a Philip Morris scientist from 1977 until 1989, commented that Philip Morris knew that a cause and effect relationship existed between market performance and nicotine delivery levels. The document also makes clear that nicotine was distinct from taste:

> This belief . . . was reflected in many of the comments made at a number of internal meetings at which zero and "ultra low" delivery products were being discussed. Some scientists even predicted that products made with "no" or "too low" a level of nicotine would probably fail in test markets, "no matter what they tasted like."

2058335137-5176 at 5147 (U.S. Ex. 20,500).

1452. Clearly nicotine was not a necessary component of cigarettes for its taste. Indeed, Philip Morris scientists understood very well that as far as "taste" was concerned, nicotine had an "acrid burning taste" standing alone. 2060537042-7045 (U.S. Ex. 87,077).

1453. In a March 21, 1980 memorandum to Seligman, Dunn described in detail the Philip Morris-directed "Nicotine Receptor Program," a research initiative whose aim was the "understanding [of] the specific action of nicotine which causes the smoker to repeatedly introduce nicotine into his body." However, Dunn stated cautiously that, "Any action on our part, such as research on the psychopharmacology of nicotine, which implicitly or explicitly treats nicotine as a drug, could well be viewed as a tacit acknowledgment that nicotine is a drug." 0000127789-7790 at 7789 (U.S. Ex. 21,794); 2022249518-9518 at 9518 (U.S. Ex. 36,870); 1000127789-7790 (U.S. Ex. 34,422) (U.S. Ex. 35,151).

1454. Dunn also thought it was important to point out to Seligman that "the acute, transient, short-lived effects of nicotine upon a physiological system" were the "effect sought by the smoker." In the attachment to his memo, Dunn summed up the relationship between his company and nicotine as follows: "PM sells cigarettes. Cigarettes deliver nicotine." 0000127789-7790 at 7789 (U.S. Ex. 21,794); 1000127791-7792 (U.S. Ex. 35,152); 2022249518-9518 at 9518 (U.S. Ex. 36,870).

1455. Dunn's memorandum to Seligman was preceded by that of another Philip Morris scientist, James L. Charles, who also provided Seligman an assessment of the "Nicotine Receptor Program" on March 18, 1980. Charles opened his memorandum with the following observations:

> Nicotine is a powerful pharmacological agent with multiple sites of action and may be the most important component of cigarette smoke. Nicotine and an understanding of its properties are important to the continued well-being of our cigarette business since this alkaloid has been cited often as "the reason for smoking" and theories have been advanced for "nicotine titration" by the smoker.

100328974-8975 at 8974 (U.S. Ex. 87,078).

1456. Charles had made similar observations about nicotine in an earlier memorandum outlining the Philip Morris Nicotine Program dated December 1, 1978. He stated that his views had not changed in the intervening years. 1003289991-9995 (U.S. Ex. 26,147); 2500126721-6794 at 6732 (U.S. Ex. 85,257).

1457. Dunn wrote another memorandum dated March 24, 1980 to Seligman relating to a parallel effort at Philip Morris to create cigarettes with even higher nicotine to tar ratios, given his belief that smokers smoked only for nicotine. He wrote:

> If even only some smokers smoke for the nicotine effect (I personally believe most regular smokers do) then in today's climate we would do well to have a low TPM [total particulate matter, or tar] and CO [carbon monoxide] delivering cigarette than can supply adequate nicotine.

1003285586-5586 (U.S. Ex. 22,029).

1458. Dunn wrote a memorandum to Osdene dated June 2, 1980, in which he stated that

the Behavioral Research Lab was conducting "particularly exciting and promising" tests demonstrating "self-administration of nicotine by rats." 1000017375-7375 (U.S. Ex. 85,258).

1459. In an August 12, 1980 memorandum to the Vice President of Research and company directors, company Director of Science and Technology Thomas Osdene ranked nicotine research - and specifically the Philip Morris Nicotine Program - as one of the company's top Research and Development priorities because "the thing we sell most is nicotine":

> Nicotine Program. This program includes both behavioral effects as well as chemical investigation. My reason for this high priority is that I believe the thing we sell most is nicotine.

1003030124-0125 at 0124 (U.S. Ex. 26,132).

1460. Philip Morris's nicotine research included studies beginning before 1980 and continuing until 1984 to develop nicotine analogs as part of a purposeful effort to find a nicotine-equivalent drug that would retain nicotine's effects on the brain without nicotine's known adverse cardiovascular effects. Expert Report of Jeffrey Harris, United States v. Philip Morris, et al. (R. 690; filed November 15, 2001) at 6, 33-36. This was the same goal of nicotine analog research by BATCo that began in the early 1960s, described infra.

1461. The Nicotine Program was able to demonstrate "tolerance" to nicotine, or diminished effects of nicotine after repeated exposure to the drug. A quarterly report by Dunn and a progress report by DeNoble, both from 1980, illustrate tolerance in rats given intraventricular injections of nicotine in the Philip Morris labs. 1003293104-3106 (U.S. Ex. 85,259); 1000128587-8596 (U.S. Ex. 85,260).

1462. Philip Morris shared its extensive nicotine and smoking behavior knowledge with

BATCo. According to an October 12, 1979 "RESTRICTED" report from BATCo scientist L.C.F. Blackman, he accepted Philip Morris's invitation to visit the Philip Morris Research Center, and was briefed by scientists Osdene, Seligman, and Levy on the company's work, including the development of nicotine alternatives, nicotine discrimination studies, and EEG research. 109877493-7499 (U.S. Ex. 87,079).

1463. With respect to tolerance, a March 16, 1983 memorandum from Dr. Charles to Dr. Osdene stated that, "We can successfully defend the absence of withdrawal under controlled experiments, but we cannot defend tolerance. Tolerance to nicotine is a well-established fact." 1005061346-1346 (U.S. Ex. 20,199); 2022252680-2680 (U.S. Ex. 36,873).

1464. Philip Morris's sales director in the United Kingdom, George Mackin, wrote an article for a British tobacconist magazine dated December 4, 1981, where he admitted that cigarettes were addictive and that smokers developed tolerance. Mackin wrote that cigarettes were important to overall sales British convenience stores because:

> **Cigarettes are not just habit forming - the body builds up a requirement for them.** Twenty million smokers cannot do without their weed. Take the example of a man going to work in the morning. It's pouring with rain. There are six cars already parked outside the shop. So, there are at least 90 yards to walk back. Would he stop for a newspaper? Would he get out for a Kit Kat?
>
> The answer is probably No, but he would stop for his fags, **because he is addicted to cigarettes.** And while he is buying a pack, he takes a morning paper and a Kit Kat. (emphasis added)

2501013567-3568 (U.S. Ex. 27,920); 504336658-6658 (U.S. Ex. 85,261).

1465. The Mackin article caused a stir among several cigarette manufacturers, as well as

Shook, Hardy & Bacon, when news of his statements became known. However, none of the lawyers who commented on the article disagreed with it. For example, one Philip Morris attorney in Switzerland noted that the Mackin's admissions were only "very unfortunate" and "could cause a lot of problems for us." Another attorney wrote more to the point that "**in the product liability context these concepts are important, particularly as regards issues of risk assumption.**" (emphasis added) 2024950721-0721 (U.S. Ex. 20,404); 2501013567-3568 (U.S. Ex. 27,920); 2046754761-4761 (U.S. Ex. 85,263); 501626662-6662 (U.S. Ex. 85,264).

1466. In 1982 and 1983, Philip Morris conducted a study on high school students that not only showed an "encouraging upward trend in smoking" but also a link between cigarette smoking and the use of amphetamines. In his report dated February 18, 1983, Philip Morris's Byron Johnston tied cigarette smoking to drug use :

> The third chart shows the percent who used stimulants (amphetamines) or smoked marijuana or cigarettes during the past month. What I find intriguing is that marijuana and stimulant use increased as cigarette smoking declined, and that as marijuana use began to decline, the rate of decline in cigarette smoking slowed, and that stimulant use is virtually a mirror image of cigarette usage. **It almost looks as though stimulants and cigarettes are interchangeable to these kids (a notion that has some intuitive validity).** If so, and if stimulant use continues to decline, we should be able to expect smoking prevalence to continue to increase. (emphasis added)

1003285174-5178 at 5174 (U.S. Ex. 20,157).

1467. Philip Morris knew a significant portion of its customers wanted to quit but could not do so. A March 29, 1985 presentation at a "meeting of top management" was titled "The Perspective of PM International on Smoking and Health Issues." In this presentation,

management was told that only 5% of smokers would likely vote to assist the industry. This was because: "There are some 50 million smokers today in the U.S. I realize that research tells us that **the majority of smokers wished they did not smoke** and are, therefore, unlikely to be of much help to the industry." (emphasis added) 2023268329-8337 at 8331 (U.S. Ex. 26,784).

1468. Philip Morris's intensive internal research on nicotine continued into the 1990s. For example, a May 22, 1990 report stamped "PERSONAL AND CONFIDENTIAL" to scientific director Richard Carchman from company chemists/scientists Frank Gullotta, C.S. Hayes, and B.R. Martin reported on the "Stereospecific Effects of Nicotine and Electrophysiological and Subjective Responses." This research contrasted the physiological effects of two forms of nicotine, "d-nicotine" and "l-nicotine" using human smokers. 2025986606-6612 (U.S. Ex. 20,421).

1469. Many other Philip Morris documents reveal the company's in-depth knowledge of nicotine and a desire to exploit nicotine's effects on the human body. 2025986350-6401 (U.S. Ex. 87,080); 1000385483-5522 (U.S. Ex. 87,311); 1000221722-1726 (U.S. Ex. 87,081); 1003290519-0531 (U.S. Ex. 87,082); 1003287880-7890 (U.S. Ex. 20,163); 2023069596-9604 (U.S. Ex. 87,083); 1003294165-4180 (U.S. Ex. 87,084); 2062951465-1477 (U.S. Ex. 87,312); 1003292806-2811 (U.S. Ex. 87,086); 1003295309-5310 (U.S. Ex. 87,087); 1000128672-8672 (U.S. Ex. 87,088); 2022163557-3560 (U.S. Ex. 87,089); 1003293244-3245 (U.S. Ex. 35,738).

1470. A November 8, 1990 Philip Morris memorandum to Research and Development Vice President Cathy Ellis from Frank Gullotta titled "Raison d'etre" stated: "We have shown that **there are optimal cigarette nicotine deliveries for producing the most favorable**

physiological and behavioral responses. Our laboratory has demonstrated that all forms of nicotine are not behaviorally or physiologically equal. This observation is important for evaluating research cigarettes where the addition of nicotine is necessary." 2028813366-3368 at 3366 (U.S. Ex. 20,430) (U.S. Ex. 76,179) (emphasis added).

1471. The Philip Morris Nicotine Program was described in detail in a lengthy 1992 review prepared by outside counsel Shook, Hardy & Bacon titled "Philip Morris Behavioral Research Program." In this review, counsel summarized many aspects of the company program, directed by Dunn, and cited specific documents showing a major internal research initiative that began in 1969 only to end abruptly in 1984. The Shook, Hardy & Bacon report: provided the following chronology:

Date	Event
1969	Hutchinson funded
1972	Berntson funded
	Hutchinson funding ceased
1974	Waldbillig funded
1975	Levy hired
1977	Berntson hired as consultant
	Gullotta hired
	Electrophysiology and comparative psychology programs initiated
	Waldbillig funding terminated
1979	Abood funded
1980	DeNoble hired
1981	Egle funded
	Berntson research terminated
1984	Egle funding terminated
	Berntson consultancy lapses
	Abood funding terminated

2021423403-3461 at 3408-3409 (U.S. Ex. 36,743).

1472. The Shook, Hardy & Bacon document described how Philip Morris Nicotine

Program scientists demonstrated tolerance to nicotine, behavioral effects, nervous system effects, and other results consistent with dependence and addiction. 2021423403-3461 at 3440-3443 (U.S. Ex. 36,743).

1473. The 1992 report also made clar that the program generated results and was still generating data in 1984 related to nicotine receptors, analogs, peripheral nervous system effects, central nervous system effects, effects on animal behavior, and differences between high nicotine delivery and low nicotine delivery cigarettes. With respect to the reasons why the Nicotine Program was ended in 1984, the report states ominously the following: "For reasons never stated in any internal documents, Philip Morris cancelled the Nicotine Program in spring 1984. The decision to cancel the program may have been the result of outside counsel's legal advice. 2021423403-3461 at 3408 (U.S. Ex. 36,743).

1474. A similar 1994 Shook, Hardy & Bacon report titled "Philip Morris Research on Nicotine Pharmacology and Human Smoking Behavior" also reviewed and detailed much the Philip Morris nicotine research described above. The report, while at times attempting to place favorable "spin" on company actions, acknowledged many Philip Morris documents and statements consistent with the company's awareness of nicotine addiction. 2046819241-9265 (U.S. Ex. 85,265).

1475. For example, the 1994 report summarized DeNoble's research showing that nicotine and acetaldehyde were synergistically reinforcing: "It was DeNoble's experience with acetaldehyde that it condensed in the brain to form Dopamine-like compounds and made the animal somewhat 'euphoric.'" Philip Morris was able to link this noted "euphoric" effect to

cigarette sales. In fact, DeNoble and fellow researcher Frank Ryan generated research indicating "that acetaldehyde and nicotine data could be used to predict cigarette sales at a 96% accuracy." 2046819241-9265 at 9249 (U.S. Ex. 85,265).

1476. The 1994 report also described how DeNoble was able to demonstrate both "behavioral tolerance" and "metabolic tolerance" to nicotine, other important aspects of addiction. 2046819241-9265 at 9250-9251 (U.S. Ex. 85,265).

1477. The report later noted that "additional research on nicotine/acetaldehyde synergism may have shown that cigarettes were in fact addictive." Unfortunately, Philip Morris terminated DeNoble and ended his research, effectively ending the likelihood of such "additional research." The Shook, Hardy & Bacon lawyers who prepared this report after reviewing their client's documents wrote: "Laboratory Shutdown [CAVEAT: Significance is self-evident.]". 2046819241-9265 at 9254, 9256-9258 (U.S. Ex. 85,265).

1478. The planning, findings, and significance of the Philip Morris Behavioral Research Program in the 1970s and 1980s and Dr. DeNoble's research in particular are described in numerous Philip Morris documents. 1002973585-3615 (U.S. Ex. 35,632); 2056145924-5927 (U.S. Ex. 87,090); 1003293284-3293 (U.S. Ex. 85,252); 2500126721-6787 (U.S. Ex. 85,257); 1003060443-0503 (U.S. Ex. 87,091); 1003582081-2082 (U.S. Ex. 35,826); 1002973179-3180 (U.S. Ex. 87,092); 1001894698-4705 (U.S. Ex. 87,093); 1000052405-2413 (U.S. Ex. 87,094); 1000017985-8021 (U.S. Ex. 87,095); 1003293138-3144 (U.S. Ex. 87,096); 1000017375 (U.S. Ex. 85,258); 1003060646-0655 (U.S. Ex. 87,097); 10030606-0606 (U.S. Ex. 87,098); 1003060638-0643 (U.S. Ex. 87,099); 1002972788-2796 (U.S. Ex. 87,100); 1003186849-6854

(U.S. Ex. 87,101); 1000128665-8667 (U.S. Ex. 87,102); 1000128662-8663 (U.S. Ex. 87,103); 1000128664-8664 (U.S. Ex. 87,104); 1000128668-8671 (U.S. Ex. 87,105); 1003293241-3243 (U.S. Ex. 87,106); 1003293216-3217 (U.S. Ex. 87,107); 1000413881-3964 (U.S. Ex. 20,100); 1003198459-8461 (U.S. Ex. 20,156); 1003720350-0352 (U.S. Ex. 87,108); 2047340075-0079 (U.S. Ex. 87,109); 2022955358-5361 (U.S. Ex. 87,110); 2022955501-5502 (U.S. Ex. 87,111); 2057069742-9769 (U.S. Ex. 88,762).

1479. Philip Morris was conducting secret nicotine and smoking behavior research in Europe during this time frame as well. 1000012310-2346 (U.S. Ex. 35,065); 1000301691-1720 (U.S. Ex. 87,112).

1480. Philip Morris Planning Director Barbara Reuter prepared an analysis of the company's plans to market an alternative nicotine delivery product under the code name "TABLE" in 1993. The 20-page plan, dated October 1992 and stamped "CONFIDENTIAL," stated the following in the "Background" section:

> Different people smoke cigarettes for different reasons. But, **the primary reason is to deliver nicotine into their bodies.** Nicotine is an alkaloid derived from the tobacco plant. It is a physiologically active nitrogen containing substance. **Similar organic chemicals include nicotine, quinine, cocaine, atropine, and morphine**. While each of these substances can be used to affect human physiology, nicotine has a particularly broad range of influence.
>
> During the smoking act, nicotine is inhaled into the lungs in smoke, enters the bloodstream and travels to the brain in about eight to ten seconds. The nicotine alters the state of the smoker by becoming a neurotransmitter and a stimulant. Nicotine mimics the body's most important neurotransmitter, acetylcholine (ACH), which controls heart rate and message sending within the brain. The nicotine is used to change psychological states leading to

> enhanced mental performance and relaxation. A little nicotine seems to stimulate, while a lot sedates a person. A smoker learns to control the delivery of nicotine through the smoking technique to create the desired mood state. In general, the smoker uses nicotine's control to moderate a mood, arousing attention in boring situations and calming anxiety in tense situations. Smoking enhances the smoker's mental performance and reduces anxiety in a sensorially pleasurable form. (emphasis added)

2020154466-4486 at 4467 (U.S. Ex. 26,722); 2020154437-4437 (U.S. Ex. 85,266).

1481. Altria General Counsel Murray Bring acknowledged the addictiveness of smoking in a July 31, 1992 internal memo on PMC letterhead to William Campbell and Bill Murray which discussed recent research on cocaine, and posed these questions from then-PM CEO Michael Miles: "First, how do we stay up to date on the state of smoking cessation technology; second, what effect would a reliable, readily available "habit breaker" have on our business; and third, what – if any – contingency plans should we be making now?" 2074091232-1232 (U.S. Ex. 27,480).

1482. An October 2, 1992 memorandum from Carolyn Levy to William Campbell reviewed the efficacy of nicotine patches coupled with behavioral therapy to achieve smoking cessation success. Levy stated that the company was almost ready with an alternative nicotine delivery device. She concluded that, "This suggests that at the very least we should have contingency plans for a change in the predominant form of nicotine usage. . . . If these circuits do mediate nicotine intake and they could be blocked, then it is possible that cigarettes' appeal would decline." 2023012974-2975 (U.S. Ex 36, 943).

1483. The Altria Board held a seminar on addiction issues, among other things, on September 28, 1994. 2047096909 (U.S. Ex. 86,915).

1484. Other documents show that during the 1970s and 1980s, researchers at Philip Morris attempted to find an analogue of nicotine, i.e. a substance of similar chemical structure, that had the same effect on the brain but no side effects on the cardiovascular or cerebral systems. 1000403178–3604 at 3237–3238 (U.S. Ex. 20,099); 2020154437-4437 (U.S. Ex. 85,266).

1485. Philip Morris filed its first nicotine-analogue patent application in June 1976, stating only that the patented compounds had "utility as intermediates for the production of ultimate compounds of known utility." 2026403670-3673 (U.S. Ex. 20,426).

1486. In June 1977, the company applied for a second patent on the synthesis of 2-alkyl nicotinoids, stating only that ". . . the synthesis of ortho-alkylated nicotinoids and their evaluation as insecticides is of considerable interest." There followed a number of additional patents on the synthesis of other nicotine analogues. 2060489246-9255 (U.S. Ex. 21,918).

1487. Some of these later patents, including the last two patents filed in 1989 (No. 5,015,741) and 1990 (No. 5,138,062), noted the pharmacologic effects of nicotine in experimental animals, specifically the tranquilizing and sedating effects of the drug when it was instilled directly into the rat brain. 89283587-3614 at 3598 (U.S. Ex. 85,267).

1488. During the late 1970s, Philip Morris International established a clandestine screening program to determine whether particular chemical variants of nicotine affected the brain differently than the rest of the body. 0000127789-7790 (U.S. Ex. 21,794).

1489. Among the screening tests used were tests that could also be used to evaluate a drug's addictive potential: torpedo fish membrane binding (a test developed in the 1960s); the guinea pig ileum model (developed in the 1950s); prostration test (developed in 1977-1978, in

which nicotine was directly injected into a test animal's brain); discrimination testing (in which a test animal already trained to press a lever after receiving nicotine was then given an intramuscular injection of a test compound); and finally self-administration, in which rats were observed to see if they would repeatedly give themselves injections of the test drug. Expert Report of Jeffrey E. Harris, United States v. Philip Morris, et al., (R.660; November 15, 2001) at 42.

1490. Many of the above Philip Morris documents are acknowledged by Philip Morris attorneys in several Bliley documents recently disclosed during the State of Minnesota litigation. 2021423403-3497 (U.S. Ex. 36,743); 2500126796-6862 (U.S. Ex. 86,611); 2504078678-8744 (U.S. Ex. 86,612).

1491. Even lawyers for Philip Morris recognized that the scientific consensus was that nicotine and smoking were addictive. One Philip Morris document apparently prepared by a law firm is titled "REJECTED WITNESSES (ADDICTION)." This table lists approximately 120 addiction experts recommended by industry lawyers and scientists, then probed by industry lawyers as possible witnesses. The vast majority of the witnesses were "rejected" on the basis of their conclusions that nicotine and smoking were addictive or dependence-producing, or on the basis of other "anti-industry" views. The remainder were rejected on the basis of lack of experience. 2025005260-5275 (U.S. Ex. 88,763).

(ii) R.J. Reynolds

1492. In a November 16, 1967 response to an inquiry on a nicotine inhibitor patent, R.J. Reynolds scientist Eldon D. Nielson wrote that the tobacco companies would not want such an

item, as they were "selling a nicotine effect, not fighting it." 502001177-1177 (U.S. Ex. 29,547).

1493. Because it understood the importance of retaining sufficient nicotine to maintain dependence on its so-called "low tar/low nicotine" cigarettes,

504210018-0018 (U.S. Ex. 50,577); 522598277-8277 (U.S. Ex. 80,744) (Confidential).

1494. In a March 28, 1972 memorandum regarding the development of new products, Reynolds scientist Claude Teague stated that for the typical smoker, "nicotine satisfaction is the dominant desire" and that "[i]n designing any cigarette product, the dominant specification should be nicotine delivery." 5002504536-4544 at 4538 (U.S. Ex. 85,268).

1495. Claude Teague was the R.J. Reynolds equivalent/counterpart to William Dunn at Philip Morris. In an April 14, 1972 report titled "Research Planning Memorandum on the Nature of the Tobacco Business and the Crucial Role of Nicotine Therein," Teague stated:

(emphasis added)

500915683-5691 at 5684-5685 (U.S. Ex. 20,659) (U.S. Ex. 76,185) (U.S. Ex. 77,216); 521896443-6450 (U.S. Ex. 80,686) (Confidential).

1496. Teague later stated in his report that:

> If nicotine is the sine qua non of tobacco products and tobacco products are recognized as being attractive dosage forms of nicotine, then it is logical to design our products – and where possible, our advertising – around nicotine delivery rather than 'tar' delivery or flavor. To do this we need to develop new data on such things as the physiological effects of nicotine, the rate of absorption and elimination of nicotine delivered in different doses at different frequencies and by different routes, and ways of enhancing or diminishing nicotine effects and "satisfactions." (emphasis in original)

500915683-5691 at 5685-5686 (U.S. Ex. 20,659) (U.S. Ex. 76,185) (U.S. Ex. 77,216).

1497. Teague also refuted the industry's often-heard "nicotine is for taste" argument by stating that, "I believe that for the typical smoker nicotine satisfaction is the dominant desire, as opposed to flavor and other satisfactions." 500915683-5691 (U.S. Ex. 20,659) (U.S. Ex. 76,185) (U.S. Ex. 77,216).

1498. Later in the same report, Teague noted the vital role of nicotine to the fundamental existence of the cigarette industry:

> If, as proposed above, nicotine is the sine qua non of smoking, and if we meekly accept the allegations of our critics and move toward reduction or elimination of nicotine from our products, then we shall eventually liquidate our business. If we intend to remain in business and our business is the manufacture and sale of dosage forms of nicotine, then at some point we must make a stand.

(emphasis in original)

500915683-5691 at 5688 (U.S. Ex. 20,659) (U.S. Ex. 76,185) (U.S. Ex. 77,216).

1499. At the close of his April 14, 1972 memorandum on nicotine, Teague recommended the following courses of action for R.J. Reynolds:

> 1. Recognize the key role of nicotine in consumer satisfaction, and design and promote our products with this in mind.
>
> 2. More precisely define the minimum amount of nicotine required for 'satisfaction' in terms of dose levels, dose frequency, dosage form, and the like. This would involve biological and other experiments.
>
> 3. Sponsor in-depth studies of the physiological, psychological and other effects of nicotine, aimed at demonstrating the beneficial effects of nicotine and at disproving allegations that nicotine produces major adverse effects.
>
> 4. Study, design and evaluate new or improved systems for delivery of nicotine which will provide the minimum satisfying amount of nicotine in attractive form, free of allegedly harmful combustion products.
>
> 5. Study means for enhancing nicotine satisfaction via synergists, alteration of pH, or other means, to minimize dose level and maximize desired effects.
>
> 6. Monitor developments in materials and products which may compete with nicotine products or which might be combined with nicotine products to provide added advantages or satisfactions.
>
> 7. Monitor work by others which might be aimed at improved nicotine delivery systems of the type proposed here.
>
> 8. Search for and evaluate other physiologically active components of tobacco or its smoke which may provide desired effects to the smoker.

500915683-5691 at 5690-5691 (U.S. Ex. 20,659) (U.S. Ex. 76,185) (U.S. Ex. 77,216).

1500. In a 1973 "SECRET" report entitled "Implications and Activities Arising From Correlation of Smoke pH with Nicotine Impact, Other Smoke Qualities, and Cigarette Sales," Teague reiterated to company executives R.J. Reynolds's knowledge of the importance of effective nicotine delivery in its competition with Marlboro and Kool:

> In essence, a cigarette is a system for delivery of nicotine to the smoker in attractive, useful form. At "normal" smoke pH, or at below about 6.0, essentially all of the smoke nicotine is chemically combined with acidic substances, hence is non-volatile and relatively slowly absorbed by the smoker. As the smoke pH increases above about 6.0, an increasing proportion of the total smoke nicotine occurs in "free" form, which is volatile, rapidly absorbed by the smoker, and believed to be instantly perceived as nicotine "kick". . . .
>
> As a result of its higher smoke pH, the current Marlboro, despite a two-thirds reduction in smoke "tar" and nicotine over the years, calculates to have essentially the same amount of "free" nicotine in its smoke as did the early WINSTON. . . .
>
> In addition to enhancing nicotine "kick," increasing the pH (increasing alkalinity) of smoke above about 6.0 causes other changes, particularly when the increase in smoke pH is achieved by adding ammonia to the blend.

509314122-4148 at 4125 (U.S. Ex. 20,828).

1501. Teague also described the different "current and planned" methods R.J. Reynolds was utilizing to increase the nicotine delivery and nicotine "kick" to smokers. His description revealed that the nicotine work was directed by and reported to company management:

> As its part in this collaborative effort, Research has: (1) collected, correlated, interpreted, and described to Management data on smoke pH of various brands, (2) developed and put into routine use improved methods for measurements of smoke pH . . . . [and] (4) evaluat[ed] various methods whereby smoke pH may be increased, with emphasis on ammonia treatments of stem materials.

> Methods which may be used to increase smoke pH and/or nicotine "kick" include: (1) increasing the amount of (strong) burley in the blend, (2) reduction of casing sugar used on the burley and/or blend, (3) use of alkaline additives, usually ammonia compounds, to the blend, (4) addition of nicotine to the blend, (5) removal of acids from the blend, (6) special filter systems . . . and (7) use of high air dilution systems.

509314122-4148 at 4127 (U.S. Ex. 20,828); 511223463-3484 at 3468 (U.S. Ex. 20,840).

1502. Teague's nicotine research was important to the long-term success of the company. In fact, his 1973 secret report was written at the request of R.J. Reynolds President William D. Hobbs. Teague provided Hobbs the report under cover memo dated October 2, 1973, stating, "I hope the attached report is about what you had in mind." 501136993-6993 (U.S. Ex. 85,269).

1503. Other R.J. Reynolds memoranda, dated July 3 and December 26, 1973, reported the results of an internal "Correlation Study" confirming the "correlation between free nicotine to sales previously reported by Research." 501011401-1401 (U.S. Ex. 20,668); 501327013-7013 (U.S. Ex. 21,434).

1504. Teague's observations and conclusions were accepted at R.J. Reynolds thereafter. Some ten years later, Teague sent the very same report to company Vice President of Research and Development Bob DiMarco with a short note: "Bob - This is where we were in '73. You may want to skim/scan the first 4 pages. Claude." DiMarco returned the report to Teague with the following response printed under Teague's words: "Thank you Claude. **Looks like we're still there in 1983**. Bob" 511223460- 3462 at 3461 (U.S. Ex. 85,270) (emphasis added); 511223463-3484 (U.S. Ex. 20,840).

1505. Teague turned his 1973 paper on smoke pH and nicotine into a presentation he apparently delivered to the company. In a 14-page document titled "Outline for Smoke pH Presentation," Teague covered many of the same points in his paper. Teague, whose own handwriting is on several of the outline pages, stated that his work was directed by company president William Hobbs. While much of the content of Teague's presentation is described above, he also explained in more detail his conclusion that Reynolds needed to create a nicotine-enhanced cigarette to compete in the beginning smoker market:

> What has emerged then, or may still be emerging, is a new and distinguishably different type of cigarette -- **perhaps a type with 1955 nicotine impact and 1973 tar and nicotine numbers.** . . . We need to worry about the many beginning smokers, learning to like a different type of cigarette. . . . Therefore, if indeed a new and relatively distinct type of cigarette is emerging and selling well --particularly to large numbers of beginning smokers – I would think that we would want to develop new brands or brand variants of our own to compete in that market. (emphasis added)

500917535-7548 at 7544-7545 (U.S. Ex. 48,662).

1506. A "CONFIDENTIAL" May 10, 1973 report from Reynolds chemists John Woods and Gloria Harllee studied pH of tobacco and the success of competitor brands Kool and Marlboro. The report, consistent with other Reynolds documents, showed the critical importance of "free" or "unbound" nicotine actually delivered to and absorbed by the smoker to both the "physiological strength" and growing market share of the brands. The researchers concluded the following:

> 1. A historical review of smoke pH of competitive brand cigarettes has shown that the Marlboro and Kool cigarettes have had higher smoke pH than the other competitive brands since 1964.

> 2. The smoke pH for Kool has been high due to the use of relatively low levels of sugar in the casing. The Marlboro has maintained a high pH by using a relatively low sugar and ammonium phosphate additive on the reconstituted tobacco.
>
> 3. Over the years studied there was a very strong positive correlation between smoke pH and sales. An even better correlation was observed between free nicotine in the smoke and sales.
>
> 4. The physiological strength of a cigarette, which may be controlled to some degree with smoke pH, is extremely important.

500606138-6153 at 6142 (U.S. Ex. 48,334).

1507. Other undated documents produced by R.J. Reynolds flatly stated that the company eventually used ammonia to vary both the nicotine and smoke pH of its tobaccos. The documents acknowledged that the company added ammonia to reconstituted tobacco, and that historic sales of Marlboro climbed "rapidly after the introduction of added ammonium" by Philip Morris. 500990999-1004 (U.S. Ex. 20,666); 509018864-8865A (U.S. Ex. 20,820).

1508. With respect to R.J. Reynolds's success with ammoniation, one document disclosed that ammonia produced a "cleaner taste with more free nicotine" and a "stronger physiological impact." As for the widespread utilization and success of adding ammonia at R.J. Reynolds, the document stated:

> RJR introduced ammoniated sheet material in the CAMEL filter product in 1974. Better market performance was indicated in the subsequent years. Low "tar" products at RJR were designed with ammoniated sheet material beginning in 1974. RSM studies showed that ammoniation was one of the major consumer recognized product attributes tested. Ammoniated sheet was introduced into the WINSTON KS product in 1979. Market tests indicated significant product improvement.

500990999-1004 (U.S. Ex. 20,666); 509018864-8865A (U.S. Ex. 20,820).

1509. Defendants have claimed that nicotine is only necessary for taste or flavor. However, R.J. Reynolds has distinguished between nicotine and flavor in its internal documents for decades. One example is a December 4, 1973 memorandum from Frank Colby to marketing director R.A. Blevins titled "Cigarette Concept to Assure RJR a Larger Segment of the Youth Market." Colby recommended in his memorandum that R.J. Reynolds begin manufacturing a new cigarette with "more flavor (tar)" and "more 'enjoyment' or 'kicks'" to appeal to youth. Colby also added that "any desired additional nicotine 'kick' could be easily obtained through pH regulation" in the manufacturing of these new "youth-appeal cigarettes." 501166152-6153 (U.S. Ex. 23,051).

1510. Defendants have stated or implied that they did not employ any methods to increase nicotine delivery or "kick." However, these methods (some described above by Teague) were not only studied and summarized by the companies, they were employed. For example, an April 12, 1994 list of "Ingredients Added to Tobacco in the Manufacture of Cigarettes" by the six largest United States manufacturers (including R.J. Reynolds) disclosed that the companies added ammonia and other ammonium compounds to their cigarettes during the manufacturing process. 606000841-0889 at 0842 (U.S. Ex. 53,325).

1511. Teague wrote another "Confidential" memorandum dated February 2, 1973, titled "Some Thoughts About New Brands of Cigarettes for the Youth Market." In this memorandum, Teague contrasted novice smokers with "confirmed" or addicted smokers. He stated that while "pre-smokers" and "learners" start smoking for psychological reasons (fitting in with the crowd,

self-image, boredom relief), "once the 'learning' period is over, the physical effects become of overriding importance and desirability to the confirmed smoker, and the psychological effects, except the tension-relieving effect, largely wane in importance or disappear." 502987357-7368 at 7359 (U.S. Ex. 21,475).

1512. In an August 4, 1976 speech to R.J. Reynolds's international division, Director of Research Murray Senkus affirmed the indispensable role of nicotine, stating, "In smoking the effect produced on the human body is ascribable to nicotine" and "Without any question, the desire to smoke is based on the effect of nicotine on the body." Many of Teague's prior documents on nicotine had been sent to Senkus. 501525355-5366 at 5356, 5358 (U.S. Ex. 29,531).

1513. In a R.J. Reynolds August 1976 "Three-Year Action Plan for New Products," nicotine was described as a "traditional need," and "very basic to the cigarette industry's existence." 500672011-2172 at 2078-2105, 2107 (U.S. Ex. 20,645).

1514. In a September 21, 1976 internal memorandum from John L. McKenzie to A.P. Ritchy titled "Product Characterization Definitions and Implications," nicotine was defined as "the psychopharmacological agent in tobacco which is one of the key factors in satisfaction . . . ." 500380562-0564 at 0563 (U.S. Ex. 20,630) (U.S. Ex. 76,184).

1515. A November 9, 1976 memorandum on nicotine circulated among R.J. Reynolds scientists reviewed the known physiological effects of nicotine on the body and admitted the company's ongoing desire to increase or hold steady the nicotine content of its cigarettes while reducing tar. The memo, titled "Nicotine Research," also acknowledged tolerance to nicotine:

"Habituated smokers, both male and female, metabolize nicotine more rapidly that non-smokers, indicating the bodily metabolic acclimation to nicotine." Finally, the memo contradicted industry claims that smokers seek nicotine only as a matter of "taste": in-house studies concluded that detectable nicotine produced the taste described as "foul, rotten rubber" and that "Nicotine is definitely an irritant in smoke and its taste must be blended out or modified by other constituents in the TPM to make smoke acceptable." 509078812-8820 at 8814-8815 (U.S. Ex. 85,271).

1516. Reynolds' detailed knowledge of the physiological and pharmacological effects of nicotine is contained in an undated document that appears to be a scientific presentation on nicotine. 502824762-4800 (U.S. Ex. 50,257).

1517. In a February 7, 1978, memorandum titled "Nicotine Satisfaction – Consumer Test," R.J. Reynolds researchers C.L. Neumann and J.P. Dickerson stated that the focus of the consumer satisfaction program would be on nicotine, as it was "probably the most important satisfaction variable," and because nicotine had "known physiological activity." 504479948-9954 at 9549 (U.S. Ex. 20,729).

1518. In another example, a February 5, 1980 interoffice memorandum from H.E. Guess stated the concern that the reduced level of nicotine in R.J. Reynolds's Winston B Cigarettes would make them less attractive to Winston smokers. 504675307-5307 (U.S. Ex. 21,549).

1519. R.J. Reynolds scientist D.H. Piehl reviewed the scientific literature on nicotine and maintenance of the smoking habit in a "Confidential" internal paper for the company entitled "Smoking Behavior - A Review." In his paper, Piehl summarized with approval many studies finding the preeminent importance of nicotine to smokers, the various "need" levels of nicotine,

nicotine dependence, and addiction. At the close of the paper, he sarcastically wrote:

> It continues to be reported in the popular press that 4 out of 5 smokers have tried to quit smoking and failed. Perhaps they should listen to Mark Twain who said, "It's the easiest thing in the world to stop smoking. I should know because I've stopped over 1000 times.

504972347-2362 at 2362 (U.S. Ex. 50,710).

1520. In fact, scientists at R.J. Reynolds had known for years that most smokers get "hooked" and are unable to quit. Teague wrote a memorandum dated December 1, 1982, to Research and Development Vice President Robert DiMarco where he stated that R.J. Reynolds needed to tailor its marketing to the reality that "most of those who have smoked for any significant time would like to stop," and most smokers "would stop using **if they could**." Teague also stated that R.J. Reynolds needed to contemplate the future scenario where smokers who want to stop can stop; if this happened, R.J. Reynolds would "go out of business." Therefore, R.J. Reynolds "cannot be comfortable marketing a product which most of our consumers would do without **if they could.**" 500898255-8257 at 8256 (U.S. Ex. 48,652) (emphasis added).

1521. An April 15, 1983 R.J. Reynolds draft document titled "Smoker Compensation Review" reiterated the company's knowledge that smokers of low tar/nicotine products compensated to obtain more nicotine, and that the FTC method of measuring nicotine was flawed. The document included the following in a section titled "Impact of Known Compensatory Behavior On Cigarette Rankings":

> Based on the results of studies similar to those summarized above, it has been stated that low –'tar' smokers use their cigarettes differently than smokers of higher – 'tar' products. Different 'usage' includes propensity to block vents or otherwise manipulate the

> cigarette, increasing the number of puffs and the number of cigarettes smoked, puffing more frequently or with larger volumes and inhaling more deeply or holding smoke in the lungs longer. These usage patterns are consistent with the theory that low – 'tar' smokers seek to maintain a given nicotine level in the body, regardless of the cigarette. The patterns cited are instances which would tend to increase the 'dosage' of nicotine to the smoker.

This statement revealed R.J. Reynolds's continuing view of smokers as "nicotine seekers," in this case seekers who alter their smoking method to obtain the necessary "dosage" of nicotine. 501524500-4514 at 4506 (U.S. Ex. 85,272).

1522. An undated R.J. Reynolds document titled "R&D Outline" listed "Nicotine as a drug" as a topic for departmental discussion. The outline provided for a "discussion of a string of industry memos and reports, dating back to at least the early 1970's, in which industry scientists and execs seem to admit to nicotine's qualities as a drug." The document described several examples, including a 1971 Brown & Williamson letter, a 1972 R.J. Reynolds report and a 1972 Philip Morris summary of a meeting of industry scientists. This document demonstrated that despite their public denials, the industry had in fact internally admitted nicotine's addictiveness and its importance for cigarette smoking. 522606315-6317 at 6316 (U.S. Ex. 85,273).

1523. Another undated Reynolds document is a Biobehavioral Department presentation titled "Biobehavioral Aspects of Smoking." In this presentation, the speaker discussed how "maintenance" of the smoking habit for 80% of smokers was related to the "tranquilizing effects" of nicotine. The speaker emphasized at various points that "nicotine is the substance people desire in their use of tobacco," "animals will self-administer nicotine in a laboratory setting,"

evidence that "smokers smoke to maintain a constant level of nicotine in the body," and that "the fact remains that smokers do not continue to smoke unless their cigarettes contain nicotine." 502835327-5337 (U.S. Ex. 87,314); 517214547-4557 (U.S. Ex. 87,113).

1524. After Benowitz published his 1983 paper on compensation by smokers of low nicotine yield products, R.J. Reynolds scientist John Robinson wrote a critique of the paper to Dr. Alan Rodgman in which he stated:

> The paper itself expresses what we in Biobehavioral have felt for quite some time. That is, smokers smoke differently than the FTC machine and may very well smoke to obtain a certain level of nicotine in their bloodstream. If a given level of nicotine in the blood is the final goal of a smoker, one would predict that he would smoke an FFT [full flavor tar] and ULT [ultra low tar] cigarette differently.

510994429-4429 (U.S. Ex. 85,274).

1525. Robinson wrote that the Benowitz paper brought to mind a past industry study comparing German Camel cigarettes with Marlboro cigarettes, where "smokers apparently obtained almost exactly the same amount of nicotine no matter which of the four cigarettes they smoked." Robinson recalled that the study "was one of the first indications that smokers may in fact smoke to obtain a certain level of nicotine in their bloodstream." 510994429-4429 (U.S. Ex. 85,274).

1526. In preparation for a R.J. Reynolds "brainstorming session" at the company's Flavor and Biobehavior Divisions, Donald L. Roberts told employees in an October 13, 1983 memorandum that, "The functions a cigarette serves are many fold involving social, psychological and physiological. A short definition is that a cigarette supplies nicotine to the consumer in a palatable and convenient form." Roberts clearly distinguished nicotine from taste,

stating that, "The cigarette's taste is a relatively unimportant benefit of smoking. Its taste is primarily a delivery vehicle. . . ." 503602711-2714 at 2712 (U.S. Ex. 85,275).

1527. A June 3, 1985 R.J. Reynolds document was titled "Report on Medical and Scientific Issues - Addiction." In this review, the scientist authors attempted to examine current scientific literature to assist the industry with respect to the scientific consensus on nicotine addiction. As part of their review, the scientists reviewed literature compiled by the tobacco law firms of Jacob, Medinger & Finnegan, Shook, Hardy & Bacon and Jones Day. The scientists wrote in their report that, "Both Mr. Wrobleski [Jacob, Medinger & Finnegan] and Mr. Sirridge [Shook, Hardy & Bacon] warned, however, that there is very little literature favorable to the industry's position on addiction." 515878492-8522 at 8494. (U.S. Ex. 30,251).

1528. R.J. Reynolds's R&D department embarked on a large-scale nicotine research program in 1988, as described in a lengthy October 7, 1988 project report titled "An Integrated Research Program for the Study of Nicotine and Its Analogs," to continue looking into the "pharmacological potency," "biological activity," and central nervous system effects of nicotine and nicotine analogs. The researchers posited that:

> What is known about nicotine is that it elicits the typical consequences of sympathoadrenal activation when administered in doses that produce plasma concentrations similar to those achieved during smoking. Among these are tachycardia, increases in blood pressure, cardiac output, and stroke volume . . . . In addition, there is a fair amount of tolerance induced with regard to sympathetic activation by smoking or chronic nicotine administration.

514894567-4676 at 4586-4587 (U.S. Ex. 20,862) (U.S. Ex. 76,199).

1529. Summing up R.J. Reynolds's knowledge of the importance and addictive quality

of nicotine was one line from a May 3, 1991 R.J. Reynolds Research and Development report on a tobacco modification and nicotine manipulation project code-named the "REST Program." One key objective of the program was to "Independently control nicotine delivery, from very low to elevated levels, to address consumer wants and as a research tool." The basis for the Controlled Nicotine Process component of "REST" was that

> **We are basically in the nicotine business**. It is in the best long term interest for RJR to be able to control and effectively utilize every pound of nicotine we purchase. Effective control of nicotine in our products should equate to a significant product performance and cost advantage. (emphasis added)

509479574-9587 at 9577, 9584 (U.S. Ex. 20,829).

1530. According to the Wall Street Journal, former RJR Nabisco CEO F. Ross Johnson stated during a 1994 interview that, "Of course it's addictive. That's why you smoke the stuff." *Wall Street Journal*, "Big Spender Finds a New Place to Spend," October 6, 1994. (U.S. Ex. 61,440).

1531. In a 1998 memorandum titled "ECLIPSE Taste and Satisfaction Improvements," D.E. Townsend stated with regard to the Eclipse product that R&D staffs were "encouraged to pursue diligently Eclipse designs with increased nicotine yield in an effort, in part, to increase consumer acceptance of the product." He later added: "If increased nicotine yield helps give improved consumer acceptance in the market, then possible benefits of this potentially reduced risk product would be greater." 526013569-3569 (U.S. Ex. 85,276); 700245849-5849 (U.S. Ex. 85,277).

1532. In a June 4, 1999 email communication (Subject: Tobacco Beer) to Mickey Smith,

Don deBethizy discussed the creation of nicotine-laden beer. This communication demonstrated R.J. Reynolds's continuing understanding that nicotine is (in Claude Teague's words) the "sine qua non" of any tobacco product:

> Crazy idea: Researchers at Duke University have found that nicotine added to beer provided nicotine in a palatable form which was enjoyable to subjects. I wonder if tobacco could be added to beer in a palatable way? Since beer is only used in adult venues, it might be a way for people to use tobacco and beer together. The toxicity of nicotine may be a problem, but these researchers thought that it was worth exploring nicotine in beverages.

700007868-7868 (U.S. Ex. 54,412).

1533. R.J. Reynolds' lawyers at Jones Day knew that addiction was the Achilles heel of smoking and health litigation, and that their client has long since acknowledged the addictiveness of nicotine and smoking. The lawyers' concern that addiction would undermine their and their client's attempts to portray smoking as a free choice, and therefore a smoker's smoking-caused injuries were the result of voluntary assumption of a known risk, were reflected in several "trial strategy" documents produced by Defendants. For example, in an August 10, 1985 Jones Day memorandum titled "Smoking and Health Litigation, Tactical Proposals," the authors wrote that, "If a jury were likely to conclude that addiction overcame the plaintiff's ability to make a free choice, it would obviously be necessary to address this point directly." 680712261-2337 at 2308 (U.S. Ex. 87,114).

1534. The lawyers were aware, however, that R.J. Reynolds and the industry knew that "free choice" took a back seat to the driving force of nicotine addiction. In another illuminating Jones Day litigation memorandum, the authors described the threat of addiction to the core trial

strategy of "trying the plaintiff," and conceded the following:

> "Addiction" has received little industry research attention. Nevertheless, many industry documents support the contention that there are types of persons whose psychological profile and smoking behavior is such that they have great difficulty in quitting. For example, documents describe a British American Tobacco Company sponsored conference in 1978, attended by PM and B&W representatives. One of the findings of the conference was: "Serious smokers smoke to prevent withdrawal symptoms. Another study which Dr. Piehl (RJRT) cites recognizes "addictive" smokers: "People who find it unbearable to run out of cigarettes are described as using addictive-type smoking." The industry has also recognized that some smokers, especially smokers of high nicotine cigarettes "compensate" or regulate nicotine intake if it is lowered in individual cigarettes.

681879254-9715 at 9302-9303 (U.S. Ex. 21,020).

1535. Later in the same Jones Day memorandum, the authors provide examples from Defendants' files where the companies (with emphasis on R.J. Reynolds) and their employees admit the primacy of nicotine to cigarettes and the addictiveness or dependence-producing quality of their products. Additionally, the authors conclude that "internal documents describing the effects of nicotine are also problematic" and "the Industry may be faulted for not monitoring the addiction literature, for not conducting addiction research, and for not warning of addiction." 681879254-9715 at 9601-9643 (U.S. Ex. 21,020).

(iii) BATCo

1536. Many documents disclose that BATCo had an intimate understanding of nicotine's role in smoking and its effects on smokers long before the outside medical community. Moreover, many BATCo documents disclose how BATCo and the United States cigarette industry, in particular Brown & Williamson, used BATCo's knowledge of and secret code-named

research into nicotine for commercial gain.

1537. BATCo knew nicotine was an essential component of cigarettes as early as the 1950s. A June 1959 BATCo internal document pointed out that the company must consider "the question of nicotine and its effect on the smoker." The author stated that the company had to choose between maintaining current nicotine content "in order to maintain the firmly entrenched nicotine habit developed by the majority of smokers," or reducing the nicotine content to meet consumer demand for lower nicotine products. However, the writer cautioned that, "[T]o lower nicotine too much might end up destroying the nicotine habit in a large number of consumers and prevent it from ever being acquired by new smokers." 100099115-9117 at 9117 (U.S. Ex. 20,112).

1538. In a November 15, 1961 memorandum reviewing secret nicotine research and development projects under code names "MAD HATTER" and HIPPO," Sir Charles Ellis, scientific advisor to the BAT Board of Directors, acknowledged BATCo's understanding that nicotine is addictive:

> Experiments of Hippo have led to a great increase in our knowledge of the effects of nicotine. . . . Smoking demonstrably is a habit based on a combination of psychological and physiological pleasure, and it also has strong indications of being an addiction. It differs in important features from addiction to other alkaloid drugs, but yet **there are sufficient similarities to justify stating that smokers are nicotine addicts**. (emphasis added)

301083862-3865 at 3863 (U.S. Ex. 20,577).

1539. In the same 1961 internal document reviewing BATCo's secret nicotine research, Ellis emphasized the company's need to determine what made smoking and nicotine addictive:

> If the competition is to be met successfully, it must be important to know how the tranquilizing and stimulating effects of nicotine are produced and the relation of addiction to the daily nicotine intake. These are the reasons for proposing that Project Hippo be continued with the particular object of finding the causes of the pleasurable physiological effects and the causes of addiction.

301083862-3865 at 3863 (U.S. Ex. 20,577).

1540. The comprehensive research conducted by and funded by BATCo in the early 1960s placed the company at the forefront of nicotine knowledge and exploitation, long before nicotine was well understood in the medical community. In perhaps the most telling document on the question of the industry's early knowledge and acceptance of addiction, Sir Charles Ellis provided an overview of the company's massive nicotine research program in a February 13, 1962 "Private and Confidential" memorandum titled "The Effects of Smoking." Ellis recited in his memorandum that BATCo research into the "physiological and psychological effects of smoking" via Batelle actually began in 1959, and was carried out in the intervening years under various project "code names" including "MAD HATTER I," "MAD HATTER II," "MAD HATTER III," "HIPPO I," "HIPPO II," and "ARIEL." 301083820-3835 at 3820-3823 (U.S. Ex. 46,579).

1541. In the February 13, 1962 memorandum, Ellis devoted a lengthy section to the commercial importance of the company's nicotine research objectives. He explained that the reason BATCo commissioned the "MAD HATTER" and "HIPPO" research projects was "to understand addiction . . . [and to] appreciate the strength and vulnerability of our position." Ellis wrote further in detail:

> However, the force of the habit or the strength of addiction is not

> such as to give any grounds for complacency in the face of alternative methods of stimulating the body to meet stress, and that is just where the danger lies since alternatives are becoming available. In the last few years there has been a quite remarkable increase in the production of tranquilliser drugs, and while most of these need a doctor's prescription there is already one on free sale in Switzerland (Librium made by Hoffman LaRoche). If such drugs become more freely available they will compete with nicotine, which is a natural tranquilliser, and will leave smoking primarily dependent on its psychological effects for the maintenance of the habit.
>
> **What we need to know above all things is what constitutes the hold of smoking, that is, to understand addiction**. . . .
>
> These are the reasons for the study of the physiological effects of nicotine carried out under the MAD HATTER and HIPPO contracts, and they have sufficient force alone to justify this expenditure . . . (emphasis added)

301083820-3835 at 3826-3827 (U.S. Ex. 46,579).

1542. Ellis described in another section of his memorandum the outcome of BATCo's drive to learn about nicotine and its role in smoking. He further delineated some of the concrete conclusions of the BATCo research to date, reiterating unequivocally that BATCo believed nicotine was addictive and explaining graphically the relationship of the research to addiction:

> As a result of these various researches **we now possess a knowledge of the effects of nicotine far more extensive than exists in published scientific literature. It is indeed so extensive and represents so much new thought that it is not easy to condense the material** of these several reports and working papers without over-simplification.
>
> Nicotine, however administered, rapidly gets into the blood stream and the lymph system, and once there has a number of varied effects. . . . By far the most important effect is that of mobilising the resources of the body to resist stress. That this occurs has been known from the earliest days of smoking but no explanation exists

> in the published literature. Battelle have now carried out experiments which are beginning to show how nicotine enters into the mechanism of this vital reaction. . . .
>
> The stimulation to resist stress occurs almost immediately on absorption of nicotine, and the effect - that is, the extra supply of cortico steroids in the blood - falls off markedly within a matter of thirty minutes. Addiction is something quite different from this since it is well known that the craving for nicotine in a confirmed smoker who stops smoking persists for ten, twenty or thirty days.
>
> We believe that we have found possible reasons for addiction in two other phenomena that accompany steady absorption of nicotine. (emphasis added)

301083820-3835 at 3828-3829 (U.S. Ex. 46,579).

1543. The two additional "phemonena" that Ellis stated in his February 1962 memorandum were responsible for nicotine addiction were tolerance and withdrawal:

> Experiments have so far only been carried out with rats, but with these it is found that certain rats become tolerant to repeated doses and after a while show the usual nicotine reactions but only on a very diminished scale. The interesting point is that these tolerant or nicotine-conditioned rats are found to have a greatly enhanced power of detoxification of nicotine in their liver. Crudely put, they can stand up to high continuous doses of nicotine just because their liver has developed the ability to dispose of it more rapidly and efficiently. . . . As long as the smoker keeps to his normal regime and the nicotine level in his blood remains high there is a steady job for these [liver] enzymes, and the whole situation is normal and under control. But if now the smoker stops smoking and there is no longer nicotine in his blood then in the liver there is this supply of enzymes with nothing to work on. In fact, they proceed to work on other material passing through the liver, with consequent disturbance of the body's working and with all sorts of alarm signals sent back to the brain. The effects of unbalanced enzymes is not unlike unbalanced nicotine, and the abstaining smoker experiences physiological reactions as acute as a novice who starts smoking. When to this one adds the longing for that immediate stimulation to resist stress that comes from smoking a cigarette **it**

> **would appear that we are making progress towards understanding addiction.** . . . .
>
> Thus we have already greatly increased our knowledge of the manifold ways in which nicotine affects the body and, in particular, have identified and studied separately the stress resisting mechanism and the other effect on the liver which we believe is responsible for addiction. (emphasis added)

301083820-3835 at 3829-3830 (U.S. Ex. 46,579).

1544. In the final section of his paper, Ellis discussed some particulars of the nicotine projects code named "PROJECT HIPPO II" and "PROJECT ARIEL." He stated that the secret "physiological and biochemical" PROJECT HIPPO research "should lead to an understanding of the mechanism which creates addiction" and confirm that "addiction depended on the enzymes involved in the metabolism of nicotine in the liver." 301083820-3835 at 3832 (U.S. Ex. 46,579).

1545. "PROJECT ARIEL," on the other hand, was a secret project to develop an alternative nicotine delivery device to compete with work that Ellis claimed was being carried out at the American Tobacco Company and R.J. Reynolds. Ellis also justified the project with his concern that the "drug industry" could "at any time attempt to invade the cigarette smoke field by alternative drugs." He stated that the final product "must have within it the ultimate possibilities of meeting the psychological demands of smokers as well as the physiological ones. 301083820-3835 at 3833-3835 (U.S. Ex. 46,579).

1546. The concluding section of Ellis' memorandum revealed the high level of secrecy accorded the company's nicotine research:

> <u>FUTURE POLICY.</u>
> For good reasons the results of Battelle's work have been kept at a high level of secrecy, but they are now building up to such a

> comprehensive picture of the action of nicotine that I suggest they should soon be made available in detail to a few of our top scientists.

301083820-3835 at 3835 (U.S. Ex. 46,579).

1547. Therefore, as early as 1962, BAT had established its internal corporate position of smoking as a straight "addiction" produced by nicotine, a drug addiction in terms of cravings, compulsive use, physiological effects on the body, tolerance, and withdrawal. Sir Charles Ellis stated further in a paper presented to a 1962 BAT conference in Southampton, England, attended by Brown & Williamson representatives that "smoking is a habit of addiction." Ellis's presentation was preceded by an introduction from the chairman of BAT himself, A.D. McCormick. The substance of the conference was included in a BAT conference report titled, "Smoking and Health - Policy on Research." The conference report has been produced in this litigation with a stamp indicating that it was found in the Brown & Williamson Research Department. 650344433-4493 (U.S. Ex. 53,468); 100427861-7883 (U.S. Ex. 21,793).

1548. McCormick told attendees at the 1962 conference that the "best way to deal with the [smoking and health] matter was on an industry rather than an individual company level." He then introduced Ellis. In his presentation, Ellis stated:

> **Smoking is a habit of addiction that is pleasurable**; many people, therefore, find themselves sub-consciously prepared to believe it must be wrong. (emphasis added)

650344433-4493 at 4439 (U.S. Ex. 53,468); 100427861-7883 at 7862 (U.S. Ex. 21,793).

Ellis later added:

> One result of the recent public discussions on smoking and health must have been to make each of us examine whether smoking is

> just a habit of addiction or has any positive benefits. It is my conviction that nicotine is a very remarkable beneficent drug that both helps the body to resist external stress and also can as a result show a pronounced tranquillising effect. . . . Nicotine is not only a very fine drug, but the techniques of administration by smoking has considerable psychological advantages and a built-in control against excessive absorption.

110070785-0842 (U.S. Ex. 20,270); 650344433-4493 at 4450-51 (U.S. Ex. 53,468); 100427861-7883 at 7873-74 (U.S. Ex. 21,793).

1549. Ellis later added in a May 1962 note to S.J. Green that "a problem that is therefore worth considering is how to provide the smoker with his customary amount of nicotine." 100159216-9217 at 9216. (U.S. Ex. 88,764).

1550. BATCo's early interest in understanding why and how nicotine affected smokers' bodies was immense. In January 1962, Batelle scientists working for BATCo submitted their "Final Report on Project HIPPO I." The purposes of the project were to study: (1) the action of nicotine in the diuresis mechanism; (2) the possible interference of nicotine in the "stress" mechanism; (3) the inhibiting effect of nicotine on body weight; and (4) the possible activity of nicotine on other hypothalamic functions. The report stated in the introduction the working question: "It is an everyday experience to each smoker that smoking a cigarette helps mastering the numerous stressful stimuli of modern life. This effect is probably one of the most powerful reasons which make one smoke. How does nicotine exert this action?" 105620620-0683 at 0622-0625 (U.S. Ex. 20,247).

1551. The "HIPPO I" researchers concluded that:

> From all our data it seems that the effect of nicotine in the "stress reaction" is a very prominent and very complicated one. The understanding and thorough investigation of this effect seems of

> the greatest importance: it is by this very effect that nicotine acts as a "tranquilliser."

105620620-0683 at 0683 (U.S. Ex. 20,247).

1552. Near this same time, Battelle drafted a January 3, 1962 research proposal regarding "Project Ariel" for BATCo in London. The proposed new smoking device would administer nicotine while "avoiding the well-known disadvantages inherent in actual cigarette smoking," but it needed to resemble a tobacco smoking product "to avoid interference with the legislation in force about drugs," and "it should also create addiction in the same relative amounts." 100335808-5816 at 5811, 5814 (U.S. Ex. 20,173).

1553. Throughout the 1960s, BATCo continued to discuss and research the "ARIEL" product that was known simply as a nicotine delivery device that would allow the smoker to "obtain a satisfying dose of nicotine" without any of the harmful effects from smoke. 100335894-5918 at 5897 (U.S. Ex. 20,174).

1554. By 1964, BATCo had developed the prototype of "ARIEL" which allowed for "a reasonably even release of nicotine" for the smoker. 100175613-5617 at 5616 (U.S. Ex. 20,115).

1555. BATCo continued its Project HIPPO for several years. In a March 1963 study titled "Final Report on Project HIPPO II," scientists C.H. Kaselbach and O. Libert reported the results of their sophisticated comparison of nicotine to tranquilizers, a comparison that built on the earlier findings of HIPPO I. Their report to BATCo stated at the outset that:

> The aim of the whole research "HIPPO" was to understand some of the activities of nicotine - those activities that could explain why cigarette smokers are so fond of their habit. It was also our purpose to compare these effects with those of the new drugs called "tranquillizers," which might supercede tobacco in the near

> future. . . . The reasons for the "pleasure of smoking" must be found partly in the relief of anxiety that cigarette smoking brings so constantly, and in such a very short time.

105620569-0605 at 0572 (U.S. Ex. 20,246).

1556. Later in the "Final Report on Project HIPPO II," the researchers revealed their conclusion that while nicotine differs in some respects from tranquilizers, nicotine causes both tolerance and addiction, and is in fact addictive:

> A quantitative investigation of the relationship with time of nicotine - and of some possible brain mediators - on adreno-corticotropic activity could give us the key to the explanation of both phenomena of tolerance and of addiction, in showing the symptoms of withdrawal.

105620569-0605 at 0575 (U.S. Ex. 20,246).

1557. Nicotine addiction was thus known and accepted; therefore, BATCo research targeted and sought to understand the mechanism of addiction. In a May 30, 1963 report titled "A Tentative Hypothesis on Nicotine Addiction," Dr. G. Haselbach and Dr. O. Libert, scientists performing work for BATCo, discussed nicotine's ability to produce tolerance and postulated a sophisticated explanation for nicotine addiction:

> The hypothalamo-pituitary stimulation of nicotine is the beneficial mechanism which makes people smoke; in other words, nicotine helps people cope with stress. In the beginning of nicotine consumption, relatively small doses can perform the desired action. Chronic intake of nicotine tends to restore the normal physiological functioning of the endocrine system, so that ever-increasing dose levels of nicotine are necessary to maintain the desired action. Unlike other dopings, such as morphine, the demand for increasing levels is relatively slow for nicotine.
>
> In a chronic smoker the normal equilibrium in the corticotropin releasing system can be maintained only by continuous nicotine

> intake. . . . If nicotine intake, however, is prohibited to the chronic smokers, the corticotropin-releasing ability of the hypothalamus is greatly reduced, so that these individuals are left with an unbalanced endocrine system. **A body left in this unbalanced status craves for renewed drug intake in order to restore the physiological equilibrium. This unconscious desire explains the addiction of the individual to nicotine. . . .**
>
> In conclusion, a tentative hypothesis for the explanation of nicotine addiction would be that of an unconscious desire to restore the normal physiological equilibrium of the corticotropin-releasing system in a body in which the normal functioning of the system has been weakened by chronic intake of nicotine. (emphasis added)

536480912-0914 at 0912, 0914 (U.S. Ex. 20,928).

1558. In a 1963 research report titled "The Fate of Nicotine in the Body," BATCo researchers reported their conclusions as to nicotine pharmacology and mechanisms of tolerance and addiction. The scientists emphasized that nicotine was a key part of "tobacco habituation and/or addiction" and that the tobacco industry should focus its future research on the effects of nicotine in the bodies of smokers:

> There is increasing evidence that nicotine is the key factor in controlling, through the central nervous system, a number of beneficial effects of tobacco smoke, including its action in the presence of stress situations. In addition, the alkaloid appears to be intimately connected with the phenomenon of tobacco habituation (tolerance) and/or addiction. Detailed knowledge of these effects of nicotine in the body of smokers is therefore of vital importance to the tobacco industry, not only in connection with their present standard products, but also with regard to future potential uses of tobacco alkaloids.

501012199-2255 at 2202.(U.S. Ex. 21,562).

1559. On the specific issue of nicotine tolerance, the researchers stated, "We believe that both tolerance and addiction are intimately connected, and that it would be most useful to

investigate the two phenomena with regard to cellular adaptation, especially in target organs of the central nervous system." 501012199-2255 at 2228 (U.S. Ex. 21,562).

1560. BATCo also played a part in the nicotine research carried out at the Huntington Research Centre in Huntington, England. An undated BATCo or Imperial-commissioned scientific study from Huntington is described in an undated report from the late 1960s titled "Effects of Nicotine on Electrocortical Activity and Acetylcholine Release from the Cerebral Cortex of the Squirrel Monkey." In this report, researchers stated at the outset that, "The habitual use of tobacco may be related to numerous factors amongst which the pharmacological effects of nicotine on the central nervous system figure dominantly." The report then went on to describe the complex and significant effects of nicotine on acetylcholine release in animal brains. Importantly, the scientists stated that "The doses of nicotine used in these experiments are based on the reported 'smoking dose.'" 680050472-0485 (U.S. Ex. 53,985).

1561. Another "Confidential" Huntington in-depth study focusing on nicotine's drug-like effects on the primate brain was titled "Effects of Nicotine on the Central Nervous System." Although this study was addressed to Imperial Tobacco, a copy of the report was forwarded to BATCo. The authors of this study explained the tests they planned to conduct to understand how nicotine affects "physiological processes and behavioural functions of the central nervous system of the primate" and described some preliminary results 680050504-0521 (U.S. Ex. 53,986).

1562. BATCo was also provided nicotine research funded by its Australian affiliate, BATAS. For example, BATCo had knowledge of a 1970 University of Melbourne study titled "The Absorption and Effects of Nicotine from Inhaled Tobacco Smoke." The Australian study

program assessed nicotine blood levels and physiological effects, the transfer of nicotine to the blood, and the absorption of nicotine in the mouth. 680050575-0589 (U.S. Ex. 53,987).

1563. The addictive impact and potential of any drug, in this case nicotine, is enhanced by the speed at which and form in which it reaches the brain. BATCo scientists understood and appreciated this concept. An August 7, 1964 memorandum from H.D. Anderson, Vice President of Research and Development, to BATCo President Sir Richard P. Dobson discussed the enhancement of nicotine "kick" through the addition of potassium carbonate to tobacco:

> There seems no doubt that the "kick" of a cigarette is due to the concentration of nicotine in the blood-stream which it achieves and this is a product of the quantity of nicotine in the smoke and the speed of transfer of that nicotine from the smoke to the blood-stream.
>
> Nicotine is in the smoke in two forms as free nicotine base (think of ammonia) and as a nicotine salt (think of ammonium chloride) and it is almost certain that the free nicotine base is absorbed faster into the blood-stream. Thus the effect of this potassium carbonate treatment, even though it does reduce the total quantity of nicotine in the smoke, may be to enhance the effect of what is left until it is equal or maybe greater in physiological effect than in the original smoke.

100059066-9067 at 9067 (U.S. Ex. 20,102).

1564. A 1966 internal tobacco industry report issued by BATCo scientist I.W. Hughes also emphasized that the effects of nicotine on the human body were a function of speed in reaching the brain and the form of the nicotine itself:

> It would appear that increased smoker response is associated with nicotine reaching the brain more quickly . . . . On this basis, it appears reasonable to assume that the increased response of a smoker to the smoke with a higher amount of extractable nicotine may be either because the nicotine reaches the brain in a different

> chemical form or because it reaches the brain more quickly.

00039304-9490 at 9306, 9310 (U.S. Ex. 34,187).

1565. BATCo understood that it was in essence a drug company for its customers who depended on nicotine. In a March 2, 1967 memorandum from BATCo Chief Scientist S.J. Green to Deputy Chairman Desmond Hobson, Green broadly evaluated BATCo scientific research. With respect to nicotine, he bluntly reported the following:

> Work on the psychopharmacology and pharmacology of nicotine is accelerating. There is now no doubt that nicotine plays a large part in the action of smoking for many smokers. It may be useful, therefore, to look at the tobacco industry as if for a large part of its business is the administration of nicotine (in the clinical sense). . . . The main objective of our research is to make the administration of nicotine better by . . . making the administration pleasanter or more convenient.

http://tobaccodocuments.org/ness/1191.html (U.S. Ex. 86,690).

1566. In a March 20, 1967 document titled "First Meeting with U.S. Company Lawyers," R.M. Macrae, Tobacco Research Council assistant director and BATCo employee, recalled that at the March 8, 1967 meeting, representatives from the United Kingdom made the point that "the major section in the U.K. industry believes that nicotine content of cigarettes should not be greatly lowered if consumer acceptance is to be maintained." This once again illustrates that the importance of nicotine for cigarette sales has been known by BATCo for decades. 301080659-0662 at 0661 (U.S. Ex. 22,896).

1567. In fact, "consumer acceptance" was tied to addiction, a word that company executives and directors continued to use internally to describe the necessity of nicotine to smokers. According to the report of the October 1967 BATCo (Group) Research and

Development Conference in Montreal, one of the company's research "assumptions" was that, "[t]here is a minimum necessary level of nicotine. Smoking is a habit attributable to nicotine. The form of nicotine affects the rate of absorption by the smoker." And later in the conference report, the BATCo R&D department stated the following as research objectives, revealing the company's intent and ability to manipulate nicotine:

> The development of low T.P.M. [total particulate matter, or tar], normal nicotine cigarettes should continue. In this connection, the use of filter additives . . . might be helpful since it might render the nicotine more available to the smoker.
>
> The development of a low T.P.M., low nicotine cigarette should be expanded. This raises the question of the level of nicotine required . . . .

100051950-1963 at 1952, 1957 (U.S. Ex. 85,279).

1568. An earlier version of the BATCo Montreal Research and Development Conference report even stated that, "There is a minimum level of nicotine. **Smoking is an addictive habit attributable to nicotine** and the form of nicotine affects the rate of absorption by the smoker." (emphasis added) 500014079-4085 at 4080 (U.S. Ex. 47,776).

1569. The BATCo R&D conference acknowledged that the department's general objectives included "insur[ing] the continuation of the industry and the prosperity of the company within the industry," and "sustaining and increasing the profits of the company." Thus, even the scientists realized and accepted the link between nicotine and the future of both the industry and the company. 100051950-1963 at 1955 (U.S. Ex. 85,279).

1570. The minutes of a BAT Group Research Conference held at Hilton Head, South Carolina, from September 24-30, 1968, recorded similar statements. The conference group,

which included representatives of Brown & Williamson as well, noted that:

> In view of its pre-eminent importance, the pharmacology of nicotine should continue to be kept under review and attention should be paid to the possible discovery of other substances possessing the desired features of brain stimulation and stress-relief without direct effects on the circulatory system. The possibility that nicotine and other substances together may exert effects larger than either separately (synergism) should be studied and if necessary the attention of the Marketing Departments should be drawn to these possibilities.

682633150-3156 at 3152 (U.S. Ex. 54,206).

1571. Thus, the critical role in addiction played by nicotine was never in doubt at BATCo. The recognition of nicotine's singular importance in smoking was the basis for an October 1969 BATCo report titled "Future Work on Nicotine and Compounds With Related Pharmacology," in which J.G. Underwood detailed company efforts to search for compounds that would mimic the pharmacological effects sought by smokers with fewer toxic properties. The introduction states:

> At the physiological level the major part of the satisfaction of smoking is derived from nicotine and the first section of this note is concerned with optimising nicotine usage, increasing the delivery of smoking mixtures deficient in nicotine, and attempting to anticipate some "health" problems that may arise with changes in current practices.
>
> At present the cigarette industry depends on nicotine as the principal pharmacological agent in confirming the smoking habit. This could be dangerous commercially, since it may well be that legal restrictions are imposed on the nicotine delivery of cigarettes if the medical evidence shows beyond reasonable doubt that the long-term effects of nicotine are harmful. The industry is far more vulnerable to restrictions on the use of nicotine, than attempts at restricting, say, carcinogens or "tar." Consequently, the second sections considers some possibilities of finding alternatives to

nicotine that could supplement or replace nicotine in a cigarette.

680050592-0608 at 0593 (U.S. Ex. 85,280).

1572. BATCo's recognition of nicotine's psychoactive effects is reflected in Underwood's report as well, where the following "work area" was emphasized: "Elucidation and exploitation of the desirable pharmacological response, i.e., the biphasic action of brain stimulation and relief of stress (tranquillisation) and its relation to the subjective response (acetylcholine excitation of sympathetic ganglia cells)." 680050592-0608 at 0601 (U.S. Ex. 85,280).

1573. In 1969, BATCo researcher D.J. Wood gave a presentation for company executives in which he detailed the company's pursuits in pharmacological research focusing on nicotine. He stated that BATCo researchers believed nicotine was responsible for the "satisfaction of smoking," and that future research was aimed at finding out more about how the human body absorbed nicotine. 322043204-3207 at 3207 (U.S. Ex. 20,592).

1574. BATCo's acknowledgment of nicotine and addiction continued into the 1970s. In a June 30, 1971 memorandum entitled "Comments on Nicotine," BATCo scientist R.R. Johnson reported on a Research & Development meeting held to discuss the results of nicotine research code named "Project MAD HATTER" and "Project HIPPO." BATCo director Sir Charles Ellis led the meeting; according to Johnson:

> The purpose of the meeting was to discuss the results from Projects MAD HATTER and HIPPO, and to stimulate further discussion of the importance of nicotine to the industry. Sir Charles started the meeting by saying that he had first brought out the concept that **we are in a nicotine rather than a tobacco industry** and then set up the above projects to sell this concept to management. (emphasis

added)

2065128907-8909 at 8908 (U.S. Ex. 85,281); 2083458825-8826 at 8825 (U.S. Ex. 85,282).

1575. BATCo's research into nicotine substitutes is telling as well. In a November 9, 1972 report titled "Preparation and Properties of Nicotine Analogues," BAT Group scientists K.D. Kilburn and J.G. Underwood recommended for commercial reasons that work continue into finding nicotine analogs, or substitutes. The basis for this recommendation, the researchers stated, was that, "Should nicotine become less attractive to smokers, the future of the tobacco industry would become less secure." Specifically:

> It has been suggested that a considerable proportion of smokers depend on the pharmacological action of nicotine for their motivation to continue smoking. If this view is correct, the present scale of the tobacco industry is largely dependent on the intensity and nature of the pharmacological action of nicotine. A commercial threat would arise if either an alternative product became acceptable or the effect of nicotine was changed.

750009046-9098 at 9049 (U.S. Ex. 88,066).

1576. An undated BATCo document most likely from the 1970s from scientist D.G. Felton titled "Smoking and Health Research in the U.S.A." summarized some internal industry positions on scientific research and nicotine. The report recalled that American Tobacco Company's Scientific Director, Dr. Hanmer, stated that it was "important to keep up the nicotine content of the smoke, while reducing anything that ought to be reduced," that Reynolds' scientific director Dr. Galloway stated that "a reasonable amount of nicotine was necessary in a cigarette," and that Liggett's representative's (Mr. Blount) position was that "people smoked because of the

nicotine." 105407187-7190 (U.S. Ex. 34,738).

1577. In an undated document, S.J. Green, one of BATCo's top scientists in its Research & Development Department, provided advice to the corporate leadership as to the future direction the company should take with respect to smoking and disease, research, and even addiction. The presentation was delivered at the October 1972 BAT Group R&D Conference where Brown & Williamson representatives were also in attendance. 680048899-8903 at 8903 (U.S. Ex. 85,284).

1578. In his presentation, Dr. Green stated that BATCo was aware that smokers compensated for lower nicotine products "by increasing the number of cigarettes smoked" and by "changing the way they smoked." He then discussed the "health conscious smokers who chose the low delivery cigarettes, frankly telling the BAT Group executives (including Brown & Williamson) that:

> A suggestion is made both for the health conscious smoker and the smoker whose prime smoking requirement is physiological satisfaction. Surely many nicotine-dependent smokers are health conscious. . . .
>
> Smoking is fairly irrational like other drug dependencies. If there is a positive side to smoking, and I think there is, it is not easy for the smoker to articulate. He "votes with his feet" and continues with this irrational act.

110069983-9987 at 9985 (U.S. Ex. 20,269).

1579. In an earlier version of Dr. Green's paper, dated July 26, 1972, he included as one of his assumptions: "The tobacco smoking habit is reinforced or dependent upon the psycho-pharmacological effects mainly of nicotine." 401024232-4236 at 4234 (U.S. Ex. 47,530).

1580. In 1974-1975 the Research and Development Division at BATCo embarked on a project code-named "Project WHEAT" to classify smokers in terms of their "Inner Need" for nicotine and to study smokers' needs for varying levels of nicotine. The "Project WHEAT" researchers sought to determine if a relationship existed between a smoker's "Inner Need" and his "preferred nicotine delivery." To test this hypothesis, smokers were classified in Part I of "Project WHEAT" into low, medium, and high "Inner Need" categories. Researchers concluded in their July 10, 1975 Part I report that the greater a smoker's "Inner Need," the greater the smoker's "cigarette consumption, depth of inhalation, and the anticipated difficulty in giving up smoking." 757001395-1487 at 1396, 1432 (U.S. Ex. 85,285).

1581. The "Inner Need" concept was based on BATCo's understanding that smokers smoked for phamacological and psychological reasons. A November 6, 1974 report from BATCo scientists based "Inner Need" on many factors, including ones under the heading "Automatic/Addictive." The report stated that some smokers smoke because they find it "almost unbearable" to run out of cigarettes, and because of a "gnawing hunger" to smoke. 670593721-3739 (U.S. Ex. 53,864).

1582. In Part II of the BATCo research code-named "Project WHEAT," smokers were again grouped according to their "Inner Need." According to their January 30, 1976 "Restricted" Part II report, researchers demonstrated that smokers in the higher "Inner Need" categories required cigarettes with higher nicotine levels: "[A]s predicted by the hypothesis, High Need clusters tend to prefer relatively high nicotine cigarettes, their optimum nicotine delivery being higher than that of Low Need clusters." Through their research, the authors postulated a "model

of the market . . . in which the two major determinants of the type of cigarette which best suits a smoker's requirements are Inner Need and concern for health." 650016374-6466 at 6376-6377 (U.S. Ex. 85,286); 650008311-8364 at 8313-8314 (U.S. Ex. 85,287).

1583. BAT scientists published the results of a study titled "The Effect of Smoking Deprivation on Smoking Behaviour" in a report dated September 11, 1975, and written by D.E. Creighton. The report was produced in this litigation both from BATCo and Brown & Williamson, the latter copy bearing the stamp of the Brown & Williamson Research Library. In assessing the behavior of the subjects, the research assumed that smokers need nicotine, that smokers experience withdrawal symptoms without it, and that smokers compensate to obtain the nicotine they need:

> It is probable that interference with an established behavioural pattern would cause different effects on different subjects according to their need for the stimulation of nicotine or suppression of the withdrawal symptoms that accompany a lack of nicotine. . . . If the subject is smoking for the pharmacological effects of nicotine he would be expected to take more smoke in a shorter time. He may do this by taking larger puffs, taking more puffs, reducing the interval between them or smoking more of the butt where the nicotine delivery is higher. He might also draw harder on the cigarette or for longer.

650014873-4901 at 4881 (U.S. Ex. 53,405).

In the discussion section of the report, the authors stated:

> These results may be interpreted on the basis that some subjects have a greater demand for nicotine than others. It is also clear that the dose of nicotine required per unit of time is very variable. Some subjects require a small intake of nicotine taken frequently. . . . others require a large amount but infrequently . . . . These differences in nicotine demand and the pattern of nicotine intake may reflect metabolic differences between smokers.

650014873-4901 at 4885-86 (U.S. Ex. 53,405).

1584. BATCo, like the other Cigarette Company Defendants in the 1970s and 1980s, undertook research to manipulate or maintain nicotine delivery while reducing the tar in its cigarettes. This research was based on the corporate knowledge that nicotine delivery above some minimum level was an essential part of cigarette smoking for smokers. For example, the basis for studies carried out in 1973 to assess the use of additives to reduce tar but actually increase nicotine to smokers was stated as follows: "The increased importance being placed on the lowering of TPM [total particulate matter, or tar] and the controlling of nicotine delivery has made it necessary to investigate the different methods available for producing these changes in smoke." 402390265-0282 at 0268 (U.S. Ex. 85,288).

1585. The 1973 study also utilized "ADDITIVES FOR NICOTINE CONTROL," including nicotine tartrate, sodium bicarbonate, and diammonium hydrogen phosphate to increase the "extractable nicotine" in the smoke. The researchers found that certain combinations of additives successfully reduced tar while "maintaining the impact and physiological strength levels" of nicotine. 402390265-0282 at 0280 (U.S. Ex. 85,288).

1586. As another example, BATCo's W.B. Fordyce circulated a report called "The Addition of Nicotine to Tobacco Products" written by company scientist Terry Mitchell to BATCo directors under cover memo dated May 2, 1980. In his paper, Mitchell discusses three means of intentionally increasing the nicotine content of cigarettes, including the use of specialized high nicotine tobaccos (such as N. rustica), direct addition of nicotine and nicotine extracts, and the chemical "augmentation of smoke nicotine." Mitchell noted that smoke nicotine

could be augmented via improving the nicotine transfer to smoke and by increasing the alkalinity/pH of smoke. 110088143-8155 (U.S. Ex. 34,965).

1587. In 1975, BATCo scientist A. Kay Comer acknowledged that only those within the industry disputed the label addiction as applied to smoking and nicotine, and that the evidence showed the industry's denials were wrong. Comer stated that:

> In summary, it appears that most workers who are not directly concerned with the tobacco industry use the terms addiction or dependence rather than habituation and can be considered quite correct in doing so. If cigarette smoking is as addictive as the evidence suggests, it is not surprising that antismoking campaigns are so ineffective. . . ."

105392361-2368 at 2366 (U.S. Ex. 22,038).

1588. BATCo's D.E. Creighton performed a "Restricted" written review of BAT's own "Group" research in January 1976, in order to evaluate the concept of compensation. The review found that compensation occurred - for example, via taking larger puffs or inhaling the smoke deeper into the lungs - when smokers of high-nicotine cigarettes smoked low-nicotine products and vice versa. Creighton found that, "On balance, it is concluded that many established smokers do compensate for changed delivery in an attempt to equalise nicotine delivery, when this is possible." 650008449-8480 at 8451 (U.S. Ex. 76,192).

1589. Creighton stated that compensation for reduced nicotine delivery was evidence that smokers smoked for nicotine, and evidence that regular smokers are "nicotine dependent":

> [T]he majority of smokers who actually buy cigarettes and smoke them regularly are directly or indirectly seeking the effects of the nicotine content of the smoke . . . . The majority of smokers who are smoking for the nicotine content of smoke may still be smoking for different effects of nicotine. They may seek the

> pharmacological stimulation of nicotine which has both peripheral and central stimulating effects or to allay the uncomfortable effects of not having nicotine in the system, which Russell describes as relief from or avoidance of withdrawal effects. Most smokers when deprived of nicotine for a period of time during the day feel and increase in stress, tension, restlessness and irritability. A cigarette quickly restores the equilibrium.
>
> A subject who does not suffer the mild withdrawal symptoms, when unable to smoke and only seeks the occasional stimulation of nicotine, or some other attribute of smoking, is less likely to compensate for changed nicotine delivery than a subject who is more nicotine dependent.

650008449-8480 at 8462-8464 (U.S. Ex. 76,192).

1590. Other sections of Creighton's 1976 report discussed an "estimation of self dosing with nicotine" and various factors that influence "the daily dose of nicotine taken by a nicotine dependent smoker." 650008449-8480 at 8465, 8468 (U.S. Ex. 76,192).

1591. In a memorandum dated March 29, 1976, BATCo scientist S.J. Green detailed his forecast for "The Product in the Early 1980s." In this document, Green addressed "the main threats to the smoking habit." One major threat to smoking was that lower nicotine products would lead to more smokers being able to quit: "Taking a long-term view, there is a danger in the current trend of lower and lower cigarette deliveries - i.e. the smoker will be weaned away from the habit. . . . [W]e should be aware of the long-term dangers of following the crowd into ultra-low nicotine deliveries." 110069974-9982 at 9975 (U.S. Ex. 20,268) (U.S. Ex. 76,173).

1592. Green then evaluated "potential rivals," that is, "cigarettes in which nicotine has been replaced by an alternative pharmacological agent." In this context, he referred to smokers as "members of the nicotine-dependent majority." 110069974-9982 at 9975, 9977 (U.S. Ex.

20,268) (U.S. Ex. 76,173).

1593. In 1976, BATCo held a conference on smoking behavior whose central theme was the pharmacological importance of nicotine on the central nervous system as the basis for smoking. In a conference report, Kay Comer wrote that tobacco is only used in ways that delivered unmetabolized nicotine to the brain:

> [C]igarette smokers who are forbidden to smoke, for instance in a lumber mill or down in a mine, will resort to chewing tobacco instead of smoking.
>
> The common factor in all the types of tobacco usage mentioned is nicotine, either absorbed through the lungs or the lining of the nose or mouth. Taken in these ways nicotine will quickly enter a direct route, in the blood, to the brain. Tobacco has never been used as a substance of ingestion. The probable reason for this is that when it is absorbed in the stomach or intestines, nicotine travels in the blood to the liver, where it is metabolised to cotinine before passing to the brain. It would therefore be surprising if nicotine, which is known to be pharmacologically active in the brain (unlike cotinine), and which is obtained in the ways most likely to enable it to reach the brain unchanged, were not involved in the reasons why people smoke.

650376684-6703 at 6694 (U.S. Ex. 85,289); 100430004-0005 (U.S. Ex. 87,115).

1594. A cover letter from BATCo dated December 31, 1976, showed that the conference report containing the Comer presentation was sent to Brown & Williamson. 650376684-6684 (U.S. Ex. 85,289).

1595. In another BATCo document titled "Smoking Enjoyment," scientist Dr. J.A. Jagger wrote to B. Fordyce that smokers were persons who "carry out a practice which they are unable to stop (by and large) and which they would basically prefer to stop (if they could)." 105657941-7944 (U.S. Ex. 34,812).

1596. BATCo also produced a November 24, 1977 report titled "A Note on Smoker Motivation and Dependency." In the introductory section of the report, the author stated that smoking can be characterized by "a dependency factor which is, in a restricted sense, independent of other motivational influences" that would keep a smoker smoking who desires to quit. The motivation to smoke even when one desires to quit "more closely resembles an urge or drive and **might be described as an addictive behaviour beyond cognitive control and likely to be associated with pharmacological dependency.**" 102698343-8361 at 8343 (U.S. Ex. 85,290) (emphasis added).

1597. BATCo held an "International Smoking Behaviour Conference" from November 27-30, 1977 at Chelwood, England. The company invited its own scientists and executives, along with representatives of its affiliate companies (Brown & Williamson, Imperial Tobacco, Gallaher Limited, Souza Cruz, Rothmans, BAT-Germany and others), industry trade groups, and industry-funded researchers to exchange information. BATCo's own Dr. Green delivered the introduction, followed by presentations to the conference over the next several days into the central nervous system effects of nicotine, nicotine impact on human attention span, the role of nicotine in maintaining smoking, and many other topics directly related to the central importance of nicotine to the smoking behavior. 103505372-5399 (U.S. Ex. 87,116); 103505453-5513 (U.S. Ex. 87,117); 103518290-8401 (U.S. Ex. 87,118).

1598. Brown & Williamson produced from its company research library a BAT scientific report titled "Dependence on Cigarette Smoking" dated December 15, 1977. The report was written by A. Kay Comer and distributed to BAT executives. In the introductory

section of the paper, the author summarized, "It is concluded that the majority of smokers are to some extent dependent on smoking but that behavioural, social and psychological factors may be as important as those of a pharmacological nature." 650015112-5304 at 5114 (U.S. Ex. 53,406).

1599. A document by BATCo's P.L. Short dated February 22, 1978 and titled "Product and Process Innovation" recognized that "the problem of addiction via nicotine [is] increasing." Two days later, his meeting notes recorded that, "Those seeking nicotine gratification where smoking is banned and the subsequent risk of purchasing tobacco by prescription or registration of addicts in the future, will lead to greater use of smokeless tobaccos . . . " He also wrote that there was a segment of smokers "wanting to quit but unable to, hooked onto cigarettes at present but seeking a cigarette/nicotine substitute." 100566925-6926 at 6926 (U.S. Ex. 88,765); 100566919-6924 (U.S. Ex. 88,766); referred to in 536501866-1867 at 1866 (U.S. Ex. 75,986).

1600. In a June 27, 1978 document titled "Compensation for Changed Delivery," BATCo scientist D.E. Creighton stated that:

> Numerous experiments have been carried out in Hamburg, Montreal, and Southampton within the company as well as many other experiments by research workers in independent organizations, that show that generally smokers do change their smoking patterns in response to changes in the machine smoked deliveries of cigarettes. . . . In general, a majority of habitual smokers compensate for changed delivery, if they change to a lower delivery brand than their usual brand. If they choose lower delivery brand which has a higher tar to nicotine ratio than their usual brand (which is often the case with lower delivery products) the smokers will in fact increase the amounts of tar and gas phase that they take in, in order to take in the same amount of nicotine.

10553905-3915 at 3906, 3913 (U.S. Ex. 76,170).

1601. The connection between addiction and profitability continued to guide BATCo

research and marketing. In an August 28, 1979 memorandum entitled "Key Areas – Product Innovation Over Next 10 Years for Long-term Development," BATCo scientific director L.C.F. Blackman stated that nicotine dependence was the key to company's future viability and profitability. In coming to this conclusion, Dr. Blackman charted the stages of smoking from "starting the habit" (Stage 1) to "acknowledgment of pleasure"(Stage 2) to "dependence on the smoking habit" (Stage 3). He flatly stated that nicotine "initiates a dependence in the confirmed smoker" and that "**the high profits additionally associated with the tobacco industry are directly related to the fact that the customer is dependent upon the product.**" 109872505-2508 at 2508 (U.S. Ex. 21,530) (emphasis added).

1602. BATCo continued its search for nicotine substitutes into the 1970s. A November 30, 1978 BATCo report titled "Alkaloids That Have a Pharmacology Like Nicotine" reviewed all relevant research in depth and concluded that, "For smoking products, nicotine is the alkaloid of choice." The BATCO scientists reached this conclusion by comparing the known physiological qualities of nicotine to other alkaloids, including nicotine's effect on the central nervous system, respiration, blood pressure, and heart rate. 680009683-9700 at 9684 (U.S. Ex. 53,979).

1603. The Appendix to the 1978 BATCo report was titled "The Effects of Nicotine" and described nicotine as "the most abundant and potent of the several alkaloids present in tobacco." The Appendix also contained the following section:

> <u>The Pharmacological Mechanisms of Nicotine</u>
>
> The mode of action through which nicotine achieves its effects on the body is very complex. The complexity arises from nicotine's simultaneous and varying degree of activity on the different nerve centers, organs and muscles of the body. Nicotine causes its

> effects not only by central and peripheral stimulation (i.e., at the brain and spinal cord, and nerve organ or nerve muscle junctions, respectively), but also by the stimulation of intermediate nerve ganglia. . . .
>
> While smokers describe the effects of nicotine as calming and relaxing, all the accumulated evidence indicates that it cause physiological excitation and stimulation. One theory that attempts to explain this paradox suggests that the smoker becomes accustomed to the stimulated condition that nicotine produces; he then uses this condition as the norm from which to judge his well being. If the condition is not maintained, discomfort and anxiety are felt.

680009683-9700 at 9697-9698 (U.S. Ex. 53,979).

1604. In light of the addictiveness of nicotine and noted differences between smoking and other habits such as alcohol, coffee, and candy, BATCo's long-term goals and interests included the following: "We are searching explicitly for a socially acceptable addictive product involving . . . the essential constituent most likely to be nicotine or a 'direct' substitute for it." 109872505-2508 at 2507 (U.S. Ex. 21,530).

1605. In an undated BATCo document most likely created in the 1970s, an executive summarized the "usable data" on smoking and nicotine addiction, and related addiction to BATCO's and the industry's marketing plans. The memorandum did not disagree with any of the studies cited, and concluded that smokers are dependent on the pharmacological effects of nicotine, smokers develop tolerance to and dependency on nicotine, and that smokers deprived of nicotine experience withdrawal symptoms:

> SUMMARY and IMPLICATIONS to the INDUSTRY
>
> The rush of nicotine into the blood stream and nervous system is short-lived; therefore, reducing consumption would cause

> withdrawal and all of its unpleasant side effects so long as the smoker is restricted from smoking. Nicotine vacates the system in 30 minutes or so and at that time withdrawal starts. . . .
>
> The sensorimotor manipulation aspect of smoking is important to people but perhaps not as important as nicotine. . . . Cigarettes allow people to self-administer nicotine at a self-determined rate.

680096095-6110 at 6096 (U.S. Ex. 53,993).

Later in the paper, when describing children and adults who were "regular smokers," the author wrote:

> Only an exceptional 2% smoke occasionally and intermittently. **Nearly all regular smokers are nicotine dependent.** . . . As the novice acquires tolerance to the irritation of the smoke over a period of two or three years, he becomes conditioned to a high and regular intake of nicotine. (emphasis added)

680096095-6110 at 6099, 6101 (U.S. Ex. 53,993).

1606. One section of the BATCo memorandum was subtitled "Physical Dependence," in which the author detailed the process by which a smoker becomes addicted:

> Physical dependence involves changes which are physiological. Firstly, this is shown by the smoker's tolerance to the effects of nicotine. This is due to changes at the synapses. The smoker also has an increased capacity to metabolise and excrete the drug, mainly in the liver. . .
>
> Secondly, when the intake of nicotine is reduced or discontinued, the smoker may experience withdrawal symptoms, resulting from the lessening of overactivity at the synapses. . . Thus, withdrawal of cigarettes from heavy smokers may reduce them to a subjectively distressed state, with symptoms of anxiety, depression, irritability, restlessness, intense craving as well as difficulty in concentration. More will be discussed about the addictive quality of nicotine in the following section. . . .
>
> Research has shown that stimulation of the medial forebrain bundle of the hypothalamus can pleasurably occupy an animal to the

> exclusion of all other basic activities, e.g., eating, drinking, sexual activities. It seems likely that nicotine and other dependence-producing drugs owe part of their effectiveness to influencing this centre.
>
> The blood-brain barrier is no barrier to nicotine which reaches the brain within a minute of a person lighting up. Its effect is short lived. In twenty to thirty minutes after the smoker has finished his cigarette, most of the nicotine has left his brain for other organs - stomach, liver and kidneys - and this is just about the time that the heavily dependent smoker needs his next cigarette.

680096095-6110 at 6103-6104 (U.S. Ex. 53,993).

1607. The BAT memorandum once again documented the company's knowledge and acceptance of "compensation," that is, the means employed by smokers of lower nicotine cigarettes to obtain higher doses of nicotine:

> If the nicotine level of cigarettes fails to completely achieve the desired mood change, that cigarette will be drawn on deeper, the smoke held longer, and consumption will rise. . . . Reductions in nicotine are therefore compensated for by consumers but the limit to which they can compensate for the diminished nicotine / diminished therapeutic efficacy is unknown. R&D is studying this subject at the present time.

680096095-6110 at 6095 (U.S. Ex. 53,993).

1608. BATCo knew from scientific studies using its own employees that smokers smoked for nicotine and compensated, or changed their smoking behavior, when smoking lower nicotine cigarettes. Compensation was again demonstrated by two such studies carried out by BATCo in 1974 and 1978 using reduced nicotine cigarettes. D.E. Creighton's report of these studies stated that smokers compensated for reductions in nicotine yield by smoking more intensely:

> Comparison of the two data sets shows that the lower delivery

> cigarette has been smoked more intensively . . . . It can be reasonably inferred that the smokers in this panel received similar amounts of nicotine from both cigarettes . . . .
>
> The fact that smokers have changed their smoking patterns to take more smoke from a cigarette with lower nicotine delivery but similar TPM [total particulate matter, or tar] delivery adds support to the contention that nicotine is a major determinant of smoking behaviour . . . .

650008946-8960 at 8948, 8954 (U.S. Ex. 85,318).

1609. A March 1, 1979 "Restricted" BAT report written by Creighton summarized a collaborative scientific study between BATCo and British scientist M.A.H. Russell at the "Addiction Research Unit." The research project studied smoker compensation to obtain more nicotine, and utilized a standard low tar/low nicotine cigarette and a modified low tar/high nicotine cigarette. BATCo and Russell determined that smokers compensate less when given low tar/high nicotine cigarettes, and compensate more when given low tar/low nicotine cigarettes. According to the report, while Dr. Russell's interest in the study was "from the health point of view," BATCo participated in the work "from a commercial point of view." 650010157-0193 at 0174, 0183 (U.S. Ex. 85,292).

1610. The BAT/Russell study also reported that the high nicotine cigarettes produced "giddiness," a reflection of the intoxicating properties of nicotine:

> Some smokers, in fact, felt giddy while smoking the [low tar, high nicotine] cigarette, presumably because they used the mouth sensations as cues to estimate their smoke intake. As a result of taking sufficient smoke to cause acceptable mouth sensations, they would receive nearly twice as much nicotine as usual, resulting in the feeling of giddiness.

650010157-0193 at 0179 (U.S. Ex. 85,292).

1611. BATCo also produced a January 1980 document in this litigation titled "B.A.T. Board Strategies," a document that, at the Board of Directors level, reviewed future influences and possible innovations for the industry. One of the "Assumptions" behind the "Strategies" was that, "Throughout the next 10 years smoking will continue to produce a dependency on the habit and hence there will still be a significant, albeit reducing, number of smokers who choose to smoke 'full-flavour' non-health reassurance products." 109883023-3026 at 3024 (U.S. Ex. 85,293).

1612. In an April 11, 1980 BATCo document entitled "What Three Radical Changes Might, Through the Agency of R & D, Take Place in this Industry by the End of the Century," a team of BATCo scientists (Crellin, Ferris, Greig, and Milner) provided a forecast of what the industry would have to cope with in the near future. The scientists stated that:

> **B.A.T. should learn to look at itself as a drug company rather than as a tobacco company.** The mood affecting drug requirements of the population will in the future increase but the range of requirements will encompass tranquillisers e.g. valium, endorphin/enkephalin (brain opiates), marijuana, nicotine analogues, etc. At present, the taking of many of these drugs is either medically prescribed or regarded as deviant behaviour, but could be "socialized" like alcoholic drinking and tobacco smoking. (emphasis added)

109884190-4191 at 4190 (U.S. Ex. 21,557).

1613. In a January 3, 1980 report by Creighton titled "TN 80-01-008 Project Gypsy," the company acknowledged Dr. Russell's observation that" Smokers smoke for nicotine and die for tar." 1022166881-6893 at 6882 (U.S. Ex. 88,767); 536501866-1867 at 1866 (U.S. Ex. 75,986).

1614. According to the April 1980 typed notes of BATCo scientist Dr. Lionel Blackman, he stated that the company needed to address the anticipated issue that, "Although

nicotine will be considered by some doctors to be less harmful than tar, there will be increasing recognition by some medical authorities that smoking is a nicotine dependent activity." 301140125-0128 at 0126 (U.S. Ex. 85,294).

1615. In a "Strictly Private and Confidential" document authored by T.W. Kidd, whom BATCo identifies on its privilege log glossaries as "BATCo - Employee, Public Affairs" from 1948-1983, Kidd provided the following information to assist the company in formulating a new company position on smoking and health:

> Addiction/Habituation
>
> This is another aspect of the smoking and health issue which cannot be overlooked. Unlike dangerous sports and other high risk activities (except the drinking of alcohol) smoking is addictive/habituative in addition to being an additional risk and many smokers would like to give up the habit if they could. This does not mean that we must contribute to health education or to "quitting clinics" but it does mean we have to act even more responsibly than if the consumption of our products were purely involving a minority of consumers in an additional risk.

109881332-1335 at 1335 (U.S. Ex. 34,929) (U.S. Ex. 34,930). Despite Mr. Kidd's recommendations for a corporate position that reflected the addictiveness of cigarettes, no new company position was ever announced.

1616. A March 31, 1981 "Restricted" research report titled "Nicotine Studies: A Second Report, Estimation of Whole Body Nicotine Dose by Urinary Nicotine and Cotinine Measurement" documented BATCo's research into accurately measuring nicotine intake by rats forced to inhale cigarette smoke. The authors, BATCo scientists G. Read, I.G.M. Anderson, and R.E. Chapman, wrote that the studies were "particularly relevant to the development of an

understanding of an individual smoker's daily nicotine requirement and the relationship between nicotine dose and smoking behaviour under conditions of brand switching/delivery modification." 650030769-0802 at 0779-0780 (U.S. Ex. 53,428).

1617. The March 31, 1981 report built on an earlier BATCo scientific study into "nicotine dose" dated May 21, 1980, and titled "Method for Nicotine and Cotinine in Blood and Urine" written by the same scientists. In this earlier study into methods to measure nicotine in humans, the authors accepted that "the pharmacological response of smokers to nicotine is believed to be responsible for an individual's smoking behaviour, providing the motivation for and the degree of satisfaction required by the smoker." 650032386-2428 at 2389 (U.S. Ex. 87,119); 750023453-3494 at 3456 (U.S. Ex. 87,119).

1618. A 1981 BATCo document stamped "SECRET" and titled "BAT Board Strategies" made clear the company's internal acceptance of nicotine addiction, as well as the drug-like effects of nicotine, at the highest levels of the company. Under the "Nicotine" subsection of the document, BATCo conceded that "Nicotine is a major active element in smoking. Because of its effects, smoking can stimulate and provide relief from stress as well as giving great pleasure to many people." Then in a later subsection, BATCo stated: "**It must be admitted that heavy and 'chain smokers' have demonstrated addiction symptoms.** In this respect we are totally opposed to smoking in excess and do not encourage it in any way. We believe that moderation in smoking, as in other pleasures, is in the best interest of the smoker. 521017770-7829 at 7800, 7805 (U.S. Ex. 85,295) (emphasis added); 503092365-2428 at 2399, 2404 (U.S. Ex. 85,296).

1619. Under cover letter dated April 7, 1982, BATCo's G. O. Brooks forwarded an

internal nicotine study by Creighton titled "Human Smoking Behaviour" to researchers at Brown & Williamson. In Creighton's report, he restated the "sine qua non" role of nicotine in smoking and discussed withdrawal and compensation:

> Nicotine is the most pharmacologically active constituent in tobacco smoke and is probably the most usual factor responsible for maintaining the smoking habit. . . .
>
> Nicotine has pharmacological effects both in the brain and other parts of the body. Some of these effects are due to nicotine itself whereas others are due to nicotine causing a release of other substances within the body such as adrenaline. . . .
>
> The smoker . . . who smokes to maintain a constant blood level of nicotine is most likely trying to avoid the unpleasant sensations that he feels when he is not smoking. Without a cigarette he will become nervous, irritable and likely to make mistakes in his work. Such a smoker is likely to compensate for changed delivery if given a cigarette with different standard machine smoked deliveries to his usual brand so that as far as possible he maintains a constant blood level of nicotine. . .
> It is possible to consider nicotine as the component of cigarette smoke that controls the amount of smoke that a smoker takes from a cigarette.

660913609-3633 at 3616-3618 (U.S. Ex. 22,763).

1620. Brooks's April 7, 1982 memorandum and the attached report also provided insight into the companies' (both BATCo and Brown & Williamson) intimate knowledge of compensation and their goal to maintain the addiction through maintaining a minimum "dose" of nicotine delivered in their products:

> The simple answer would seem to be to offer the smoker a product with comparatively high nicotine deliveries so that with a minimum of effort he could take the dose of nicotine suitable to his immediate needs. . . . If delivery levels are reduced too quickly or eventually to a level which is so low that the nicotine is below the

> threshold of pharmacological activity then it is possible that the smoking habit would be rejected by a large number of smokers.

660913609-3633 at 3619-3620 (U.S. Ex. 22,763).

1621. The paper attached to Brooks's 1982 letter resembled and borrowed from the 1978 paper by Dr. Creighton titled "Compensation for Changed Delivery." (see above) In this earlier paper, Dr. Creighton stated that the company's knowledge of compensation by smokers of low nicotine yield cigarettes came from research "carried out in Hamburg, Montreal, and Southampton within the company," research showing that "smokers do change their smoking patterns in response to changes in the machine smoked deliveries of cigarettes." 105553905-3915 at 3906 (U.S. Ex. 34,799).

1622. In 1997, Brown & Williamson's corporate designee on addiction and cigarette design under Minnesota's equivalent of Fed. R. Civ. P. 30(b)(6), M. Lance Reynolds, who was also the company's former Director of Research and Director of Product Development, agreed in sworn testimony with Dr. Creighton's opening statement that "Nicotine is the most pharmacologically active constituent in cigarette smoke and is most probably the usual factor responsible for the maintenance of the smoking habit." Deposition of M. Lance Reynolds, State of Minnesota and BCBS v. Philip Morris et al., September 30, 1997, 64:6-64:20 (C1-94-8565).

1623. A May 7, 1982 marketing study report prepared for BAT Group member (and Brown & Williamson sister company) Imperial Tobacco Limited contained the results of an extensive study into smoking behavior. The study, code-named "Project Sixteen," described how and why teens begin smoking cigarettes, and then progress on to becoming addicted. The study found specifically that, "Once addiction does take place, it becomes necessary for the smoker to

make peace with the accepted hazards [of smoking]. This is done by a wide range of rationalizations." 566627751-7824 at 7753 (U.S. Ex. 20,938).

1624. The Imperial smoking behavior study described how adolescents start smoking based partly on the naive belief that they will not become addicted:

> Thus we have a pattern that shows how and why the health hazards do not really enter into the decision to start. It's no longer because they [the health hazards] are sincerely disbelieved (shows of rebellious bravado aside) but because they are assumed as not applicable to the person who won't become addicted. But addicted they do indeed become . . . what then? . . .
>
> [C]onfronted by an addiction that's difficult to break and also by the hazard of not breaking it, the young smoker (and probably the not-so-young too) has no choice but to play down this conflict by whatever convenient ploy that works.

566627751-7824 at 7780, 7783 (U.S. Ex. 20,938).

1625. In a March 25, 1983 memorandum titled "Project Recommendations," which described the relationship of nicotine level to switching behavior, BATCo researcher Andrew J. Bellman stated that "nicotine is the addictive agent in cigarettes." 514110006-0009 at 0007 (U.S. Ex. 21,745).

1626. In a January 26, 1984 research paper, BATCo researcher Colin C. Greig stated that because nicotine "is the major or sole pharmacologically active agent in smoke, it must be presumed that this is the preferred method of absorption and thus why people inhale smoke." 650547777-7787 at 7786 (U.S. Ex. 20,950).

1627. In 1984 the BATCo Research and Development Centre in Southampton prepared a report evaluating a proposed "non-combustible cigarette" to be manufactured by a company

called Advanced Tobacco Products. The cigarette, called "Favor," was designed to deliver nicotine as an inhaled vapor. BAT's recognition of the central role of nicotine to the tobacco industry is revealed in this evaluation, which focused in large part on the pharmacological characteristics of the proposed product. The primary advantage of the "Favor" product to consumers was that it was "capable of delivering nicotine"; the primary advantage to the industry was that it would "help satisfy the needs of the smoker during periods of enforced smoking abstinence." 505005425-5442 at 5427-5428 (U.S. Ex. 85,297).

1628. A noted disadvantage of "Favor" was that the product produced "no central nervous system response: implying that the pharmacological potential of the product is small;" moreover, the product would "highlight perceived dependence of smokers on the drug nicotine" and was "open to possible abuse" similar to "glue sniffing." 505005425-5442 at 5428-5429 (U.S. Ex. 85,297).

1629. A March 22, 1984 report titled "Receptors for Nicotine in the Central Nervous System" and authored by BATCo scientist W. W. Templeton, documented the company's research into the psychoactive effects of nicotine and specific sites (receptors) in the brain where nicotine binds within the central nervous system. The study "confirm[ed] the existence of specific binding sites for nicotine in the CNS" and speculated that the results "may help to explain the development of tolerance to nicotine." The Executive Summary described the research and its link to the design and manufacture of cigarettes:

> This report is the first in a series of studies designed to identify and characterize how nicotine derived from cigarette smoke can interact with the body, and in particular the active centres of the brain. This specific interaction is believed to form an essential

> element of a smoker's satisfaction.
>
> The report describes in detail the development and application of techniques to identify and characterise regions within brain tissue where nicotine can bind and elicit a pharmacological response. . . .
>
> The findings will be used as appropriate in the process of developing lower delivery products with full smoking characteristics.

650000996-1034 at 0998, 1011, 1014 (U.S. Ex. 53,388).

1630. Later in the 1984 report, the author reviewed the evidence on smoking "motivation" and concluded:

> Taken together, the evidence suggests that **self-administration of nicotine may be the primary motivation for smoking.** While this may not be true for every smoker, each smoker (who inhales the smoke) absorbs a quantity of nicotine during each puff sufficient to have extensive physiological and pharmacological effects, regardless of the motivation for smoking. . . .
>
> Primarily, nicotine is taken for its effects on the CNS, the peripheral consequences of nicotine administration, such as increased heart rate and blood pressure, being unwanted side effects. (emphasis added)

650000996-1034 at 1001-1002 (U.S. Ex. 53,388).

1631. In June 1984, BAT held a three-day "Nicotine Conference" attended by representatives of BATCo and Brown & Williamson. According to the conference agenda, one topic for discussion was "A Smoker's Requirement for Nicotine - A Smoking Behaviour and Marketplace View." The agenda later stated that "Considerable indirect evidence has been accumulated that suggests inhaling cigarette smokers smoke for nicotine and presumably the pharmacological effects of nicotine." 512106427-6437 at 6428, 6433 (U.S. Ex. 20,846).

1632. Another topic at the BATCo "Nicotine Conference" was called "Product Modification for Maximal Nicotine Effects." Under this heading, the authors stated that in order to "maximise nicotine effects," the company must understand "what constitutes an adequate and suitably 'packaged' dose of nicotine to satisfy a smoker's 'requirements.'" 512106427-6437 at 6435 (U.S. Ex. 20,846).

1633. A final report of the Nicotine Conference was also prepared by BATCo. The report contained summaries of many of the presentations made by BATCo researchers and executives to conference attendees. These summaries revealed BATCo's intimate knowledge of smoker regulation of nicotine (compensation), smokers' "threshold requirement" of nicotine, "product elacticity," "nicotine dose" measurements, "pharmacokinetics of nicotine," "the sensory and psychological effects of nicotine," central nervous system effects of nicotine, and "smoke manipulation involving pH modification" and other product design modifications. 400973506-3554 (U.S. Ex. 47,524).

1634. One month after its landmark "Nicotine Conference," BATCo held a conference on smoking behavior and marketing. In Session III of the July 1984 conference, again attended by Brown & Williamson representatives, C. I. Ayres summarized information from the earlier nicotine conference, including the following:

> Many smokers appear to smoke to a constant intake of nicotine. As yet, however, we do not know whether most smokers are aiming to achieve a "satisfactory" average level of nicotine circulating in the body, or whether they are seeking an optimum peak nicotine level after each cigarette. . . .
>
> The presentation was concerned with summarising and outlining the central role of nicotine in the smoking process and our business

> generally . . . . The extent to which smokers smoke for nicotine was discussed and it was agreed that it is unlikely that all smokers smoke for nicotine. However, only products containing nicotine have widespread use . . . .

536000308-0507 at 0330-0332 (U.S. Ex. 85,298); 109869361-9369 (U.S. Ex. 87,120).

1635. Presentations and statements from the July 1984 BAT Group "Smoking Behaviour-Marketing Conference are discussed in other documents as well. Of note was a comforting report to attendees in Session IV of the conference that, "Although intentions and attempts to quit are relatively high (30-40% of smokers) the actual success rate is relatively low and stable." 402426650-6677 at 6676 (U.S. Ex. 87,121).

1636. A review of the conference agenda, reports and other documents makes clear that nicotine was the focal point of nearly every presentation and discussion. For example, BATCo Group Leader Graham Read delivered a presentation titled "Current Status and Future Direction of Smoking Behaviour Research." In his presentation, he observed the "strong indirect evidence of smokers smoking for nicotine" as representing a "cause and effect" relationship. Read stated that the significance of his observation was that "smoking maintenance" is accomplished through nicotine, and that "in its simplest sense puffing behaviour is the means of providing nicotine in a metered fashion." 536000000-0090 at 0045-0063 (U.S. Ex. 22,338).

1637. A BATCo report of the company's Research and Development conference in September 1984 prepared by BATCo Scientist/Director Dr. Lionel Blackman emphasized the need for further research related to smoker behavior and nicotine. The report advised that BATCo needed to research whether smokers smoked for the "transient peak effects" of nicotine or instead sought "threshold base-line levels throughout the day." The report also recommended

research into means of "influencing nicotine transfer from the product to the smoker - and the commercial viability of such means." According to the R&D conference report, "Nicotine remains a top priority." 109872430-2447 at 2439, 2443 (U.S. Ex. 23,340).

1638. In an October 8, 1984 letter to David Schechter, Vice President and General Counsel for BATUS, Inc. (Brown & Williamson's immediate parent company in Louisville), Roy Reardon, an attorney with Simpson, Thacher & Bartlett (counsel for Brown & Williamson) discussed the effect upon future product liability lawsuits against Brown & Williamson of R.J. Reynolds's recently launched "Open Debate" ad campaign. The handwritten comments on the letter made by BATCo in-house counsel showed BATCo's understanding that addiction was the key to whether the industry could prevail in raising the assumption of risk defense, a defense that Simpson, Thacher advised was the strongest available to the industry. Handwritten notations throughout the 44 page letter indicate BATCo's concern that such a defense could be ineffective in light of the addiction issue. For example, concerning the statement, "in our view, assumption of risk is realistically the strongest defense presently available to the industry," the words "Jesus" and "ADDICTION" appear. These handwritten notations betray BATCo's knowledge of the addictiveness of its cigarette products and the impact of the addiction issue on the industry's litigation strategy. 3010609994-1037 at 9997, 1005, 1015, 1021, and 1035 (U.S. Ex. 28,153).

1639. A September 1984 BATCo document titled "Research Conference, GR&DC Research Programme" stated some objectives of BATCo's in-house behavioral/nicotine research. For example, the memorandum summarized planned nicotine/pH modification experiments, research focusing on the "mechanisms of nicotine interaction with the central nervous system,"

and human studies to better determine "the minimum dose of smoke nicotine that can provide pharmacological satisfaction for the smoker." 109869520-9522 at 9521 (U.S. Ex. 87,122).

1640. BATCo Group research was premised on the position that nicotine was the critical component of cigarettes that kept smokers smoking. In an October 15, 1985 memorandum from German BAT scientist E. Kausch to Brown & Williamson's Vice President of Research and Development, Kausch followed up on a recent "Oxford Conference" with the statement: "There is no daupt that nicotin is the compound which makes tobacco use to such a widespread habit. This means that nicotin research should be a central part of BAT's research efforts.[sic]" 510000642-0644 at 0643 (U.S. Ex. 85,300).

1641. In December 1985, BATCo scientist K. Battig visited a number of laboratories in the United States, both within and without the industry, engaged in nicotine research. In his December 9, 1985 synopsis memorandum, Dr. Battig described "acute tolerance" to nicotine as the need of a regular intensify his smoking to make up for a nicotine "deficit." Dr. Battig concluded his paper with the following observation on nicotine withdrawal:

> Psychological effects of nicotine. There is still no definitive answer to the question whether favourable psychological effects of nicotine or the fear of withdrawal effects are the reasons why smokers do not change their smoking behaviour. . . . In the time to come, it might be particularly important to clarify this question in connection with the dosage of nicotine (problem of acute tolerance).

102206198-6210 at 6210 (U.S. Ex. 85,301).

1642. A June 1988 internal BATCo report titled "The Significance of pH in Tobacco and Tobacco Smoke" summarized BATCo's in-depth knowledge with respect to manipulating

smoke pH and increasing "free base" nicotine in order to increase the nicotine delivery to smokers in the mouth and lungs. 500104402-4424 (U.S. Ex. 21,492).

1643. BATCo described a 1990s project code named "PROJECT GREENDOT" in a BATCo report stamped "SECRET" and "CONFIDENTIAL." The report recalled that the company collaborated with Battelle some 25 years before with Project "ARIEL" to develop a modified smoke delivery project that would give the smoker "sufficient nicotine" without the unwanted products of combustion. According to this document, Project "ARIEL" was discontinued in 1967. In the 1990s, "PROJECT GREENDOT" was planned, similar to the impetus for "ARIEL," to give smokers the nicotine they need without unwanted tar and sidestream smoke, via an "alternative" device with certain specifications:

> Work has shown that smokers obtain nicotine equivalent to 0.8 mg per cigarette, independent of design and tar yield. It is therefore realistic to assume that a product targeted at a nicotine delivery of 0.8 mg will satisfy the consumers' pharmacological requirements for nicotine.

400452855-2865 at 2856 (U.S. Ex. 47,504).

1644. At an August 22-24, 1990 BAT Group conference titled "Product Development Conference," representatives of Group members (including BATCo and Brown & Williamson) discussed ongoing Group research projects and priorities. The "SECRET" conference report recited that the companies were in the process of several high priority projects designed to maximize nicotine in low tar products (such as Project "GREENDOT") and maintain nicotine "satisfaction." 400459297-9343 (U.S. Ex. 87,123).

1645. A January 15, 1991 BATCo document titled "BATCo Operating Group Five Year

Plan 1991-1995" contained a section titled "The Fundamental Research Centre." In this section, when discussing key research projects regarding "tar/nicotine ratio reduction," the plan stated that:

> Basic research will continue into products delivering adequate levels of nicotine with minimum levels of other components, focusing on: tobacco treatments leading to reduced tar formation; novel sheet materials capable of controlled release of nicotine/flavourants; and enhancement of the transfer of nicotine/flavourants of smoke.

201752782-2899 at 2838 (U.S. Ex. 36,303). This document demonstrates BATCo's knowledge of the importance of nicotine for its products' sales as well as its continued efforts to maintain smokers' addictions through manipulation of the amount of nicotine received by smokers of its products.

1646. In an undated 1992 marketing document titled "Structured Creativity Group," BATCo's Colin Greig described cigarettes as a "'drug' administration system for public use" with "very very significant advantages over other drugs. Because "nicotine is the lowest dose 'common' drug available," it compared favorably to other "slower" drugs such as marijuana, amphetamines, and alcohol." Greig wrote that, "Within 10 seconds of starting to smoke, nicotine is available <u>in the brain</u>." The memorandum also admits BATCo's acceptance that smokers of low tar products "compensate," or modify their smoking behavior, in order to obtain more nicotine. 100503495-3506 at 3496, 3499 (U.S. Ex. 20,188) (U.S. Ex. 76,168) (emphasis in original).

1647. Greig described tobacco as "a fast, highly pharmacologically effective and cheap 'drug'" contained within a "relatively cheap and efficient delivery system." At the close of his

memorandum, Greig observed that because cigarettes leave smokers unsatisfied and always craving more, "all we [BATCo] would want then is a larger bag to carry the money to the bank." 100503495-3506 at 3497, 3505 (U.S. Ex. 20,188) (U.S. Ex. 76,168).

1648. In 1997, Brown & Williamson's corporate designee on addiction and cigarette design under Minnesota's equivalent of Fed. R. Civ. P. 30(b)(6), M. Lance Reynolds, who was also B&W's former Director of Research and Director of Product Development, agreed in sworn testimony with the Colin Greig statement in the 1992 document that "the cigarette is a good way of delivering this pharmacologically active substance [nicotine] to the brain." Deposition of M. Lance Reynolds, State of Minnesota and BCBS v. Philip Morris et al., September 30, 1997, 55:3-55:6 (C1-94-8565).

1649. BATCo understood that it, like the other Cigarette Company Defendants, had to mask that it was truly in the nicotine business. A meeting was held at BATCo's parent BAT Industries on February 10, 1992, to discuss proposed research into the beneficial effects of smoking on Alzheimer's Disease patients. BATCo scientists Dr. Thornton and Dr. Rudge attended the meeting. Dr. Thornton's written summary of the meeting stated that while Alzheimer's research had potential benefits for the company, he cautioned that: "If there was a satisfactory outcome to this research this would further activate research into options for delivering nicotine to people and again would require decisions as to which business we are in." 300555800-5803 (U.S. Ex. 87,124).

1650. An undated BATCo memorandum written by D.E. Creighton, entitled "Structured Creativity Group Presentation," listed the following as one of smoking consumers' needs:

> High on the list of consumer needs is nicotine, which I believe to be the main motivator and sustainer of smoking behaviour. Without nicotine in sufficient quantity to satisfy the needs of the smoker, the smoker can (a) give up altogether, (b) cut back to a low purchase level, (c) keep switching brands.

100501696-1710 at 1700 (U.S. Ex. 23,018); 102690336-0350 at 0340 (U.S. Ex. 21,681).

1651. In his memorandum, Creighton was careful to distinguish the need for nicotine from the importance of flavor and quality to cigarette consumers. At the close, he noted that BATCo had "tried the low [nicotine] delivery product route with limited success. This might be because the nicotine in such products is below the pharmacological threshold of effectiveness." 100501696-1710 at 1705, 1710 (U.S. Ex. 23,018); 102690336-0350 at 0345, 0350 (U.S. Ex. 21,681).

1652. BATCo carried out and/or funded voluminous internal studies on nicotine and its effect on the human body, studies that are too numerous to discuss each in detail in this section. However, the clear import of these studies, taken as a whole, was that BATCo knew that nicotine was essential to cigarettes, essential to addiction, and essential to its business of selling cigarettes. Many of these reports bear stamps indicating they were shipped to Brown & Williamson. Additional BATCo research reports can be found at: "Nicotine in Smoke and Human Physiological Response," dated March 26, 1970, 682638843-8864 (U.S. Ex. 25,454); "Relative Contributions of Nicotine and Carbon Monoxide to Human Physiological Response," dated November 15, 1971, 682638479-8516 (U.S. Ex. 25,451); "The Transfer of Nicotine From Smoke Into Blood Using a Perfused Canine Lung," dated February 28, 1967 750003524-3551 (U.S. Ex. 87,125); "Subjective Evaluation of Select Flue-Cured Tip Grades," dated August 20,

1968, 750067063-7084 (U.S. Ex. 87,126); "The Absorption of Nicotine Via the Mouth: Studies Using Model Systems," dated May 9, 1965, 750004644-4702 (U.S. Ex. 87,127); "The Effect of Puff Volume on 'Extractable Nicotine' and the Retention of Nicotine in the Mouth," dated August 21, 1969, 750040142-0159 (U.S. Ex. 87,128); "Further Studies on the Effect of Nicotine on Human Physiological Response," dated June 5, 1973, 750009778-9808 (U.S. Ex. 87,129); "Acute Effect of Cigarette Smoke on Brain-Wave Alpha Rhythm - First Report," dated October 31, 1974, 750055087-5106 (U.S. Ex. 87,130); "Interaction of Smoke and the Smoker Part 3: The Effect of Cigarette Smoking on the Contingent Negative Variation," dated December 12, 1974, 750012293-2319 (U.S. Ex. 87,131); "Some 'Benefits' of Smoking," dated January 26, 1977, 750016323-6339 (U.S. Ex. 87,132); "Further Work on 'Extractable' Nicotine," dated September 30, 1966, 650009836-9905 (U.S. Ex. 53,395); http://tobaccodocuments.org/ness/2796.html, "The Study of Human Smoking Behaviour Using Butt Analysis," dated August 7, 1978, 650010113-0156 (U.S. Ex. 53,397); See 566632813-3254 (U.S. Ex. 87,134); 110083654-3673 (U.S. Ex. 87,135).

(iv) Brown & Williamson

1653. Like the other Defendants, Brown & Williamson was also well aware of the addictive quality of smoking and nicotine. Despite the company's public denials, it has consistently exploited and admitted internally that smoking is an addiction, smokers need nicotine, and smokers suffer withdrawal when deprived of nicotine.

1654. Much of Brown & Williamson's knowledge of nicotine and its addictive qualities originated at its parent company, BATCo, who regularly communicated its research results to

Brown & Williamson and other BAT Group affiliates. Many of these examples are found in U.S. FPFF § (E)(1)(b)(iii), infra. As one of the earliest examples of the trans-Atlantic exchange of knowledge, Sir Charles Ellis forwarded both BATCo's "Project HIPPO" results and the BATCo report entitled "The Fate of Nicotine in the Body" to Brown & Williamson's chief executives Bill Cutchins and Ed Finch under cover letter stamped "Received" on July 1, 1963. 689033419-3419 (U.S. Ex. 87,136). [Project HIPPO I and II, as well as the report titled "The Fate of Nicotine in the Body" are discussed in detail above under the BATCo heading.]

1655. Shortly thereafter in 1963, Brown & Williamson Executive Vice President and General Counsel Addison Yeaman commented in writing on the BATCo nicotine research carried out in England under the code names HIPPO I and HIPPO II. In a July 17, 1963 memorandum marked "Strictly Private and Confidential," Yeaman was persuaded by the findings of the research, in particular the researchers' conclusions on the "tranquillising" effects of nicotine. Yeaman concluded simply that, "Moreover, nicotine is addictive." He the wrote: "We are, then, in the business of selling nicotine, an addictive drug effective in the release of stress mechanisms." 689033412-3416 at 3415 (U.S. Ex. 22,034).

1656. Yeaman's conclusions and the sophisticated nicotine research in BATCo's and Brown & Williamson's possession were intentionally concealed from the Surgeon General's Advisory Committee then in the process of writing what would be published as the 1964 Surgeon General's Report. See U.S. FPFF §§ IV.E(1)(b)(iii) & (iv), infra.

1657. Brown & Williamson scientist Robert B. Griffith authored a September 13, 1963 letter to BATCo's John Kirwan in response to questions as to the importance of nicotine. Dr.

Griffith wrote: "[N]icotine is by far the most characteristic single constituent in tobacco and the known physiological effects are positively correlated with smoker response. . . . [W]e have a research program in progress to obtain, by genetic means, any level of nicotine desired. 102630333-0336 (U.S. Ex. 23,000).

1658. Brown & Williamson participated in a Tobacco Chemists Conference in October 1964. According to the "CONFIDENTIAL" report of the conference, tobacco company scientists delivered a number of papers to conference attendees. One paper called "Do We Know What We Are Talking About?" was presented by W. S. Paige of the Imperial Tobacco Company. In his presentation, Paige described the "Physiological Strength or Potency" of tobacco suggesting very early knowledge among tobacco industry scientists of nicotine's psychoactive effects, if not intoxication, and the connection to subconscious smoker compensation:

> S. Physiological Strength or Potency
>
> This is the property of tobacco which makes your head swim, and makes you feel 'weak at the knees' after rapid smoking. It is a direct effect on the metabolism which does not come through the sense organs. It affects muscular co-ordination, pulse rate and peripheral circulation . . . . It is very difficult to assess S by these reactions because a subconscious mechanism usually controls the rate of smoking to keep these effects small.
>
> [Physiological Strength or Potency] is usually assessed by considering whether the cigarette was "satisfying." "The cigarette satisfied my need for a cigarette (even though it may have tasted horrible), I did not want to light another cigarette immediately afterwards.

650378968-9132 at 9036 (U.S. Ex. 85,303).

1659. Representatives of Philip Morris, R.J. Reynolds, Brown & Williamson, BATCo,

Lorillard, and Liggett attended and presented papers at the same October 1964 conference. 2012614167-4279 at 4176-4182 (U.S. Ex. 85,304).

1660. In August 1967, Brown & Williamson commissioned a report on addiction entitled "A Psychological Map of the Cigarette World." The stated purpose of the report was "to provide a resource of information regarding those consumer needs, habits, and attitudes which shape the current cigarette market" and to "serve as a platform for the development of responsive marketing and advertising strategies." Thus, Brown & Williamson recognized the important link between the addictiveness of its products and sustaining the cigarette market. 680282619-2668 at 2620 (U.S. Ex. 85,305).

1661. This 1967 report commissioned by Brown & Williamson summarized the responses of some 1,400 smokers and included the following:

> Most smokers see themselves as addicts. . . . Many fear they'd "fall apart" if they quit. . . . Interpretively, the typical smoker feels guilty and anxious about smoking but impotent to control it. Psychologically, most smokers feel trapped.
>
> Speculatively, the <u>decision</u> to smoke is psychologically motivated. Once that decision is made, smoking <u>frequency</u> is physiologically determined, with the addiction becoming more severe as smokers grow older.
>
> People who smoke plain cigarettes are strongly addicted but deny anxiety about smoking. . . . [They] hate to run out of cigarettes. . . . [They] admit they'd be a nervous wreck if they ran out of cigarettes."

680282619-2668 at 2625, 2632, 2635 (U.S. Ex. 85,305).

1662. The 1967 report focused in part on smokers of Brown & Williamson's Viceroy and Kool brands. With respect to the Viceroy market, the report found that "attractions to

Viceroy are strong, but its appeals represent a threat to the addicted mass." With respect to Kool, the report concluded that "The Kool smoker feels he smokes too much - but does not want to stop . . . is 'hooked' and more openly anxious than menthol smokers generally." 680282619-2668 at 2656, 2660 (U.S. Ex. 85,305).

1663. Brown & Williamson has long known that nicotine is the most important component of cigarettes, that nicotine is the most important component of addiction, and that without nicotine people would not smoke. For example, Brown & Williamson's Director of Research and Development, I.W. Hughes, responded with the following in his March 13, 1970 comments on an article raising questions as to a link between nicotine and coronary heart disease:

> This section of the paper is of some interest in that (a) there is the lead to take pressure off nicotine. This is very important to us; we can cope with reducing carbon monoxide, however difficult, but **reduction or deletion of nicotine could be death to us.** (emphasis added)

680252107-2109 at 2108 (U.S. Ex. 85,306).

1664. A February 22, 1972 "Private and Confidential" report by Brown & Williamson researcher J.E. Kennedy and distributed to executives, including General Counsel Yeaman, was titled "Beneficial Aspects of Smoking." Kennedy's paper reviewed a number of studies, including studies focusing on nicotine's effects on animal behavior. Kennedy described studies showing that monkeys developed a "strong preference for tobacco smoke" over air, and would "spend time smoking in preference to other available activities," and even learned to self-inject nicotine. 690008455-8462 (U.S. Ex. 54,320).

1665. Brown & Williamson was also privy to internal nicotine reports from other cigarette manufacturers. In a 1973 "Confidential" marketing long-term planning memorandum, the company summarized BATCo and Philip Morris research, as well as some secondary studies. The memorandum acknowledged the drug-like effects of nicotine, and that "cigarettes allow people to self-administer nicotine and at a self-determined rate." The memorandum flatly stated that "Nearly all regular smokers are nicotine dependent" and described the smoking behavior of addicted smokers. 680096095-6110 at 6096, 6099, 6106 (U.S. Ex. 53,993).

1666. The 1973 "Confidential" memorandum accepted and described tolerance to nicotine:

> As the novice [smoker] acquires tolerance to the irritation of the smoke over a period of two or three years, he becomes conditioned to a high and regular intake of nicotine . . . .
>
> Physical dependence involves changes which are physiological. Firstly, this is shown by the smoker's tolerance to the effects of nicotine. This is due to changes at the synapses. The smoker also has an increased capacity to metabolise and excrete the drug, mainly in the liver.

680096095-6110 at 6095, 6101, 6103 (U.S. Ex. 53,993).

1667. The memorandum also acceptd and described the adverse withdrawal symptoms experienced by smokers who abstain:

> The rush of nicotine into the blood stream and nervous system is short-lived; therefore, reducing consumption would cause withdrawal and all of its unpleasant side effects so long as the smoker is restricted from smoking. Nicotine vacates the system in 30 minutes or so and at that time withdrawal starts.

680096095-6110 at 6096 (U.S. Ex. 53,993).

1668. The memorandum further accepted and described the concept of nicotine "compensation" by smokers to obtain the desired amount of nicotine:

> If the nicotine level of cigarettes fails to completely achieve the desired mood change, that cigarette will be drawn on deeper, the smoke held longer, and consumption will rise. . . . Reductions in nicotine are therefore compensated for by consumers but the limit to which they can compensate for the diminished nicotine / diminished therapeutic efficacy is unknown. R&D is studying this subject at the present time.

680096095-6110 at 6095 (U.S. Ex. 53,993).

1669. Finally, the memorandum summarized and accepted disturbing outside research that suggested drug addiction among smokers:

> [M]onkeys can be trained to inject themselves with nicotine for its own sake, just as they will inject other dependence-producing drugs, e.g., opiates, caffeine, amphetamine, cocaine. . . . **This effect in the case of nicotine is rapid but passing. The absorption of nicotine through the lungs is as quick as a junkie's "fix."** In twenty to thirty minutes after the smoker has finished his cigarette, most of the nicotine has left his brain for other organs - stomach, liver, and kidneys - and this is just about the time that the heavily dependent smoker needs his next cigarette. (emphasis added)

680096095-6110 at 6104 (U.S. Ex. 53,993).

1670. Minutes from a 1974 Brown & Williamson/BATCo conference included the conclusion: "Whatever the characteristics of cigarettes as determined by smoking machines, the smoker adjusts his pattern to deliver his own nicotine requirements." 2502272091-2096 at 2092 (U.S. Ex. 45,990).

1671. In January 1974, Brown & Williamson hired an advertising agency to study the market for its new cigarette Raleigh Extra Milds. The specific goal of the study was to "aid in

the development of future marketing and creative planning for the new Raleigh cigarettes." The advertising strategy presented to Brown & Williamson included the following broad observations:

> Obviously the negative aspects of smoking outweigh the positives, so much so that many of the men and women interviewed had attempted to quit or at least considered quitting smoking. Apparently the Surgeon General's warnings have had a considerable impact upon smokers' attitudes toward their habit if not their behavior.
>
> However, as additional evidence of the addictive qualities of smoking, those who tried to quit, both male and female, admitted great difficulties in overcoming the psychological and/or the physiological urge or craving to smoke. Their presence in these discussions attests to their lack of success.
>
> The inability to quit or even attempt to quit often results in some degree of guilt and the admission to one's self of a "dependency" on cigarettes or a lack of willpower.

680289650-9743 at 9665 (U.S. Ex. 85,307).

1672. In August 1975, Brown & Williamson commissioned a marketing report entitled "New Product Ideas Developed for Brown & Williamson." One exhibit to the study created an "Addiction Profile" to describe the relative intensity of smoking motivation. The study then divided smokers into three groups, "Mainstream" smokers, "Compromisers," and "Justifiers." "Compromisers" were defined as those "heavily addicted" smokers who have made "many attempts to quit" and were "searching for a solution to their problem." "Justifiers," in contrast, referred to those who were "less addicted" and who were "quick to rationalize." 680287748-7895 at 7770, 7773 (U.S. Ex. 85,308).

1673. In a section of the report titled "Background Information on Cigarette Smoking

Habits," the report emphasized a smoker's "need" for cigarettes:

> At times, a person smokes because it is something he depends on to keep going, in order to be able to function and to face the problems in daily life. This is when a cigarette is needed. . . . Let's take first the situations where a cigarette is needed. This is usually characterized by its being smoked quickly, where the smoker is hardly aware that he is smoking. It serves to relieve tension, frustration, irritation, or insecurity. It has a calming effect. Here the relaxation is of the type of a quick, crucial shot in the arm.

680287748-7895 at 7835 (U.S. Ex. 85,308).

1674. The report also found that: "There are obviously strong motivations which drive people to smoke in the face of the overwhelming evidence that it is, at best, hazardous to their health." 680287748-7895 at 7834 (U.S. Ex. 85,308).

1675. In an October 31, 1974 internal study by the Brown & Williamson Research and Development Department titled "Acute Effect of Cigarette Smoke on Brain Wave Alpha Rhythm," company scientists assessed the immediate physiological responses of smokers to cigarettes with varying deliveries of nicotine. The report documented the "striking, fundamental human response to cigarette smoke" and recommended follow-on studies using more sophisticated equipment. 650379764-9786 at 9772 (U.S. Ex. 53,525).

1676. Less than two years later, a Brown & Williamson advertising conference was held at the company headquarters in Louisville to review company research and discuss the company's advertising for a "Low Tar High Nicotine Cigarette." The conference report included the following under the heading "Goals/Wishes":

> • MULTIPLY NICOTINE RUSH
> • get across to consumer that what he likes (NICOTINE) is not what hurts (TAR)

- have FREE NICOTINE as opposed to BOUND
- show VALUE OF NICOTINE (lift, A.M. Starter)
- market an ADDICTIVE PRODUCT in an ETHICAL MANNER

(emphasis in original)

777125397-5403 at 5398 (U.S. Ex. 54,625).

1677. In the years that followed, according to September 30, 1997 testimony by Brown & Williamson's corporate designee on cigarette design and addiction, the company "did a lot of work on trying to develop a quote, low-tar, normal nicotine, closed quote, cigarette." Indeed, the same witness, Lance Reynolds, former Director of Product Development and Director of Research, testified that from the beginning of his career at Brown & Williamson in 1968 onwards, the company and other BAT Group member companies had "projects to try and increase nicotine delivery with respect to tar, for many years." Reynolds attended the 1977 advertising meeting on the "Low Tar High Nicotine Cigarette," and testified that he "can't debate or dispute" the advertising agency conference report which stated that one of Brown & Williamson's wishes was to "market an ADDICTIVE PRODUCT in an ETHICAL MANNER." Deposition of M. Lance Reynolds, State of Minnesota and BCBS v. Philip Morris et al., September 30, 1997, 135:14-135:23, 137:10-137:15, 139:6-139:12 (C1-94-8565); Deposition of M. Lance Reynolds, United States v. Philip Morris et al., Sept. 12, 2002, vol. 2, 301:1-301:23; 777125397-5403 at 5398 (U.S. Ex. 54,265).

1678. The importance of nicotine was also emphasized in the Research and Development department. In a November 28, 1977 memorandum by researcher G. E. Stungis titled "Long-Term Product Development Strategy," one of the overarching stated objectives was that "products must provide the appropriate levels of nicotine . . . ." 501011512-1515 at 1513

(U.S. Ex. 85,309) (emphasis in original). Moreover, an significant part of the overall Brown & Williamson strategy was the ability to: "Recognize that nicotine is a vital component to overall smoker satisfaction. Methods to optimize the mainstream smoke nicotine delivery with respect to pharmacological effects will be explored/developed." 501011512-1515 at 1513 (U.S. Ex. 85,309).

1679. An August 24, 1978 Brown & Williamson memorandum to M. J. McQue from Assistant Brand Manager H. David Steele titled "Future Consumer Reaction to Nicotine" stated: "Very few consumers are aware of the effects of nicotine, i.e., its addictive nature and that nicotine is a poison." 665043966-3966 (U.S. Ex. 21,485); 776078962-8962 (U.S. Ex. 87,137).

1680. Brown & Williamson knew that the difference between "free" and "bound" nicotine was integral to the delivery of enough nicotine to insure "physiological satisfaction." In a January 4, 1980 Brown & Williamson Process Department "file note" titled "Observation of Free Nicotine Changes in Tobacco Smoke," C.F. Gregory discussed pH and nicotine delivery in Philip Morris's competing brands Merit and Marlboro. Gregory's data revealed that Merit and Marlboro delivered equal amounts of "free" nicotine, although Marlboro's total nicotine content was almost double that of Merit. 654005805-5807 (U.S. Ex. 85,447); 689201723-1770 at 1751 (U.S. Ex. 31,049).

1681. Gregory commented on this data that, "In theory, a person smoking these [Merit and Marlboro] cigarettes would not find an appreciable difference in physiological satisfaction from either based on the amount of free nicotine delivered." He then gave other examples where cigarette manufacturers could maintain "free" nicotine despite reducing machine-measured

nicotine yield. Gregory suggested this information could be used to gain Brown & Williamson a competitive advantage in marketing "Light" cigarettes:

> Is there not some way open now to use the knowledge we have gained in this area of tobacco and smoke research to give B&W a competitive advantage over its competition? It appears that we have sufficient expertise available to "build" a lowered mg tar cigarette which will deliver as much "free nicotine" as a Marlboro, Winston, or Kent without increasing the total nicotine delivery above that of a "Light" product.

654005805-5807 at 5806 (U.S. Ex. 85,447).

1682. Brown & Williamson scientist Tilford Riehl, who later became Vice President of Research and Development, received Gregory's "file note" and commented on an alternative to Gregory's proposal to increase "free" nicotine to boost "physiological satisfaction." Riehl's suggestion, while accepting Gregory's data and concept, proposed maximizing the effects of nicotine on smokers in a different way. Riehl wrote in the margin:

> Several of us have proposed an alternative (almost opposite) approach – design a low tar cig with high <u>total</u> nicotine / low to moderate <u>% free</u> nic. Theory: provide cig with "appropriate" level of sensory satisfaction/higher than usual "pharmacological" satisfaction. (emphasis in original)

510000667-0670 (U.S. Ex. 51,496).

1683. Brown & Williamson produced an attorney-prepared (Shook, Hardy & Bacon) November 1995 document compiling and quoting from company materials that admitted nicotine manipulation via increasing "free" or "bioavailable" nicotine delivered by cigarettes. The report commented on the two 1980 documents written by Gregory and Riehl, documents that supported accusations by the FDA that Brown & Williamson (and the other cigarette manufacturers)

intentionally made and marketed cigarettes with nicotine effects greater than the FTC machine-measured yields:

> Gregory appears to be urging that B&W engage in a manufacturing and marketing practice of which the FDA accuses the company – that accusation being that the company designs, manufactures and markets cigarettes with a pharmacological impact which is greater than FTC yields imply. Thus, Gregory's comments are of interest in the regulatory and litigation context.

689201723-1770 at 1753-1754 (U.S. Ex. 31,049).

1684. With respect to Riehl's written comments on Gregory's memorandum urging a low tar product with high total nicotine with moderate "free" nicotine, the Shook, Hardy & Bacon report stated that: "[T]his marginalia comment, of course, raises an issue of the motivations of the company in designing cigarettes to provide 'pharmacological satisfaction' to smokers." 689201723-1770 at 1754 (U.S. Ex. 31,049).

1685. A January 19, 1978 internal Brown & Williamson product development memorandum from E.F. Litzinger to E.T. Parrack and copied to R.A. Sanford and M. L. Reynolds stated that, "Some people trying to give up smoking attempt to appease their craving for a cigarette by eating candy." 650510607-0607 (U.S. Ex. 85,029).

1686. In February 1980, BATUS, Inc. (Brown & Williamson's immediate holding company co-located in Louisville) commissioned a detailed marketing plan for a "less hazardous cigarette" tentatively named "Limits." The proposal reflected the company's belief that smoking was both hazardous and addictive. The new cigarette would address the problem of addiction by offering "higher nicotine content to satisfy smokers' needs with fewer cigarettes . . . thus less potential harm." The report proposed advertising to physicians that, "Recent studies show that

even under optimal conditions, it is unlikely you will persuade more than 5% of smokers to quit. So for the other 95%, do the next best thing. Switch them to new LIMIT." 501025519-5609 at 5564-65 (U.S. Ex. 85,310).

1687. The background research relied on in the 1980 BATUS marketing proposal found that physicians had a "little or no success in getting patients to stop smoking cigarettes" and even suggested that providing the smoker with a less harmful cigarette product is equivalent to providing a heroin addict methadone. The less harmful cigarette, like methadone, was referred to as the "lesser evil," a "compromise" for the smoker who cannot quit the addiction. The writers asked rhetorically, "Why won't we help a cigarette addict get his 'fix' in the least damaging way possible?" Not surprisingly, the "Limits" product would be made available only through pharmacies and would be introduced via physicians "in the same way that a new drug is presented." 501025519-5609 at 5544-45, 5573 (U.S. Ex. 85,310).

1688. The 1980 BATUS proposal specifically emphasized the smoker's "physical need," "withdrawal" effects, and the high rates of recidivism. A model promotion letter to physicians even instructed that, "Low nicotine cigarettes are not a viable compromise. Studies have shown . . . that when patients switch to low nicotine brands, they usually increase the number of cigarettes they smoke daily. . . . Finally there is an alternative . . . for those patients whose sincere and dedicated efforts to stop have ended, again and again, in frustration, self-deprecation, and recidivism . . . ." 501025519-5609 at 5560-5561 (U.S. Ex. 85,310).

1689. A January 1982 Brown & Williamson market analysis of smokers of its Belair brand reported in the section titled "Smoking Behavior and Attitudes" that: "Overall, the

evidence shows that Belair smokers are extremely addicted to smoking and they know it." Belair also scored very high in factors indicative of dependency and "[a]ddiction." In fact, 94% of Belair smokers surveyed agreed with the statement, "I get a real urge for a cigarette when I haven't smoked for a while." (emphasis in original) 514107196-7249 at 7225, 7228 (U.S. Ex. 85,311).

1690. In a similar January 1982 Brown & Williamson market analysis for its Viceroy brand of cigarettes, the company was told that, "Smokers of brands in Viceroy's competitive set are more addicted to smoking than smokers in general." 514107251-7302 at 7281 (U.S. Ex. 85,312).

1691. Brown & Williamson Group Product Director A.J. Mellman wrote a project memorandum on March 25, 1983, to other industry executives, including Senior Vice President for Marketing R.A. Blott, stating explicitly that nicotine is "addicting." The memorandum proposed several project ideas for the company, including a low tar cigarette with free nicotine added to the filter, based on the underlying premise that:

> Nicotine is the addicting agent in cigarettes. It, therefore, seems reasonable that when people switch brands, if they have a certain smoking pattern (i.e. number of sticks/day), they will switch to a brand at the same nicotine level.
>
> I am currently examining all brands by nicotine level and by nicotine/tar ratio levels, comparing those correlations to switching patterns.

514110006-0009 at 0007 (U.S. Ex. 21,745).

1692. In 1982, Brown & Williamson carried out a "Smoker Personality Study" that segmented the cigarette market in terms of the level of addiction of the smokers. The stated

purpose of the study was to provide the company "new insights helpful in the development and positioning of new and/or established brands." With respect to the market segments, smokers who fit into Segment IV were described as "somewhat addicted" and smokers in Segment VI were described as "addicted to smoking and often wish they had never started." Smokers in Segment VIII, however, were described as "heavily addicted to smoking. To run out of cigarettes would be a real problem for them . . . from the moment they wake up they smoke." 514107303-7417 at 7336, 7350, 7364 (U.S. Ex. 85,313).

1693. A 1987 Brown & Williamson patent application for a "Non-Combustible Simulated Cigarette Device" again revealed the company's recognition that smoking depended on nicotine alone, and that nicotine delivery could be enhanced through pH manipulation. The patent description was reviewed and modified by BATCo. The description of the "Device" stated that it would "provide nicotine delivery to the user without the combustion of tobacco." In fact, the "Device" used purified nicotine, not tobacco leaf; the description stated that it was "a non-combustible simulated inhaler device wherein volatilisable nicotine is present in the inhaler as a free base," and would, after contact with an acid, supply "volatilised nicotine to the user's mouth in the form of a salt having a pH in the range of approximately 5 to 7. 400230781-0790 at 0781 (U.S. Ex. 85,314); 400230802-0813 (U.S. Ex. 85,315); 400230823-0828 (U.S. Ex. 85,316).

1694. According to the record of a January 4 and 5, 1988 meeting in New York, Brown & Williamson scientists Tilford Riehl and Lance Reynolds met with scientists from BATCo's other affiliates to discuss the progress of internal company nicotine research code-named "Project

GREENDOT" and "Project AIRBUS," and to chart the course of the research for the 1990s. This meeting again revealed the company's obsession with nicotine exploitation. "Project AIRBUS" sought to develop a device similar to a non-combustible nicotine delivery product manufactured by R.J. Reynolds. "Project GREENDOT" sought "to produce a highly modified cigarette which maintains the delivery of nicotine to the smoker whilst reducing the delivery of tar." The goal of "GREENDOT" was to modify a 10mg tar / 0.8 mg nicotine cigarette to deliver 1mg tar / 0.8 mg nicotine. 620208779-8784 at 8782-8783 (U.S. Ex. 85,317).

1695. BATCo regularly forwarded its nicotine research reports to the Brown & Williamson Research and Development Department and the company library for use by the company. Knowledge of the information and conclusions contained in these nicotine reports (discussed above under BATCo) therefore can be charged to Brown & Williamson as well. The critical importance of nicotine to the companies is evident in the titles and content of the many reports. See, e.g., "Preparation and Properties of Nicotine Analogues - Part II," October 11, 1973, 657006301-6327 (U.S. Ex. 53,532); "Alpha Waves and Smoking: The Effect of Cigarette Smoking on the Alpha Density of Subjects," December 6, 1974, 657007342-7416 (U.S. Ex. 53,535); "The Effect of Smoking Deprivation on Smoking Behaviour," September 11, 1975, 650014873-4901 (U.S. Ex. 53,405); "Compensation for Changed Delivery," January 30, 1976, 650008449-8480 (U.S. Ex. 76,192); Dr. M.A.H. Russell's "Safer Cigarette" Study Report No. RD. 1652 (Restricted), March 1, 1979, 650010157-0193 (U.S. Ex. 85,292); "Preparation and Properties of Nicotine Analogues - Part III," June 20, 1979, 657006435-6487 (U.S. Ex. 53,534); "A Comparison of Smoking Surveys Separated by Four Years," June 28, 1979, 650008946-8960

(U.S. Ex. 85,318); "Method for Nicotine and Cotinine in Blood and Urine," May 21, 1980, 6650032386-2428 (U.S. Ex. 53,430); "Nicotine Studies: A Second Report, Estimation of Whole Body Nicotine Dose by Urinary Nicotine and Cotinine Measurements," March 31, 1981, 650030769-0802 (U.S. Ex. 53,428); "Receptors for Nicotine in the Central Nervous System," March 22, 1984, 650000996-1034 (U.S. Ex. 53,388); "The Functional Significance of Smoking in Everyday Life," April 24, 1984, 650000563-0740 (U.S. Ex. 85,393).

1696. Brown & Williamson also produced in this litigation a document titled "Brown & Williamson - Addiction Notebook" prepared for the company by the law firm of Shook, Hardy & Bacon. The Addiction Notebook identifies numerous company documents (both Brown & Williamson documents and documents sent to Brown & Williamson by BATCo) that admit that (1) smoking is addictive, (2) nicotine is the primary addictive drug responsible for making smoking addictive, and (3) BATCo and Brown & Williamson conducted and funded research over decades into the physiological and pharmacological properties of nicotine as a drug, as an essential element of smoking, and as a commercial element necessary to the cigarette industry . 689103834-4108 at 3980-4078 (U.S. Ex. 75,988).

1697. Brown & Williamson also produced an attorney-prepared November 1995 document compiling and quoting from company materials that admit nicotine manipulation via increasing "free" or "bioavailable" nicotine delivered by cigarettes. 689201723-1770 at 1753-1754 (U.S. Ex. 31,049).

1698. Brown & Williamson also produced a lengthy compilation document database prepared by outside counsel for Scientific Director Scott Appleton, under cover letter dated

November 27, 1995, analyzing many BATCo and Brown & Williamson documents cited by the FDA when it proposed asserting jurisdiction over cigarettes. While some of the explanations for documents in the database attempt to minimize or rationalize what BATCo and Brown & Williamson have done, numerous other entries acknowledge that the FDA correctly cited the documents for its propositions, and that the documents mean exactly what they say. 566632813-3254 (U.S. Ex. 87,134).

1699. These Brown & Williamson documents, taken as a whole, show that Brown & Williamson and their attorneys appreciated the fact that the company and the sale of its products depended on nicotine and addicting smokers.

(v) Lorillard

1700. Many internal documents show that Lorillard also has also been aware for decades of nicotine's addictive properties and the importance of nicotine to cigarette smokers.

1701. In an August 1964 national survey titled "A Market Target - Buying Incentive Study of Cigarette Market," Lorillard found that 66% of qualified respondents gave habit/addiction as a reason for continuing to smoke. 03492841-3067 at 2884 (U.S. Ex. 21,432).

1702. In an August 7, 1964 memorandum regarding "Potassium Carbonate," H.D. Anderson told Lorillard's legal counsel that "[t]here seems no doubt that the 'kick' of a cigarette is due to the concentration of nicotine in the blood-stream which . . . is a product of the quantity of nicotine in the smoke and the speed of transfer of that nicotine from the smoke to the blood-stream." 100059066-9067 at 9067 (U.S. Ex. 20,102).

1703. Like the other cigarette manufacturers in the 1970s and 1980s, Lorillard knew that

the issue was not only nicotine, but "free" nicotine actually delivered to smokers. In a February 8, 1973 report to the research department executives, Lorillard scientist A. M. Ihrig concluded that nicotine in alkaline smoke (high pH) is absorbed in the mouth and lungs far more rapidly than nicotine in low pH smoke, and that this phenomenon was due to the fact that the "free," or readily absorbable, nicotine increased dramatically with pH. According to Ihrig, "a change in pH from 5.7 to 8.0 results in an increase of free nicotine from 0.69% to 58.3%." 00776238-6250 at 6239 (U.S. Ex. 21,477) (U.S. Ex. 54,369).

1704. Ihrig also noted the importance of "free" nicotine to the company bottom line: "Furthermore, the cigarette brands which are enjoying the largest sales increase generally have smoke pH's in the 6.5-7.0 range." He later adds that, "The smoke pH for Kool and Marlboro are 7.12 and 6.98, respectively, confirming the relationship between high smoke pH and cigarette sales increase." 00776238-6250 at 6239, 6245 (U.S. Ex. 21,477) (U.S. Ex. 54,369).

1705. Alexander Spears, Lorillard's Vice President of Research and later Lorillard Chairman and CEO, wrote a paper on the "elements of product acceptance" dated November 13, 1973. In his paper, Dr. Spears stated that one of the main elements of cigarette acceptance was "Physiological, being comprised largely of the nicotine-induced stimulation and thought coordination effects." Dr. Spears then continued on the importance of nicotine, stating that "it would be useful to have a wider range of control over nicotine than now exists," and that "[i]t is our present intent to develop low nicotine brands, with the maximum physiological impact, within the next year." 80634635-4642 (U.S. Ex. 21,063).

1706. Dr. Spears took part in the Tobacco Smoke Inhalation Workshop held at the

National Cancer Institute in June 1974. Spears and other participating scientists made presentations during the workshop. In one summary from the workshop, one scientist concluded:

> Thus we are more concerned with the adverse effects of cigarette smoking than we are with the beneficial effects. Nevertheless, pharmacologists and psychologists ought to be interested in both aspects of what is essentially a drug-taking type of behavior. . . .
>
> There is a sad story of a company based in Texas, which made a cigarette called Bravos. There was also an offshoot of this company which made another cigarette called Triumphs. Both of these companies went bankrupt this past year. . . . My theory is, and a lot of people will agree with me, that they lacked the one central ingredient: nicotine. . . .
>
> As far as nicotine is concerned, there exists quite a large body of data concerning its toxicity and its pharmacological effects. Its investigation goes back to the late 19th century and the studies of Langley. It is generally agreed that nicotine is the most important pharmacological component of cigarette smoke. There are few other chemical components which are present in sufficient quantities or which have the potency to compete with it for effectiveness.

501620069-0085 at 0077, 0079 (U.S. Ex. 85,320).

1707. Lorillard knew that nicotine was distinct from and not essential to the taste of a cigarette. In a March 2, 1976 presentation, the Will Graham Company advised Lorillard that "the taste of tobacco may be one of the least significant reasons why a person smokes," adding that, "it certainly ranks well below the impact of nicotine" for smokers. 01771073-1207 at 1079 (U.S. Ex. 20,052).

1708. A 1976 Lorillard internal review of nicotine scientific literature by H.S. Tong reported the following with respect to smoker compensation:

> A review has been made of the literature on the pharmacology of

> smoke-dose nicotine with the goal of discovering some indications of threshold dose and optimum doses of nicotine in the average cigarette smokers. . . . It seems that, within limits, smokers can and do control their nicotine intake from smoke by varying their smoking techniques. Nicotine has numerous sites of action and the response is an algebraic sum of its actions. . . . It seems that smokers smoke for both calming and stimulant effects. In a subjective study, test subjects reported that the found cigarettes of 0.8 mg to be acceptable.
>
> Despite the lack of definitive knowledge, it seems probable that smokers choose cigarette smoking for sensual, psychological, social, cultural, and pharmacological effects. The pharmacological effects are most likely due to the action of nicotine since the presence of a variety of other chemical components in the smoke in all probability is below their threshold level. . . . It is well known that the pharmacologic effects of nicotine at various sites are dependent on the dose, the dose schedule, and duration of exposure. Smoke dose nicotine has a stimulant action. It stimulates ganglia, and, therefore, it activates both the sympathetic and parasympathetic nervous systems simultaneously, the ultimate effects are the algebraic sum of its actions. Research in drug addiction indicates that the CNS [central nervous system] is the prime site of drug action. In order to understand the precise action of nicotine in the smoke habit, the CNS should be the logical site for study. . . .
>
> The purpose of this review is to determine if there were data which would indicate a threshold dose and an optimum satisfaction dose of nicotine for the majority of smokers.

80192103-2113 at 2103-2105 (U.S. Ex. 55,288).

1709. A July 16, 1976 Lorillard research proposal memorandum to H.J. Minnemeyer from M. S. Ireland, entitled "Research Proposal -- Development of Assay for Free Nicotine," again acknowledged the scientific consensus that nicotine was the source of the addiction to smoking:

_____

00044522-4523 at 4522 (U.S. Ex. 22,012); 82396938-6939 at 6938 (U.S. Ex. 22,012) (Confidential).

1710. In a June 16, 1976 Lorillard memorandum titled "Progress Report on Nicotine Augmentation Project," H. J. Minnemeyer, the lead researcher on the company's nicotine augmentation programs, updated Spears on the progress of efforts to solve "the problem of delivering more nicotine in the smoke of low tar cigarettes." The memorandum described the various research projects being conducted by Defendants as well as the medical and science research articles that had been published on the subject. This document demonstrates that contrary to their public claims, Defendants had indeed been actively attempting to manipulate the nicotine content of their cigarette products for many years. 95539652-9655 (U.S. Ex. 56,825).

1711. In the mid-1970s, Lorillard had embarked on another project called the "Lowered Nicotine Project." According to a November 9, 1976 memorandum from company Vice President for Marketing R.E. Smith to the research department, the project was abandoned. However, the memorandum disclosed that, despite Lorillard's contrary public declarations, the company was well aware of the importance of nicotine in sustaining smoking:

> After discussing the 50% Lower Nicotine Project with Dr. Spears, I agree that we should discontinue work. We all understand that this

> concept has considerable consumer trial appeal; as quantified by the NPSS concept study. However, it is our judgment that a cigarette with substantially lowered nicotine could not deliver the smoking satisfaction to sustain consumer purchase.

01244504-4504 (U.S. Ex. 20,042).

1712. According to the same document and many others, Lorillard then reversed course, moving instead toward a goal of fortifying its cigarettes with nicotine, under project names such as the "RL Enrichment Project." 00050509-0509 (U.S. Ex. 85,321).

1713. The idea of packaging nicotine in an alternate form occurred to Lorillard representatives as it had with the other Defendants. Lorillard marketing manager Benito Vila wrote a letter on November 3, 1977, to marketing vice president Richard Smith in response to a request for new product ideas. In the letter, he listed certain marketing themes and their rationales:

> 1. To quit smoking. I don't know of any smoker who at some point hasn't wished he didn't smoke. If we could offer an acceptable alternative for providing nicotine, I am 100% sure we would have a gigantic brand. The only trick is to price/size/formulate the product to produce the same margin per user as we get from the average smoker.

01244294-4300 at 4294 (U.S. Ex. 21,419) (emphasis in original).

1714. Lorillard knew that nicotine shared attributes of opiates, and sought to use this knowledge to its advantage. A March 16, 1978 memorandum by Lorillard scientist R.S. Marmor summarized a lecture given at Lorillard by industry-funded scientist Leo Abood entitled "In Search of a Site and Mechanism for Nicotine's Action on the Brain." Marmor reported that:

> Prof. Abood's lecture here on "In Search of a Site and Mechanism for Nicotine's Action on the Brain" was well attended and well

> received. . . . Theorizing that nicotine's activity is due to an accidental mimicry of some normally present but as yet unknown brain peptide (analogous entirely to the recent opiate-enkephalin research findings), it might be possible to determine the structure of this peptide from information about the receptor site. In any case, information we gain on the mechanism of nicotine activity may be useful in determining how to adjust physiological impact in our cigarettes. We intend to support Prof. Abood by supplying samples and performing some synthetic and computer work.

00110371-0371 (U.S. Ex. 34,404); 83251168-1169 (U.S. Ex. 55,725).

1715. In a February 13, 1980 Lorillard memorandum stamped "SECRET," marketing vice president Smith described the goal of the ongoing Lorillard nicotine research project called the "RT Information Task Force." The memorandum provided Lorillard executives, including Dr. Spears, details of the secret project:

> Goal – determine the minimum level of nicotine that will allow continued smoking.
>
> We hypothesize that below some very low nicotine level, diminished physiological satisfaction cannot be compensated for by psychological satisfaction. At this point smokers will quit, or return to higher T&N [tar and nicotine] brands.

01394380-4381 at 4380 (U.S. Ex. 21,543).

1716. Senior Lorillard researcher S. T. (Tom) Jones prepared a lengthy "confidential" report dated July 30, 1980, for the research leadership in Greensboro entitled "Five-Year Plan Preparation," in which he reviewed current literature on the "psychology of smoking." Jones wrote in a section titled "A Review of Behavioral and Psychopharmacological Factors in Smoking" that, "Undoubtedly, nicotine serves a primary role in cigarette smoking." He also noted that, "A real problem in this whole area is the diversity of terms employed to say

essentially the same thing." He later stated that:

> Considerable research in both the relative importance and mechanistic pathway of nicotine have been conducted. Although the role of nicotine is not completely understood, it is obviously one of the major factors associated with tobacco usage. Consumption of nicotine, administered either orally, intravenously, or via smoking elicits numerous responses including increased pulse rate, variations in skin temperature, and changes in brain wave patterns. Hutchinson and Emely take the position that nicotine is a powerful chemical reinforcer which reduces stressful and unpleasant stimulation.

81187531-7552 at 7532, 7540 (U.S. Ex. 21,558).

1717. Lorillard scientists also knew and accepted the phenomenon of nicotine compensation. Jones concluded in his memorandum that smokers of low tar products compensated ("titrated") to achieve a greater "nicotine dose":

> The evidence to date clearly indicates that smokers titrate or regulate their intake of nicotine, e.g. smokers of cigarettes which deliver large amounts of nicotine will adjust - when given low nicotine cigarettes - their smoking to get a larger nicotine dose than the machine determined values indicate. Also, smokers regulate their nicotine intake over time when smoking their regular brand.

81187531-7552 at 7541 (U.S. Ex. 21,558).

1718. Finally, Jones summarized research findings that "withdrawal is an identifiable syndrome" characterized by "anxiety and irritability," "an inability to concentrate and an intense craving for tobacco." 81187531-7552 at 7544 (U.S. Ex. 21,558).

1719. Long-time Lorillard general counsel Arthur Stevens acknowledged the 1980 Diagnostic and Statistical Manual - III (DSM-III) inclusion of "tobacco dependency" in the chapter on drug addiction. DSM-III was published by the American Psychiatric Association.

Stevens recommended "getting some publication" to defend against DSM-III, which also classified tobacco use as a "dependence disorder." 03746884-6884 (U.S. Ex. 29,324).

(vi) American Tobacco Company

1720. The corporate understanding of the American Tobacco Company that nicotine was essential to its products and was responsible for the characteristics of addiction stretches back to at least 1940. An April 1940 document written by H. R. Hanmer, American's Director of Research, was titled "Memorandum on the Nicotine Content of Lucky Strike and Other Leading Brands of Cigarettes." The document contained a section called "Importance of Nicotine in Tobacco and Tobacco Products." Hanmer observed that the following "facts" were "long common knowledge" at the company:

> The presence of nicotine as a universal constituent of tobacco leaf differentiates it from other plant material. Nicotine contributes to the gratification of smoking. Tobacco substitutes, devoid of nicotine, have not been accepted. . . .
>
> That any physiological response to the constituents of smoke is due to nicotine is generally accepted and has recently been confirmed. **The malaise after over-smoking is due to an excess of nicotine beyond one's individual tolerance. The pleasure, euphoria, or pacification from smoking are due to the sedative action of nicotine.**
>
> With such facts long common knowledge to the Research Staff, the incorporation of nicotine control into the selection of tobaccos was a logical development. (emphasis added)

(http://tobaccodocuments.org/atc/71083104.html). 71083104-3104 at 4 (U.S. Ex. 85,324).

1721. These "facts" and the company's ability to control nicotine were important to the development and maintenance of American's most popular brand at the time. Indeed, Hanmer

later wrote in the same memorandum with respect to American's Lucky Strike brand that its success was the result of the company's "nicotine control policy":

> A recognition of the facts presented above led to the institution of a method of scientific control of tobacco purchased by the Company . . . .
>
> That the favorable position of LUCKY STRIKE in comparison with other leading brands is not fortuitous but the result of a comprehensive nicotine control policy is demonstrated by the material exhibited in this memorandum.

(http://tobaccodocuments.org/atc/71083104.html). 71083104-3104 at 4 (U.S. Ex. 85,324).

1722. Between 1940 and 1970, the American Tobacco Company sponsored 111 studies on the biological effects of cigarettes, with 93, or over 80%, related to the effects of nicotine on the body. The FDA proposed rule and jurisdiction determination annex, i.e., "Regulations Restricting the Sale and Distribution of Cigarettes and Smokeless Tobacco to Protect Children and Adolescents," 61 Fed. Reg. 44396 (August 1996) (final rule), 2065171700-1934 (U.S. Ex. 22,066); "Nicotine in Cigarettes and Smokeless Tobacco Products Is a Drug and These Products Are Nicotine Delivery Devices Under the Federal Food, Drug, and Cosmetic Act: Jurisdictional Determination," 61 Fed. Reg. 44619 (August 1996) (annex) at 44895, VXA073236-938 (U.S. Ex. 60,644).

1723. For example, American funded a study in 1945 titled "The Role of Nicotine in the Cigarette Habit." In this study, smokers were given extremely low-nicotine cigarettes. The study found that half of the subjects "definitely missed the nicotine." The FDA proposed rule and jurisdiction determination annex, i.e., "Regulations Restricting the Sale and Distribution of Cigarettes and Smokeless Tobacco to Protect Children and Adolescents," 61 Fed. Reg. 44396

(August 1996) (final rule), 2065171700-1934 (U.S. Ex. 22,066); "Nicotine in Cigarettes and Smokeless Tobacco Products Is a Drug and These Products Are Nicotine Delivery Devices Under the Federal Food, Drug, and Cosmetic Act: Jurisdictional Determination," 61 Fed. Reg. 44619 (August 1996) (jurisdictional determination annex) at 44895, VXAA073236-938 (U.S. Ex. 60,644).

1724. Well aware of the addictive effects of nicotine on smokers, American focused its efforts on increasing the amount of nicotine in its tobacco products. While extensively detailed in Section IV. C of these findings, See U.S. FPFF § IV.E(2), infra, some examples of these efforts are detailed here.

1725. In 1963, American experimented by adding commercial nicotine to reconstituted tobacco. MNAT00316688-6693 (U.S. Ex. 21,219).

1726. Later, in 1967, American investigated the production of nicotine from tobacco plants (N rustica) with almost double the concentration of nicotine. MNAT00881318-1323 (U.S. Ex. 21,221).

1727. In 1969, American researchers, along with researchers from Philip Morris, R.J. Reynolds, and Liggett, conducted experiments to determine if genetically different tobacco varieties differed "in their ratio of nicotine to FTC 'tar.'" Also in that same year, American test-marketed modified Lucky Strike cigarettes in which nicotine malate was added to increase their nicotine levels. MNAT 00533294-3295 (U.S. Ex. 21,665); Staff Report prepared by the Majority Staff Subcommittee on Health and the Environment of the Committee on Energy and Commerce House of Representatives titled "Evidence of Nicotine Manipulation by the American

Tobacco Company" (December 20, 1994) at 2, HHA1261348-1354 (U.S. Ex. 76,044).

1728. In a June 19, 1963 letter, American's Assistant to the President (and later company president) Robert K. Heimann labeled nicotine as "the characteristic and essential element in tobacco and tobacco smoke." Heimann asserted that the "reduction of nicotine to very low levels results in an unsatisfactory smoke." MNAT00787182-7182 (U.S. Ex. 85,325); http://tobaccodocuments.org/atc/60252077.pdf (U.S. Ex. 86,691).

1729. In a February 14, 1967 letter, Gallaher, Ltd. notified Virgil Hager, Executive Vice President of the American Tobacco Company, that the United Kingdom's Tobacco Research Council would send a delegation of scientists to the United States the following month to discuss nicotine issues with scientists designated by CTR, as well as with "the lawyers from the major American tobacco manufacturers." The main reason for the visit was "to discuss the commercial implications of tar and nicotine, and methods of measurement – particular stress will be laid on the importance of nicotine." This letter is yet another example of defendants' long held knowledge of the critical role of nicotine in cigarettes. 0060293378-3378 (U.S. Ex. 85,326).

(vii) Liggett

1730. Like the other Cigarette Company Defendants, Liggett was well aware of the importance of nicotine, and in particular "free base" nicotine, in the manufacture of its products and the effects on smokers. The company, like other Defendants in the 1970s and 1980s, studied methods to increase the delivery of nicotine to smokers via manipulation of smoke pH. In a December 16, 1971 project summary by scientist Robert K. Williams, it was reported that:

> Increasing the pH of a medium in which nicotine is delivered increases the physiological effect of the nicotine by increasing the ratio of free base to acid salt form, the free base being more readily transported across physiological membranes. We are pursuing this project with the eventual goal of lowering the total nicotine present in smoke while increasing the physiological effect of the nicotine which is present, so that no physiological effect is lost on nicotine reduction.

LG0262125-2126 at 2126 (U.S. Ex. 59,994).

1731. In a July 13, 1972 letter, Philip Morris's Tom Osdene summarized conversations with other company research directors including Liggett's William Bates related to the "addition of nicotine to the low nicotine blend." Osdene recorded that Bates "felt that it would be reasonable to use a combination of nicotine oxalate, citrate, and malate on the blend." 2060532173-2174 (U.S. Ex. 85,327).

(viii) CTR

1732. Similar to the nicotine research conducted by the Cigarette Company Defendants, nicotine research funded by the Council for Tobacco Research also shows "that the cigarette manufacturers have acted like traditional pharmaceutical companies," studying the pharmacokinetics (absorption, metabolism, and excretion) of nicotine, the pharmacodynamics (effects on body chemistry) of nicotine, and the clinical effectiveness (whether drug is effective in producing the desired effects) of nicotine. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001)at 10.

1733. CTR held a meeting titled "Conference on the Effects of Nicotine and/or Smoking on the Central Nervous System" in New York City on June 1, 1970. According to the conference report, associate scientific director Dr. Robert Hockett opened the meeting with the following

two (of four) "basic questions" for discussion: "Why do people become smokers" and "Why is it so difficult, at least to certain individuals, to stop smoking." 1003292423-2435 (U.S. Ex. 87,141).

1734. CTR sponsored a 1972 Caribbean conference on nicotine and the reasons why smokers smoke. It was at this conference that William Dunn of Philip Morris presented a paper titled "Motives and Incentives in Cigarette Smoking." In this paper (also discussed above), Dunn reported that most conferees agreed that "nicotine is the active constituent of cigarette smoke," without which "there would be no smoking." Dunn also presented his concept of the cigarette as a "package" for nicotine, and the "cigarette pack as a storage container for a day's supply of nicotine." 2023193286-3304 at 3290-3291 (U.S. Ex. 22,967).

1735. The 1972 conference results were passed on to ICOSI members, including BATCo and R.J. Reynolds scientists, at a September 1977 meeting. The record of this joint industry meeting also showed that the companies were already working in the area of smoker "compensation" to obtain increased nicotine punch from low yield cigarettes. 503656218-6222 (U.S. Ex. 85,328).

1736. In a November 22, 1977 CTR Associate Research Director Donald H. Ford stated the following with respect to nicotine in a proposal for further CTR-funded nicotine research:

> [I]t now seems evident that nicotine, like narcotics, influences the CNS in multiple ways involving effects related to most known neurotransmitters. Further, the dependence which develops to tobacco in humans (and withdrawal symptoms during the cessation of smoking) and the degree of tolerance to nicotine which occurs in certain animal paradigms strongly suggest that nicotine is a habituating agent.

1000041912-1918 at 1912 (U.S. Ex. 20,073).

1737. Ford presented his nicotine observations and proposed research at the November 1977 CTR meeting. His proposed avenues of research related to "Receptors and sites of nicotine action," neurochemical studies, the effects of nicotine on fetal development, neuroendocrinology, and behavioral responses to nicotine. 1000036584-6590 (U.S. Ex. 21,417); 01113272-3272 (U.S. Ex. 85,329); 01113280-3284 (U.S. Ex. 85,330).

1738. As recited in the May 10, 1978 notes of the CTR Industry Technical Committee, Chairman Preston Leake (also Scientific Director for of American Tobacco), to American Tobacco general counsel Arnold Henson, the proposed nicotine work was "ruled out" by outside counsel Ed Jacob. Jacob claimed that the nicotine work had antitrust implications because it might be subject to "misinterpretation as product development." 955017148-7154 at 7149-7150 (U.S. Ex. 87,142).

1739. The November 1977 CTR meeting was attended by lawyers and executives from all the member cigarette manufacturers, along with several outside counsel (Don Hoel, Janet Brown, Ed Jacob). According to notes of the meeting taken by Philip Morris' Tom Osdene, Dr. Ford explained his nicotine research in detail. This presentation was introduced by CTR scientific director Dr. Gardner, who told the attendees that, "Opiates and nicotine may be similar in actions," and that there was a "relationship between nicotine and opiates." The notes of attendees indicate that no one questioned Dr. Ford's premise or Dr. Gardner's introductory remarks. 1000036584-6590 at 6584 (U.S. Ex. 21,417); 01113280-3284 at 3280 (U.S. Ex. 85,330).

1740. However, the November 1977 presentations of the intensive CTR nicotine research presentations drew the concern of Philip Morris's Tom Osdene, who later wrote to Bob Seligman that the nicotine "work being taken by CTR is totally detrimental to our position and undermines the public posture we have taken to outsiders." 2022246952-6952 (U.S. Ex. 36,865).

1741. At a November 2, 1978 meeting of the Tobacco Advisory Council (the Tobacco Institute's European equivalent) research committee, representatives of the cigarette manufacturers discussed past, present, and future research. Among the specific topic areas was the importance of nicotine as a subject for intensive future research: "It was important for the industry to continue work on the role of nicotine because this was the most fundamental constituent of their product." 1000038108-8117 at 8111 (U.S. Ex. 20,072). For more discussion on the Tobacco Advisory Council, see Section I. supra.

1742. From 1972 until 1980, Gary Huber conducted research funded by Philip Morris, Liggett, Lorillard, R.J. Reynolds, and Brown & Williamson into changes in human behavior as a result of lower and higher nicotine levels in cigarettes. His results were consistent with nicotine functioning as a dependence-producing substance and supported the conclusion that smokers "smoked for nicotine." Trial Testimony of Gary Huber (via deposition), Dunn & Wiley v. RJR Nabisco Holding Corp., March 3, 1998, 5472:24-25, 5473:1-12, 5476:4-25, 5477:1-25, 5513:11-24 (No. 18D01-9305-CT-06 (Ind.)).

1743. A June 20, 1984 memorandum written by Shook, Hardy & Bacon attorney Wendell L. Stone summarizes CTR-funded nicotine research for industry clients. In his

memorandum, Stone conceded that:

> Of the three areas pertinent to Cipollone (lung cancer, emphysema, and addiction) the abstracts and CTR commentary regarding addiction are the most consistently adverse. Through the years, CTR has funded psychopharmacological and neuropharmacological studies which emphasize and leave clear the points that CTR views nicotine as a "psychoactive" or "psychotropic" drug (terms which CTR has used), and that the research approach most appropriate to studying smoking behavior involves the pharmacology of nicotine. Among the undesirable research claims which appear in abstracts which acknowledge CTR support: the identification of specific central nervous system structures (nicotine receptors) at which nicotine acts; effects of nicotine on a variety of different purported neurotransmitters involved in learning, memory, etc.; various behavioral effects of nicotine from which can be inferred central nervous system effects, some of which might be used to support assertions regarding "tolerance" and "withdrawal."

515709297-9340 at 9298 (U.S. Ex. 20,866).

1744. The Shook, Hardy & Bacon memorandum further discussed how contract researcher Dr. Leo Abood's nicotine receptor research could be held up as an example of how CTR would terminate "incriminating" smoking and health research. 515709297-9340 at 9299 (U.S. Ex. 20,866).

(ix) Tobacco Institute

1745. The Tobacco Institute was sensitive to the importance of addiction to its member companies' litigation position. A September 9, 1980 memorandum from Tobacco Institute editor Paul Knopick to Senior Vice President William Kloepfer commented on the desire by the National Institute of Drug Abuse ("NIDA") to add the word "addictive" to the cigarette warning. Knopick briefly summarizes some of the history of NIDA's previous statements on declaring

smoking addictive and comparing smoking to heroin use, and questions how the Tobacco Institute was apparently caught "off guard." He concluded the memo with the following observation:

> But I don't think the questions I now raise are academic. Shook, Hardy reminds us, I'm told, that the entire matter of addiction is the most potent weapon a prosecuting attorney can have in a lung cancer/cigarette case. We can't defend continued smoking as a "free choice" if the person was addicted.

TIMN0107822-7823 at 7823 (U.S. Ex. 77,053).

(c) Defendants Publicly Disseminated False, Deceptive and Fraudulent Statements Denying Nicotine Dependence and Addiction

1746. Despite their knowledge, acceptance, and exploitation of the addictive qualities of nicotine and smoking, for decades, Defendants have publicly engaged in a pattern of making false, fraudulent, and misleading statements, including half-truths, as well as suppressing information regarding the addictiveness of smoking and nicotine's role in causing that addiction. The decades of denial were carried out on a concerted and united front.

1747. As stated by industry counsel Covington & Burling in a once-confidential May 1988 summary of industry statements, "Tobacco industry statements deal only sparsely with the issue of addiction. To the extent such statements exist they generally deny outright any addictive effect." BWX0007189-7297 (U.S. Ex. 36,237).

1748. Defendants' statements denying addiction described in the May 1988 Covington & Burling memorandum, along with many other examples of Defendants' making similar denials of smoking and nicotine addiction, are detailed below.

(i) Philip Morris

1749. Philip Morris Chairman James C. Bowling denied that cigarette smoking was an addiction in a July 18, 1973, "60 Minutes" interview. Instead, Bowling compared the choice to stop smoking to the choice to eat eggs or not. 503665743-5757 at 5752 (U.S. Ex. 50,417).

1750. In a 1992 pamphlet, Philip Morris stated that "those who term smoking an addiction do so for ideological, not scientific, reasons." 2023916742-6776 at 6745 (U.S. Ex. 20,396).

1751. In 1994, counsel for Philip Morris prepared a document titled "Smoking and Health Questions and Answers," in which an attachment titled "Smoking and Addiction" deceptively defined "addiction" and cited the ineffectiveness of nicotine gum and patches as evidence that nicotine was not addictive. 682639225-9281 at 9277 (U.S. Ex. 21,028).

1752. In a 1994 published statement in the *New York Times*, Philip Morris asserted that it "does not believe cigarette smoking is addictive." 2023011263-1263 (U.S. Ex. 20,371).

1753. On April 14, 1994, the President and Chief Executive Officer of Philip Morris, William I. Campbell, testified under penalty of perjury in a nationally televised hearing before the House Subcommittee on Health and the Environment. During this hearing, Campbell affirmatively denied that nicotine is addictive:

> Rep. Ron Wyden: Let me ask you . . . . Do you believe that nicotine is not addictive?
>
> Mr. Campbell: I believe nicotine is not addictive, yes.

Regulation of Tobacco Products (Part I) Hearings before the Subcommittee on Health and the

Environment of the Committee on Energy and Commerce, House of Representatives, 103rd Congress April 14, 1994 (U.S. Ex. 21,990).

1754. Campbell's prepared written statement made the same claim that "cigarette smoking is not addictive" and that "Philip Morris has not hidden research which says that it is." In response to accusations of addiction by Dr. David Kessler, head of the Food and Drug Administration ("FDA") and others, Campbell wrote: "The presence of nicotine, . . . does not make cigarettes a drug or smoking an addiction" and "Smokers are not drug addicts." Campbell's statement made clear that he was speaking on behalf of both the industry and Philip Morris USA: "I would like to take this opportunity to set the record straight on charges that have recently been leveled against the industry and Philip Morris." ATC2746877-6887 (U.S. Ex. 59,009).

1755. On May 9, 1994, a telefax letter from Cathy Ellis, Director of Research at Philip Morris, was sent to The Honorable Henry Waxman, Chairman, Subcommittee on Health and the Environment, Committee on Energy and Commerce, denying nicotine's addictiveness under an outdated definition of addiction that the scientific and medical community had abandoned by 1964. She claimed that nicotine could be described as addictive only if it caused smokers to experience "intoxication, pharmacological tolerance, and physical dependence in a manner that would impair the smokers' ability to exercise a free choice to continue or to quit smoking." 2029200293-0294 at 0294 (U.S. Ex. 21,537).

1756. After the hearing before the Congressional subcommittee, Philip Morris placed an advertisement in magazines using an open letter to "smokers and nonsmokers" titled "FACTS YOU SHOULD KNOW." One of the "facts" was that "Philip Morris does not believe cigarette

smoking is addictive. People can and do quit all the time." 2023011263-1263 (U.S. Ex. 20,371).

1757. In a lengthy August 2, 1994 submission to the Drug Abuse Advisory Committee, Philip Morris (along with the American Tobacco Company) once again asserted that "neither cigarette smoking nor the nicotine delivered in cigarettes is addictive" and denied that smoking was a "form of 'drug-seeking' behavior." 92486960-7040 (U.S. Ex. 88,560).

1758. Altria and ACS employees Geoffrey Bible, Steve Parrish, Murray Bring, Marc Firestone, Victor Han, David Nicoli, and Charles Wall were all involved in crafting PM's 1994 submission to the FDA Drug Abuse Advisory Committee. 2047096727-6727 (U.S. Ex. 26,974).

1759. Then-Altria Vice President and Associate General Counsel Marc Firestone oversaw research in 1995 into "the possibility that the industry may have made representations about addiction through ads or statements appearing in the news media." 2074836020-6021 (U.S. Ex. 27,524).

1760. In Philip Morris's January 2, 1996 written submission in opposition to FDA jurisdiction over tobacco products, the company denied it knew nicotine was addictive, disputed that its documents showed that nicotine was addictive, and denied that smokers smoke to obtain nicotine. HHA0660489-0538 (U.S. Ex. 87,145).

1761. PMC Corporate Affairs Senior Vice President Steven Parrish issued the January 2, 1996 "Industry Statement" accompanying the cigarette companies' comments on the FDA rule; this statement also disputed the addictiveness of cigarettes. 2047548268-8273 (U.S. Ex. 38,598); 2041220242-0247 (U.S. Ex. 37,926).

1762. Philip Morris witnesses made similar false claims in litigation. For example, the

1997 "Expert Opinions of Cathy Ellis" stated that "Philip Morris's knowledge, at various points in time, about the role of nicotine in smoking behavior was not different than the knowledge of the scientific community" and "nicotine is not addictive as defined by objective, pharmacological criteria." 2060566587-6594 at 6587 (U.S. Ex. 24,011).

1763. In the May 12, 1997 issue of *Time* magazine, then President and CEO of Philip Morris James Morgan was quoted from his deposition testimony as stating, "If [cigarettes] are behaviorally addictive or habit forming, they are much more like . . . Gummi Bears, and I eat Gummi Bears, and I don't like it when I don't eat my Gummi Bears, but I'm certainly not addicted to them." Myron Levin, "Jury Views CEO's 'Gummy Bear' Tobacco Deposition: Philip Morris Executive Testifies Cigarettes Aren't Any More Addictive Than Coffee or the Candy," *Los Angeles Times*, July 18, 1997, at D3; Deposition of James Morgan, Broin v. Phillip Morris, et al., April 17, 1997, 77:20-78:23 (91-49738 CA(22)).

1764. The October 2, 1997 so-called "Hatch Statement" (actually titled "Philip Morris' Statement of Position) in which Philip Morris agreed to stop debating the addictiveness of nicotine was issued on PMC letterhead. In this statement, Philip Morris once again disputed addiction and claimed that cigarettes were addictive only under definitional changes that can be used to "describe many different kinds of behavior." Philip Morris also stated that it nonetheless agreed to cease all public debate on the issue. 2063123083-3084 (U.S. Ex. 39,734).

1765. In January 1998, Geoffrey Bible, CEO of Philip Morris Companies, submitted testimony that stated in part:

> We recognize that nicotine, as found in cigarette smoke, has mild pharmacological effects, and that, under some definitions, cigarette

> smoking is "addictive." The word "addiction" has been and is currently used differently by different people in different contexts, and the definition of the term has undergone significant changes over the past several decades. In 1964, for example, the Advisory Committee to the Surgeon General of the United States concluded that smoking, although "habit forming," did not fit within its definition of "addiction." However, in 1988, the Surgeon General redefined the term, and concluded that smoking is "addictive." We have not embraced those definitions of "addiction" which do not include such as historically accepted and objective criterion, such as intoxication and physical withdrawal, as important markers.

Bible acknowledged that Philip Morris Companies' position was "at odds . . . with the public health community," and said that for the sake of a consistent public health message, the Philip Morris Companies would not debate the addictiveness of nicotine except insofar as it was "necessary to defend ourselves and our opinions in the courts." 83623323-3347 at 3343-3344 (U.S. Ex. 21,820).

1766. Historically, Philip Morris executives have consistently denied in litigation that cigarette smoking and nicotine are addictive under any meaningful definition. See e.g., Deposition of Stephen Darrah, Philip Morris v. American Broadcasting Companies, July 17, 1995, 300:2-15.

1767. Even now, Philip Morris representatives do not believe that smoking meets the "physiological definition of addictiveness," and only accept that smoking is addictive when "addiction" is broadly defined to include anything that is habit-forming. Deposition of Ellen Merlo, United States v. Philip Morris, et al., June 12, 2002, 500:24-503:22.

(ii) R.J. Reynolds

1768. At hearings before a Congressional subcommittee from March 5 through March

12, 1982, R.J. Reynolds Chairman and CEO Edward Horrigan stated under oath that "with regard to addiction, there is absolutely no proof that cigarettes are addictive." At the time of this statement, he was also chairman of the Tobacco Institute executive committee. 521056398-6557 at 6411 (U.S. Ex. 85,334); 201830983-0993 (U.S. Ex. 36,327).

1769. In a May 8, 1990 letter drafted in response to a consumer inquiry, a R.J. Reynolds public relations officer categorically denied the addictiveness of nicotine, stating that "[t]here is nothing about smoking, or about the nicotine in cigarettes, that would prevent smokers from quitting." 507707454-7455 at 7455 (U.S. Ex. 22,069).

1770. In January 1992, two R.J. Reynolds employees, John Robinson and Walter Pritchard, published an article titled "The Role of Nicotine in Tobacco Use." The article compared nicotine to caffeine and wholly disputed that nicotine was addictive. The Robinson and Pritchard paper was cited in industry submissions to Congress in 1994 and to the FDA in 1996, led to several letters in response, and created a false perception that the issue of nicotine addiction was in serious dispute. 190211472-1482 (U.S. Ex. 88,561); 190211719-1724 (U.S. Ex. 88,562); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 48-49.

1771. The Cologne office of R.J. Reynolds International faxed a December 14, 1992 draft statement titled "Arguments Against The E. C. Cigarette Warning Label 'Smoking Causes Addiction'," which stated that "on an 'addiction scale,' nicotine is less addictive than food" and that "nicotine improves performance, renders the user more alert and increases the efficiency of performance and reduces anxiety." 400729374-9380 at 9376 (U.S. Ex. 29,354).

1772. Counsel for R.J. Reynolds prepared an anticipated "Q & A" for company Chairman and CEO James Johnston dated April 6, 1994, which said that nicotine was "not addictive," and that the term "addiction" was misused in the context of cigarette smoking. 512688562-8571 at 8564 (U.S. Ex. 20,849).

1773. On April 14, 1994, Johnston testified under penalty of perjury in a nationally-televised hearing before the House Subcommittee on Health and the Environment. During this hearing, Johnston affirmatively denied that nicotine is addictive:

> Rep. Ron Wyden: Let me ask you . . . . Do you believe that nicotine is not addictive?
>
> Mr. Johnston: Congressman, cigarettes and nicotine clearly do not meet the classic definitions of addiction. There is no intoxication.

Regulation of Tobacco Products (Part I) Hearings before the Subcommittee on Health and the Environment of the Committee on Energy and Commerce, House of Representatives, 103rd Congress April 14, 1994, 2023195738-5892 at 5780-5781 (U.S. Ex. 36,975).

1774. An article in the August 2, 1994 *New York Times* reported that R.J. Reynolds scientist John Robinson "contests the consensus view of nicotine as addictive." Robinson stated that he could not differentiate "crack smoking from coffee drinking, glue sniffing from jogging, heroin from carrots, and cocaine from colas." 970260581-0581 (U.S. Ex. 85,337).

1775. A November 1994 R.J. Reynolds document titled "Media Tips" denied that smoking was addictive using factors that are not relevant to any accepted scientific definition. The "Media Tips" binder was intended to be used by R.J. Reynolds employees to answer press inquiries. With respect to addiction, the document stated that:

> Regardless of how you define addiction, cigarettes are clearly not in the same class as addictive, mind-altering drugs like heroin and cocaine. The physiologic, pharmacologic and behavioral effects of nicotine, like caffeine, are fundamentally different from drugs like alcohol, heroin and cocaine. . . .
>
> Smokers do not become intoxicated. Their smoking does not cause them to hallucinate, have blackouts, commit immoral or criminal acts, abuse their families, or cause trauma and psychological damage to their loved ones.

525674321-4334 at 4330 (U.S. Ex. 85,338); 525412344-2487 (U.S. Ex. 88,563).

1776. This "Media Tips" document also claimed that "[l]abeling tobacco products 'addictive' was a political public-health decision, not a scientifically driven determination. 525674321-4334 at 4330 (U.S. Ex. 85,338).

1777. The company prepared and distributed a similar document, called "Issues Guide," for use by company representatives worldwide in responding to media, public, and government inquiries. In this document, employees were instructed to deny addiction as well. 510345185-5358 at 5232-5235 (U.S. Ex. 88,046).

1778. In a proxy statement filed with the Securities and Exchange Commission ("SEC") on April 12, 1995, the Board of Directors of RJR Nabisco Holdings Corporation publicly made a false and misleading statement to its shareholders and to the SEC. A group of shareholders filed a proposal to the Board that the company issue a public report regarding "whether nicotine content in and absorption from its tobacco products are deliberately controlled by the [c]ompany and if the reasons for any such control include the delivery of a reliable dose of nicotine to and/or the promotion of nicotine absorption by the customer." In recommending a vote against the proposal, the Board argued, "In RJRT's opinion, cigarette smoking dos not meet the classic

definitions of 'addiction,' and the forty-five million Americans who smoke are not 'addicts.' To call nicotine 'addictive' is to ignore significant differences between cigarettes and truly addictive drugs." The Board repeated these averments in a proxy statement filed with the SEC in 1996, adding, ""there is no accurate evidence establishing that any specific yield of nicotine causes 'addiction.'" Schedule 14A of RJR Nabisco Holdings Corp., - Proxy Statement, Dated 4/12/95, Disclosure pp. 19-21 (U.S. Ex. 88,004); Schedule 14A of RJR Nabisco Holdings Corp., - Proxy Statement, Dated 4/17/96, Disclosure pp. 45-47 (U.S. Ex. 88,005).

1779. An undated R.J. Reynolds magazine advertisement used industry-funded, Special 4 recipient psychologist Dr. Theodore Blau to dispute that smoking is addictive. In the advertisement, Reynolds not only denied any addictive aspects of smoking, but also blamed smokers for not being able to quit: "It's not that they can't stop; it's because they don't want to." 501926233-6233 (U.S. Ex. 87,148); 517214542-4557 (U.S. Ex. 87,149).

1780. In a March 1995 article in the periodical *World Tobacco*, despite the Surgeon General's Report and the overwhelming scientific consensus that cigarette smoking and nicotine were addictive and that physical intoxication was not necessary for a substance to be declared addictive, Robinson stated that nicotine was not addictive because it did not cause any physical intoxication. 519274569-4573 at 4572 (U.S. Ex. 85,339).

1781. Along with Philip Morris, Brown & Williamson, Lorillard, and the Tobacco Institute, R.J. Reynolds filed a joint submission opposing FDA jurisdiction over cigarettes. In its public statement on the FDA submission, Reynolds stated that, "Under scientifically verifiable criteria, nicotine and cigarette smoking are not addictive." 522626648-6651 (U.S. Ex. 87,150).

1782. R.J. Reynolds has more recently joined the concerted industry effort to dilute the definition of "addiction" and distort the truth as to the addictive quality of smoking and nicotine. For example, in a September 9, 1997 draft document, the company stated that "if you broadly define 'addiction' as engaging in an activity that is hard to quit once you start, then certainly, smoking can be considered addictive. The simple fact is many people find that once they have started smoking cigarettes, it can be difficult to quit. And some people find it extremely difficult." However, the document went on to distort the addictiveness of smoking, adding that "despite this difficulty, the number of Americans who have quit smoking is as large as the number who currently smoke. The 1990 Surgeon General's Report stated that nearly 45 million Americans had quit smoking, most of them on their own without any outside help. Based on this fact, we believe that any smoker with a sincere desire to quit smoking can - and should- quit." R.J. Reynolds's position on addiction failed to mention nicotine at all. This failure to acknowledge nicotine as the drug underlying the addiction continues to the present day. 522879046-9047 at 9046 (U.S. Ex. 85,340).

1783. A May 4, 1999 draft R.J. Reynolds document denied the addictiveness of smoking, stating that "the word addiction means different things to different people and to some people it is a very emotive word. It's true that some smokers may find it very difficult to stop smoking and there are some smokers who believe that they are addicted to cigarettes. But the fact is that cigarettes do not have the addictive qualities of hard drugs such as heroin." 321309118-9133 at 9118 (U.S. Ex. 85,341).

1784. In a May 2002 R.J. Reynolds document titled

524946045-6088 at 6049 (U.S. Ex. 52,966) (Confidential).

(iii) BATCo

1785. In comments published in the *Wall Street Journal* on October 31, 1996, the CEO of BAT Industries and Director of BATCo, Martin Broughton, denied any concealment of research linking smoking and addiction, saying that, "We have no internal research which proves that . . . smoking is addictive." State of Minnesota v. Philip Morris, Inc., et al., C1-94-8565, Exhibit No. 2909. (U.S. Ex. 87,319). This statement, made to analysts, investors, and journalists, was confirmed in a BATCo "Company Notice" to employees dated October 31, 1996. 700428854-8856 at 8854 (U.S. Ex. 85,342).

1786. The statement by Broughton had been earlier promulgated by BATCo as a Press Announcement. 800113810-3812 at 3810 (U.S. Ex. 85,343).

1787. Along with several other major international tobacco concerns (including

Defendants Philip Morris and R.J. Reynolds), BATCo was a member of INFOTAB (International Tobacco Information Center), a Europe-based pro-industry association with goals similar to the Tobacco Institute and the Center for Tobacco Research. In April 1990, INFOTAB published a pamphlet called "Children and Smoking: The Balanced View," which contained the following on the subject of addiction:

> Cigarette smoking is not addictive and cannot be equated to hard drug use. Many millions of smokers have been able to quit smoking.
>
> The smoker decides if, when and how much he wishes to smoke and is not motivated as is the hard drug user to get a "fix" by whatever means possible, including criminal acts. Most smokers are able to quit without assistance.

2070052572-2578 at 2577 (U.S. Ex. 87,151).

1788. Also in 1990, INFOTAB issued a "Spokesperson's Guide" for tobacco industry use. The introduction stated that the manual is for the use of the recipient and that no copies were to be made. The manual addressed each and every claim against the industry and provided the standard script that all users were to use to respond to such claims. The manual stated that cigarette smoking was not addictive. 2503017001-7186 (U.S. Ex. 20,568).

1789. BATCo promulgated a company notice on January 4, 1997, in response to Liggett's settlement with a group of state attorneys general. The notice contained the following: "As to addiction, of course you can construct a broad subjective definition of addiction that includes cigarette smoking. Equally, under a meaningful objective definition, cigarette smoking is not an addiction. Regardless of the definition, smokers who want to quit do." 321007259-7260 (U.S. Ex. 85,344).

1790. In a December 3, 1990 document, BATCo prepared "Q&As" to respond to public inquiries. The answer to expected questions denied evidence of the addictiveness of cigarettes: "Whilst the US Surgeon General has claimed that nicotine is addictive, he has also claimed that video games are addictive. This is a prime example of the misuse of the term 'addiction' . . . . [C]igarette smokers bear no resemblance to addicts . . . . Smokers smoke because they enjoy smoking." 536502262-2266 at 2262 (U.S. Ex. 20,930).

1791. In a similar document titled "Smoking Issues; Claims and Response," BATCo denied that smoking was addictive and asserted that, "Smokers do not experience most of the symptoms of addiction." This booklet also referenced industry-paid consultants who testified – at the industry's behest – in front of Congress and in the media. 601037850-7862 at 7853 (U.S. Ex. 85,345).

1792. Throughout the 1990s and beyond, BATCo has stubbornly clung to a stance that smoking and nicotine are not addictive. In a June 29, 1994 letter to the editor of *The Daily Telegraph*, in response to an earlier article published by the paper concerning the addictiveness of smoking, BATCo scientist Dr. Sharon Boyse-Blackie, provided the company's position on addiction:

> As to the claim that smoking is addictive: this has been widely challenged by scientists working in the field. Those working with drug addicts in the USA, for example, complained that the US Surgeon General's claim that smoking was as addictive as heroin and cocaine back in 1988 trivialized the whole problem of drug addiction. It is easy to see why. Tobacco is not intoxicating, in direct contrast to any other substance that has been claimed to be addictive, from heroin and cocaine through to alcohol. Smokers are perfectly capable of continuing a normal social and family life and holding down a job – there is little evidence of this with users

> of drugs of dependence. Nicotine does not induce physical dependence or tolerance (a fact recognised by the US Surgeon General when he attempted to redefine addiction to incorporate nicotine and decided to relegate these two previously crucial criteria to the bottom of the list!) and as even the Surgeon General acknowledged, millions of smokers all around the world have given up without any professional help.

500810940-0941 at 0940 (U.S. Ex. 23,036).

1793. Also in 1994, BATCo spokesperson Michael Prideaux stated that BAT's current position on nicotine was that cigarette smoking was habit forming, but not addictive. "British Tobacco Companies Hushed up Health Dangers," The Independent, June 19, 1994 (U.S. Ex. 86,882).

1794. In a March 21, 1997 statement posted for its staff on the British American Tobacco electronic bulletin board, BATCo again criticized Liggett's concession that nicotine was addictive, stating that Liggett's CEO was "simply brokering this deal in a desperate attempt to force one of the cigarette manufacturers to take over his financially troubled and failing tobacco interests." The statement added that "Liggett's action is not based on any new scientific discovery and does not affect British American Tobacco's attitude to its defence of litigation in either the US or other parts of the world." 321007261-7262 (U.S. Ex. 46,651).

(iv) American Tobacco Company

1795. On April 14, 1994, the Chief Executive Officer of the American Tobacco Company, Donald S. Johnston, testified under penalty of perjury in a nationally televised hearing before the House Subcommittee on Health and the Environment. During this hearing, Johnston affirmatively denied that nicotine is addictive:

> Rep. Ron Wyden: Let me ask you . . . . Do you believe that nicotine is not addictive?
>
> Mr. Johnston: And I too, believe that nicotine is not addictive.

Regulation of Tobacco Products (Part I) Hearings before the Subcommittee on Health and the Environment of the Committee on Energy and Commerce, House of Representatives, 103rd Congress April 14, 1994, 2023195738-5892 at 5780-5781 (U.S. Ex. 21,990).

(v) Brown & Williamson

1796. While Brown & Williamson knew internally that smokers were addicts who smoked for nicotine, the company understood that their and the industry's "free choice" arguments in litigation would be undermined by any suggestion that smoking and nicotine were addictive. In the words of long-time general counsel Ernest Pepples, who described in a February 14, 1973 "Confidential" memorandum to public relations director John Blalock, one of the "salient problems now facing the cigarette industry" was:

> ADDICTION - Some emphasis is now being placed on the habit forming capacities of cigarette smoke. To some extent the argument revolving around "free choice" is being negated on the grounds of addiction. The threat is that this argument will increase significantly and lead to further restrictions on product specifications and greater danger in litigation.

696001196-1199 at 1198 (U.S. Ex. 85,346).

1797. On April 14, 1994, the Chairman and Chief Executive Officer of Brown & Williamson, Thomas Sandefur, also testified under penalty of perjury in a nationally televised hearing before the House Subcommittee on Health and the Environment. At this hearing, Sandefur, consistent with his industry brethren, affirmatively denied that nicotine is addictive:

Rep. Ron Wyden: Let me ask you . . . . Do you believe that nicotine is not addictive?

Mr. Sandefur: I believe nicotine is not addictive.

Regulation of Tobacco Products (Part I) Hearings before the Subcommittee on Health and the Environment of the Committee on Energy and Commerce, House of Representatives, 103rd Congress April 14, 1994, 2023195738-5892 at 5780-5781 (U.S. Ex. 21,990).

1798. In a May 19, 1994 press report relating to nicotine studies that had been recently released to the public but which had been withheld from the Surgeon General in 1964, Brown & Williamson stated that the studies "added nothing of consequence to what already had was available to researchers and others, including the U.S. Surgeon General." 480010242-0243 (U.S. Ex. 85,347).

1799. In a 1994 press release titled "The Media Frenzy. Truth Vs. Distortions," Brown & Williamson attacked the press coverage of its CEO's testimony before Congress, stating that he was merely providing his personal opinion that nicotine is not addictive. 800335973-5975 (U.S. Ex. 31,913).

1800. In its January 2, 1996 supplemental submission to the FDA in opposition to FDA jurisdiction over tobacco products, Brown & Williamson (speaking for itself and BATCo) denied addiction and the prominence of nicotine in the smoking habit. The supplemental comments, signed by Brown & Williamson's Director of Scientific and Regulatory Affairs Scott Appleton, stated, "[U]nder scientifically verifiable criteria, neither cigarette smoking nor the nicotine in smoke is addictive." 490107317-7366 at 7364 (U.S. Ex. 87,152).

1801. In 1999, Brown & Williamson posted on its website a contradictory and confusing

document called "Hot Topics: Smoking and Health Issues." While this document did admit that "by some definitions, including that of the Surgeon General in 1988, cigarette smoking would be classified as addictive," it went on to state that:

> Brown & Williamson believes that the relevant issue should not be how or whether one chooses to define cigarette smoking as addictive based on an analysis of all definitions available. Rather, the issue should be whether consumers are aware that smoking may be difficult to quit (which they are) and whether there is anything in cigarette smoke that impairs smokers from reaching and implementing a decision to quit (which we believe there is
>
> not.)

Response of Brown & Williamson Tobacco Corporation to the United States' First Set of Requests for Admission to All Defendants, RFA# 390, April 19, 2002, (U.S. Ex. 77,410).

1802. Brown & Williamson's CEO Thomas Sandefur subsequently denied that smoking is addictive at all:

> I think cigarettes are habit forming, but I don't think they are addictive in the context of when I speak of addiction I'm speaking in terms of heroin and cocaine and drugs you have a tremendous withdrawal from and you have to get medical help to get off of. I don't think nicotine is any more addictive than drinking coffee, caffeine in coffee or tea. No, I don't think it's addictive.

Deposition of Thomas Sandefur, Blue Cross and Blue Shield of New Jersey v. American Tobacco Co., et al., April 2, 2001 1284:17-23 (played at trial).

(vi) Lorillard

1803. At the 1994 Loews (Lorillard's parent) Annual Meeting of Shareholders, Lorillard prepared a number of answers to questions from shareholders related to cigarettes.

91759271-9271 at 9271 (U.S . Ex. 57,058) (Confidential).

1804. On April 14, 1994, the Chairman and CEO of Lorillard, Andrew H. Tisch, also testified under penalty of perjury in a nationally televised hearing before the House Subcommittee on Health and the Environment. During this hearing, Tisch also affirmatively denied that nicotine is addictive:

> Rep. Ron Wyden: Let me ask you . . . . Do you believe that nicotine is not addictive?
>
> Mr. Tisch: I believe that nicotine is not addictive.

Regulation of Tobacco Products (Part I) Hearings before the Subcommittee on Health and the Environment of the Committee on Energy and Commerce, House of Representatives, 103rd Congress April 14, 1994, 2023195738-5892 at 5780-5781 (U.S. Ex. 21,990); 87921086-1093 (U.S. Ex. 88,773); 501559781-9802 (U.S. Ex. 88,774).

1805. In a proxy statement filed with the Securities and Exchange Commission ("SEC") on May 14, 1996, the Board of Directors of Loews Corporation publicly made a false and misleading statement to its shareholders and to the SEC. A group of shareholders filed a proposal to the Board relating to nicotine in tobacco products in which it they stated, "virtually every major health organization in the United States of America as well as throughout the world has concluded that cigarette smoking and smokeless tobacco-use [sic] are addictive." In responding to the proposal, the Board countered, "the use of the term 'addiction' in relation to cigarettes is, in the opinion of the Board, inappropriate and erroneous." Schedule 14A of Loews Corp., - Proxy Statement, Dated 5/14/96, Disclosure pp. 21-22. (U.S. Ex. 22,080).

1806. In an October 1, 1997 letter to Senators Edward Kennedy and Orrin Hatch, Lorillard Chairman and CEO Alexander Spears disputed the need for a warning on cigarettes stating that cigarettes are addictive. Spears wrote, "Although Lorillard does not believe that cigarettes are 'addictive' in a stricter pharmacological sense, as the use of cigarettes does not result in euphoric intoxicating effects, we have no desire to engage in a public debate over the definition of the word 'addiction.'" 83699666-9668 (U.S. Ex. 85,348).

1807. In smoking and health litigation, Lorillard executives have until recently denied or disputed that smoking and nicotine are addictive. See e.g., Deposition of John Robert Ave, Cippolone v. Liggett et al., June 5, 1984, 169:24-171:2. Deposition of Alexander Spears, State of Texas v. American et al., July 24, 1997, 116:17-117:6, Deposition of Alexander Spears, Dunn v. RJR Nabisco Holdings Corp., March 3, 1998, 5654:17-5655:20 (played at trial); Deposition of Andrew Tisch Broin v. Philip Morris, et al., July 14, 1997, 10497:15-16 (played at trial); Deposition of James Tisch, August 5, 1996, State of Florida v. American Tobacco Co., et al., 35:9-15.

1808. According to Lorillard CEO Martin Orlowsky, Lorillard's recent "acceptance" that cigarette smoking is addictive is dependent on a loose definition that includes any "pleasurable activity that can be difficult to stop." Deposition of Martin Orlowsky, United States v. Philip Morris, et al., June 4, 2002, 199:7-24.

1809. Dr. Christopher Coggins, Lorillard's Senior Vice President of Science and Technology agreed that cigarette smoking falls only within this loose definition of addiction at his deposition in this litigation, adding that cigarette smoking is only as addictive as "sugar and

salt and Internet access." Deposition of Christopher Coggins, United States v. Philip Morris, et al., August 16, 2001, 116:22-117:14.

1810. With respect to nicotine, CEO Orlowsky stated that "Lorillard does not have a position" on whether nicotine is an addictive drug and that the company still does not know whether nicotine is addictive or not. Deposition of Martin Orlowsky, United States v. Philip Morris, et al., June 4, 2002, 208:8-20.

1811. Coggins claimed the same lack of knowledge of whether nicotine was addictive at his deposition, adding that nicotine may or may not be an addictive agent in tobacco. In fact, according to Dr. Coggins, the addictiveness of smoking may be the result of a "simple physical repetitive pleasurable activity." Deposition of Christopher Coggins, United States v. Philip Morris, et al., August 16, 2001, 117:15-120:11.

(vii) Liggett

1812. On April 14, 1994, the Chairman and Chief Executive Officer of the Liggett Group, Inc., Edward A. Horrigan (formerly of R.J. Reynolds), also testified under penalty of perjury in a nationally televised hearing before the House Subcommittee on Health and the Environment. During this hearing, Horrigan affirmatively denied that nicotine is addictive:

Rep. Ron Wyden:	Let me ask you . . . . Do you believe that nicotine is not addictive?
Mr. Horrigan:	I believe nicotine is not addictive.

Regulation of Tobacco Products (Part I) Hearings before the Subcommittee on Health and the Environment of the Committee on Energy and Commerce, House of Representatives, 103rd Congress April 14, 1994, 2023195738-5892 at 5780-5781 (U.S. Ex. 21,990).

(viii) Tobacco Institute

1813. The Tobacco Institute was by far the Defendants' most vocal spokesperson in the industry's quest to deny addiction and conceal internal research and knowledge. Over the decades, the Tobacco Institute, on behalf of the Cigarette Company Defendants, publicly disseminated countless false, deceptive, or misleading statements disputing the addictiveness of nicotine and cigarette smoking. Denial was a large part of its mission. The following are representative of the role of the Tobacco Institute's statements in denying and distorting the truth.

1814. When the Director of NIDA, Dr. William Pollin, testified before Congress in 1982 that the Tobacco Institute had concluded that nicotine met all the standard criteria used by NIDA, the Drug Enforcement Administration ("DEA"), and the WHO to define a dependence-producing drug, Defendants did not come forward with their corroborative evidence. Instead, Defendants, through the Tobacco Institute and outside counsel, sent representatives and paid researchers to testify that NIDA was wrong and that nicotine did not cause addiction or dependence. Defendants made statements and sent their own experts to testify that nicotine was more like hamburgers than an addictive drug. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 36.

1815. One of the witnesses Defendants produced to the Congressional subcommittee was Theodore Blau, who stated on behalf of the Tobacco Institute and its members that, "There is no scientific basis for a statement that cigarette smoking is addictive." 680584197-4204 at 4201 (U.S. Ex. 85,349); TIMN0311387-1391 (U.S. Ex. 85,350); TIMN0170757-0765 (U.S. Ex. 85,351).

1816. On March 12, 1982, the Tobacco Institute's William D. Toohey authored a press release summarizing the tobacco company-funded testimony of Blau before a Congressional subcommittee. According to the release, Blau criticized the characterization of smoking as addictive, claiming that he placed the "attachment" to smoking in the same category as "tennis, jogging, candy, rock music, Coca-cola, members of the opposite sex and hamburgers." The press release went on to claim that "removal of these activities, persons or objects can cause sleeplessness, irritation, depression and other uncomfortable symptoms, similar to those felt by some with abstinence from tobacco." TIMN0120729-0730 (U.S. Ex. 65,625).

1817. The March 1982 Tobacco Institute press release was misleading in that it wholly omitted the fact that Blau was paid by the Cigarette Company Defendants to testify, and that he was a member of, in Tobacco Institute President Sam Chilcote's words, the "Tobacco Institute Team." Instead, the press release indicated only that Blau was a "Florida psychologist," creating the false impression that he had no tie to the tobacco industry. TIMN0120729-0730 (U.S. Ex. 65,625).

1818. In fact, Blau was a Special Project 4 recipient of thousands of Cigarette Company Defendant dollars through the law firm of Shook, Hardy & Bacon. Also, he was one of the many industry-funded scientists whose testimony was reviewed and approved by Shook, Hardy & Bacon prior to presentation before Congress. 1005125796-5796 (U.S. Ex. 36,096); 01335087-5087 (U.S. Ex. 85,352); 01335086-5086 (U.S. Ex. 26,842); TIMN197541-7581 (U.S. Ex. 85,353); 1005064612-4612 (U.S. Ex. 85,354); 01335102-5102 (U.S. Ex. 26,483); 1005061616-1625 (U.S. Ex. 35,959); 03746309-6316 (U.S. Ex. 85,355); 503655215-5215 (U.S. Ex. 85,356);

1005125795-5795 (U.S. Ex. 85,357).

1819. The April 1982 edition of TI's newsletter *The Tobacco Observer* also quoted Dr. Blau's addiction denial before Congress in an article titled "Smoking Said Not Addictive." TIMN0126427-6438 (U.S. Ex. 85,358).

1820. When the Department of Health and Human Service's Office on Smoking and Health produced a pamphlet stating that cigarette smoking was addictive, the Tobacco Institute went to the media with the statement denying addiction. The Tobacco Institute President informed industry general counsel in a memorandum dated March 7, 1983, that the Tobacco Institute "drilled" the media with the industry message that cited "substantial refutation of the addiction claim," including the 1982 testimony of Blau. Once again, the Tobacco Institute press release failed to acknowledge that Blau was an industry paid spokesman for the Tobacco Institute and its members. TIMN0350773-0775 at 0773 (U.S. Ex. 85,359).

1821. The Tobacco Institute then sent Curtis Judge, Lorillard President and Chairman of the Tobacco Institute Executive Committee, to speak for the industry before a Senate subcommittee on March 12, 1983, in opposition to legislation that would require additional warnings on cigarette packages, including a warning that smoking was addictive. Accompanying Judge were several industry-paid scientists, including Blau, who once again denied and disputed addiction and the mounting scientific evidence behind the NIDA pamphlet and the basis for the warning. TIMN0049411-9548 (U.S. Ex. 85,360).

1822. Blau also submitted a March 17, 1983 written statement denying addiction, free of tobacco industry attribution, to a House subcommittee considering the same issue.

TIMN0384222-4231 (U.S. Ex. 85,361).

1823. On the same date, the Tobacco Institute distributed a press release to newspapers and other news outlets across the United States, and quoted Blau, with no industry attribution, disputing the addictiveness of cigarette smoking. TIMN0138444-8446 (U.S. Ex. 85,362).

1824. A May 12, 1983 Tobacco Institute press release quoted Dr. Blau's apparently "independent" denial of addiction again, who had yet again been paid by the industry to testify before a Senate committee: "Dr. Theodore H. Blau, a clinical psychologist in Tampa, Florida, and past president of the American Psychological Assiciation, sharply disputed an assertion in pending legislation that cigarette smoking is 'addictive.'" The Tobacco Institute did not provide the general public with the fact that Blau had testified on behalf of the tobacco industry and the Tobacco Institute. TIMN0120772-0773 (U.S. Ex. 85,363).

1825. In a November 21, 1983 letter to Patrick Sirridge, a lawyer from Shook, Hardy & Bacon (outside Lorillard counsel), Arthur Stevens, Lorillard's Senior Vice President and General Counsel, criticized a Tobacco Institute addiction position paper drafted by the firm, calling it "poorly written; awkwardly phrased in places; highly technical in some parts for the intended 'common sense' approach; and so overly lawyer-like in its basic approach as to defy acceptance or understanding by the lay audience to whom it would be addressed." This letter demonstrates that instead of having its scientists draft its position denying nicotine addiction, Defendants chose to have their lawyers complete the task, thus ensuring unity in their categorical denial: "Some anti-smoking government officials and other have gone so far as to brand smoking a 'drug addiction.' This claim is clearly false." 508074767-4771 at 4768 (U.S. Ex. 85,364).

1826. In conduct reminiscent of 1982 and 1983, the industry again through the Tobacco Institute denied addiction in its submissions and testimony leading up to the 1988 Surgeon General's Report. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 46-47.

1827. In 1988, the Surgeon General released a report titled "The Health Consequences of Smoking: Nicotine Addiction." The Tobacco Institute quickly responded with a series of advertisements, press releases, and public statements attacking and denying the Surgeon General's findings, findings that reflected the overwhelming medical and scientific consensus on the subject. For example, the Tobacco Institute, on behalf of the Cigarette Company Defendants, immediately issued a May 16, 1988 press release stating:

> CLAIMS THAT CIGARETTES ARE ADDICTIVE CONTRADICT COMMON SENSE . . . Smoking is truly a personal choice which can be stopped if and when a person decides to do so. . . . The claim that cigarette smoking causes physical dependence is simply an unproven attempt to find some way to differentiate smoking from other behaviors. In fact, any feelings persons might have upon giving up smoking are those that would be expected when one is frustrated by giving up any desired activity . . . . The claims that smokers are 'addicts' defy common sense and contradict the fact that people quit smoking every day.

TIMN383229-3229 (U.S. Ex. 85,365); TIMN0019963-9963 (U.S. Ex. 21,239) (U.S. Ex. 22,727).

1828. A second Tobacco Institute press release dated May 16, 1988 carried the headline, "CLAIMS THAT CIGARETTES ARE ADDICTIVE IRRESPONSIBLE AND SCARE TACTICS." This press release also attacked the Surgeon General's Report and specifically denied any dependence on nicotine, stating:

> After years of well-funded research, it has not been established that cigarette smoking produces a physical dependence to nicotine. In fact, it has been impossible to establish that the feelings persons have upon giving up smoking are anything but that which would be expected when one is frustrated by giving up any desired habit.

TIMN0019964-9965 at 9964 (U.S. Ex. 85,366).

1829. Tobacco Institute President Samuel Chilcote reported to the member companies that same day that its "staff responded to just over 50 media inquiries, having earlier distributed our brief and carefully cleared response statement. . . . Media handling of our responses at this hour remains to be seen of course. But the staff reports seemingly fair and understanding reception of a 'contradiction of common sense' approach." TIMN214666-4667 (U.S. Ex. 85,367).

1830. In a July 29, 1988 press release, the Tobacco Institute stated that the Surgeon General's declaration that smoking is an addiction was "[a]n escalation of anti smoking rhetoric . . . without medical or scientific foundation." TIMN0125189-5189 (U.S. Ex. 77,065) (U.S. Ex. 21,334).

1831. The 1988 press release utilized Tobacco Institute spokesmen/scientists Blau and Stephen Raffle to deny addiction as well. For example, Tobacco Institute quoted Raffle in the press release, stating, "Clinically, cigarette smoking does not result in addiction-like behavior." Blau was quoted in the press release as saying that the Surgeon General's report was "misleading and unfortunate." TIMN00125189-5189 (U.S. Ex. 77,065) (U.S. Ex. 21,334).

1832. Blau and Raffle were internally referred to by Samuel Chilcote in a memo to the Executive Committee as members of the "Tobacco Institute Team." 506615894-5896 (U.S. Ex.

85,368). Raffle also provided a statement to the House subcommittee denying addiction. The statement was made at the Tobacco Institute's request, but omitted any Tobacco Institute connection or sponsorship. 640518942-8948 (U.S. Ex. 85,369).

1833. Blau – a prior recipient of Special Account 4 industry funding – had testified along with Dr. Raffle before the House Subcommittee on Health and the Environment on July 29, 1988 for the Tobacco Institute on the issue of smoking addiction. He vigorously denied that smoking and nicotine were addictive, testifying that smoking was not addictive because it was not intoxicating and did not disrupt the smoker's life and work. Blau also testified that there was "no substantial scientific evidence that smoking creates a physical dependence to nicotine." In terms of its ability to produce dependence and addiction, he compared smoking to eating sweets, drinking cola, and watching television. These statements, on behalf of and at the direction of the Tobacco Institute, were made despite the existence of the Surgeon General's 1988 Report which had concluded that smoking and nicotine were addictive. 87750753-0885 (U.S. Ex. 85,370); 87677230-7244 (U.S. Ex. 85,371).

1834. The July 29 press release failed to indicate in any manner that Raffle and Blau were industry selected, managed, and paid consultants to Defendants and their law firms, and that their statements to the House subcommittee had been reviewed by Covington & Burling and several Defendants prior to being delivered to Congress. Instead, the press releases implied that both scientists testified independently before the House Subcommittee. TIMN0125189-5189 (U.S. Ex. 21,334) (U.S. Ex. 77,065); 506419103-9103 (U.S. Ex. 85,372); 87701892-1892 (U.S. Ex. 85,373); 87701893-1903 (U.S. Ex. 32,065); 87701904-1905 (U.S. Ex. 87,154).

1835. The Tobacco Institute's use of Blau and Raffle was done with the knowledge of the cigarette manufacturer members. 2025875995-5997 (U.S. Ex. 85,375).

1836. An industry-funded June 13, 1988 report written by consultant Gerald E. Wagner, Ph.D., titled "Health and Smoking Nicotine," rejected the findings of the Surgeon General's 1988 Report, where Dr. Wagner claimed the addictive properties of nicotine could not be proven "scientifically." 511068152-8176 (U.S. Ex. 20,835).

1837. In another report, dated July 25, 1988 and titled "Comments on the Report of the Surgeon General on Nicotine Addiction," Wagner again rejected the Surgeon General's findings, criticizing them in part as a "hypothesis based primarily on the subjective observations of smoking behavior . . . ." Nevertheless, Wagner noted that "nicotine would appear to meet the primary criteria for dependency established by the report: controlled use, psychoactive effects, and reinforced behavior." 511068231-8240 (U.S. Ex. 20,836).

1838. In a 1989 nationally broadcast interview on "Good Morning America," Tobacco Institute spokesman Brennan Dawson stated: "I can't allow the claim that smoking is addictive to go unchallenged. . . . The majority of people who smoke make that decision, they can quit if they want to do it. It's a matter of willpower." TIMN339671-9676 at 9673 (U.S. Ex. 21,362).

1839. The Tobacco Institute published a brochure in March 1989 titled "The Anti-Smoking Campaign." In this document, the Tobacco Institute denied that smoking is addictive, emphasizing as "a fact" that: "The fact is that there is nothing about smoking, or about the nicotine in cigarettes, that would prevent smokers from quitting. . . . If a smoker wants to quit, it may take will power, but that's all it takes." TIMN0130559-0578 at 0574 (U.S. Ex. 85,376).

1840. In another nationally-broadcast interview, in 1990 on "Larry King Live," a Tobacco Institute spokesperson stated:

> [A]bout 95 percent of those people have quit cold turkey. They've walked away from cigarettes and they've not gone through formal treatment centers or anything else. It's not like alcoholism or drug abuse. It's not an addiction. . . .
>
> There's nothing about nicotine that prevents you from quitting. And that's the whole difference.

TIMN341405-1422 at 1420 (U.S. Ex. 21,363) (U.S. Ex. 77,091).

1841. On February 20, 1990, the Tobacco Institute issued a press release stating that Charles Whitley had appeared before the Senate Committee on Labor and Resources on behalf of Tobacco Institute, had criticized proposed legislation, and had stated that requiring an addiction warning label on cigarette packages and advertisements "defies all logic, when, according to the Surgeon General, nearly half of all Americans who ever smoked have quit and most of the 41 million smokers who quit did so without formal treatment programs or smoking cessation devices." TIMN341503-1504 (U.S. Ex. 85,377); TIMN0020946-0947 (U.S. Ex. 85,378).

1842. The Tobacco Institute published another press release dated July 12, 1990, a document stating that Blau had once again testified before a House subcommittee denying the addictiveness of cigarettes. The Tobacco Institute provided the following in its press release, once again omitting any tie between Blau and the tobacco industry:

> The proposed "addiction" warning label is likewise unjustified. Dr. Theodore H. Blau, a practicing clinical psychologist from Tampa, Florida, said that, "In my view, labeling tobacco use 'addictive' is misleading and potentially harmful to the American public." Blau noted that - unlike heroin addicts, cocaine addicts and alcoholics who are in the process of giving up these drugs - the

> alleged "withdrawal symptoms" which some smokers report when giving up smoking are "generally the same kinds of frustrations that one would expect to see when someone discontinues any well-established and well liked habit. Such symptoms as missing the habit and mild irritability are similar to the reactions experienced by those who give up coffee or sweets.

TIMN0026755-6757 at 6757 (U.S. Ex. 85,379).

1843. The Tobacco Institute paid Dr. Raffle to speak out again in 1994 following the sworn testimony of FDA Commissioner Dr. David Kessler that smoking was addictive. In a March 25, 1994 Tobacco Institute press release, the Tobacco Institute Media Relations department restated Raffle's industry-funded and industry-prepared comments that smoking was not "truly addicting" and that "in order to include smoking as an addiction, one must redefine that term, water down its meaning, and ignore critical differences involving every aspect of these behaviors." The press release did not disclose any connection between Raffle and the Tobacco Institute or the tobacco industry. TIMN328214-8215 (U.S. Ex. 77,090); TIMN0046794-6794 (U.S. Ex. 85,380).

1844. During the nationally broadcast news show "Crossfire" of March 10, 1994, Brennan Dawson, Vice President of Public Affairs at the Tobacco Institute was asked by host Michael Kinsley, "Is nicotine addictive?" Dawson responded, "Absolutely not. Nicotine is first of all- I mean nicotine occurs naturally in cigarettes. Nicotine is also found in things as scary as potatoes." TIMN0010651-0652 (U.S. Ex. 87,155).

1845. Dawson again appeared on the CNN program “Larry King Live” broadcast on April 13, 1994. When she was asked whether nicotine was addictive, she responded, "No, nicotine is not addictive." TIMN0010649-0650 at 0650 (U.S. Ex. 62,778).

1846. The Tobacco Institute joined Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and Liggett to oppose Food and Drug Administration jurisdiction over cigarettes as drug (nicotine) delivery devices in 1996. In Volume III of the filing prepared and submitted on behalf of the Tobacco Institute and the companies, the group denied that nicotine in tobacco was addictive, denied any significant pharmacological effects of nicotine, denied that smokers smoke primarily for nicotine, denied any "threshold" amount of nicotine necessary for addiction, and denied compensation by smokers of low tar products. 2046309659-9890 at 9671, 9736, 9836, 9841, 9856, 9867 (U.S. Ex. 85,381).

1847. The submission of the Tobacco Institute and the five manufacturers was publicized via a TI press conference on the morning of January 2, 1996. While the Tobacco Institute's Brennan Dawson led the press briefing, she was accompanied by Philip Morris's Steven Parrish, Reynolds's Charles Blixt, and Lorillard's Arthur Stevens. TI01750819-0820 (U.S. Ex. 87,156).

(ix) CTR

1848. Sheldon Sommers, Research Director of CTR and member of CTR's Scientific Advisory Board, told a Congressional subcommittee in hearings held in April 1969 that "smoking tobacco is not considered an addiction." 500925974-5998 at 5976 (U.S. Ex. 85,382); BWX0007189-7297 (U.S. Ex. 36,237).

1849. Robert Hockett, a subsequent CTR Research Director, stated during Congressional hearings held October 5 and 6, 1978, that while "there is an adjustment " to smoking over time, the issue of tobacco dependence was "a very tough question." 500925974-

5998 at 5976 (U.S. Ex. 85,382).

1850. Statements such as these, frequently repeated by Defendants, their surrogates, and their agents, were misleading and intentionally deceptive when made. These statements are contradicted by decades of scientific research conducted by or funded by Defendants, and by myriad internal statements by company representatives.

(d) Defendants' Misrepresentations and Attempts to Confuse the Public as to the Facts of Cigarette and Nicotine Addiction Continue Today, Even Following the MSA

1851. Even today, although certain Defendants have acknowledged, to varying degrees, the overwhelming evidence that smoking is addictive, none accepts the Surgeon General's definition of addiction, and none admits that nicotine is the drug delivered by cigarettes that creates and sustains addiction.

1852. On its website, Philip Morris states that "[w]e agree with the overwhelming medical and scientific consensus that cigarette smoking is addictive" and that it can be difficult to quit smoking. However, there is no mention of the established fact that the nicotine in cigarettes is what causes the smoker's addiction. TLT0770066-0088 (U.S. Ex. 72,408).

1853. On its website, BATCo states that "[w]e accept the common understanding today that smoking is addictive." Yet, when discussing quitting smoking, the company makes no mention of the role nicotine plays in maintaining the addiction, downplaying the success of nicotine replacement therapy in helping smokers quit, and stating that the most important factor in successful quitting is "having the motivation and the self-belief that you can quit." http://www.bat.com/oneweb/sites/uk3mnfen.nsf/wwPageswebLive/BEDB4BB/FDD4F7CE8025

6BF4000ee157?open document (U.S. Ex. 86,692).

1854. On its website, R.J. Reynolds states that, "Many people believe that smoking is addictive, and as that term is commonly used, it is." However, R.J. Reynolds later equivocates on this statement, stating its disagreement with the opinion in the health and scientific communities that smoking is as addictive as heroin or cocaine. R.J. Reynolds does not disclose the role of nicotine in the addiction. TLT0770095-0128 (U.S. Ex. 72,410).

1855. On its website, Brown & Williamson recites its new public position that it "agrees that, by current definitions of the term 'addiction,' including that of the Surgeon General in 1988, cigarette smoking is addictive." Two paragraphs down from this, however, Brown & Williamson reverts to its former denials, omitting any reference to nicotine and stating the following :

> Although smoking can be very difficult to quit, we do not believe that the term "addiction" should be used to imply that there is anything in cigarette smoke that prevents smokers from reaching and implementing a decision to quit. Smoking may indeed be difficult to quit, but people can quit and do so in large numbers. The scientific literature demonstrates that smokers who believe they can quit, and who believe that the benefits of quitting outweigh the enjoyment of continuing to smoke, can do so.

http://brown-and-williamson.com/SHC/Index.cfm?ID=8&Sect=3 (U.S. Ex. 87,157).

1856. Brown & Williamson's current Nicotine and Addiction section does not even discuss nicotine or its effects on the human body. In sum, the Brown & Williamson current, post-MSA position continues to deny that any aspect of smoking "prevents" a smoker from quitting. Moreover, the position continues to confuse and distort the facts on addiction, namely that smoking is very difficult to quit primarily because of nicotine. At the same time, the position refers to "the enjoyment of continuing to smoke," suggesting that smokers smoke simply

for continued "enjoyment," as opposed to a craving or need for nicotine. http://brown-and-williamson.com/SHC/Index.cfm?ID=8&Sect=3 (U.S. Ex. 87,157).

1857. Lorillard's current position is that smoking is addictive but only in the same way as any "repetitive pleasurable activity that can be difficult to stop." Lorillard believes that smoking is not addictive in a "pharmacological sense." With respect to nicotine, President and CEO Martin Orlowsky stated on behalf of Lorillard that the company "does not have a position" and does not know if nicotine is an addictive drug or not. Deposition of Martin Orlowsky, United States v. Philip Morris, et al., June 4, 2002, 199:7-201:2, 208:8-209:8.

1858. The Lorillard website has recently added a statement from Orlowsky on its website that includes the sentence, "Cigarette smoking can also be addictive." However, this statement does not define the term "addictive," and omits any reference to nicotine. TLT0770089-0094 (U.S. Ex. 72,409).

1859. In a May 28, 2003 press release on the Louisiana Scott verdict also made available on Lorillard's website, company general counsel Ron Milstein contradicted the statement that smoking can be addictive by stating that simple willpower "always works" for those who want to quit smoking: "Liability to fund smoking cessation programs should not be tried in class action lawsuits. Research has shown time and time again that willpower is the only smoking cessation aid that always works." www.lorillard.com/index.php?id=70 (U.S. Ex. 86,693).

1860. While Philip Morris has now superficially accepted that smoking and nicotine are addictive, its new position surfaced for the first time relatively recently after the filing of this lawsuit. After decades of consistent corporate public denials, Philip Morris USA President and

CEO Michael Szymanczyk first stated in June 2000 that nicotine was addictive during the damages phase in Engle v. Liggett. Philip Morris USA subsequently added a statement on their website in October 2000 agreeing that "cigarette smoking is addictive, as that term is most commonly used today." That statement has since been modified to read, "We agree with the overwhelming medical and scientific consensus that cigarette smoking is addictive." However, the Philip Morris USA website omits any information on nicotine, and Philip Morris still publicly states that smoking does not meet the "traditional definition" of addiction. Deposition of Michael Szymanczyk, United States v. Philip Morris, et al., June 13, 2002 249:15 - 254:8; 267:10 - 270:3.

1861. The website language acknowledging that smoking is addictive was developed by Mark Berlind and distributed on the Philip Morris Law Department Intranet as a PMC Statement of Position. 2085189723-9724 (U.S. Ex. 86,925).

1862. Geoffrey Bible, former CEO of Philip Morris Companies, was the ultimate authority on the content of public statements on smoking and health made by Philip Morris Companies' subsidiaries, including Philip Morris USA. Deposition of Geoffrey Bible, U.S. v. Philip Morris, et al., August 22, 2002 at 83:9-84:11, 85:22-86:26.

1863. Philip Morris International changed its public position to agree with the public health community's conclusions that smoking is addictive at the same time (October 2000) that Philip Morris USA did so. 2078850517 (U.S. Ex 45,218).

1864. Philip Morris adopted its current position that nicotine in cigarette smoke is addictive for the first time in January 2003, in a supplemental response to a United States

Request for Admission in this case. Philip Morris's 30(b)(6) deponent, Richard Carchman, stated that the company's definition of addiction is "a repetitive behavior that's associated with an adverse outcome." The "adverse outcome" is disease associated with smoking; according to Carchman, Philip Morris believes that if the risk of disease were eliminated, cigarette smoking would no longer be an addiction. In Carchman's words, "Addiction is only relevant, in our mind at this point in time, when bad things happen." In addition, Philip Morris continues to dispute that nicotine is addictive outside of smoking. Deposition of Richard Carchman, United States v. Philip Morris, et al., June 6, 2003, 22:3-26:24, 29:1-13, 56:17-57:15, 13:15-15:23, 85:17-86:10.

1865. In spite of the overwhelming medical and scientific evidence, only one cigarette manufacturer defendant, Liggett, has placed a warning on its packages stating that nicotine is addictive. Liggett advertising and packaging state, "Smoking is Addictive." Deposition of Bennett LeBow, United States v. Philip Morris, June 21, 2002, 118:24-119:21.

1866. Moreover, no Cigarette Company Defendant other than Liggett and Philip Morris has admitted that nicotine in cigarette smoke is addictive. Liggett is the only Defendant to do so publicly.

(e) Internal Documents and Statements Reveal That Defendants Concealed and Suppressed Research and Other Evidence Consistent With Nicotine Addiction

1867. Not only have Defendants' conduct and research reflected a sophisticated understanding of nicotine and its role in smoking addiction, but Defendants have also deliberately withheld such information from the general public. It is clear that Defendants intentionally withheld from public dissemination, and from public health authorities, accurate

information regarding the addictiveness of nicotine in cigarettes. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 36.

1868. Defendants accomplished this through the suppression of their own critical and corroborative research findings and by fostering controversy about the scientific knowledge concerning nicotine and its addictive effects that was publicly available. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 36-37.

1869. Defendants have offered a misrepresentation of the history of tobacco-dependence related research by implying that the scientific basis for understanding tobacco dependence was known for many decades, if not centuries, and that until recent years, organizations which considered the question appropriately concluded that the evidence was not sufficient to draw such conclusions. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 36-50.

1870. In fact, Defendants themselves possessed, from their own experiences and research, internal studies and other information that led them to conclude, long before public health bodies did, that the primary reason people keep smoking cigarettes is to obtain the drug nicotine, which has addictive effects. Defendants intentionally withheld this data (including many of studies on the physiological effects of nicotine in animals and humans, and much of its research on the determinants of nicotine dosing in cigarettes) when there were major public efforts to review and synthesize all available information, such as Surgeon General's Reports or congressional investigations. They also engaged in a public relations offensive, relying on self-

serving definitions of addiction, to deny the consensus conclusion that smoking is addictive primarily because cigarettes effectively deliver nicotine. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 36-50. See also 490010042-0044 at 0043 (U.S. Ex. 79,285) (presenting "Addiction Statement," prepared by Shook, Hardy & Bacon, concluding that smoking is not addictive and that, as crafted, "Statements in company documents cannot refute this conclusion.").

1871. The 1988 Surgeon General's Report, entitled "Nicotine Addiction," affirmed the conclusions of the clinical community that nicotine in cigarettes is an addictive drug. Had Defendants disclosed their internal knowledge, research results, and conclusions, this information would likely have permitted nicotine to be placed into the addiction category far earlier. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 33-35, 47-49.

1872. Defendants publicly denied the addictiveness of smoking and nicotine's role therein, because they feared that public acknowledgment of what was so well documented and widely accepted internally would potentially expose them to governmental (FDA) regulation and adverse liability judgments from addicted smokers. Defendants thus took steps to limit the nature and dissemination of nicotine-related research.

1873. A September 9, 1980 Tobacco Institute internal memorandum revealed the recognition by the member companies that a public admission that nicotine was addictive would undermine their litigation defense that a person's decision to smoke is a "free choice": "[T]he entire matter of addiction is the most potent weapon a prosecuting attorney could have in a lung

cancer/cigarette case. We can't defend continued smoking as 'free choice' if the person was 'addicted.'" TIMN0107822-7823 at 7823 (U.S. Ex. 21,275) (U.S. Ex. 71,053).

1874. Another reason Defendants denied addiction was to avoid regulation by the FDA. Not surprisingly, none of the companies' internal research and evidence suggesting (or finding) addiction was submitted in 1996 when the FDA sought to assert jurisdiction over cigarettes as drug (nicotine) delivery devices. Instead, Defendants (including Liggett) vigorously denied every aspect of addiction. 2046309659-9890 (U.S. Ex. 85,381).

1875. The following are examples the scope of Defendants' actions in stifling and limiting the nature and dissemination of nicotine-related research, as well as any evidence suggesting addiction.

(i) Philip Morris

1876. Philip Morris studied nicotine and both its pharmacological and physiological effects on smokers - sometimes called addictive, dependence-producing, or reinforcing effects - intensively in an effort to increase its market share within the industry. However, Philip Morris's internal knowledge and acceptance that smoking, through nicotine, was addictive was kept from the public. Similarly, Philip Morris's research demonstrating the addictive impact of nicotine on the bodies of animals and humans was suppressed, and in some cases terminated.

1877. In a 1992 memorandum titled "Philip Morris Behavioral Research Program," the company's long-time outside counsel, Shook, Hardy & Bacon, reviewed and summarized much of Philip Morris's nicotine research conducted from 1969 to 1984 under the direction of William L. Dunn. The research into nervous system effects and smoking behavior was conducted both

internally (by scientists such as Dunn, Berntson, Gullotta, DeNoble and others) and by outside researchers (including scientists Hutchinson, Abood, Egle and others). 2025768108-8166 at 8111-8114 (U.S. Ex. 85,383).

1878. The funding for the Behavioral Research Program, or Nicotine Program as it was sometimes called, was terminated in 1984. According to the Shook, Hardy & Bacon report, "**Philip Morris cancelled the Nicotine Program in spring 1984. The decision to cancel the program may have been the result of outside counsel's legal advice**." (emphasis added) 2025768108-8166 at 8113 (U.S. Ex. 85,383).

1879. As explained below, the decision to abort the Nicotine Program, muzzle its scientists, and suppress much of its research was intentional and indeed driven by legal concerns.

1880. Discussing Philip Morris's research into the pharmacological effects of nicotine, Principal Scientist and psychologist William Dunn wrote the following in a "CONFIDENTIAL" memorandum to Research & Development Vice President Helmut Wakeham on February 19, 1969: '[D]o we really want to tout cigarette smoke as a drug? It is, of course, but there are dangerous F.D.A. implications to having such a conceptualization go beyond these walls." 1003289921-9922 at 9921 (U.S. Ex. 20,167).

1881. Dunn wrote a "CONFIDENTIAL" memorandum dated October 19, 1977

1000046538-6546 at 6538-6542 (U.S. Ex. 26,074); 2021423403-3497 at 3488 (U.S. Ex. 36,743); 526144920-4229 (U.S. Ex. 80,332) (Confidential).

1882. D

1000046538-6546 at 6543 (US. Ex. 26,074); 2021423403-3497 at 3485 (U.S. Ex. 36,743); 526144920-4229 (U.S. Ex. 80,332) (Confidential).

1883. Shortly thereafter, in a November 3, 1977 memorandum, Dunn provided his strategy for concealing any unfavorable nicotine research results. Regarding a proposed study of nicotine withdrawal in rats to be undertaken by Philip Morris scientist Carolyn Levy, Dunn stated that he approved the study. However, he cautioned that, "If she is able to demonstrate, as she anticipates, no withdrawal effects of nicotine, we will want to pursue this with some vigor. **If, however, the results with nicotine are similar to those gotten with morphine and caffeine, we will want to bury it."** (emphasis added) 1003293588-3588 (U.S. Ex. 20,168); 0000128680-8680 (U.S. Ex. 87,160).

1884. The terms of Levy's "Proposed Study of Nicotine Withdrawal in Rats" are contained in a November 1, 1977 memorandum from her to Dunn, where Levy states that her intent was not to conduct objective research but to generate favorable evidence in support of the external industry position that there are no withdrawal symptoms associated with nicotine. Levy intended to compare known morphine and caffeine withdrawal symptoms to nicotine's effects. Levy stated, however, that while she predicted favorable results, she understood that "it is dangerous to set out to prove the null hypothesis." 1003293589-3591 (U.S. Ex. 21,421); Deposition of Carolyn Levy, Scott v. American Tobacco Co., September 11, 2000, 111:8-112:13.

1885. In a November 29, 1977 memorandum to Bob Seligman, Philip Morris Scientific Director Tom Osdene stated his concerns with the direction CTR was taking with its research into nicotine, saying that with "the progress that has been claimed, we are in the process of digging our own grave," adding that he feared that "the direction of the work being taken is totally detrimental to our position and undermines the public posture we have taken to outsiders." 2022246952-6952 (U.S. Ex. 36,865).

1886. The industry's goal was to stop the public health community from concluding that nicotine was addictive. Seligman wrote a memorandum to company general counsel Alex Holtzman dated June 27, 1978, attaching Dunn's report of a conference Seligman and Dunn attended called "Cigarette Smoking as a Dependence Process." The conference was apparently put on by the National Institute on Drug Abuse. Seligman prophetically warned Holtzman that:

> It is my impression that at some time in the future, nicotine will be listed as a dependency drug (or smoking will be listed as a dependence process). Thus, it might be wise to contemplate the future legal ramifications of such an inevitability. Additionally,

> you might want to consider some mode of action which might forestall such a designation by the drug abuse community.

1003726420-6420 (U.S. Ex. 85,384) (emphasis in original).

1887. BATCo scientist D.G. Felton summarized a visit to Philip Morris in a report on his visit to North America in October 1979, part of which was devoted to the industry's nicotine research efforts:

> During the trip, I also responded to an invitation from Drs. R.B. Seligman and T.S. Osdene to visit the Philip Morris Research Center. The terms of the visit were that I should take no notes and make no report. I can merely record that the discussions were very open and helpful on the subjects covered during the visit.

650032772-2786 at 2775 (U.S. Ex. 85,385).

1888. Dunn wrote an internal memorandum to Seligman dated March 21, 1980 describing Philip Morris's "Nicotine Receptor Program," an internal company research program focusing on the psychopharmacology of nicotine. The research was "aimed at understanding that specific action of nicotine which causes the smoker to repeatedly introduce nicotine into his body." While Dunn stated that the nicotine research would likely produce "significant scientific developments," he noted that it was "a highly vexatious topic" that company lawyers did not want to become public because nicotine's drug properties, if known, would support regulation of tobacco by the FDA. Dunn wrote, "Yet this is where our attorneys least want us to be." Moreover, lawyers were concerned that new "knowledge of nicotine" might permit "therapeutic breakthroughs to reduce the incidence of smoking." 0000127789-7790 (U.S. Ex. 21,794); 2022249518-9518 (U.S. Ex. 36,870).

1889. Consequently, Dunn observed that while Philip Morris would continue its

research program "to study the drug nicotine, **we must not be visible about it.**" And while the program depended on a "heavy commitment" by Philip Morris, Dunn wrote that "**our attorneys, however, will likely continue to insist on a clandestine effort in order to keep nicotine the drug in low profile**." Dunn mentioned Shook, Hardy & Bacon's Don Hoel and Jacob & Medinger's Ed Jacob by name in his memorandum. (emphasis added) 0000127789-7790 (U.S. Ex. 21,794).

1890. A memorandum to Seligman from J.I. Seeman, also dated March 21, 1980, provided additional commentary on the Philip Morris "Nicotine Receptor Program." In Seeman's memorandum, he implied that any outside scientist working with Philip Morris had to share the company's interest. He wrote that, "An additional, and perhaps fundamental, requirement was that the individual(s) chosen to work with us is acceptable from a 'political' perspective." 1003289972-9973 (U.S. Ex. 35,728).

1891. In a December 4, 1981 article, George Macklin, Director of Sales for Philip Morris in the United Kingdom, summarized and published a presentation he had made to a Retail Confectioners and Tobacconists convention. In the article he said that "cigarettes are not just habit forming – the body builds up a requirement for them," and that if it was raining, a smoker would still stop to buy cigarettes because "he is addicted to cigarettes." In response to an angry inquiry from Don Hoel of Shook, Hardy & Bacon about this public admission, Jules Hartog at Philip Morris Europe wrote that he had explained to Macklin's boss that "this sort of mistake could create a lot of problems for us" and that he had been promised that "such unfortunate incidents will not happen again" 2501013567-3568 (U.S. Ex. 27,920); 2024950721-0721 (U.S.

Ex. 20,404); 2024950723-0723 (U.S. Ex. 37,175).

1892. A March 16, 1983 memorandum from researchers James Charles and Victor DeNoble concerning their critiques of the Public Health Service's Report titled "Why People Smoke" acknowledged that Philip Morris had research results with implications contrary to Philip Morris's publicly stated opinions on nicotine, but that Philip Morris had not disseminated its findings publicly: "Recent experiments in Vic's [DeNoble's] project have shown that there is a behavioral component to tolerance (a learned phenomenon), but this work has not been published." 1005061346-1346 (U.S. Ex. 20,199).

1893. In at least one case, Philip Morris threatened to take legal action against scientists who sought to publish their research on addiction. Philip Morris had one of the first laboratories that demonstrated what would have been an important breakthrough – that rats press levers and work for nicotine. Such studies had earlier been done with monkeys, but there had not previously been a good rat model. Philip Morris was one of the first to develop a valid rat model of nicotine self-administration. Yet, this research was not published. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 64-69.

1894. A 1983 memorandum written by a Shook, Hardy & Bacon lawyer working for Philip Morris provided comments relating to "several reports (unpublished, published or in press) from the Philip Morris Research Center." Regarding an unpublished manuscript from Drs. DeNoble and Mele titled "Development of Behavioral Tolerance Following Chronic Nicotine Administration," the memorandum commented that "[t]he bottom line is that the authors are maintaining that there is tolerance to nicotine, which involves both behavioral and physiological

factors." The memorandum noted that such a finding would be detrimental to the cigarette industry:

> It is obvious that such a report has undesirable implications for smoking and health litigation. Tolerance is frequently cited as one of the hallmarks of addiction. It is the industry's position that one of the classic criteria for addiction is tolerance, and that such has not been demonstrated in the case of nicotine. While it is true that the Mele and DeNoble paper does not discuss smoking in particular or attempt to extrapolate their experimental findings beyond the laboratory, there is nevertheless the implication simply by the fact that Philip Morris is doing this research, that it is viewing this research as relevant to smoking behavior.

2021424402-4412 at 4404-4405 (U.S. Ex. 22,847).

1895. This same Shook, Hardy & Bacon memorandum arrived at the following assessment of the "unfavorable" Philip Morris internal nicotine research:

> **Research engaged in, as well as some possibly under consideration, by Philip Morris has undesirable and dangerous implications for litigation positions the industry takes in regard to smoking behavior.** The pharmacological nature of the research implies strongly a view of the importance of nicotine. What is worse, research reports under Philip Morris' sponsorship contain claims of unequivocal demonstrations of reinforcement by nicotine in animals. This kind of research is a major tool of our adversaries on the addiction issue; the irony is that industry-sponsored research is honing that tool. **In the final analysis, the performing and publishing of nicotine related research clearly seems ill-advised from a litigation point of view.** (emphasis added)

2021424402-4412 at 4412 (U.S. Ex. 22,847); 2021423422-3422 (U.S. Ex. 87,038).

1896. When testifying at the Waxman Hearings on April 28, 1994, DeNoble, no longer at Philip Morris, agreed that the self-administration rat model was a classical hallmark to indicate that a substance has abuse potential; and that the significance of his self-administration research

finding was due, in part, to the fact that it was a rat model. Indeed, the Philip Morris DeNoble study predicted nicotine abuse potential with the exact same procedure that NIDA uses to demonstrate a drug's abuse potential. 2023963269-3341 at 3312-2213 (U.S. Ex. 20,398).

1897. DeNoble also testified that prior rat self-administration studies had a compounding variable of inducement that made interpretation of their results unclear with respect to whether nicotine is truly a reinforcing agent. Therefore, his own study succeeded where others had failed and clearly was very significant at this point in history. As DeNoble put it:

> The work that we did with nicotine was clearly some years ahead of the external community, scientific community. It wasn't until 1989 that Bill Corgal (sp) demonstrated that nicotine would function as an intravenously delivered reinforcer for rats, using the same models that I used – that Paul [Mele] and I used. The work that we did on self administration, on dependence, on tolerance, on frustration, clearly would have moved the scientific community much further along than it had been moved by that work not getting out.

2023963269-3341 at 3285 (U.S. Ex. 20,398).

1898. DeNoble's former research colleague at Philip Morris, Paul Mele, added these points:

> . . . [S]ome of these studies were the first to be done with nicotine. I have no doubt that other people would have performed these studies subsequently just as has been done recently in Toronto. But they weren't being done at the time, and to quote a recent review article in Science . . . it basically took six or seven years for the nicotine self-administration model to be developed and come out. Whereas, it would have been out much earlier had this work been allowed to go out and stay out.

2023963269-3341 at 3286 (U.S. Ex. 20,398).

1899. Philip Morris management clearly knew the scientific significance of the DeNoble

rat self-administration nicotine study. In fact, approval was obtained to submit it to a leading peer review scientific journal, *Psychopharmacology*, and plans were in place to have the study presented at the 1983 American Psychological Association meeting in Anaheim. 2023963269-3341 at 3303 (U.S. Ex. 20,398).

1900. Jack Henningfield, an addiction researcher at NIDA during the period that DeNoble and Mele were performing this research at Philip Morris, has testified as to the significance such work would have had to the scientific and medical communities had it been published in 1983.

1901. Prior to publication, however, at a New York briefing designed for the purpose of having DeNoble report on the activities of the behavioral pharmacology laboratory, including the results of the rat self-administration nicotine study, DeNoble was asked only one question by members of the Philip Morris corporate staff: "[B]asically, 'why should I risk a billion-dollar industry on rats pressing a lever to get nicotine?'" 2023963269-3341 at 3304 (U.S. Ex. 20,398).

1902. The saga of the Philip Morris Nicotine Program is described in detail in a lengthy 1992 document prepared by outside counsel Shook, Hardy & Bacon titled "Philip Morris Behavioral Research Program." In this report, counsel summarize many aspects of the program and cite specific documents showing a major internal research initiative that lasted from 1969 to 1984 involving many scientists, including DeNoble. The report acknowledged that DeNoble was terminated in 1984, the year the entire program was ended. 2021423403-3497 at 3408-3409 (U.S. Ex. 36,743).

1903. With respect to the reasons why the Nicotine Program was terminated, the 1992

report prepared by outside counsel Shook, Hardy & Bacon makes clear that the program generated results and was still generating data in 1984 related to nicotine receptors, analogs, peripheral nervous system effects, central nervous system effects, effects on animal behavior, and differences between high nicotine delivery and low nicotine delivery cigarettes. The report ominously stated the following: "For reasons never stated in any internal documents, Philip Morris cancelled the Nicotine Program in spring 1984. The decision to cancel the program may have been the result of outside counsel's legal advice." 2021423403-3497 at 3408 (U.S. Ex. 36,743).

1904. In fact, in a July 27, 1983 letter to the head of Philip Morris, Shook, Hardy & Bacon attorney Patrick Sirridge summarized the nicotine research being conducted by DeNoble and recommended its suppression. 2046754720-4731 (U.S. Ex. 20,476).

1905. After DeNoble submitted his study to the higher levels of management at Philip Morris, his laboratory was shut down and the animals killed. 2023963269-3341 at 3314-3315 (U.S. Ex. 20,398). In DeNoble's own words, "[O]ur laboratory was terminated in one day." 2504099642-9666 at 9660 (U.S. Ex. 22,708).

1906. Subsequently, DeNoble was told by several representatives of Philip Morris management that his lab was generating information that the company did not want generated internally. As DeNoble testified:

> Apparently, at that same time, some litigation had come out, some law suits, and we were told that the data we were generating, the types of studies that we were doing would not be favorable in that litigation. . . . They just said that if the work were removed from the company connecting it back to the company would be, you know, more difficult to do than if it's being done right in the

company itself.

2023963269-3341 at 3305-3306 (U.S. Ex. 20,398).

1907. n a September 10, 1986 letter, Philip Morris Assistant General Counsel Eric A. Taussig threatened DeNoble and Mele with suit if they published any more of his findings on nicotine addiction, accusing DeNoble of disclosing "information relating to research on a project entitled 'Brain Sites Involved in the Mediation of Behavioral Effects of Intraventricularly Administered Nicotine." Taussig wrote that Philip Morris was aware that they had on two occasions presented the results of their nicotine research, allegedly in violation of their employment termination agreement. He informed them that "the Company cannot tolerate this type of conduct," and reiterated that "if you wish to publish or otherwise utilize research from Philip Morris, you must request and receive permission from the Company." He ended the letter by stating that "[a]ny further breach of your agreement will result in action being taken." 2023192361-2362 (U.S. Ex. 20,380).

1908. An April 6, 1994 Shook, Hardy & Bacon document titled "Philip Morris Research of Nicotine Pharmacology and Human Smoking Behavior" described the DeNoble controversy and admitted, via marked "CAVEATS," the evidence showed admission of nicotine's addictive effects by Philip Morris or suppression of important research. 2046819241-9264 (U.S. Ex. 85,386); 2046819242-9265 (U.S. Ex. 87,161).

1909. For example, the 1994 Shook, Hardy & Bacon memorandum stated that the Philip Morris research into smoker "Motivation/Quitting" from 1964-1981 was "concerned with motivations sustaining the smoking habit" and "marketing the ultimate cigarette." The research

concluded: "[M]ost smokers can be considered nicotine seekers, however, psychosocial and cultural factors are involved." Moreover, from its "Human Smoker Simulation Studies," Philip Morris determined that "standard [FTC] smoke test conditions are not indicative of how people smoke." 2046819241-9264 (U.S. Ex. 85,386); 2046819242-9265 at 9243, 9244 (U.S. Ex. 87,161).

1910. The 1994 report described how the outside research was ended in 1983 and 1984. In fact, portions of Dunn's own research was inexplicably discontinued. Dunn explained in the Cipollone litigation was that "all the people who were working with him were reassigned to other functions," and that he "had no idea why they [Philip Morris] made [the] reassignments." 2046819241-9264 (U.S. Ex. 85,386); 2046819242-9265 at 9245 (U.S. Ex. 87,161).

1911. The 1994 report pinpoints exactly which research was suppressed and the relationship of the research to Philip Morris products. When describing the "Nicotine/Acetaldehyde" research conducted by DeNoble in 1982, research that showed that acetaldehyde and nicotine functioned as "positive reinforcers," the Shook, Hardy & Bacon report admitted that the research was never published:

> CAVEAT: This research has never been published. There is nothing in the literature regarding the synergistic effects of nicotine and acetaldehyde. In addition, see description below re: Frank Ryan data on predicting sales.
>
> Upon learning that acetaldehyde functions as a positive reinforcer, they endeavored to study the combined effects of nicotine and acetaldehyde on self-administration. Results indicated that reinforcing effects of these agents are additive.
>
> Research done by Frank Ryan indicated that acetaldehyde and nicotine data could be used to predict cigarette sales at a 96%

> accuracy. . . . Frank Ryan ran a program and was able to predict blindly which cigarettes would sell and which wouldn't based on the combination of nicotine and acetaldehyde delivery.

2046819241-9264 (U.S. Ex. 85,386); 2046819242-9265 at 9249, 9260 (U.S. Ex. 87,161).

1912. In a later section of the 1994 report, Shook, Hardy & Bacon wrote the following to illustrate how nicotine research was stopped because it undermined Philip Morris's public position denying addiction, and because it may have invited regulation by the FDA:

> D. Why Was Research Stopped
>
> 1. Sensitivity. [CAVEAT: Significance is self-evident.]
>
> According to DeNoble, "we were the only tobacco company that I knew of, or that anybody else knew of, doing work with whole animals, live whole animals, and because of the nature of the research, that is, looking at self-administration, looking at the effects of nicotine on the brain function, the research was held restricted to upper management only."
>
> DeNoble discussed the effect of his research on the company with Dr. Charles, Dr. Osdene, Dr. Pages, Mr. McDow, Max Hausermann, Mr. Pollock, and Jim Remington. . . . "The downside was that we were doing whole animal research, which looked to them like we were doing Federal Drug Administration [sic] research."
>
> DeNoble understood that the research he was doing could undermine the public posture Philip Morris was taking with outsiders.
>
> **DeNoble discussed with Jim Charles and Tom Osdene the potential damage to the company of continuing animal research**. (citations omitted) (emphasis added)

2046819241-9264 (U.S. Ex. 85,386); 2046819242-9265 at 9256-9257 (U.S. Ex. 87,161).

1913. The 1994 Shook, Hardy & Bacon report also acknowledged the sudden DeNoble "Laboratory Shutdown," adding "[CAVEAT: Significance is self-evident.]". The report does not deny or even attempt to explain this event. The report then acknowledges that DeNoble's

research was suppressed: "[H]e was not allowed to publish the research regarding the effects of nicotine and acetaldehyde." This occurred "after a letter from Shook, Hardy to the Philip Morris Legal Department and discussions between [attorney] Alex Holtzman and [scientist] Jim Charles." 2046819241-9264 (U.S. Ex. 85,386); 2046819242-9265 at 9258, 9260-9261 (U.S. Ex. 87,161).

1914. None of the results or conclusions from the Philip Morris Nicotine Program or Behavioral Research Program were included in Philip Morris's and the industry's collective submission to the FDA in 1996. In fact, Volume III of the industry's "Comments" deny and respond to FDA assertions and research showing that nicotine is addictive. 2046309659-9890 (U.S. Ex. 85,381).

1915. In addition, Philip Morris's innovative research in the area of the physiological brain effects of nicotine was withheld from publication or distribution. In a February 9, 1983 memo from William Dunn to Max Hausermann, Philip Morris's Vice President of Research & Development, Dunn critiqued a paper on smoking, nicotine, and brain effects, and stated:

> We know here at R&D that for work on the immediate neural effects of smoking the most promising area for investigation is the average evoked potential. Edwards and Warburton [the authors of the critiqued report] mention the phenomenon but **(thanks to our tight security)** are unaware that a relationship has been demonstrated (repeatedly) between the latency of the response and smoke inhalation.
>
> **The results to date of our own electrophysiological research program (Frank Gullotta's work) are substantive and if published would 1) constitute a contribution to knowledge** and 2) be, in my judgment, in the best interest of P.M. I would recommend, therefore, in the context of considering the significance of the Edwards/Warburton paper, that **the legal**

> **feasibility of publishing our own findings be reevaluated.** (emphasis added)

2022252842-2842 (U.S. Ex. 87,162).

1916. Philip Morris was not only interested in suppressing research that suggested nicotine addiction, but consumer products that combated nicotine addiction as well. In 1984, Philip Morris became aware that one of its major humectant suppliers, Merrell Dow Pharmaceuticals, was marketing a new smoking cessation product called Nicorette. Philip Morris understood the threat Nicorette posed, namely allowing nicotine-addicted smokers to quit, and took action:

> **Dow was told that we were discontinuing all humectant purchases because of Dow-Merrell's attack on cigarette smoking associated with the introduction of Nicorette**, a nicotine-containing prescription chewing gum which reportedly aids patients in quitting smoking. . . .
>
> Through a series of meetings over the past few years, Dow had been repeatedly advised of our displeasure over the anti-smoking nature of Dow-Merrell's Nicorette Program. . . . Dow was informed that the recent spate of activity can only be interpreted as a conscious corporate decision that Nicorette is more important than the Philip Morris (and other tobacco) business. That is, they cannot realistically expect a customer to spend millions of dollars for materials, when the profits from those sales, directly or indirectly, are used to attack that customer's product and perhaps reduce the customer's sales. (emphasis added)

2023799799-9800 at 9799 (U.S. Ex. 26,801).

1917. Philip Morris's representatives met with Merrell Dow on several occasions and attempted to shut down the marketing and sale of Nicorette. An October 25, 1984 Philip Morris document recorded the following threat at one of the Philip Morris/Dow meetings: "It was

reiterated that Dow had been a superior supplier and that we desired to maintain our relationship. However, future purchases would be predicated on Dow's performance as a supplier as well as the course of the Nicorette program." 2023799801-9802 at 9802 (U.S. Ex. 37,048).

1918. Philip Morris's threats against and intimidation of Merrell Dow are described in other documents as well. 2023799804-9804 (U.S. Ex. 26,802); 2023799803-9803 (U.S. Ex. 37,049).

(ii) R.J. Reynolds

1919. According to a May 24, 1977 memorandum titled "Research Department: Long Range Planning Phase I," a key goal of the R.J. Reynolds R&D department was to combat scientific literature unfavorable to smoking and to generate data favorable to smoking: "Protection against the claims of the professed enemies of the tobacco industry." It was hoped that if R.J. Reynolds took the offensive in presenting information favorable to both R.J. Reynolds and the industry as a whole, "the impact of the oft-repeated arguments of anti-tobacco forces may be partially offset." 502314530-4547 at 4531, 4533 (U.S. Ex. 21,917).

1920. An October 7, 1988 report titled "An Integrated Research Program for the Study of Nicotine and Its Analogues," drafted by R.J. Reynolds researchers, indicated that R.J. Reynolds was well aware of the importance of nicotine in cigarettes and promoted the development of an extensive in-house program for the detailed study of the drug. 514894567-4676 (U.S. Ex. 20,862) (U.S. Ex. 76,199).

1921. In the mid-1990s, R.J. Reynolds took steps to promote its claim that smoking was not addictive. R.J. Reynolds's longtime nicotine science expert Donald DeBethizy

514829670-9670 (U.S. Ex. 20,861) (Confidential); Deposition of Joseph DeBethizy, United States v. Philip Morris, et al., April 17, 2002, 164:7-21, 170:14-25, 171-189.

1922. In addition, R.J. Reynolds carried out public opinion and communications work, the goal of which was to communicate the positive role of smoking.

514829670-9670 (U.S. Ex. 20,861) (Confidential); Deposition of Joseph DeBethizy, United States v. Philip Morris, et al., April 17, 2002, 185:1-189:25.

(iii) BATCo

1923. BATCo's concealment of its nicotine research carried out at Battelle Labs dates back to at least 1963. In a May 29, 1963 letter to the Tobacco Research Council ("TRC"), Sir Charles Ellis enclosed several nicotine research reports, but stated that the BATCo Board "wish me to ask you that these reports should be kept strictly confidential" by the TRC executive committee. Ellis' letter is marked "STRICTLY PERSONAL AND CONFIDENTIAL." 105620759-0761 (U.S. Ex. 85,387).

1924. In an October 25, 1978 memorandum titled "Notes on BAT/ITL Joint Meeting," Ed Jacob, a longtime tobacco industry counsel in the United States, advised that there be "a total embargo on all work associated with the pharmacology of nicotine and the benefits conferred by

smoking for three reasons," including "a pending California lawsuit which indicted nicotine as an addictive substance," and another lawsuit "against [HHS Secretary] Califano to show cause why tobacco should not be brought under the powers of the FDA." 110083647-3650 at 3649-3650 (U.S. Ex. 22,993) (U.S. Ex. 76,174).

1925. Jacob apparently was the emissary from the United States industry sent for the specific purpose of stopping nicotine research in Europe. The BAT/Imperial Tobacco meeting also stated that "ICOSI had agreed with this policy and Jacob had been sent to stop the Verband programme on nicotine." 110083647-3650 at 3650 (U.S. Ex. 22,993) (U.S. Ex. 76,174).

1926. At a February 16, 1983 meeting of tobacco company directors, attended by Manny Bourlas of Philip Morris, L.C.F. Blackman, a BATCo board member and former head of research, and representatives from several European tobacco companies, the participants discussed how to respond to the impending Independent Scientific Committee on Smoking and Health ("ISC") Report. The participants agreed upon several schemes for the tobacco industry to conceal scientific information and expertise from the government (and indeed, to respond to government requests by falsely stating that it had no relevant expertise), as well as to emphasize the imperative for the industry to avoid any "tricky" or "sensitive" studies, including research into nicotine's role in "perpetuating the smoking habit":

> 3. <u>The effect of nicotine at the levels achieved through smoking.</u> While animal experiments could probably be designed to study the effect of nicotine (either by itself or as 'spiked' additions) our response to the ISC should be that we have nothing to offer. The little information we have is already in the public domain, and we have no idea as to a worthwhile research programme . . .
>
> 5. <u>The role of nicotine, at the relevant lower range of nicotine</u>

> dosage, in perpetuating the smoking habit. While much information already exists in the literature (Russell, Ashton and Stepney etc) this is a particularly sensitive area for the industry.
>
> If any future study showed that nicotine either was, or was not, associated with perpetuating the smoking habit, industry could well be called upon to reduce or eliminate nicotine from the product. (A heads we lose, tails we cannot win situation!)
>
> We must not become involved in any collaborative study with the ISC.

109840698-0702 at 0699-0700 (U.S. Ex. 21,733) (U.S. Ex. 76,171).

(iv) Brown & Williamson

1927. Defendants argue that they justifiably relied on the 1964 Surgeon General's conclusion that nicotine was "habituating" rather than "addicting," and that the 1964 Surgeon General's report excuses all of the industry's false denials of the addictiveness of smoking and nicotine. The fundamental factual flaws in this argument are that (1) Defendants internally knew the truth as to the addictiveness of smoking and nicotine; and (2) the 1964 conclusion was in large part the product of Defendants' intentional concealment of their extensive nicotine knowledge and research from the Surgeon General's Advisory Committee.

1928. An understanding of the role of Brown & Williamson in 1963, acting in concert with its parent BATCo and R.J. Reynolds, in concealing nicotine and addiction research from the Surgeon General's committee is necessary to appreciate how the 1964 Surgeon General's addiction conclusion was the product of Defendants' fraud and concealment.

1929. The 1959-1964 BATCo nicotine research, carried out under code names "MAD HATTER," "HIPPO," and "ARIEL," was provided to Brown & Williamson. This was research

that, in the words of BATCo's lead scientist Sir Charles Ellis, was designed to determine "what constitutes the hold of smoking, that is, to understand addiction." 301083820-3835 at 3826 (U.S. Ex. 46,579). Ellis also stated that the BATCo secret nicotine research gave the industry "knowledge of the effects of nicotine far more extensive than exists in published scientific literature." 301083820-3835 at 3828 (U.S. Ex. 46,579).

1930. Moreover, Brown & Williamson executives were present at a 1962 BAT research conference where Ellis declared the group's position that "smoking is a habit of addiction." This copy of the conference report is stamped "Property of Brown & Williamson Research Department." 650344433-4493 at 4439 (U.S. Ex. 53,468).

1931. PROJECT HIPPO I was completed in January 1962, finding that rats developed tolerance to nicotine and that nicotine shared many similarities with tranquillizers. The final report on PROJECT HIPPO II was dated March 1963, finding that nicotine had many beneficial physiological effects over tranquillizers, benefits that support "the pleasure of smoking" and lead to withdrawal. 105620620-0683 (U.S. Ex. 20,247); 105620569-0605 (U.S. Ex. 20,246).

1932. Brown & Williamson acknowledged a close review of PROJECT HIPPO I and II in a "STRICTLY PRIVATE AND CONFIDENTIAL" memorandum dated July 17, 1963 by general counsel Addison Yeaman, where he agreed that "nicotine is addictive" and "we are in the business of selling nicotine, an addictive drug." He also advised that the company should develop filtered products that still delivered the necessary "nice jolt of nicotine." 321802518-2522 at 2521-2522 (U.S. Ex. 85,388).

1933. With respect to the upcoming Surgeon General's Report, the Surgeon General's

Advisory Committee requested information from the manufacturers "pertinent to its inquiry on smoking and health in 1963. The request letter from Assistant Surgeon General, James Hundley, addressed to the Tobacco Institute, was provided to Brown & Williamson and the other members under cover memorandum from Tobacco Institute President George Allen dated March 14, 1963. 680249799-9799 (U.S. Ex. 85,389).

1934. Brown & Williamson's President William S. Cutchins acknowledged the request for information in a letter to the Assistant Surgeon General Hundley, dated May 14, 1963, stating simply that Brown & Williamson contributed to smoking and health research via its contributions to the TIRC. 680249780-9781 (U.S. Ex. 85,390).

1935. Cutchins' letter was the carefully crafted product of industry legal advice. In a letter dated May 6, 1963, to Brown & Williamson in-house counsel DeBaun Bryant, outside counsel J.M. Johnson recommended that the company respond to the Surgeon General's Advisory Committee in an intentionally vague and confusing manner:

> I am of the further opinion that any description in the letter to the Committee of the methods and steps involved in the various scientific research programs conducted by Brown & Williamson must necessarily be so vague and incomplete as to be irksome to the reader. . . . Therefore, **it is my suggestion that we state simply that we have conducted no medical research**, having left that to TIRC . . . . I repeat **it is unfortunate that Brown & Williamson must submit anything,** but this approach seems to me to be the most innocuous of the alternatives. (emphasis added)

680249785-9786 (U.S. Ex. 85,391).

1936. Johnson concluded his letter with the advice that Brown & Williamson's submission to the Surgeon General's Advisory Committee must protect the company's litigation position, and must only contain material that has already been published: "From a litigation

standpoint I believe it is axiomatic that it is best to submit the least scientific material possible consonant with the objective of not irritating the Committee. As I mentioned on the telephone I would prefer to see only previously published material submitted . . . ." 680249785-9786 (U.S. Ex. 85,391).

1937. In a June 19, 1963 document titled "Note for Mr. Cutchins," BATCo president Ed Finch told his counterpart at Brown & Williamson that BATCo had sent Brown & Williamson copies of all the BAT-sponsored nicotine research conducted at the Battelle labs. Finch stated that because the reports were "sound piece[s] of research . . . it might be desirable to get them submitted to the U.S. Surgeon General's Committee." Finch also informed Cutchins that the Tobacco Research Council in Britain was sending copies of the nicotine research reports to the TIRC (CTR's predecessor) as well, "with a request that they consider whether it would help the U.S. industry for these reports to be passed on to the Surgeon General's Committee." 689033429-3429 (U.S. Ex. 54,274).

1938. A letter from BATCo's Sir Charles Ellis to Brown & Williamson's Yeaman dated June 28, 1963 recalled that Brown & Williamson had already received the "HIPPO" research reports, and enclosed the May 1963 BATCo report from Dr. Haselbach entitled "A Tentative Hypothesis on Nicotine Addiction." 689033424-3424 (U.S. Ex. 85,392); MTP0013569-3569 (U.S. Ex. 76,159).

1939. The "Tentative Hypothesis" document is quoted in detail above and closed with the following: "In conclusion, a tentative hypothesis for the explanation of nicotine addiction would be that of an unconscious desire to restore the normal physiological equilibrium of the

corticotropin releasing system in a body in which the normal functioning of the system has been weakened by the chronic intake of nicotine." 536480912-0914 (U.S. Ex. 20,928).

1940. BATCo and Brown & Williamson shared their PROJECT HIPPO I and II reports with R.J. Reynolds General Counsel Henry Ramm and outside industry counsel Ed Jacob. In an August 5, 1963 letter from Brown & Williamson General Counsel Addison Yeaman to Ramm and Jacob, Brown & Williamson enclosed "herewith the three volumes of "Project HIPPO I and II." 689033411-3416 (U.S. Ex. 31,044).

1941. Brown & Williamson considered providing BATCo-funded Battelle research on the addictiveness of nicotine to the Surgeon General prior to the first Report on Smoking and Health in 1964. However, in a July 3, 1963 cable to BATCo Chairman A.D. McCormick, Brown & Williamson General Counsel Addison Yeaman stated his intention to withhold the research results from the Surgeon General:

> Hoyt of TIRC agreed to withhold disclosure Battelle report to TIRC members or SAB until further notice from me. Finch agrees submission Battelle or Griffith developments to Surgeon General undesirable and we agree continuance of Battelle work useful but disturbed at its implications re cardiovascular disorders . . . .
>
> We believe combination Batelle work and Griffith's developments have implication which increase desirability [of] reevaluation [of] TIRC and reassessment fundamental policy re health.

689033422-3422 (U.S. Ex. 22,734).

1942. BATCo also forwarded its report titled "The Fate of Nicotine in the Body" to Brown & Williamson under cover letter from Sir Charles Ellis to chairman Bill Cutchins (stamped "Received") on July 1, 1963. In his cover letter, Ellis wrote:

> I feel sure you will agree that a knowledge of the fate of nicotine in the body is a necessary accompaniment to studying the physiological effects that nicotine can produce. I hope you will be interested in the experiments which in my opinion add considerably to the published knowledge in this subject.

689033419-3419 (U.S. Ex. 54,271).

1943. Despite BATCo and Brown & Williamson's keen interest in nicotine and its impact on smokers' bodies, Brown & Williamson never disclosed to the Surgeon General its knowledge that nicotine was addictive, or the research it possessed showing craving, tolerance, withdrawal, and many physiological effects of nicotine on the body.

1944. The 1964 Surgeon General's Report was published in January 1964. The report did not identify nicotine as an "addiction," finding instead that nicotine was a "habit." This finding was based on the Surgeon General's Advisory Committee's conclusion (1) that smoking created a "desire" but not a "compulsion;" (2) that smoking did not result in a "tendency to increase the dose;" and (3) that smoking did not create a psychological and physical dependence on nicotine. Report of the Surgeon General (1964) at 350-51, VXA1601844-2232 (U.S. Ex. 64,057).

1945. These findings of the Surgeon General's Advisory Committee, and the ultimate characterization of smoking as a "habit" instead of an "addiction," were contradicted by the sophisticated nicotine research in the possession of Brown & Williamson in 1963, research intentionally kept from the Advisory Committee. Moreover, the 1964 finding of "habituation" is contradicted by the internal company position of both BATCo and Brown & Williamson, as stated by Sir Charles Ellis, Addison Yeaman, and company scientists, that nicotine and smoking

produced an "addiction."

1946. It is highly plausible that had the Surgeon General's Advisory Committee had full knowledge of what Defendants knew and Defendants conclusions from what they knew, that information would have tipped the balance and placed nicotine in the addiction category much earlier. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 29, 36-37,70-72.

1947. Instead, Brown & Williamson denied addiction and played down the impact of smoking at every turn. In a May 19, 1972 letter to McCormick, counsel for BATCo, Yeaman recommended that in a BATCo statement being prepared in response to a British Government statement concerning cigarette smoking and health issues, the word "habit" should be changed to "practice." 680248768-8769 at 8769 (U.S. Ex. 20,993).

1948. Brown & Williamson's involvement in nicotine research, in particular research studying the effects of nicotine on the central nervous system, was intentionally confined to Europe via BATCo. This was done because of Brown & Williamson's concern that research demonstrating nicotine addiction or dependence contradicted the industry's public position and might lead to regulation.

1949. Following a visit to Brown & Williamson in October 1979, BATCo scientist D.G. Felton described the situation as follows:

> There is said to be a general nervousness in the U.S. Tobacco Industry (apart from Philip Morris) in working on the effects of nicotine, because of the risk of demonstrating nicotine dependence or addiction. There are fears that this would result in the Industry coming under the Food and Drug Administration. This view was given me both by the CTR administration and separately by

> [outside industry counsel] Mr. Tim Finnegan. In the latter's opinion, any work concerned with the central effects of smoking or of nicotine would run this risk legally.

650032772-2786 at 2783-2784 (U.S. Ex. 85,385).

1950. In an August 16, 1984 memorandum to BATCo counsel Earl Kohnhorst, Brown & Williamson Senior Vice President and General Counsel Ernest Pepples advised against the use of a report by BATCo scientist R.P. Ferris titled "The Functional Significance of Smoking in Every Day Life" due to the report's concession that "many potential criteria for addiction identification are met by smoking behavior," and its reference to smoking as "one form of 'drug usage', 'psychoactive substance usage', or 'psychoactive drug usage.'" Pepples called any use of the report by the company "not appropriate or advisable." 682015254-5255 at 5254 (U.S. Ex. 23,022); The April 24, 1984 "Restricted " report by Dr. Ferris, 650000563-0740 (U.S. Ex. 85,393).

1951. In his memorandum to Kohnhorst, Pepples described the "more serious problems" with the Ferris report, which referred to nicotine as a drug, admitted "tolerance and withdrawal," and concluded that the pharmacological effect of nicotine is the "primary motivation" for smoking. Overall, Pepples was very concerned that the report would be used in litigation as evidence that cigarette smoking is addictive, and as a basis for regulation by the FDA. 682015254-5255 (U.S. Ex. 23,022); See also 512102050-2051 (U.S. Ex. 85,394).

1952. Brown & Williamson's efforts to block the presentation or use of Ferris's study went further. Soon after, in a August 28, 1984 letter to BATCo deputy chairman Ray Pritchard, Pepples expressed Brown & Williamson's objection to using the study, its concern that the Ferris

study could seriously harm the industry, and its recommendation that BATCo legal counsel be involved in the planning of further research and drafting of reports related to nicotine and addiction. In his letter, Pepples implicitly asked Pritchard to conceal the Ferris study, and stop Ferris from making a presentation on the report at an upcoming research conference, in light of "the current legislative and litigation environment in the U.S." and "the possibility for involvement by the U.S. Food and Drug Administration." Pepples explained that the industry needed to oppose any concessions that nicotine and smoking are addictive "in order not to give a claimant an unjustified weapon to use against the company or the industry." 680583069-3070 (U.S. Ex. 23,024); See also at 521016787-6788 (U.S. Ex. 22,129).

1953. Similar to Pepples' earlier memorandum to Kohnhorst, Pepples' letter to Pritchard expressed "great concern" about Ferris's report because it conceded that smoking is addictive. Pepples did not deny any of Ferris's observations or conclusions regarding nicotine and smoking; indeed, he admitted that Ferris's use of authorities and references was "generally accurate." Fearing involvement by the FDA, Pepples then recommended closer involvement by lawyers in scientific projects in the future. He wrote:

> [T]he report seems to concede that many potential criteria for addiction identification are met by smoking behavior. For example, the report urges the position that the primary motivation for smoking is ultimately tied to a pharmacological "psychoactive" function of nicotine . . . .
>
> Throughout the report, unfortunate concessions appear regarding "tolerance and withdrawal." The report frequently expresses that smoking has certain "therapeutic properties" and nicotine is compared to the action of tranquilizers, alcohol, etc. In addition, smoking is referred to as one form of "drug usage," psychoactive substance usage," or "psychoactive drug usage."

> As you know in the current legislative and litigation environment in the U.S., claims ofaddiction have been and will be used against Brown & Williamson by our adversaries. Such claims have been vigorously opposed in order not to give a claimant an unjustified weapon to use against the company or the industry.
>
> In addition, the possibility for involvement by the U.S. Food and Drug Administration would be heightened by company or industry promotion of the theme of this report, as it will be generally perceived.
>
> If such matters as the 'Functional Significance' document and the Conference binders, enclosed herewith, are not already routinely vetted with BATCo lawyers, you may want to consider involving them more closely in both the conceptual and the drafting stages of these projects. Thank you very much for your help in this area of great concern for us.

521016786-6786 (U.S. Ex. 22,126); 680583069-3070 (U.S. Ex. 23,024).

1954. With respect to the Ferris report, Brown & Williamson attorney J. Kendrick Wells emphasized in a November 12, 1984 letter to BAT attorney Anne Johnson why the BAT study must not be publicized:

> A plaintiff in a smoking and health products liability lawsuit in the U.S. could use the paper to support its argument that smoking is difficult to quit ("Addiction"). The plaintiff could argue that the paper contradicts the voluntary assumption of risk defense. It is doubtful whether editing can transform the paper into one which would not be helpful to the plaintiff in a products liability action.

680583045-3045 (U.S. Ex. 85,395).

1955. Around this same time Brown & Williamson intervened to edit adverse references to addiction out of another BATCo report, entitled "The Controversy on Smoking and Health - Some Facts and Anomalies" by BAT scientist Dr. L.C.F. Blackman. By letter dated October 25,

1984, Brown & Williamson attorney J. Kendrick Wells wrote BATCo counsel Alec Morini that "review" of BATCo publications by Brown & Williamson was necessary in light of ongoing smoking and health litigation; Wells went on to provide 45 paragraphs of revisions to Blackman's draft report in a marked-up report These included:

> 2. Delete Donald Gould reference. The article identifies cigarettes as a drug.
>
> 3. Delete reference to Dr. W.S. Cain. The article identifies short term and longer term pharmacological and physiological factors as important in the derivation of "habitual cigarette smoking" . . . .
>
> 5. Delete. The point made here might be said to run counter to arguments that cigarette smoking is not addictive . . . .

680582499-2507 at 2500 (U.S. Ex. 54,052).

1956. The marked-up report was produced by BATCo in this litigation, with additional comments and markings from BATCo showing that BATCo acted on Wells's letter. Specifically, the three paragraphs quoted above bearing adversely on the company's position on addiction were ultimately stricken from the report. 107332541-2574 at 2545 (U.S. Ex. 26,281); compare to 680582512-2512 (U.S. Ex. 85,396).

1957. In a May 10, 1994 Brown & Williamson press release, the company made the following false claims, claims that are remarkable in light of the company's internal acceptance of addiction prior to 1964 and the company's efforts to insure that the Surgeon General never received the BATCo internal nicotine research showing addiction prior to the 1964 report:

> It has always been B&W's position - and still is - that cigarette smoking is not addictive under the standards set forth in the 1964 Surgeon General's Report. Calculated misrepresentations of the company's position merely encourage ill-informed grandstanding.

> Brown & Williamson was acknowledged by the Surgeon General for its "substantial cooperation and assistance" in connection with the 1964 Report. Contrary to the recent media reports, B&W had not concluded that cigarette smoking was addictive prior to the release of the 1964 Report.

202337394-7394 (U.S. Ex. 21,965).

(v) American Tobacco Company

1958. American attempted to keep its limited nicotine research hidden as well. For example, in a September 16, 1938 letter, H.R. Hanmer of American's R & D Department informed George W. Hill, an American Vice President, that research performed on dogs had demonstrated an increase in blood pressure due to the cigarette's nicotine. Mr. Hanmer added that while this was "very clear-cut biological evidence," "nothing of this sort could ever be used in presenting facts to the public." MNAT00115492-5499 (U.S. Ex. 21,401).

1959. In a May 14, 1969 memorandum, John Ashworth of American's R&D Department ordered that nicotine was to be referred to as "Compound W" in all "experimental work, reports, and memorandum, either for distribution within the Department or for outside distribution." Further, Ashworth directed that nicotine as a salt would be called "Compound WM" and nicotine as a citrate salt would be called "Compound WS" in all research reports. MNAT 00533224-3224 (U.S. Ex. 21,220) (U.S. Ex. 76,194).

(vi) Lorillard

1960. In a November 9, 1976 memorandum, Lorillard researcher R.E. Smith urged that an industry wide effort to offer a product with 50% less nicotine should be discontinued despite "considerable consumer trial appeal" because such a cigarette could not deliver sufficient

"smoking satisfaction" for its purchasers. 01244504-4504 (U.S. Ex. 20,042) (U.S. Ex. 34,515).

(vii) Tobacco Institute

1961. The Tobacco Institute attempted to suppress nicotine and addiction research as well. In a May 17, 1983 memorandum from Fred Panzer to David Henderson, Panzer wrote that certain legislation needed to be amended to make it favorable to the industry by preventing addiction research: "We need language for a rider to the appropriation bill for the National Institute on Drug Abuse (NIDA) that would prevent the use of appropriated funds for a study of the addictive properties of tobacco." TIMN 370968-0968 (U.S. Ex. 62,769).

(viii) CTR and Other Defendant Funded Research Groups

1962. In a May 19, 1967 letter to Philip Morris counsel Alex Holtzman, Shook, Hardy & Bacon attorney William Shinn, discussed special projects, including one to support and publicize research advancing the theory that smoking is beneficial to smokers as a stress reducer, even for "coronary prone" persons, because stress, rather than nicotine addiction, is the cause of health problems in smokers. LG2002520-2524 at 2521 (U.S. Ex. 21,594).

1963. CTR attempted to distance itself from research that might lead to evidence of addiction or smoker dependence. For example, in the early 1970s CTR turned down funding of the nicotine research of Dr. Edward Domino called "Reinforcing Properties of Nicotine and Tobacco in the Smoking Habit." 1003542005-2021 (U.S. Ex. 87,164); 50056420-6420 (U.S. Ex. 87,165); 50056421-6422 (U.S. Ex. 87,166); 50056410-6410 (U.S. Ex. 87,167); 50056407-6407 (U.S. Ex. 87,168); CTZ0321221-1222 (U.S. Ex. 87,169); CTZ0321225-1225 (U.S. Ex. 87,990); CTZ0321229-1229 (U.S. Ex. 87,991); HK1812281-2281 (U.S. Ex. 87,170); 50056389-6399

(U.S. Ex. 87,171).

1964. CTR-selected and funded nicotine research was intended to be favorable to the industry. Lawyers played an important part in carefully considering all nicotine and "psychopharmacology" research before it was started to insure it would stay "pro-industry." Nicotine/behavioral research as discussed by the CTR Director and industry counsel at a July 28, 1976 meeting of the industry Research Liaison Committee, where long-time industry counsel Dave Hardy (Shook, Hardy & Bacon), American Tobacco counsel Cyril Hetsko, and others commented:

> Little has been done on multiphasic tests to study pleasure, etc. (benefits of smoking).
>
> Suggested working conference in late 1977 or 1978 to get all those involved . . .
>
> Hardy: We want to be sure to include benefits of smoking. Is that included?
>
> Gardner: We hope not to show any prejudices.
>
> Hetsko: Concerned that such a study might play into hands of F.T.C. subpoena fishing for information [regarding] smoker motivation. Would like to see conference proposal checked out before we go ahead. This program goes beyond the organizing committee and should be considered by "committee of counsel."
>
> Hardy: Smoking behavior should be part of C.T.R. program as long as it is not "pro-company" but is kept "pro-industry."
>
> Hetsko: No problem if it is generated by SAB. This is a totally different area from what SAB has been dealing with. Doesn't want another book "to haunt us," as the one from the "Caribbean Caper" did.
>
> Yeaman: We take our direction from our members – the industry

> members. C.T.R. so far is clean of F.T.C. investigation, except possibly for the St. Martin conference.
>
> Hardy: Dr. Gardner should proceed with planning but not take any action.
>
> Hetsko: Decision for action should be made by lawyers, not C.T.R. or Organizing Committee. Chronologically, this meeting might be occurring just at a time that some of these experts are also being questioned by F.T.C. about motivation. This convergence might result in intensification of the conflict. Suggests Dr. Gardner present his program for review by all the lawyers. No records of such a review are to be kept.

1003719175-9179 (U.S. Ex. 86,406).

1965. The book from the "Caribbean Caper" that, according to Hetsko, "haunted" the tobacco industry, was a book edited by Philip Morris's Dunn and titled "Smoking Behavior: Motives and Incentives." The book was the result of the 1972 nicotine conference on the Caribbean island of St. Martin, where Dunn recalled that, "The majority of the conferees would go even further and accept the proposition that nicotine is the active constituent of cigarette smoke. Without nicotine, the argument goes, there would be no smoking." 2023193286-3304 at 3289 (U.S. Ex. 22,967).

1966. The book, while not as frank as Dunn's comments, nonetheless contained some outside researchers' views that smoking and nicotine had characteristics suggesting addiction. For example, Murray Jarvik's article in the book acknowledged evidence that nicotine was "the chemical underlying the smoking habit," and stated his personal opinion that "nicotine is the reinforcing agent in smoking." Another writer, Caroline Thomas, recognized "addictive smoking" as one type of smoking. A third author, Neal Miller, alluded to "anecdotal evidence"

that nicotine administration in rats leads to withdrawal symptoms. The conference and the book were sponsored by CTR. LD90011031-0330 (U.S. Ex. 87,320), LD90001-0330 (U.S. Ex. 85,397).

1967. In a November 22, 1977 CTR Associate Research Director Donald H. Ford stated the following with respect to nicotine in a proposal for in-depth CTR-funded nicotine research:

> [I]t now seems evident that nicotine, like narcotics, influences the CNS in multiple ways involving effects related to most known neurotransmitters Further, the dependence which develops tobacco in humans (and withdrawal symptoms during the cessation of smoking) and the degree of tolerance to nicotine which occurs in certain animal paradigms strongly suggest that nicotine is a habituating agent.

1000041912-1918 at 1912 (U.S. Ex. 20,073).

1968. Dr. Ford presented his nicotine observations at the November 1977 CTR meeting. His proposed avenues of research related to "Receptors and sites of nicotine action," neurochemical studies, the effects of nicotine on fetal development, neuroendocrinology, and behavioral responses to nicotine. 1000041912-1918 (U.S. Ex. 20,073).

1969. In response to Dr. Ford's presentation and other CTR nicotine research, Philip Morris's Tom Osdene wrote to Robert Seligman on November 29, 1977, that "we are in the process of digging our own grave." He wrote further: "I am very much afraid that the direction of the work being taken by CTR is totally detrimental to our position and undermines the posture we have taken to outsiders." 2023192379-2379 (U.S. Ex. 85,399).

1970. Janet Brown, long-time outside industry counsel for American, reported on Ford's CTR research in her minutes of a February 1, 1978 meeting of industry counsel. Her detailed

notes of the meeting revealed Defendants' knowledge about the importance of nicotine for smoking, and the importance of stopping Ford's nicotine research, when she discussed her opposition to Ford's central nervous system study. She wrote that while CTR President Addison Yeaman told her that Ford's nicotine research, whose objects included finding a "nicotine blocker or substitute," was "mere speculation," she nonetheless responded as follows:

> I said the 'speculation' was dangerous and the work had some important commercial implications. A nicotine 'blocker' or 'substitute' could put the industry out of business overnight. Any information about it, or about CNS reasons 'why people smoke,' reaching one member before the others could give that member an enormous competitive advantage in developing a 'blocker' for the 'blocker,' or in producing a 'substitute' product, or a purely 'tranquilizing' or purely stimulant product. I do not know what all the commercial ramifications are, but they suggest themselves to me as vast. These are arenas that CTR has traditionally steered well clear of and it must continue to do so.

968148608-8639 (U.S. Ex. 88,840).

1971. Industry counsel quickly made sure that Dr. Ford's proposal never received funding. As recited in the May 10, 1978 notes of the Industry Technical Committee Chairman Preston Leake (scientific director for American) to Arnold Henson (General Counsel for American), the proposed nicotine work was "ruled out" by outside counsel Ed Jacob. 955017148-7154 at 7149-7150 (U.S. Ex. 87,172).

1972. Henson recorded in his handwritten notes of the industry CTR meeting on January 10, 1978 that one of CTR's "basic problems" was "nicotine work." He also recorded that CTR needed to "stop bad nicotine work" because it was "behavioral." The meeting was attended by attorneys for Lorillard, Philip Morris, Brown & Williamson, R.J. Reynolds, American Brands,

and several outside counsel including Janet Brown and Bill Shinn. MNATPRIV00013133-3134 at 3133 (U.S. Ex. 85,401).

1973. The need to kill "bad nicotine work" was no surprise. The January 10 meeting occurred only five days after another New York meeting at CTR of Philip Morris's Osdene and Seligman with CTR Directors Gardner and Hockett. Osdene's memorandum of the January 5 meeting states:

> Dr. Seligman brought up the [CTR] grant by Dr. Abood in which one of the stated aims was to make a clinically acceptable antagonist to nicotine. This goal would have the potential of putting the tobacco manufacturers out of business.

1000286213-6214 at 6213 (U.S. Ex. 35,204).

1974. A series of CTR documents illustrate the attempts, and ultimate failure, or Dr. Avram Goldstein and Dr. Leonard Cornell to obtain CTR funding for a new addiction research facility. Dr. Goldstein's and Dr. Cornell's research specifically proposed an investigation by his Addiction Research Foundation of "nicotine receptors in the brain" and "the mechanism(s) of dependence on nicotine." It was the opinion of CTR chairman Addison Yeaman that "Dr. Goldstein's scientific credentials are of the highest." Dr. Seligman of Philip Morris was impressed by Dr. Goldstein's objectivity and intelligence. 03740559-0567 (U.S. Ex. 88,548); 686052326-2335 (U.S. Ex. 88,549); 686052262-2263 (U.S. Ex. 88,550); BBAT 026474-6475 (U.S. Ex. 88,551); 1003177412-7413 (U.S. Ex. 88,552); 01403352-3352 (U.S. Ex. 88,553); 1003728001-8007 (U.S. Ex. 88,554); 686052267-2289 (U.S. Ex. 88,555); 85681034-1034 (U.S. Ex. 88,556); 686052258-2259 (U.S. Ex. 88,557); 686052293-2296 (U.S. Ex. 88,558).

1975. However, the industry decided not to support Dr. Goldstein, Dr. Cornell, and the

Addiction Research Foundation at all. The rationale for the decision was spelled out in a September 19, 1978 memorandum from C.I. Waite to H.R. Kornegay (of the Tobacco Institute), with copies to Bill Shinn (Shook, Hardy & Bacon) and Ernie Pepples (Brown & Williamson):

> Mr. Cornell's foundation actually assumes tobacco (nicotine) is addictive and costs the U.S. citizen 42 billion dollars a year.
>
> He also believes tobacco causes 300,000 premature deaths each year.
>
> And he wonders if this is why we might not be interested.

686052246-2246 (U.S. Ex. 88,559).

1976. BATCo scientist D.G. Felton visited CTR in October 1979, where he was escorted by industry counsel Tim Finnegan from Jacob & Medinger. In his typed notes of the trip to CTR, Felton recorded the following: "I then asked about possible legal problems arising from work on beneficial effects of smoking. In Mr. Finnegan's opinion, any work concerned with central effects of smoking or nicotine would run the risk that FDA would become involved with tobacco, something that was to be avoided, if possible." 100651251-1312 at 1299 (U.S. Ex. 85,402).

1977. Shortly thereafter, in a larger meeting with CTR President Yeaman, Scientific Director Gardner, and CTR scientists, Felton also inquired into Leo Abood's nicotine work. He was told of the Defendants' decision to terminate his research given the risk of demonstrating addiction:

> The discussion passed to effects of nicotine and the reasons why CTR did not continue their grant to Leo Abood. There is a general nervousness in the US Industry (apart from Philip Morris) in working on the effects of nicotine, because of the risk of

demonstrating nicotine dependence or addiction.

100651251-1312 at 1299-1300 (U.S. Ex. 85,402).

1978. A June 20, 1984 memorandum written by Shook, Hardy & Bacon attorney Wendell L. Stone chronicled much of the CTR-funded nicotine research, and concluded that Defendants' termination of Abood's "nicotine receptor" work could be used by plaintiffs "to make a point regarding CTR that when research by its grantees appeared to be incriminating of smoking, then the CTR grants were terminated." 515709297-9340 at 9299 (U.S. Ex. 20,866).

1979. For at least the time period of 1995-1997, presentations made to the Tobacco Institute Committee of Counsel intentionally excluded scientific presentations or any discussions about the health effects of smoking or nicotine and addiction. Instead, the presentations were simply used to formulate joint industry regulatory submissions. Deposition of Denise Keane, United States v. Philip Morris, et al, October 1, 2002 at 41:22-25, 42: 1-25, 43: 1-25, 44:1-15.

1980. On the other side of the Atlantic the industry's Tobacco Advisory Council (TAC) was active as well. One particular example is worth describing in detail.

1981. Long-time tobacco industry-affiliated/funded scientists Francis Roe and Jeffrey Cohen were tasked to prepare a "Nicotine Monograph" in 1977 for the member companies of the Tobacco Advisory Council (including Philip Morris, R.J. Reynolds, and BATCo). 2501160364-0371 at 0369 (U.S. Ex. 87,173).

1982. Dr. Roe forwarded the first draft of the monograph to D.H. Beese at the TAC under cover letter dated July 30, 1979, for review by the member companies; BATCo produced a copy of the draft "monograph" and Roe's letter, which stated that "It may well be that parts of the

text will need to be expanded and the 'conclusions' section given a new title or omitted. . . . I shall look forward to hearing from you and having a reaction from the Companies in due course." 1000138177-8237 at 8177 (U.S. Ex. 87,174).

1983. Roe and Cohen stated the following in a draft "Monograph" section titled "Smoking Behaviour: Role of Nicotine in the Smoking Habit":

> There is now increasing evidence that the presence of **nicotine may be the major factor responsible for the widespread use of tobacco in all human societies**. . . Whilst smoking fulfils a psychological need in certain individuals **it is only the inhaling cigarette smoker who is likely to gain psychopharmacological satisfaction from nicotine and become dependent on it.** Nicotine has been described as a psychoactive agent with tranquillizing, antianxiety, stimulant, depressant, antiagression, mood stabilizing and stress-attenuating properties. (emphasis added)

1000138177-8234 at 8219 (U.S. Ex. 87,174).

1984. In the "Conclusions" section of Roe and Cohen's draft "Nicotine Monograph," the authors emphasized that:

> The present worldwide campaign toward low-tar, low nicotine cigarettes faces the problem that **nicotine-seeking smokers will need to inhale more smoke to obtain their nicotine requirement** and in doing so inhale more tar. . . . Because of the weak absorption of nicotine from buccal and alimentary systems, chewing nicotine gum as a possible alternative vehicle to smoke inhalation would prove much less satisfying to the **craving cigarette inhaler**.) (emphasis added).

1000138177-8234 at 8221 (U.S. Ex. 87,174).

1985. These frank observations and conclusions did not survive review by the TAC and its member companies. Roe and Cohen's "Nicotine Monograph" was eventually published in

1981 by the TAC on behalf of its tobacco industry under the title "Monograph on the Pharmacology and Toxicology of Nicotine." In the published version of the "Monograph, the "Smoking Behaviour" section quoted above was edited dramatically. For example, the acceptance of nicotine as the "major factor responsible for the widespread use of tobacco in all human societies" was deleted entirely. The fact that an "inhaling cigarette smoker" will become "dependent" on smoking was deleted. In the "Conclusions" section, there is no mention of "nicotine-seeking smokers" or the "craving cigarette inhaler." Thus, the TAC and its member companies controlled the "Monograph" scientific review, and made sure that Roe and Cohen's document was industry-favorable on the issues of nicotine and addiction. 2021585328-5378 at 5365-5368 (U.S. Ex. 87,175).

(f) Conclusions Concerning Defendants' Nicotine-Related Misconduct

1986. Defendants have known for decades that cigarette smoking was addictive and that nicotine maintained the addiction; however, Defendants hid this information from the public, and falsely denied the addictive quality of their products in many public statements. Defendants' false statements related to addiction continue even today.

1987. I find that the above conduct, including Defendants' false, misleading, and deceptive statements as well as Defendants' concealment and suppression of information, was material to the decisions of smokers and prospective smokers, and influenced the decisions of persons to initiate, continue, or quit smoking, as well as the decisions of others to initiate, forgo, or otherwise affect efforts to address smoking and health issues, thus increasing the number of cigarettes sold.

1988. I find that but for Defendants' misconduct, fewer people would have begun to smoke,

and those who had begun but desired to quit would have realized that the task might involve professional and/or medical assistance. Knowledge that a product is highly addictive is a severe deterrent to consumption. The length of time in which, and the vigor with which, Defendants pursued their campaign of obfuscation, misrepresentation, and concealment leads this Court to the conclusion that the profitability of the misconduct was high.

(2) Nicotine Manipulation

(a) Defendants Have Fraudulently Denied That They Manipulate the Level of Nicotine Delivered to Smokers To Ensure Smokers Can Obtain Sufficient Nicotine to Create and Sustain Addiction

1989. Defendants have manipulated nicotine content and nicotine delivery levels in their cigarettes since at least 1954 and continue to do so. As demonstrated in U.S. FPFF § IV.E(1), supra, Defendants have long known that nicotine is responsible for keeping people smoking. Accordingly, Defendants have undertaken extensive research of nicotine, including nicotine delivery, and manipulated nicotine and nicotine delivery levels in their cigarettes, and have connected their nicotine manipulation efforts to cigarettes sales. At the same time, Defendants have concealed both their research concerning the manipulation of nicotine and their actual manipulation of nicotine from the public. Revealing such information would demonstrate Defendants' internal understanding of nicotine's central role in smoking addiction and undermine their public denial of nicotine addiction, negatively affect the market for cigarettes, and would increase the risk of litigation against Defendants.

1990. Individually, jointly, and through third parties, Defendants have extensively studied smoking intake and inhalation, compensation, addiction physiology, smoker psychology, the pharmacological aspects of nicotine, the effects of nicotine on brain waves, and similar matters, with the goals of finding and developing cigarette design and processing methods to induce individuals to smoke and to keep smokers addicted to nicotine, leading to successful sale of their products. Based on this research, Cigarette Company Defendants have been aware for decades that cigarettes are addictive and that smoking addiction is caused primarily by the

delivery of dependence-producing levels of nicotine.

1991. As demonstrated herein, Cigarette Company Defendants have taken advantage of the knowledge obtained from this extensive research by knowingly designing their cigarettes with the purpose of ensuring optimum delivery of active doses of nicotine sufficient to create and sustain addiction among individuals who smoke, including youth. Defendants have intentionally manipulated the content and form of nicotine in their cigarettes, and the design of the cigarettes themselves, to make them more inhalable and addictive.

1992. The typical cigarette contains twenty milligrams of nicotine – far more than an individual will inhale as he or she smokes the cigarette. All of these twenty milligrams are not readily available to the smoker, however. The challenge for the Cigarette Company Defendants has been to manipulate the nicotine in their cigarettes to provide for **nicotine delivery** to the smoker in amounts necessary to maintain addiction. This especially has been the focus of the Cigarette Company Defendants since the 1960s and 1970s, when they sought to lower tar levels and at the same time to continue to provide ample, or "optimal," nicotine delivery to the smoker. Deposition of William Farone, United States v. Philip Morris, et al. April 3, 2002, 374:7-375:7; Deposition of William Farone, United States v. Philip Morris, et al., November 20, 2003, 637:7-18.

1993. Defendants have developed and continue to use highly sophisticated technologies designed to deliver nicotine in ways that are more than sufficient to create and sustain addiction in the vast majority of individuals who smoke. Every aspect of a cigarette involves extensive engineering that relates to nicotine dosage and dosage control, ensuring that a cigarette smoker

can pick up any cigarette on the market and get an addictive dose of nicotine. Although most smokers believe cigarettes are simply tobacco rolled in fine papers, most cigarettes are manufactured using reconstituted tobacco material, additives, burn accelerants, ash conditioners, and buffering substances. Other cigarette design features used by Defendants to manipulate nicotine delivery include filter design, paper selection and perforation, ventilation holes, leaf blending, and use of additives (such as ammonia) to control the acidity or alkalinity of cigarette smoke. As a result of both cigarette components and design, cigarettes are extremely effective drug delivery devices – the drug being nicotine.

1994. Notwithstanding the substantial evidence that Defendants designed their products to deliver doses of nicotine sufficient to create and sustain addiction, Defendants have publicly and fraudulently denied that they manipulate nicotine. Defendants have sought to mislead the public about their manipulation of nicotine by publicly and fraudulently maintaining that the level of nicotine in a cigarette is inextricably linked to the cigarette's tar level and that nicotine delivery levels follow tar delivery levels in cigarette smoke. Through these and other false statements, Defendants have furthered their common efforts to deceive the public regarding their use and manipulation of nicotine. Defendants often have made public statements that nicotine's purpose in a cigarette is as a flavorant. However, it is well-known within and outside the tobacco industry that nicotine is not added to cigarettes to improve taste.

(b) Defendants Have Made False and Misleading Public Statements Regarding Their Control of the Nicotine Content and Delivery of Their Products and Their Efforts to Control or Optimize the Amount of Nicotine Delivered to Smokers

1995. The Cigarette Company Defendants researched and developed technologies and

methods to control and manipulate the amount of nicotine in cigarettes. They did so in order to provide in their cigarettes the ability **to deliver** to smokers what was perceived to be the optimum amount of nicotine necessary to create and sustain addiction, regardless of the fixed nicotine content in the unsmoked tobacco rod. Notwithstanding the overwhelming evidence of Defendants' research and utilization of methods to control the amount and delivery of nicotine in cigarettes, Defendants have denied, repeatedly and publicly, that they manipulate nicotine content and delivery in cigarettes in order to create and sustain addiction. Defendants also repeatedly and publicly have claimed that the levels of nicotine delivered by their cigarettes is determined by the levels of tar delivery in their cigarettes.

1996. In furtherance of their fraudulent scheme, Defendants repeatedly have made misleading public representations, including giving false or misleading testimony before Congress, in litigation, and in submissions to federal regulatory agencies, as well as the public placement of issue advertising in the United States' media.

(i) The Waxman Hearings

1997. In 1994, the United States Congress held a series of public hearings regarding the issue of addictiveness of cigarettes and the tobacco industry's design of cigarettes and manipulation of nicotine. These hearings, before the Subcommittee on Health and the Environment, later became known as the "Waxman Hearings," after Subcommittee Chairman Henry Waxman of California. The Chief Executive Officers of the six Defendant cigarette manufacturers – Philip Morris, Brown & Williamson, R.J. Reynolds, Lorillard, Liggett, and American Tobacco Company ("CEOs"), appeared voluntarily at a Subcommittee hearing on

April 14, 1994. The CEOs testified under oath and before television cameras with every reason to believe that their testimony would be made available to the American public.

1998. The CEOs' sworn testimony was both false and misleading. During the April 14, 1994 hearing:

- Philip Morris did knowingly cause to be transmitted the testimony of President and Chief Executive Officer William I. Campbell. Campbell denied that nicotine is addictive, denied that Philip Morris research establishes that smoking is addictive, and denied that Philip Morris manipulates the amount of nicotine contained in cigarettes.

- R.J. Reynolds did knowingly cause to be transmitted the testimony of Chairman and Chief Executive Officer James Johnston. Johnston denied that nicotine is addictive and denied that R.J. Reynolds manipulates the amount of nicotine contained in cigarettes.

- American Tobacco Company did knowingly cause to be transmitted the testimony of its Chief Executive Officer, Donald S. Johnston. Johnston denied that American manipulates the amount of nicotine contained in cigarettes.

- Brown & Williamson did knowingly cause to be transmitted the testimony of Chief Executive Officer Thomas Sandefur. During this hearing, Sandefur made material misrepresentations regarding B&W's control of the amount of nicotine contained in its cigarettes.

- Lorillard did knowingly cause to be transmitted the testimony of Chief Executive Officer Andrew H. Tisch. During this hearing, Mr. Tisch denied that Lorillard manipulates the amount of nicotine contained in cigarettes.

- Liggett did knowingly cause to be transmitted the testimony of Chairman and Chief Executive Officer Edward A. Horrigan, Jr. Horrigan denied that Liggett manipulates the amount of nicotine contained in cigarettes.

TLT0730001-0850 (U.S. Ex. 77,011).

1999. In a written statement submitted by Philip Morris on March 25, 1994, to the

House Committee on Energy and Commerce, in connection with the Waxman Hearings, Philip Morris asserted that it "does nothing in the processing of tobacco or the manufacture of cigarettes that increases the nicotine in our products above what is naturally found in tobacco." Philip Morris also stated that the FTC testing method provided consumers with "information concerning the relative nicotine yields of products that permit them to make an informed choice." TLT0730001-0850 at 0362–0363 (U.S. Ex. 77,011).

2000. On April 14, 1994, William I. Campbell, President of Philip Morris U.S.A., testified at the Waxman Hearings that "Philip Morris does not add nicotine to our cigarettes. Philip Morris does not manipulate nor independently control the level of nicotine in our products." In his written statement to the Committee of the same date, Campbell stated that "[w]hen creating a cigarette for a tar category, we select a particular tobacco blend and flavors to provide 'uniqueness' for a product. . . . So, how do we 'manipulate' or independently 'control' nicotine as our critics charge? The answer is we don't. We accept the nicotine levels that result from this process." TLT0730001-0850 at 0546, 0556 (U.S. Ex. 77,011) (emphasis in original).

2001. Campbell also testified that the amount of nicotine measured by the FTC testing method accurately reflected the amount of nicotine that a smoker of its low-tar cigarettes receives. After acknowledging that Philip Morris manufactured its Merit Ultima low-tar cigarette using, for 40% of the blend, a tobacco that had a nicotine content higher than that used for the manufacture of some of its other products, Campbell contended that the reason for selecting the high-nicotine tobacco was for taste and flavor. Campbell was asked, "You may think that's for taste, but it also produces a higher nicotine level. Isn't that what's happening in

your products?" Campbell responded: "No, it isn't. . . . We compensate in our ultra low tar cigarettes by using reconstituted tobacco and expanded tobacco. So that what the smoker gets is what we . . . say in our FTC advertisements, 0.1 milligram of nicotine." TLT0730001-0850 at 0768 (U.S. Ex. 77,011).

2002. Although Campbell acknowledged that Philip Morris intentionally used tobacco blends with higher nicotine concentrations in the manufacture of "ultra low tar" cigarettes, Campbell testified that Philip Morris did so only for taste. Cambell was asked by a Member of Congress: "I'm asking about the concentration of nicotine in the tobacco. You have blended tobacco. I want to know if there's a higher concentration in that tobacco in the Ultima [an "ultra low tar" brand] than there would be in a regular cigarette?" Campbell responded, "It's there for taste, yes, sir." Additionally, Campbell was asked, "For whatever reason, do you occasionally decide to use a higher nicotine content tobacco leaf to manufacture one brand than you do to manufacture another of your brands?" Campbell testified in response: "That's the end result. As I say, we do not design the product that way. We design the product for its category in the market, which is generally a tar category." TLT0730001-0850 at 0768, 0769 (U.S. Ex. 77,011).

2003. In a written statement submitted by R.J. Reynolds on March 24, 1994 to the House Committee on Energy and Commerce in connection with the Waxman Hearings, R.J. Reynolds stated that it "does not . . . establish specific nicotine yields or manipulate nicotine to create, maintain or satisfy 'addiction.' . . . It is a simple fact that reducing 'tar' yields automatically results in proportional reductions of nicotine." In a February 28, 1994 letter mailed to FDA Commissioner Kessler in advance of the Waxman Hearings, R.J. Reynolds's Chief Executive

Officer James W. Johnston claimed that "R.J. Reynolds Tobacco Company does not increase the nicotine in its cigarettes above what is found naturally in tobacco." TLT0730001-0850 at 0368, 0370 (U.S. Ex. 77,011).

2004. On April 14, 1994, James Johnston, Chairman and Chief Executive Officer of R.J. Reynolds, testified at the Waxman Hearings that R.J. Reynolds does not "add, or otherwise manipulate nicotine to addict smokers. . . . [W]e do not do anything to hook smokers or to keep them hooked." In his written statement to the Committee of the same date, Johnston claimed that the level of nicotine contained in a cigarette is proportional to and linked to the level of tar. Johnston also stated that the level of nicotine present in a cigarettes is not "a result of a decision to 'manipulate' nicotine levels to some carefully controlled 'addictive level.' The concept of an 'addictive level' [of nicotine] . . . is not a concept known to or understood by Reynolds Tobacco." TLT0730001-0850 at 0562, 0576-0577, 0579 (U.S. Ex.77,011).

2005. Johnston further testified on April 14, 1994, that R.J. Reynolds did not "design our cigarettes with any nicotine levels in the specifications. We design our cigarettes . . . for tar levels, usually within a band. It might be a light cigarette within that band or sometimes a specific tar level objective and the nicotine flows from there. . . ." TLT0730001-0850 at 0722 (U.S. Ex. 77,011).

2006. In a written statement submitted by B&W on March 25, 1994 to the House Committee on Energy and Commerce in connection with the Waxman Hearings, B&W stated that "[t]he only direct source of nicotine manufactured by Brown & Williamson Tobacco Corporation is that tobacco that is used in the cigarettes." B&W also asserted that "[t]he filtering

and ventilation techniques that are utilized by B&W result in the smoker's receiving only a small fraction of the nicotine contained in the tobacco that was used to produce the cigarette." TLT0730001-0850 at 0381 (U.S. Ex. 77,011).

2007. In an April 14, 1994 written statement submitted to the House Committee on Energy and Commerce in connection with the Waxman Hearings, Thomas E. Sandefur, Jr., Chairman and Chief Executive Office of Brown & Williamson, stated that "Dr. Kessler suggested that cigarette manufacturers 'commonly add nicotine to cigarettes to deliver specific amounts of nicotine.' Brown & Williamson has never done that." Sandefur also stated that Brown & Williamson "believe[s] that smokers can expect to receive lower amounts" of nicotine from cigarettes that yield lower amounts in FTC testing. TLT0730001-0850 at 0594-0595 (U.S. Ex. 77,011).

2008. Sandefur was accompanied at the Waxman hearings by Tilford Riehl, Brown & Williamson's Vice President of Research and Development. In response to questions concerning Brown & Williamson's "ultra light" Barclay cigarette, which used a tobacco with a nicotine concentration of 2.3 percent (35% higher than the average amount of nicotine found tobacco), Riehl did not deny that Brown & Williamson used a tobacco with a high nicotine concentration to manufacture Barclay cigarettes. Riehl testified, however, that Brown & Williamson selected the tobacco used for Barclay for its taste. Specifically, Riehl stated: "We blend for taste, not nicotine." TLT073 0001-0850 at 0767 (U.S. Ex. 77,011).

2009. When asked by a Member of Congress, during a continuation of the Waxman hearings on June 23, 1994, whether "Brown & Williamson believes that nicotine is present for

taste or is it in cigarettes for its drug-like qualities," Thomas Sandefur, then-Chairman and CEO of B&W, stated under oath, "we very strongly believe that nicotine is a very important constituent in the cigarette smoke for taste." TLT0730851-1975 at 1584 (U.S. Ex. 77,012).

2010. Sandefur further testified at the same hearing that he did not believe that nicotine is a drug. TLT0730851-1975 at 1585 (U.S. Ex. 77,012).

2011. Sandefur testified at the June 23, 1994 Waxman Subcommittee hearing, that B&W added ammonia to commercially produced cigarettes only "[f]or the benefit of taste, to improve the taste characteristics of our cigarettes." TLT0730851-1975 at 1620 (U.S. Ex. 77,012).

2012. Sandefur also testified to Congress on June 23, 1994, on behalf of B&W, "We do not manipulate the nicotine levels of our cigarettes. . . ." TLT0730851-1975 at 1673 (U.S. Ex. 77,012).

2013. In a written statement submitted by the American Tobacco Company on March 25, 1994, to the House Committee on Energy and Commerce in connection with the Waxman Hearings, American stated that it "does not use nicotine in the manufacture of its cigarettes" and that "nothing is done in the tobacco processing or manufacture of cigarettes by the American Tobacco Company to increase nicotine beyond that naturally occurring in tobacco." TLT0730001-0850 at 0378-0379 (U.S. Ex. 77,011).

2014. On April 14, 1994, Donald S. Johnston, Chairman and Chief Executive Officer of American, testified at the Waxman Hearings that:

> the American Tobacco Company does not use nicotine in the manufacture of its cigarettes. . . . American has no desire or intent

> to manipulate nicotine. At no time has the American Tobacco Company attempted to market a cigarette based on its nicotine content. Or more generally, has it never designed or marketed a cigarette with the purpose or intent of selling nicotine.

TLT0730001-0850 at 0597, 0599 (U.S. Ex. 77,011).

2015. Following Johnston's testimony at the Waxman hearings, Representative Waxman sent a request for information to American seeking additional information concerning its use of nicotine in the design of its cigarettes. In an October 14, 1994 letter responding to some of Representative Waxman's requests, American stated, through its lawyers, that: "At no time in the new product development cycle is nicotine delivery considered as a criteria for product design, basically because nicotine delivery follows 'tar' delivery. . . ." American also stated that it "does not currently nor has it in the past . . . done anything in the tobacco processing or manufacture of cigarettes or filters to increase nicotine beyond that naturally occurring in tobacco." 946182186-2221 at 2203, 2204 (U.S. Ex. 88,092).

2016. On March 25, 1994, Alexander W. Spears, Vice Chairman and Chief Operating Officer of Lorillard, testified at the Waxman hearings that "[w]e do not set levels of nicotine for particular brands of cigarettes." Spears further stated that "[n]icotine follows the tar level," and the correlation between the two "is essentially perfect," and "shows that there is no manipulation of nicotine." In a 1981 study, however, Spears had previously stated explicitly that "low-tar" cigarettes used special blends of tobacco to keep the level of nicotine up while tar is reduced: "[T]he lowest tar segment [of product categories] is composed of cigarettes utilizing a tobacco blend which is significantly higher in nicotine." Spears did not inform Congress of his earlier statement. TLT0730001-0850 at 0148-0149, 0382-0383 (U.S. Ex. 77,011); 82495618-5628

(U.S. Ex. 86,932).

2017. To the contrary, in response to questioning by the panel concerning data he submitted at the March 25, 1994 hearing, Spears again contended in testimony on April 14, 1994, that the level of nicotine found in cigarette products is a function of the level of tar in those products. Spears testified that "the statement that nicotine follows tar" is true from the 1950s to 1990 and that he "stick[s] with that statement and [he] believe[s] it is accurate." TLT0730001-0850 at 0707, 0719 (U.S. Ex. 77,011).

2018. On April 14, 1994, Andrew H. Tisch, Chairman and Chief Executive Officer of Lorillard Tobacco Company, testified at the Waxman Hearings that "the level of nicotine in the products manufactured and sold by Lorillard is solely determined by the tobacco that we buy and the blending of different tobaccos used in our manufacturing. . . . Nicotine levels follow tar levels and are not raised or reduced for particular brands." Tisch also testified that "Lorillard does not take any steps to assure a minimum level of nicotine in our products. Lorillard does not add nicotine to cigarette tobacco for the purpose of manipulating or spiking the amount of nicotine received by the smoker." TLT0730001-0850 at 0596, 0597 (U.S. Ex. 77,011).

2019. In a written statement submitted by Liggett on March 24, 1994, to the House Committee on Energy and Commerce in connection with the Waxman Hearings, Liggett stated: "we do not increase the nicotine level of our cigarettes beyond that found naturally in the tobacco from which are our cigarettes are made. . . . We do not artificially increase the level of nicotine in our cigarettes to allegedly 'addict' smokers or otherwise influence our consumers." TLT0730001-0850 at 0380 (U.S. Ex. 77,011).

2020. On April 14, 1994, Edward A. Horrigan, Jr., Chairman and Chief Executive Officer of Liggett, testified at the Waxman Hearings that "Liggett does not increase the nicotine level of our cigarettes beyond the level of nicotine found naturally in the unprocessed tobacco that we use to make our cigarettes. . . . Liggett does not manipulate the level of nicotine in our cigarettes to hook or addict smokers." Horrigan, who formerly had been Chairman and Chief Executive Officer of R.J. Reynolds Tobacco Company, also testified that "[i]n all my years in this business world-wide, I have never known of a product-designed objective or goal that included even the notion of spiking the amount of nicotine in a cigarette to achieve a level that would hook or addict smokers." TLT0730001-0850 at 0600, 0601 (U.S. Ex. 77,011).

2021. Following Horrigan's testimony at the Waxman hearings, Representative Waxman sent a request for information to Liggett on May 25, 1994, seeking additional information concerning its use of nicotine in the design of its cigarettes. In its response to a request for information concerning which methods of controlling nicotine it used in its products, Liggett responded: "Liggett does not and has never used any of these methods for the purpose of controlling or changing the levels of nicotine alone in its cigarette brands. . . . Liggett has not conducted any research that was designed to develop methods for the purpose of changing or controlling the level of nicotine alone in cigarettes it sold commercially." Liggett also stated, in response to a request that it describe any research studies it had conducted concerning the relationship between nicotine and taste, that "Liggett has conducted no research on the relationship of nicotine or the amount of nicotine to the taste/flavor or on the acceptability of denicotinized cigarettes. . . ." LDOJ9511212-1230 at 1216, 1218 (U.S. Ex. 86,933).

2022. In response to Representative Waxman's letter, Liggett also stated that:

> Liggett has conducted no research on nicotine analogues. . . .
>
> Liggett has not performed any research to increase or maintain nicotine levels while decreasing 'tar' levels. Liggett does employ traditional blending techniques which maintain the consistency of its products, including 'tar' and nicotine deliveries.
>
> Liggett has specified neither minimum nor maximum nicotine levels or deliveries, nor has it taken any steps to alter or adjust the level of nicotine delivery alone at any stage of cigarette production.
>
> [Apart from limited research concerning reduction of nicotine], Liggett has done no other research on adjusting, altering or maintaining nicotine levels or nicotine delivery alone.

LDOJ9511212-1230 at 1220, 1221, 1222-23 (U.S. Ex. 86,933).

2023. The Tobacco Institute also made a statement before Congress in connection with the Waxman Hearings. On March 25, 1994, the Tobacco Institute's spokesperson, Charles O. Whitley, testified that "nicotine levels are a function of tar levels. Over the past 30 years or so, the consumer demand for lighter cigarettes has led the tobacco manufacturers to reduce tar levels . . . and the nicotine levels have dropped correspondingly." Whitley further testified that "we do not add nicotine, have not added nicotine, we do not manipulate nicotine." In the written statement submitted by Whitley in connection with his testimony, Whitely stated that that FDA Commissioner Kessler's suggestions that cigarette manufacturers add nicotine to cigarettes to produce and sustain addiction were "unequivocally . . . false," and that "when . . . 'tar' levels" are reduced, "nicotine is reduced automatically." TLT0730001-0850 at 0146, 0350, 0157 (U.S. Ex. 77,011).

2024. Defendants also conducted a misinformation campaign in the print media and in their statements to public health authorities in and around the time of the Waxman hearings.

2025. In an advertisement released the day following the CEOs' 1994 Congressional testimony, entitled "Smokers and Non-Smokers: Facts You Should Know," Philip Morris stated: "Philip Morris does not 'manipulate' nicotine levels." 2023011263-1263 (U.S. Ex. 20,371).

2026. On February 28, 1994, Philip Morris distributed a public statement that stated:

> There is nothing done in the processing of tobacco or manufacture of cigarettes by Philip Morris that increases the nicotine in the tobacco blend above what is normally found in tobacco. . . . Philip Morris provides its consumers with a range of choices in tar and nicotine levels in its products. As a matter of fact, over the years, consumer taste preferences have resulted in products with lower levels of both tar and nicotine. For many years, nicotine levels for all cigarettes have been measured pursuant to FTC methods and publicly displayed in every cigarette advertisement.

682637639-7639 (U.S. Ex. 30,999).

2027. In a June 14, 1995, letter to the editor of *The New York Times*, written by James Morgan, then President and CEO of Philip Morris, criticizing an article that *The Times* had published regarding Philip Morris's research and marketing practices, Morgan claimed that "basic research regarding 'tar' and nicotine ratios was never used in the company's manufacturing processes to alter, much less 'manipulate,' the natural ratio of 'tar' to nicotine in the cigarettes the company sells." 2505560444-0446 at 0445 (U.S. Ex. 86,934).

2028. On June 23, 1994, after a connection between the use of ammonia technologies and increased nicotine deliveries was publicized, Philip Morris released a press statement that included, "[t]here is no indication that ammonia compounds in our cigarettes alter the amount of nicotine the smoker inhales. . . . [T]he presence of ammonia compounds in cigarettes does not support Dr. Kessler's allegation that cigarette companies manipulate nicotine levels to 'addict' their customers." 2076733633-3633 (U.S. Ex. 43,887).

2029. An October 18, 1995 Philip Morris press release stated, in part, "Philip Morris U.S.A. does not use ammonia in the cigarette manufacturing process to increase the amount of nicotine inhaled by the smoker or to 'affect the rate of absorption of nicotine in to the bloodstream of the smoker,' or to 'increase the potency of the nicotine a smoker actually inhales.'" 2076733634-3634 (U.S. Ex. 43,888).

2030. On July 8, 1994, Christopher Proctor sent to all General Managers, BAT Corporate Affairs Managers, and BATCo Board members a memorandum including "Questions and Answers related to U.S. hearings." Recipients were told to use the materials in response to questions from media and staff. Regarding nicotine, BATCo's response was that "BAT does not 'manipulate' the level of nicotine in its products." Recipients were also instructed to respond to questions regarding addiction that "BAT does not 'spike' its tobaccos with nicotine. Smoking is not an addiction." 800335882-5886 at 5884 (U.S. Ex. 31,906).

2031. B&W issued a press release in 1994 that stated: "B&W does nothing in the manufacture of its tobacco products that increases the level of nicotine above that which is naturally found in the tobacco plant, nor does it artificially increase nicotine." 202337394-7394 (U.S. Ex. 21,965).

2032. A June 22, 1994 *Newsday* article quoted Tom Fitzgerald, spokesperson for B&W, as claiming, "'What Dr. Kessler called manipulation was an effort on our part to lower the tar levels in our brands and provide the taste that consumers were expecting.' He said several of the brands using Y-1 tobacco (a high-nicotine tobacco; see infra IV.E(2)(d)(iii)) 'actually deliver less nicotine than the non-Y-1 blends for the same products.'" USX3552053-2055 at 2054 (U.S. Ex. 76,211).

2033. In a June 1994 article, Ralph Edmonson, a BAT spokesman, stated, "It is nonsense to say we want to make people more addicted to nicotine." 502575988-5988 (U.S. Ex. 86,884).

2034. In a February 28, 1994 letter to Surgeon General David Kessler preceding the Waxman hearings, James W. Johnston, Chairman and Chief Executive Officer of R.J. Reynolds, stated that "R.J. Reynolds Tobacco Company does not increase the nicotine in the tobacco we use in the manufacture of our cigarettes." TLT0730001-0850 at 0798 (U.S. Ex. 77,011) (emphasis in original).

2035. A 1994 R.J. Reynolds advertisement appearing after the Waxman hearings quoted its Chairman, James Johnston: "We do not increase the level of nicotine in any of our products in order to addict smokers. Instead of increasing the nicotine levels in our products, we have in fact worked hard to decrease 'tar' and nicotine." 513193867-3867 (U.S. Ex. 21,969) (emphasis in original).

2036. In 1994, R.J. Reynolds placed an advertisement in national media in response to allegations that had controlled the amount of nicotine delivered by its cigarettes in an effort to keep smokers addicted to cigarettes. The ad featured a photograph of R.J. Reynolds's Chairman James W. Johnston holding a burning cigarette with the following quote in large lettering under the photograph: "WE DO NOT 'SPIKE' OUR CIGARETTES WITH NICOTINE." In the text of the advertisement, R.J. Reynolds claimed that:

> Recently, a TV show accused tobacco companies of somehow 'spiking' the level of nicotine in our products to 'addict' smokers. As Chairman of a tobacco company and a smoker, I want America's 45 million smokers to know that this is sheer nonsense. At R.J. Reynolds we do not increase the level of nicotine in any of

> our products in order to 'addict' smokers. Instead of increasing the nicotine levels in our products, we have in fact worked hard to decrease 'tar' and nicotine. Much of the recent controversy has focused on our use of various techniques that help us reduce the 'tar' (and consequently the nicotine) yields of our products.

525722360-2360 (U.S. Ex. 86,935) (emphasis in original).

2037. In a June 21, 1994 press release, R.J. Reynolds contended that its use of ammonia or ammonia compounds in processing tobacco and manufacturing cigarettes "do[es] not have any technical or function effect in the finished product." RJR000000052600906970049344 8-3448 (U.S. Ex. 86,936).

2038. The Tobacco Institute also drafted a 1994 press release that stated: "Cigarette manufacturers do not 'manipulate' the level of nicotine in various brands. Nicotine levels follow 'tar' levels – as manufacturers have reduced 'tar' levels and yields over the years to satisfy changing consumer tastes, nicotine levels and yields have fallen correspondingly." TIMN328214-8215 (U.S. Ex. 21,284).

2039. On a March 27, 1994, airing of "Face the Nation," Brennan Dawson, Vice President of the Tobacco Institute, stated, "The industry does take the position that . . . not only do they not add nicotine, but they don't manipulate nicotine. So Congress has been told formally be every cigarette manufacturer in the United States that this claim is without foundation." TLT0730851-1975 (U.S. Ex. 77,012)

(ii) Other False and Misleading Public Statements

2040. On October 18, 1995, BAT denied in the press that it had "doctored its cigarettes after reports from America that ammonia had been used to boost nicotine delivery." BAT stated

that "[t]here is no way we add anything to enhance the nicotine." "Cigarette Tampering Denied," *The Guardian*, October 19, 1995 (U.S. Ex. 86,883).

2041. In a proxy statement filed with the Securities and Exchange Commission ("SEC") on March 7, 1995, the Board of Directors of RJR Nabisco Holdings Corp. publicly made a false and misleading statement to its shareholders and to the SEC. A group of shareholders filed a proposal to the Board that the company issue a public report regarding "whether nicotine content in and absorption from its tobacco products are deliberately controlled by the Company and if the reasons for any such control include the delivery of a reliable dose of nicotine to and/or the promotion of nicotine absorption by the customer." The Board recommended a vote against the proposal, stating that "RJRT does not add nicotine to any of its tobacco products and does not manipulate the amount of nicotine in any of its products to create, maintain, or satisfy an 'addiction.'" The overwhelming evidence cited herein (Section IV.E(2)), demonstrates R.J. Reynolds undertook extensive efforts to study and manipulate nicotine delivery of its cigarettes. Thus, the Board knew these public statements were false and misleading. (U.S. Ex. 88,004).

2042. On January 2, 1996, R.J. Reynolds submitted its "Comments of R.J. Reynolds Tobacco Company Concerning FDA's Jurisdictional Analysis" to the Food and Drug Administration. R.J. Reynolds stated in its comments that its decades of research concerning nicotine "**[did] not reflect an intent to provide smokers with pharmacologically active 'doses' of nicotine**. . . . Reynolds's cigarette design research and the cigarettes that Reynolds has marketed and advertised to smokers demonstrate an intent to provide smoking taste and pleasure." 515639064-9070 at 9070 (U.S. Ex. 86,939).

2043. In a proxy statement dated March 11, 1996 addressed to stockholders, the Board

of Directors of Philip Morris Companies Inc. publicly made a false and misleading statement to its stockholders. A group of stockholders filed a proposal to the Board relating to nicotine in tobacco products in which they proposed that Philip Morris "develop and publicize nicotine ratings for each of our cigarette brands and to make this available in accurate information to our customers about how much nicotine they consume when smoking." The Board urged a vote against the proposal, arguing that Philip Morris "follows the FTC method, and the FTC 'tar' and nicotine ratings are as a practical matter the only ones that may be advertised to consumers. Indeed, to develop and publicize additional separate ratings would be inconsistent with the FTC's primary objective, which is to provide consumers with a standard to compare competing cigarette brands." The overwhelming evidence cited in Section IV.E(2)(c)-(d), infra, demonstrates Philip Morris was long aware that FTC ratings did not accurately measure the amount of nicotine delivery received by smokers of its cigarettes. The Board knew such a public statement was false and misleading. (U.S. Ex. 88,057).

2044. In a proxy statement filed with the Securities and Exchange Commission ("SEC") on May 14, 1996, the Board of Directors of Loews Corporation publicly made a false and misleading statement to its shareholders and to the SEC. A group of shareholders filed a proposal to the Board relating to nicotine in tobacco products in which they proposed that Loews "develop and publicize nicotine ratings for each of our cigarette brands and to make this available in accurate information to our customers about how much nicotine they consume when smoking." The Board recommended a vote against the proposal, arguing "information regarding nicotine levels in cigarettes is readily available to the public through prominent disclosure in cigarette advertising, as required by the Federal Trade Commission." The overwhelming

evidence cited in Section IV.E(2)(c)-(d), infra, demonstrates Lorillard was aware that FTC ratings did not accurately cite the amount of nicotine delivery received by smokers of its cigarettes. The Board knew such a public statement was false and misleading. (U.S. Ex. 22,080).

2045. In the late 1990s, an R.J. Reynolds scientist gave a presentation to the World Health Organization in which he denied that R.J. Reynolds was using ammonia to manipulate nicotine intake from its cigarette products. Deposition of Robert Suber, United States v. Philip Morris, et al., June 18, 2002, 47:15-48:18.

2046. In a July 28, 1997 press release, R.J. Reynolds claimed that the findings of a study concerning the addition of ammonia to cigarettes might demonstrate that addition of ammonia actually **decreased** the amount of nicotine that reaches a smoker's brain – the opposite of what the scientist who conducted the study concluded. R.J. Reynolds claimed in the press release that an increase in "vapor nicotine" or "free nicotine," accomplished by the addition of ammonia or ammonia compounds, could result in less efficient delivery of nicotine to a smoker because "'vapor nicotine' doesn't make it past the upper airways before it is absorbed by the body." Therefore, R.J. Reynolds claimed, use of ammonia compounds in cigarettes may actually decrease the amount of nicotine absorbed by the smoker. RJR000000041506872170032018 5-0185 (U.S. Ex. 61,964); 2076733657-3658 at 3657 (U.S. Ex. 86,940).

2047. A spokeswoman for R.J. Reynolds told *The New York Times* in February 1998 that "nicotine levels were not a 'design characteristic' in developing cigarettes . . . [and that its] 'research through the years has focused on reducing total tar and nicotine yield.'" RJR000000014102362470046695 2-6957 at 6954 (U.S. Ex. 86,941).

2048. On January 29, 1998, Philip Morris Companies' Chief Executive Officer Geoffrey Bible testified before the House Commerce Committee in hearings that were televised nationwide. During the hearing, Bible misrepresented the effect of ammonium compounds on the delivery of 'free' nicotine. Bible testified:

> I'm told that ammonium compounds are used in two ways in our products. In the first instance they are used as a blending agent in the manufacture of what is called sheet tobacco, which is included in the cigarette. . . . It is also used as a flavor. But I'm also told that the ammonium compounds that are used in the cigarettes we sell do not cause the amount of nicotine in smoke to rise. It does not change the form of the nicotine that goes to the brain. And it may result in a slight increase in the amount of nicotine in the mouth, . . . but that the nicotine absorbed through the mouth reaches the brain more slowly than nicotine absorbed through the lung.

2078124371-4372 (U.S. Ex. 86,938); National Tobacco Settlement, Hearing before the House Commerce Committee, Afternoon Session, *Federal News Service* (January 29, 1998) (U.S. Ex. 76,202).

2049. In a February 24, 1998 letter to *The New York Times*, written by Peggy Roberts, Director of External Relations, Philip Morris stated that "its use of ammonia compounds in the cigarette manufacturing process does not increase the amount of nicotine delivered to the smoker, does not increase the amount of nicotine absorbed in the lungs of the smoker, and does not affect the form of nicotine delivered to the smoker's brain." 2076733606-3607 (U.S. Ex. 43,886).

2050. Brennan Dawson, Tobacco Institute Senior Vice President of Public Affairs, was speaking on behalf of, and as representative of, the tobacco industry when making public statements in the 1990s that "nothing in the cigarette manufacturing process is done with an eye

toward manipulating nicotine levels. . . . It's all done with taste in mind." Dawson told the *Wall Street Journal* that nicotine levels "follow" tar levels. Deposition of Brennan Dawson, Iron Workers v. Philip Morris, December 17, 1998, 71:19-73:5, 74:2-15; **Dawson Dep. Ex. 7, 4-page article from *Wall Street Journal*, July 14, 1995, titled "Tobacco: Why Don't Low-Tar Cigarettes Have Lower Nicotine?"** BWC3930802-0806 (U.S. Ex. 86,937).

2051. Defendants' deception, suppression, and conspiracy regarding nicotine manipulation continues to this day.

2052. Philip Morris's current public Internet website states that: "[S]ome have alleged that we use specific ingredients to affect nicotine delivery to smokers. That is simply not true." http://www.philipmorrisusa.com/product_facts/ingredients/ingredients_in_cigarettes.asp (as of June 4, 2004) (U.S. Ex. 88,058).

2053. R.J. Reynolds's current public Internet website states that R.J. Reynolds "do[es] not add nicotine or any nicotinic compounds to any of our cigarettes, nor do we do anything to enhance the effects of nicotine on the smoker." This statement has been found on R.J. Reynolds's website for several years. 525587450-7452 at 7450 (U.S. Ex. 52,991); http://www.rjrt.com/TI/TITar_Nic_Summary.asp (as of June 3, 2004) (U.S. Ex. 86,942).

2054. B&W's current public Internet website states that: "Brown & Williamson does not in any way control the level or nature of nicotine in cigarettes to induce people to start smoking or to prevent people from quitting." http://www.brownandwilliamson.com/Index_sub2.cfm?ID=1 (as of June 3, 2004) (U.S. Ex. 86,656).

(iii) Testimony Consistent with Fraudulent Public Statements

2055. In deposition and trial testimony, and in discovery responses, Defendants have made the same or corresponding statements denying their ability and efforts to control nicotine.

2056. On June 21, 2002, Hector Alonso, Vice President of Product Development and Technology at Philip Morris, unequivocally testified that Philip Morris does not exercise control over the level of nicotine in the cigarettes it sells. Asked "Does Philip Morris exercise any control over the level of nicotine in the cigarettes that it sells?" Alonso answered only: "No." Alonso further testified that Philip Morris controls tar delivery, and parroted the oft-invoked public industry position that nicotine follows tar. Deposition of Hector Alonso, United States v. Philip Morris, et al., June 21, 2002, 51:6- 51:9.

2057. On May 23, 2002, Lonnie Joe Inman, Vice President of Manufacturing for R.J. Reynolds, testified that diammonium phosphate is added to reconstituted tobacco extract for a signature taste and not to increase nicotine delivery. Deposition of Lonnie Joe Inman, United States v. Philip Morris, et al., May 23, 2002, 39:17-39:22.

2058. Inman further testified that filters could be designed that would eliminate amounts of nicotine in cigarettes, but he has not attempted to create one. Deposition of Lonnie Joe Inman, United States v. Philip Morris, et al., May 23, 2002, 55:10-55:24.

2059. Consistent with the rest of the industry, Liggett continues to deny that it manipulates nicotine. In its Answer filed in this case, Liggett stated: "Liggett admits that it has stated in the past and does now state that it does not manipulate nicotine levels." Answer of Liggett Group Inc. to Plaintiff's Complaint for Damages and Injunctive and Declaratory Relief (R. 180, filed 10/30/2000), at ¶¶ 77, 78-80, 82 (U.S. Ex. 75,845).

2060. Timothy Jackson, Vice President for Operations at Vector Tobacco, holding

company of Liggett as of September 2000, testified in this action that he was "not aware of . . . any way that nicotine is controlled through cigarette design." Jackson also testified that the delivery of nicotine is "directly relat[ed] to tar delivery." Prior to the time that Jackson became Vice President for Operations, he was the President of Liggett Operations for three years and had worked at Liggett since 1983. Jackson's duties at both Liggett and Vector include overseeing all areas relevant to the manufacture of cigarettes. Jackson also participated substantially in the design and manufacture of the Omni and Quest cigarette brands Deposition of Timothy Jackson, United States v. Philip Morris, et al., March 21, 2003, 8:16-9:1; 27:12-28:3; 11:15-11:19, 17:13-17:18, 18:23-19:13, 65:20-21; 65:2-65:20; 67:16-67:22; 66:23-68:2.

(iv) Actions Consistent with Fraudulent Public Statements

2061. Cigarette Company Defendants have taken many actions consistent with their fraudulent public statements or designed to bolster those statements.

2062. The Defendants have maintained tight control over their research and over what their scientists could share with others about their work. According to former Philip Morris scientist Victor DeNoble, the senior management within Philip Morris were the decisionmakers regarding whether research data "could be published, presented at scientific meetings, or even discussed in the scientific community." TLT0730851-1975 at 0864 (U.S. Ex. 77,012).

2063. Even though Philip Morris executives and public relations officers continue to maintain that the importance of nicotine in cigarettes only goes to consumer taste preference and is not used to keep smokers addicted, testimony of former Philip Morris scientists contradicts such public statements. Former Philip Morris research scientist Paul Mele testified that nicotine

has no taste. Deposition of Paul Mele, Engle v. R.J. Reynolds, December 10, 1998, 104:6-14. Mele testified before Congress in 1994 that Philip Morris never suggested to Mele during his work on nicotine analogues that Mele should develop an analogue that **tasted** like nicotine or that Philip Morris left nicotine in cigarettes because of its **taste**. TLT0730851-1975 at 0874 (U.S. Ex. 77,012).

2064. Victor DeNoble testified before Congress that his laboratory at Philip Morris did no research on taste, even though he performed extensive nicotine-related research and he and his colleagues were actively looking for nicotine analogues. TLT0730851-1975 at 0874 (U.S. Ex. 77,012).

2065. Cathy Ellis, formerly Senior Vice President, Worldwide Scientific Affairs for Philip Morris, has admitted that nicotine does not have a good flavor. Deposition of Cathy Ellis, State of Mississippi v. American Tobacco Co., et al., March 20, 1997, 158:6-163:19; Dep. Ex. 11.

2066. B&W's obfuscations appear to be part of a longer-term effort to keep from the American public B&W's actions to modify nicotine delivery in order to keep smokers addicted. In what appears to be a draft public statement, B&W employed a series of questions and answers, including questions about the role of ammonia in cigarette smoke and B&W enhancing of nicotine in cigarettes. The questions and proposed answers include:

> [Q.] DOES AMMONIA ENHANCE THE EFFECTS OF NICOTINE?
>
> [A.] No. The use of ammonia containing ingredients neither increases the levels of nicotine in smoke not the effects of nicotine on the body.

> [Q.] DOES BAT ADD ANY INGREDIENTS THAT ENHANCE THE ADDICTIVE EFFECTS OF NICOTINE?
>
> [A.] No. We do not know of any ingredient that enhances the effects of nicotine.

689697443-689697446 (U.S. Ex. 54,314).

2067. On July 31, 1997, Christopher Proctor, Head of Science & Regulation in BATCo's Corporate and Regulatory Affairs Group, sent an electronic mail message to numerous BAT and B&W executives and managers pertaining to ammonia. This message stated, in part:

> Associated Press today reports that a new study, published in the Journal Environmental Science and Technology, suggests that the use of ammonia can 'make nicotine 100 times more available.' We are still waiting to obtain the scientific paper, but can comment now on our own understanding of the issue of ammonia and our own practices. . . . [T]he use of ammonia-related ingredients in our commercial products does not change the pH of smoke (the acid/alkali ratio) and therefore does not change the proportion of free to bound nicotine - our use of ammonia does not make nicotine 'more available.'

623505662-5662 (U.S. Ex. 86,943); Deposition of Christopher Proctor, United States. v. Philip Morris, et al., May 7, 2002, 11:11-25.

2068. As of 1997, Brown & Williamson had never disclosed to its customers that it used ammonia technology in its cigarettes to enhance the delivery of nicotine, and had never provided them with nicotine-transfer information. Moreover, as of 2002, Brown & Williamson had not made public its research on the effect of pH on nicotine impact. Deposition Testimony of M. Lance Reynolds, State of Minnesota and BCBS v. Philip Morris et al., C1-94-8565, vol. 1, 112:19-112:23, 237:10-239:13 (Minn Dist. Ct. June 4, 1997); Deposition Testimony of M. Lance Reynolds, United States v. Philip Morris et al., Sept. 12, 2002, vol. 2, 346:2-346:19, 347:8-

347:20, 348:7-348:14.

(c) Product Goals - Defendants Have Manipulated Cigarette Ingredients to Ensure Delivery of Nicotine at Levels that Would Create and Sustain Addiction, Attract Smokers to Their Brands, and Keep Smokers Smoking

(i) Defendants Recognized the Necessity of Delivering a Minimum and Optimum Amount of Nicotine that Would Maintain Consumers' Smoking Addiction

2069. Through years of research, Cigarette Company Defendants sought to identify an "optimum" amount of nicotine: one that would meet consumers' demand for lower tar and nicotine products (based on the consumers' perception – deceptively fueled by Defendants – that such cigarettes actually delivered less tar and nicotine and thus would be safer, see U.S. FPFF § IV.F., infra), while still providing enough nicotine to create and sustain addiction. Defendants conducted this research with the knowledge that their profits depended on creating and maintaining a base of addicted consumers.

2070. The Cigarette Company Defendants have consistently engineered their cigarettes to enable smokers to obtain their optimal level of nicotine. Whatever the nicotine yield obtained by the FTC smoking machine, Defendants have designed cigarettes to deliver nicotine over a wide range of doses when smoked by a consumer. These designs have enabled the most heavily-marketed brands to readily deliver the 1-3 milligrams of nicotine sought by most smokers, and to deliver different amounts of nicotine to different smokers, depending on their preferences, regardless of the advertised or labeled delivery values. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al., (R. 681; filed November 15, 2001); Monograph 13 at 30-34 (U.S. Ex. 58,700).

2071. At a 1972 conference sponsored by Defendant Council for Tobacco Research

("CTR"), an organization jointly funded and controlled by the cigarette manufacturers, and attended by Defendants, Philip Morris researcher William Dunn, Jr. characterized the cigarette as a "nicotine delivery system." In a paper called "Motives and Incentives in Cigarette Smoking," Dunn wrote:

> The majority of the conferees would go even further and accept the proposition that nicotine is the active constituent of cigarette smoke. Without nicotine, the argument goes, there would be no smoking. Some strong evidence can be marshaled to support this argument:
>
> 1) No one has ever become a cigarette smoker by smoking cigarettes without nicotine.
>
> 2) Most of the physiological responses to inhaled smoke have been shown to be nicotine-related.
>
> 3) Despite many low nicotine brand entries into the marketplace, none of them have captured a substantial segment of the market . . . .
>
> The cigarette should be conceived not as a product but as a package. **The product is nicotine. . . . Think of the cigarette pack as a storage container for a day's supply of nicotine. . . . Think of the cigarette as a dispenser for a unit dose of nicotine.**

2024273959-3975 at 3962-3963 (U.S. Ex. 21,461) (U.S. Ex. 76,198) (emphasis added).

2072. The Cigarette Company Defendants have done just what Dunn suggested. Each cigarette is engineered to enable smokers to obtain their optimal nicotine dose. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al., (R. 681; filed November 15, 2001)

2073. In relation to cigarette design, the word "impact" is a euphemism used by the industry to refer to the impact the delivery of nicotine has on a smoker. "Impact" has been defined by B&W to mean "the sensory attribute most associated with nicotine." Timothy

Jackson, Vice President for Operations at Vector Tobacco, testified that the word "impact" in relation to cigarette design relates to the impact of the nicotine in cigarette smoke. R.J. Reynolds documents also connect "impact" to nicotine, stating: "Is nicotine addition to boost impact a legal, p.r. [public relations] acceptable path?" Two cigarettes delivering the same amount of nicotine may deliver different impacts. The difference in impact where two cigarettes deliver the same amount of nicotine is related to the manner in which the nicotine is delivered, as opposed to the amount of nicotine that is delivered. See Regulation of Tobacco Products (Part I) Hearings before the Subcommittee on Health and the Environment of the Committee on Energy and Commerce, House of Representatives, 103rd Congress, March 25, 1994 at 78, TLT0730001-0850 at 0083 (U.S. Ex. 77,011); accord Annex, Regulation of Cigarettes and Smokeless Tobacco Under the Federal Food, Drug, and Cosmetic Act: Jurisdictional Determination, 61 Fed. Reg. 44,973 (August 28, 1996) at 44,973, 44,991; 45,078 n.968, VXA0730236-0938 (U.S. Ex. 60,644); 500104402-4424 at 4409 (U.S. Ex. 21,492); Deposition of Timothy Jackson, United States v. Philip Morris, et al., March 21, 2003 at 77:18-78:14, 78:3-78:10; 506236904-6907 at 6905; 506236904-6907 (U.S. Ex. 88,059); 516017590-7910 (U.S. Ex. 22,901); TLT0730001-0850 (U.S. Ex. 77,011); VXA1242326-3211 (U.S. Ex. 78,288).

2074. The term "satisfaction" also has been used by the Cigarette Company Defendants as a euphemism to describe the sensory attributes associated with a cigarette's level of nicotine delivery. The term "satisfaction," as it is found in industry documents, describes the hit of nicotine an individual receives when smoking a cigarette. Lorillard has stated that smokers "want some acceptable level of smoking satisfaction; which among other attributes means some acceptable level of nicotine delivery." R.J. Reynolds also discussed satisfaction in connection

with nicotine delivery, posing the question, "How much nicotine do we need in a 5± mg product to satisfy normal smokers?" in connection with its "Project XB" (described below). Deposition of William Farone, United States v. Philip Morris, et al., November 20, 2003, 627:19-628:10. TLT0730001-0850 at 0083 (U.S. Ex. 77,011); 87410132-0144 at 0139 (U.S. Ex. 88,060); 511703121-3121 (U.S. Ex. 51,575).

2075. The Defendants have found, through consumer surveys, that different levels of free nicotine and pH in cigarettes lead to different judgments from the consumers regarding "satisfaction" and "impact." As such, the Defendants have manipulated free nicotine levels in cigarettes containing less tar in order to maintain consumer satisfaction. For example, Philip Morris found that consumers rated cigarettes such as Merit, which has lower tar than Marlboro, as favorably as Marlboro only when Philip Morris raised the smoke pH level of Merit through the addition of burley tobacco. Deposition of William Farone, United States v. Philip Morris, et al., November 20, 2003, 625:11-627:17.

a. Philip Morris

2076. Philip Morris has been aware of the need to effectively measure and control the amount of nicotine in cigarettes since as early as the 1940's. Philip Morris conducted studies on manipulating nicotine in its Parliament cigarettes in the 1940's. A few years later, in a document entitled, "An Outline of Current and Proposed Quality Control, Development and Research for Benson and Hedges," dated 1954, Philip Morris discussed its program to "ensur[e] the over-all quality and uniformity of the finished Parliament cigarette and thus maintain[] its appeal for discriminating smokers." This program was focused on "nicotine content, tar content, acid-base balance, and content of taste and aroma factors." The memorandum described Philip Morris's

efforts to use "informally constituted smoking panels and the results of nicotine analyses performed on the blends . . . to establish a desirable level of nicotine concentration in the blend and hence also in the smoke." 1001761472-1484 at 1472-73 (U.S. Ex. 35,556).

2077. Philip Morris also was concerned that complaints relating to smoking and health might put pressure on the tobacco industry to lower levels of nicotine in their cigarettes, but that lowering nicotine too much might do away with the smoking market. In 1961, Helmut Wakeham, Philip Morris's Director of Research, wrote: "Even though nicotine is believed essential to cigarette acceptability, a reduction in level may be desirable for medical reasons. . . . How much nicotine reduction will be acceptable to the smoker?" 1000277423-7447 at 7441 (U.S. Ex. 20,088).

2078. Also in 1961, Wakeham conducted a seminar entitled, "The Big Picture for 1961," in which "Aim 2" was described as: "Define the potential of nicotine control as a cigarette improvement. . . . **Determine optimum levels of nicotine in smoke**. . . . **Perfect processes for controlling nicotine content of filler.**" 1000277468-7481 at 7481 (U.S. Ex. 35,201) (emphasis added).

2079. From the 1950s and 1960s through the 1980s and 1990s, the most senior levels of executive leadership at Philip Morris considered various mechanisms for controlling the amount of nicotine delivered to smokers by its products, from determining the optimal level of nicotine delivery to the manipulation of nicotine levels through leaf blending and increasing nicotine delivery to cigarette smoke. 1001896774-6776 at 6774 (U.S. Ex. 20,122); 1003294245-4261 at 4246 (U.S. Ex. 20,170); 2023186690-6690A at 6690A (U.S. Ex. 20,379); 2047348245-8252 (U.S. Ex. 20,480); 2031436002-6002 (U.S. Ex. 20,433).

2080. A October 19, 1977 report entitled, "Smoker Psychology Program Review," postulates the main questions that must be answered in the program: (1) what is the optimum nicotine/tar ratio?; (2) given a fixed quantity of nicotine in tobacco, what factors in the cigarette design determine its availability for delivery to the smoker?; and (3) how important is the form of the delivered nicotine? 1000046538–6546 at 6538, 6542, 6543 (U.S. Ex. 26,074); 1003293246-3254 (U.S. Ex. 35,739).

2081. Philip Morris found it important to be at the forefront of nicotine study in order to understand its pharmacological and chemical characteristics and capabilities. In a February 3, 1978 memorandum to Tom Osdene, then-Director of Research, research center scientists summarized a proposal to involve Philip Morris more heavily in biological studies of nicotine. The scientists wrote, "[o]ur present area of expertise is our knowledge of nicotine structure, chemistry and the ability to prepare nicotine analogues almost at will. . . . If our nicotine program is to be at the forefront of nicotine research and to have an influence on the course of events with respect to the tobacco industry, we must be willing to upgrade our testing program." The scientists proposed pharmacological and psychopharmacological research, as well as collaboration with outside experts, all of which were ultimately undertaken by Philip Morris. 1000128656-8659 at 8657 (U.S. Ex. 35,156) (U.S. Ex.34,423); 1000366976-6995 (U.S. Ex. 35,253); 100128660-8661 (U.S. Ex. 34,278).

2082. In 1990, Philip Morris researchers explained in an inter-office memorandum that the question of whether there was an optimal amount of nicotine to be delivered to the smoker had been answered by Philip Morris's Electrophysiological Studies Research Group, which explored and measured the brain effects of nicotine. Listed among the various achievements of

the group was that it had "shown that there are optimal cigarette nicotine deliveries for producing the most favorable physiological and behavioral responses." 2028813366-3368 at 3366 (U.S. Ex. 20,430) (U.S. Ex. 76,179).

b. R.J. Reynolds

2083. By 1971, R.J. Reynolds also was studying the optimal amount of nicotine to deliver to smokers. 504210018-0018 (U.S. Ex. 50,577).

2084. In a February 2, 1973 research and planning memorandum on "Some Thoughts about New Brands of Cigarettes for Youth," scientist Claude Teague recommended that "[n]icotine should be delivered at about 1.0-1.3 mg/cigarette, the minimum for confirmed smokers." 502987357-7368 at 7361 (U.S. Ex. 21,475) (U.S. Ex.78,782).

2085. A November 9, 1976 memorandum from W.M. Henley to D.H. Piehl on the subject of "Nicotine Research" demonstrates that R.J. Reynolds was actively pursuing research on all aspects of nicotine in order to better understand how it could be used as a design parameter in its cigarettes. The memorandum reviewed discussions among R.J. Reynolds's scientists concerning the physiological action of nicotine in the body, the "smoking and health aspects" of nicotine delivery, factors that influence the presence of nicotine in the tobacco leaf and in tobacco smoke, and the development of nicotine analogs (i.e., substitutes). The memorandum also identified questions for further research:

> C.R. Green and D. Lynm raised the questions concerning the minimum level of nicotine required for smoker satisfaction.
>
> R.L. Rowland asked if every possible variable had been investigated for its effect upon nicotine delivery to the smoker. It may be generally accepted that the delivery of nicotine is changed by changing the type of tobacco leaf which is used in the cigarette.

> But, holding constant the tobacco which makes up the cigarette, are we cognizant of all other factors in cigarette manufacture which would change the nicotine delivery, particularly any factors which would allow a decrease in tar delivery without the accompanying proportional decrease in nicotine delivery.

505243357-3365 at 3357, 3359, 3360-3362 and 3365 (U.S. Ex. 86,944).

2086. R.J. Reynolds's focus on delivering "optimal" amounts of nicotine to smokers even while overall amounts of tar and nicotine were being reduced in some of their products was central to research efforts throughout the 1970s. A July 1977 report by A.H. Laurene on "R&D Phase I & II Planning" emphasized R.J. Reynolds's concerns regarding its ability to keep smokers hooked on cigarettes with reduced tar levels, stating: "Faced with gravitation of most of our products to the low tar or very low tar category, **the problem of keeping in our products those desirable attributes which keep our smokers smoking becomes a matter both difficult and important.**" Laurene described R.J. Reynolds's strategies of maintaining "physiological satisfaction" in low tar cigarettes as follows:

> - Develop means to increase the nicotine content in the smoke of our lowered tar products through agricultural methods, selective leaf purchasing, blending and casing techniques, process improvements, and increased transfer efficiency in smoke.
>
> - Improve method to control pH and free nicotine in smoke.

The significance of controlling the pH and amount of free nicotine in cigarette smoke is explained fully in Section IV.E(2)(d)(i), <u>infra</u>. Laurene reported that "efforts are already underway on each of these approaches to **improve nicotine delivery and impact.**" 500884922-4941 at 4933-34 (U.S. Ex. 85,405) (emphasis added); <u>see also</u> 502314530-4547 at 4538 (U.S. Ex. 21,917); 502967936-7944 at 7944 (U.S. Ex. 76,188).

2087. In a memorandum dated January 4, 1978, entitled, "Nicotine and Smoker Satisfaction," D.H. Piehl wrote to Alan Rodgman that an objective of the 1977-1978 research was to, "[d]efine the optimum nicotine level in cigarette smoke required to maximize smoker satisfaction. Determine the existence of a minimum or threshold value of nicotine required for satisfaction." 517701466-1471 (U.S. Ex. 86,945); 504423322-3327 (U.S. Ex. 50,614); 503558195-8200 (U.S. Ex. 50,410) (emphasis in original).

2088. From 1978 to 1984, R. J. Reynolds had a "nicotine optimization" program. During this time, potential optimum levels of nicotine were identified and circulated by and among company scientists. In 1978, the "optimum 'nicotine strength'" for Winston filters was identified near smoke pH 6.2-6.3 and at 0.12-0.13 milligrams of nicotine per puff. In 1979, the "maximum satisfaction" for Winston King Size was believed to be delivered at 1.0 milligrams of nicotine per cigarette. In 1980, R. J. Reynolds reported data from a fuller-flavor low tar consumer satisfaction study. R.J. Reynolds concluded that there was both an "optimum and minimum nicotine level required to maximize smoking satisfaction. Camel Lights is in the optimum range. Merit 85 is just above the minimum." 507028876-8876 (U.S. Ex. 20, 771); 504462513-2513 (U.S. Ex. 20,728); 503851759-1759 (U.S. Ex. 21,508); 500250599-0599 (U.S. Ex. 20,621).

2089. R.J. Reynolds's efforts to identify an optimal amount of nicotine focused not only on its own products, but also involved evaluating the other manufacturers' brands. A September 20, 1979 memorandum from W.J. Casey to R.A. Lloyd discussed the findings of R.J. Reynolds's in-house studies regarding the nicotine content in Philip Morris cigarettes. The studies produced two "striking" conclusions – that Philip Morris brand cigarettes contained significantly less

nicotine in the smoke than the R.J. Reynolds brands, and that Philip Morris was able to maintain more constant nicotine levels in their products. A 1980 competitive brand analysis found that Philip Morris's full-flavor brands were delivering close to 1.0 milligrams per cigarette. This amount approximated the "optimum nicotine level in that 'tar' range" indicated by R.J. Reynolds's own research studies. 517701734-1735 (U.S. Ex. 85,407); 504675253-5282 at 5257 (U.S. Ex. 20,734).

2090. By 1981, R.J. Reynolds believed that due to its various product improvement programs, the nicotine content in its full flavor brands was at or near the optimum level to allow for smoker satisfaction, and it was aware that smokers would compensate by adjusting their smoking habits if the nicotine level in cigarettes was too low. 501754849-4866 (U.S. Ex. 20,685).

2091. A March 31, 1989 report prepared by Calvin L. Neumann reviewed the consumer studies conducted by R.J. Reynolds between 1979 and 1984 in which nicotine was a major variable. In the consumer studies reviewed by Neumann, "nicotine, or nicotine and tar, was varied in a systematic controlled manner. . . ." Neumann concluded that "[t]he studies show that as nicotine was lowered from optimum values, key consumer attribute ratings for satisfaction . . . were lowered significantly." Thus, in 1989, R.J. Reynolds continued to be focused on the necessity that its products deliver sufficient nicotine to achieve "satisfaction." 508282165-2191 at 2165 (U.S. Ex. 51,362).

2092. In a November 26, 1990 document on the subject of "Project XB," one of R.J. Reynolds's projects devoted to the study of nicotine manipulation, an employee with the initials GRD identified a series of questions intended to be answered by Project XB. These questions

included:

> 1. How much nicotine do we need in a 5± mg product to satisfy normal smokers?
> 2. How much free nicotine of the total do we need to get the proper organoleptic feel?
> 3. What are the limits round the amount of free nicotine before the product is either to harsh or too smooth – ±mg?
> . . .
> 6. How do we feel that legal group will allow us to sell product we visualize – i.e., take out tar vs. add nicotine?
> 7. Should we look at using tobacco high in nicotine, remove, treat, add back?

This document demonstrates that, to the extent that R.J. Reynolds was motivated to control nicotine in order to affect taste or smoke harshness, it also attempted to control nicotine for the purpose of delivering the optimum amount to the smoker to achieve "satisfaction" and keep the smoker hooked. Indeed, numerous R.J. Reynolds documents discuss controlling nicotine for the purpose of achieving "impact" and "satisfaction" as elements separate and distinct from concerns relating to taste and harshness, demonstrating that providing an optimum dose of nicotine was significant for reasons unrelated to taste. 511703121-3134 at 3128, 3130 (U.S. Ex. 51,575); 83826872-6879 at 6876 (U.S. Ex. 55,891).

2093. An April 6, 1998 memorandum to C.E. Tinsley to Hal E. Guess and Jerry W. Lawson identified "the locations where nicotine is currently measured on a regular basis in the domestic tobacco company." A chart appended to the document as "Attachment B" indicates that R.J. Reynolds regularly measured nicotine levels at twenty different stages of the tobacco manufacturing process. 523196492-6499 at 6492, 6493-6495 (U.S. Ex. 88,062).

c. <u>BATCo/B&W</u>

2094. BATCo has long recognized the importance of determining "optimal" levels of nicotine in cigarettes and of using design methods to manipulate nicotine delivery to those levels.

Graham Read, BATCo's Head of Global Strategic Research, admitted that BATCo researched the use of technology to manipulate tobacco that would go into a cigarette. Deposition of Graham Read, United States v. Philip Morris, et al., May 1, 2002, 35:18-36:25.

2095. BATCo began research on this issue at least as early as the 1950s. By the early 1960s, BATCo and B&W scientists were confident that they could design cigarettes to deliver optimum doses of nicotine. A September 16, 1963 letter from Robert Griffith, Director of Research and Development at Brown & Williamson, to BATCo discussed "optimum levels" for nicotine and correlated the nicotine level in cigarettes with consumer acceptance. The letter recognized that the nicotine levels of B&W cigarettes were not obtained "by accident" and admitted that "we have a research program in progress to obtain . . . any level of nicotine desired. . . . **[W]e can regulate, fairly precisely, the nicotine and sugar levels to almost any desired level management might require. Of this I am confident.**" 100099115-9117 (U.S. Ex. 20,112); 102630333-0336 at 0334, 0335-0336 (U.S. Ex. 23,000) (emphasis added).

2096. Reports, memoranda, and other documents from BATCo throughout the 1970s and 1980s confirm the company's understanding and goal to establish and deliver "the optimal levels of nicotine in smokers." 109880411-0424 (U.S. Ex. 21, 679); 660913609-3633 (U.S. Ex. 22,763); 110069974-9982 (U.S. Ex. 20,268) (U.S. Ex. 76,173); 400993160-3215 (U.S. Ex. 47,527) (U.S. Ex. 75,975).

2097. At a 1984 Smoking Behavior-Marketing Conference in Montreal, Canada, attended by representatives of BATCo affiliates from the U.S., the U.K., Australia and Germany, a presentation was given at which it was claimed that individuals who smoked required 12-14 milligrams of nicotine a day, and at least .7 milligrams of nicotine in a cigarette in order for it to

provide "satisfaction." 536000308-0507 at 0334 (U.S. Ex. 85,298); 682637850-7982 (U.S. Ex. 88,063); 00040880-0880 (U.S. Ex. 88,064).

2098. In March 1985, BATCo scientist C. Ayers circulated a report regarding research being conducted to determine how to "make smaller amounts of nicotine work harder." 102440178-0179 at 0178 (U.S. Ex. 21,729).

2099. On June 6-8, 1984, BATCo held a comprehensive conference on nicotine. Topics at the conference included "Nicotine Dose Requirements," "Nicotine Dose Estimation," and "Product modification for maximal nicotine effects." At this time, BATCo was seeking to alter the ratio of tar to nicotine delivery in order to deliver varying levels of nicotine while reducing tar levels. BATCo was also aware that, if nicotine delivery fell below a certain level (believed at that time to be 0.4 mg nicotine), the cigarette would fail to "satisfy" the smoker. In evaluating the estimated dose of nicotine a smoker required daily, the company recognized that "[i]t is important for future product design to establish if an absolute requirement exists for a threshold level of nicotine." Finally, BATCo concluded the conference with sessions on product modifications that could be made to produce optimal nicotine effects. The primary objectives of these sessions were to: (a) identify the extent to which nicotine contributes to product satisfaction; (b) understand the "significance of [] different levels of nicotine interaction with the body to smoking behavior and product satisfaction"; and (c) identify a "research programme to meet the criteria for maximising nicotine effects to satisfy consumer needs from a minimum dose of nicotine." 101234971-5018 (U.S. Ex. 21,645); 512106427-6437 at 6428-9 (U.S. Ex. 20,846); 101234971-5018 at 4974-5 (U.S. Ex. 21,665); 101234971-5018 at 4978 (U.S. Ex. 21,645); 101234971-5018 at 4985 (U.S. Ex. 21,645); 101234971-5018 at 5011 (U.S. Ex. 21,645).

2100. A document recording the "conclusions" of the conference include reference to the concepts of "satisfaction" and "impact." The conclusions included that "'satisfaction' must be related to nicotine. Many people believe it a 'whole body response' and involves the action of nicotine in the brain." They also stated:

> If we are to make better use in product terms of the levels of nicotine in smoke currently available – and even more so if we are forced to market cigarettes with reduced levels of nicotine – then it is important to significantly increase our understanding of impact/satisfaction.
>
> There is an urgent need for experimental cigarettes in which the levels of nicotine in smoke (and smoke pH) are carefully controlled.

602759-2759 (U.S. Ex. 53,297).

d. Lorillard

2101. A draft presentation located in a 1969 file of Alexander Spears demonstrates the early extent of Lorillard's understanding of the factors affecting nicotine delivery and thus affecting whether a cigarette could provide an "optimum" dose of nicotine. In the draft presentation describing Lorillard's research efforts, Spears wrote:

> The research activities on the physiological element are concerned with nicotine. The quantity of nicotine required for the stimulus is mediated to the nicotine content of the cigarette by several factors: (1) absorption rate into the bloodstream, once the nicotine has deposited on the respiratory tract; (2) fraction of inhaled nicotine which is deposited in the respiratory tract (pH dependence); (3) concentration of nicotine in the smoke and (4) transfer rate of nicotine from the tobacco to the mainstream smoke.

Spears further stated that "it would be useful to have a wider range of control over nicotine than now exists, through the selection of tobacco and physical construction of the smoking article.

Within one year, it is expected that tobacco modifications can be made to optimize absorption of smoke nicotine." In an undated paper entitled "Factors Affecting Smoke Delivery of Nicotine and Carbon Monoxide," Spears identified several factors that affect the nicotine yield of a cigarette and stated: "**Through a combination of these variables, plant genetics and commercial processes, it is possible to manipulate the yield of nicotine from about .1 mg to 4 mg per cigarette.**" 87667736-7740 at 7737 (U.S. Ex. 56,302); 00044998-5021 at 5001-5002 (U.S. Ex. 34,181) (U.S. Ex. 34,208) (emphasis added).

2102. Lorillard pursued research seeking to identify an optimal range of nicotine delivery into the 1970s. As part of its Nicotine Augmentation Project, Lorillard conducted an extensive review of the literature on the "pharmacology of smoke-dose nicotine **with the goal of discovering some indications of threshold dose and optimum doses of nicotine in the average cigarette smoker.**" In a December 10, 1976 report relating to the project, H. S. Tong wrote: "[I]t seems that, within limits, smokers can and do control their nicotine intake from smoke by varying their smoking techniques. It would seem desirable to have a low tar cigarette with a nicotine content between the threshold and optimum doses level." Tong also set forth the results of Lorillard's extensive review of scientific literature on the subject of determining the optimum nicotine dose and summarized, "[n]o single parameter appears to offer a reliable handle for measuring optimum satisfaction dose of nicotine at the present time. . . . In a subjective study, test subjects reported that they found cigarettes of 0.8 mg to be acceptable." 00045061-5071 at 5061, 5063, 5068 (U.S. Ex. 34,210) (U.S. Ex. 47,327) (emphasis added).

2103. In an April 29, 1976 memorandum to J.R. Ave and Alexander Spears, Richard E. Smith, Vice President of Marketing and Development for Lorillard, summarized a meeting on

Lorillard's "5 Year Domestic Cigarette Marketing Plan." Smith wrote:

> [i]t was agreed that judgement and recent publicity give an enriched nicotine product the highest priority of all new brand projects. This project has been divided into three parts: a.) How to get the nicotine (quantities, prices, throw-away costs, etc.) b.) How to use the nicotine (on both the 5 mg and 2 mg tar products), and c.) What are the corporate implications of nicotine addition.

03364986-4988 at 4987 (U.S. Ex. 85,408); see also, 01254896-4898 at 4897 (U.S. Ex. 34,518), 83250744-0747 at 0746 (U.S. Ex. 55,650).

2104. In a February 9, 1977 memorandum from Harry Minnemeyer, Director of Research, to Fred Schultz, Vice President of Research and Development, Minnemeyer reported on the "Continuation of Nicotine Augmentation Project 1975 (CONAP)." Minnemeyer explained the objective of Lorillard's extensive study of the mechanisms by which nicotine delivery could be manipulated as follows:

> There is general agreement among experts both inside and outside the tobacco industry that there is a great need to continue development of . . . cigarettes which will deliver lower tar and reduced amounts of gas phase components, yet deliver nearly comparable quantities of nicotine as compared to the most popular cigarettes on today's market. . . . It is a highly important business objective that Lorillard accelerate the development of the technology internally which will permit the Company to exhibit a superior degree of competitiveness in this very important and newly emerging segment of the cigarette market.

00050431-0438 at 0431 (U.S. Ex. 34,215).

2105. Like the other manufacturers, Lorillard's search for the optimum level of nicotine delivery continued on through the years with subtle changes in amount and theory, but always the same goal – determine the amount of nicotine delivery necessary to sustain addiction and make cigarettes that ensure such delivery. A February 13, 1980 internal memorandum from Richard

Smith to J.R. Ave, J. Gordon Flinn, Director of Marketing Research, and Alexander Spears described how Lorillard undertook an internal project to "determine the minimum level of nicotine that will allow continued smoking." Company scientists hypothesized that there was a nicotine threshold "below which smokers would quit, or return to higher nicotine brands." 01394380-4381 at 4380 (U.S. Ex. 21,543); 526321269-1270 at 1269 (U.S. Ex. 85,323).

e. Liggett

2106. An April 30, 1985 memorandum from J.C. Turner to R.L Kersey reporting on Liggett's various ongoing research and product development projects demonstrates that Liggett was attempting to alter the design of its products for the purpose of delivering a specified amount of nicotine to smokers. The memorandum reported that "[w]e are making progress in adjusting tar and nicotine yields where necessary on brands utilizing the consolidated blend," and "[w]e are still working with paper suppliers to find an appropriate paper to put us exactly on target on Full Flavor Generic tar and nicotine delivery." LWDOJ9272790-1791 at 2790 (U.S. Ex. 86,947).

(ii) The Defendants' Efforts to Deliver Optimum Levels of Nicotine Reflected Their Understanding of the Correlation Between Nicotine Delivery and Cigarette Sales

2107. At all times, Cigarette Company Defendants have been aware that a cigarette's ability to deliver adequate levels of nicotine to smokers was critical to its commercial success.

2108. Company documents establish that the Cigarette Company Defendants' intentional manipulation of nicotine, including, especially after the FTC smoking machine tests were initiated, efforts to generate and deliver the "free-base" form of nicotine (discussed further in Section IV(2)(d)(ii), infra), reflected their commitment to ensure that smokers could obtain sufficient nicotine doses from their cigarettes in order to become and remain addicted.

2109. Company documents reveal that the Defendants' most senior executives were not only aware of this focus on nicotine in research and product development, but in fact have been central decisionmakers directing, approving, and encouraging such activities.

a. Philip Morris

2110. A May 5, 1975 memorandum from John T. Landry, Philip Morris's Executive Vice President of Marketing, to Clifford H. Goldsmith, President, with copies to scientists Seligman, Morgan and McDowell, expressed that Landry was "alarm[ed]" that Marlboro's nicotine delivery had "dropped . . . sharply below that of Winston." Landry acknowledged, "it puts us at a competitive disadvantage," and recommended "that this problem be thoroughly explored with Manufacturing and R & D and that every attempt be made to return the nicotine delivery to more suitable levels." 1000219888-9888 (U.S. Ex. 85,409).

2111. Philip Morris often used human smokers to provide results for different tests it ran regarding nicotine delivery, sometimes sending samples to identified smokers in the public and oftentimes using its own employees as subjects, asking them to take part in smoking studies and then analyzing the results in order to inform not only their research but also the production and marketing of its product. 2025986931-6935 (U.S. Ex. 37,314); 1000408760-8809 (U.S. Ex. 35,272).

2112. An October 19, 1977 report entitled, "Smoker Psychology Program Review," summarizes the mission of Philip Morris's Behavioral Research Program as the study of "the psychology of the smoker in search of information that can increase corporate profits." Without nicotine, "the cigarette market would collapse, [Philip Morris] would collapse, and we'd all lose our jobs and our consulting fees." 1000046538–6546 at 6538, 6542, 6543 (U.S. Ex. 26,074);

1003293246-3254 (U.S. Ex. 35,739).

2113. A January 10, 1978 memorandum authored by Thomas Osdene, Philip Morris Research Director, summarized a meeting held at CTR offices in New York and was sent to a number of Philip Morris executives and employees, including President Clifford Goldsmith. Osdene mentioned a grant that had been awarded, apparently to an outside scientist, to create an antagonist to nicotine, i.e., a compound that would block nicotine's effects. Osdene responded to this area of study by stating, "This goal would have the potential of putting the tobacco manufacturers out of business." 1000041904-1905 (U.S. Ex. 35,103).

2114. Even though Philip Morris publicly stated for decades that nicotine is in cigarettes for "taste," an internal Philip Morris document, dated March 18, 1980, more accurately states the utility of nicotine to the Defendants, and to Philip Morris in particular. In that document, a memorandum from Jim Charles, Manager of Research and Development to Seligman, then-Vice President of Research and Development, Charles wrote that "[n]icotine is a powerful pharmacological agent . . . and may be the most important component of cigarette smoke." With no mention of nicotine being important for the taste of the cigarette, Charles justified the nicotine receptor research on the ground that it would provide Philip Morris with "fundamental research into the nature of our product, with information on how nicotine "effects our customers" and "as a possible defensive response to the anti-smoking forces [sic] criticisms of nicotine." Charles predicted that such research would have a **"direct bearing on our market position in a 10-15 year time frame."** 1003289974-9975 (U.S. Ex. 21,553) (emphasis added).

2115. Carolyn Levy, a Research Professional for Philip Morris in the 1970s, admitted that, during those years, that there was a general belief within Philip Morris that "people smoked

for nicotine." Levy performed research that supported this belief. When asked if the purpose of the research into why people smoke was to increase the smoking of Philip Morris products, she responded, "It's hard to justify even basic research if you can't say, Jeez, at some point this will help Philip Morris sell Philip Morris products to smokers." Deposition of Carolyn Levy, State of Texas v. American Tobacco, et al., May 8, 1997, 42:10-43:12.

b. R.J. Reynolds

2116. On April 14, 1972, Claude Teague, R.J. Reynolds's Assistant Director of Research, wrote in a memorandum entitled, "The Nature of the Tobacco Business & Crucial Role of Nicotine Therein," of the danger to the industry of providing too little nicotine to smokers. Teague expressed his concern about the issue as one of profound and grave danger to R.J. Reynolds's ability to stay in business:

> if we meekly accept the allegations of our critics and move toward reduction or elimination of nicotine in our products, then we shall eventually liquidate our business. **If we intend to remain in business and our business is the manufacture and sale of dosage forms of nicotine, then at some point we must make a stand.**

The "stand" Teague advocated was the delivery of an "attractive dosage" of nicotine, arguing that R J. Reynolds's operations should be designed around this objective:

> **If nicotine is the sine qua non of tobacco products and tobacco products are recognized as being attractive dosage forms of nicotine, then it is logical to design our products – and where possible, our advertising – around nicotine delivery rather than "tar" delivery or flavor.** To do this we need to develop new data on such things as the physiological effects of nicotine, the rate of absorption and elimination of nicotine delivered in different doses at different frequencies and by different routes, and ways of enhancing or diminishing nicotine effects and "satisfactions". . . . [I]f we knew more about nicotine absorption, action, elimination,

> enhancement and the like, it should, in theory, be possible to more precisely specify and deliver, the optimum amounts of nicotine activity in sophisticated products which would be more satisfying and desirable to the user.

500915683-5691 at 5684-86, 5688 (U.S. Ex. 20,659) (U.S. Ex. 76,185) (U.S. Ex. 77,216) (emphasis added).

2117. A July 3, 1973 memorandum from Jerry R. Moore to R.A. Blevins, Jr., reported that a study conducted by R.J. Reynolds's Marketing and Development Department found a direct, significant correlation between the amount of "free nicotine" in a brand and the sales level of that brand. Blevins summarized the results of the study and his recommendations in a July 12, 1973 memorandum to W.S. Smith, Jr. as follows: "Our analysis suggests that pH does not correlate as closely with share performance as does free nicotine. Our emphasis should be directed toward free nicotine while pH would provide us with a measure of, or tool, to effect free nicotine." The concept of "free nicotine" is explained fully in Section IV.E(2)(d)(i), infra. 501011401-1401 (U.S. Ex. 20,668); 501011403-1403 (U.S. Ex. 20,669); see also, Expert Report of William A. Farone, United States v. Philip Morris, et al., (R. 663; filed Nov. 15, 2001).

2118. Also in 1973, R.J. Reynolds conducted a "historical review of smoke pH data and sales trends" comparing data for its own cigarettes to that of its competitors. A May 10, 1973 report about the review, authored by John D. Woods and Gloria C. Harilee, indicated that "smoke pH data for competitive brand filter cigarettes measured since 1964 were compiled" for the purpose of attempting "to correlate these data with cigarette sales trends." The review revealed not only a "very strong positive correlation between smoke pH and sales trends," but also a correlation between the concentration of free nicotine and sales:

> A high pH smoke is strong due to a high concentration of unbound, or free, nicotine in the smoke. Calculations of the unbound nicotine in the smoke of the brands studies were made and used as relative measures of strength for the cigarettes. **Correlation of these values with sales trends were made and the results showed even stronger positive correlations than were found for smoke pH-sales trends studies.**

500606138-6153 at 6138 (U.S. Ex. 48,334) (emphasis added).

2119. In a February 5, 1979 handwritten memorandum written by C.L. Neuman on the subject "Top Management Presentation topic," Neuman stated that R.J. Reynolds wished to "obtain a fundamental understanding of the role of nicotine in smoking satisfaction" by examining "whether there is a minimum or threshold level and an optimum smoke nicotine level related to smoking satisfaction" and "the relationship of smoke pH to nicotine perception and satisfaction." Neuman recognized the significance of these issues to increasing R.J. Reynolds's sales: "If the optimum smoke nicotine and pH can be determined for each of our products, then these products can be tailored with respect to these variables to provide maximum satisfaction and acceptance for the consumer, [h]opefully resulting in increased sales." 504460126-0134 at 0128, 0130, 0133 (U.S. Ex. 88,065).

2120. R.J. Reynolds drew a connection between methods intentionally employed to boost the amount of free nicotine in cigarette smoke and cigarette sales. R.J. Reynolds reported internally in 1982 that, shortly after Philip Morris began increasing smoke pH and free nicotine through the introduction of added ammonia in 1965, Philip Morris's sales began growing very rapidly. 500540827-0832 (U.S. Ex. 20,639).

2121. Admitting that "I wouldn't think" there is any chemical compound more important to a smoker's decision to continue smoking than nicotine, Gary Burger, former R.J. Reynolds

Vice President for R&D and, before that, Director of Toxicology, testified that from at least1983 to 1996, R.J. Reynolds researched the threshold level of nicotine to "arrest the decline in the social acceptability of smoking." Deposition of Gary Burger, Arch v. The American Tobacco Co., August 22, 1997, 44:15-72:11, 117:16-20; 519192752-2754 (U.S. Ex. 80,229); 51919 2755-2756 (U.S. Ex. 80,230); 519192757-2758 (U.S. Ex. 80,231).

2122. In 1989, R.J. Reynolds examined "the doomsday scenario," i.e., "an acute deficiency of young adult smokers, apparently implying Marlboro's final domination." According to a December 12, 1989 report prepared for R.J. Reynolds by FCB/LKP Marketing Planning Department, R.J. Reynolds had identified "a particularly disturbing difference" between Winston and Marlboro: "smaller puffs of Marlboro delivered higher levels of nicotine into the bloodstream, and delivered them more quickly than Winston." R.J. Reynolds concluded that this difference "could be a major factor in why people stay with a brand . . . even though they don't know why." 507555896-5909 (U.S. Ex. 20,779); 507555896-5909 at 5898-5899 (U.S. Ex. 20,779).

c. BATCo/B&W

2123. BATCo recognized as early as 1959 that public health concerns could create consumer demand for lower yield cigarettes, a demand that presented the need for the company to determine an "optimum offer" of nicotine to deliver to smokers. BATCo was concerned that reducing the nicotine per cigarette as much as possible to satisfy possible consumer demand "might end in destroying the nicotine habit in a large number of consumers and prevent it ever being acquired by new smokers." 100099115-9117 at 9117 (U.S. Ex. 20,112).

2124. A report issued by L. Mosser, Development Chemist for Brown & Williamson, concluded that increasing the smoke pH of certain brands could aid consumer acceptance of those brands. A 1963 letter from B&W's R.B. Griffith, Director of Research and Development, to BATCo's Chemist, John Kirwan, discussed "the question of desirable or optimum levels for either nicotine or sugar or a balance of the two," and how the level of nicotine and sugars might "be varied to win consumer preference for our brands." Griffith pointed out that B&W's "sales pattern [from 1960 to 1963] has been positively correlated with the nicotine level of the tobacco in our products." Griffith went on to state that "the nicotine level of B&W cigarettes [studied] was not obtained by accident." He closed by recognizing the marketing department's role in determining nicotine content in cigarettes, stating, "I think that we can say even now that we can regulate, fairly precisely, the nicotine and sugar levels to almost any desired level management might require," leaving the question of the determination of the nicotine and sugar level "to the marketing experts with no further comment." 102630333-0336 at 0333, 0334, 0335, 0336 (U.S. Ex. 23,000).

2125. BATCo remained focused on this issue and acknowledged internally that a trend toward lower delivery cigarettes could pose a threat to the industry:

> There is a danger in the current trend of lower and lower cigarette deliveries - i.e. the smoker will be weaned away from the habit. . . . [I]f the nicotine delivery is reduced below a threshold 'satisfaction' level, then surely smokers will question more readily why they are indulging in an expensive habit.

BATCo also recognized that there were methods of dealing with this trend, however. Recommended solutions varied from the political (insuring "every opportunity is taken to separate tar and nicotine in the minds of consumers and legislators") to product modifications

that could be used to "take advantage of the opportunities" resulting from nicotine manipulation. 110069974-9982 at 9975, 9978 (U.S. Ex. 20,268).

2126. A

105494689-4704 (U.S. Ex. 20,239).

2127. A September 20, 1979 memorandum from the B&W Research Department, authored by Rufus Hugh Honeycutt and entitled "Tar/Nicotine Ratios and Nicotine Transfer Efficiencies of B & W and Competition Brands," compared tar and nicotine information on cigarette brands among various companies. While comparing the tar/nicotine ratio among different brands, the memorandum also contained a study of nicotine transfer efficiency ("NTE"). Honeycutt stated, "[p]erhaps not coincidentally, Philip Morris and R.J. Reynolds have the highest average NTE and the highest USA sales." 505003431-3438 at 3433 (U.S. Ex. 85,412); 505003675-3688 (U.S. Ex. 85,413); 620404959-4961 (U.S. Ex. 53,342); 2077864189-4190 (U.S. Ex. 45,063).

2128. In a January 4, 1980 file note recounting an "Observation of Free Nicotine Changes in Tobacco Smoke," C.F. Gregory wrote, "Is there not some way open now to use the knowledge we have gained in this area of tobacco and smoke research to give B&W a

competitive advantage over its competition? **It appears that we have sufficient expertise available to 'build' a lowered mg tar cigarette which will deliver as much 'free nicotine' as a Marlboro, Winston or Kent without increasing the total nicotine delivery above that of a 'Light' product."** 510000667-0670 at 0669 (U.S. Ex. 51,496) (emphasis added).

2129. On April 7, 1982, BATCo's G.O. Brooks, a research scientist, sent a letter to B&W's William L. Telling regarding a study that concluded that when a cigarette's nicotine level "is so low that the nicotine is below the threshold of pharmacological activity then it is possible that the smoking habit would be rejected by a large number of smokers." Considering this threshold "satisfaction" level, BATCo senior scientist S.J. Green warned that "we should be aware of the long-term dangers of following the crowd into ultra-low nicotine deliveries." Green explained, "Nicotine is an important aspect of 'satisfaction,' and if the nicotine delivery is reduced below a threshold 'satisfaction' level, then surely smokers will question more readily why they are indulging in an expensive habit." 660913609-3633 at 3620 (U.S. Ex. 22,763); 110069974-9982 at 9975 (U.S. Ex. 20,268) (U.S. Ex. 76,163); see also, 400993160-3215 at 3196 (U.S. Ex. 47,527) (U.S. Ex. 75,975); 109880411-0424 at 0411 (U.S. Ex. 21,679).

2130. Similarly, a June 1984 BATCo presentation by D.E. Creighton discussed current and future product trends, needs, and opportunities, emphasizing that: "[h]igh on the list of product requirements is an adequate level of nicotine to sustain the smoking habit. Smokers have a nicotine threshold below which it is ineffective." 102690336-0350 at 0342 (U.S. Ex. 21,681).

2131. B&W also evaluated the effect of different smoke pH levels on consumer acceptance. A 1984 summary of tests on smoke pH concluded that increasing the smoke pH of certain brands could aid consumer acceptance of those brands. 510004186-4190 (U.S. Ex.

20,832).

d. Lorillard

2132. Lorillard knew in 1971 that the industry's top sellers at the time shared two common traits: high nicotine content and a high nicotine-to-tar ratio. With this knowledge, Lorillard blended different tobaccos in an effort to generate a high nicotine-to-tar ratio. By 1973, the company's one-, three-, and five-year research plans included research to modify tobacco in order to control the delivery of nicotine. 00776195-6201 (U.S. Ex. 34,293); 526321304-1310 (U.S. Ex. 85,414); Deposition of Alexander Spears, State of Minnesota v. Philip Morris Inc., (C1-94-8565), September 23, 1997, 98:5-100:7.

2133. A November 9, 1976 memorandum from Richard E. Smith, Vice President of Marketing and Development for Lorillard, to Fred Schultz, Vice President of Research and Development, demonstrates that Lorillard internally recommended that an industry-wide effort to offer a product with 50% less nicotine be discontinued despite "considerable consumer trial appeal" because such a cigarette "could not deliver the smoking satisfaction to sustain consumer purchase." 01244504-4504 (U.S. Ex. 20,042).

2134. One of Lorillard's highest priorities in the late 1970s was its nicotine enrichment program. In a July 22, 1977 memorandum from Fred Schultz to Alexander Spears, Schultz briefly summarized the progress of Lorillard's efforts to increase the impact of "low tar" cigarettes by adding nicotine directly to reconstituted tobacco leaf and stated: "Consideration of nicotine delivery **necessary to achieve long term use and satisfaction by the consumer** dictate that we should continue to pursue the concept of nicotine enhancement." 00361822-1823 at 1823 (U.S. Ex. 20,024) (emphasis added).

(d) Product Design – Defendants Undertook Various Designs and Methods of Nicotine Manipulation to Ensure in All Commercial Cigarettes Nicotine Delivery Adequate to Create and Sustain Addiction

2135. Defendants have produced cigarettes designed to deliver nicotine to a smoker rapidly and efficiently. As a result, Defendants, individually and as a group, successfully have invested substantial resources researching methods to promote nicotine delivery through methods best suited to create and sustain addiction.

2136. As discussed above, Defendants researched optimum levels of nicotine delivery since the 1940s. Defendants also began to anticipate in the 1950s and 1960s, as smoking and health was becoming more and more a subject of public concern, that public interest in genuinely low-yield cigarettes could ultimately require reduced levels of tar and nicotine in cigarettes. Defendants recognized that they needed to address smokers' concerns about the health effects of cigarette smoke, and that if they did not supply enough nicotine to keep people addicted, the result would be to lead smokers away from smoking altogether. Therefore, Defendants researched and developed products that they believed would superficially appease smokers' health concerns but still keep nicotine delivery levels sufficient to maintain addiction. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al., (R. 681; filed Nov. 15, 2001); Expert Report of William A. Farone, United States v. Philip Morris, et al., (R. 663; filed Nov. 15, 2001).

2137. Defendants have not lowered nicotine delivery in their products in any meaningful way; they have chosen instead to use cigarette design and manufacturing techniques that appeared to be lowering tar and nicotine levels in cigarettes while at the same time continuing to produce a product that would addict, and keep addicted, individuals who smoked. "Nicotine was

recognized as critical to the continued success of a brand, and a variety of technologies . . . were used to ensure that actual delivery levels of nicotine . . . occurred at doses necessary to ensure addiction." Expert Report of William A. Farone, United States v. Philip Morris, et al., (R. 663; filed Nov. 15, 2001) at 7; Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al., (R. 681; filed Nov. 15, 2001).

2138. In 1967, the FTC instituted a cigarette testing method ("FTC Method") to test for tar and nicotine yields of all cigarettes sold in the United States. The FTC Method involves a machine that "smokes" cigarettes for a designated puff volume at a designated interval. As the smoke from a cigarette is drawn into the machine, the machine captures some of the matter for measurement to calculate the tar and nicotine yields of the cigarette. The FTC Method was implemented to provide consumers with a relative ranking of nicotine, tar, and carbon monoxide yields from various cigarettes. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al., (R. 681; filed Nov. 15, 2001); Expert Report of William A. Farone, United States v. Philip Morris, et al., (R. 663; filed Nov. 15, 2001).

2139. Defendants, knowing that human smokers do not smoke in the same way as the FTC smoking machine, designed their cigarettes so that accurate readings on nicotine and tar delivery are not possible under the FTC method. The nicotine yields resulting from FTC testing basically are meaningless to the human smoker because Defendants have designed their cigarettes so that the low tar and nicotine yields measured by the FTC smoking machine bear little relation to the yields obtained by human smokers. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al., (R. 681; filed Nov. 15, 2001)

2140. Defendants have known since the 1960s that because individuals smoke to obtain

desired effects of nicotine, smokers of lower nicotine yield cigarettes tend to adjust their smoking behavior to titrate (i.e. control) their intake of nicotine to achieve desired levels. This behavioral adaptation is referred to as smoker "compensation." By puffing lower yield cigarettes more frequently and/or more intensively, blocking ventilation holes in the cigarette filter, and/or smoking more cigarettes, smokers are able to "compensate" for the lower nicotine deliveries of low tar and low nicotine cigarettes. Defendants have used this knowledge in their research of nicotine manipulation and manufacture and sale of cigarettes. Expert Report of Neil Benowitz, M.D., United States v. Philip Morris, et al., (R. 682; filed Nov. 15, 2001); Deposition of David M. Burns, United States v. Philip Morris, et al., July 22, 2002, 109-119; Monograph 3 (U.S. Ex. 78,710); Monograph 13 (U.S. Ex. 58,700); 1003287880-7890 (U.S. Ex. 20,163); 1003286580-6581 (U.S. Ex. 85,415); 1000405641-5689 (U.S. Ex. 85,416); 1000408760-8809 (U.S. Ex. 35,272); 511242032-2045 (U.S. Ex. 21,736); 5002454536-4544 (U.S. Ex. 85,417); 500790776-0784 (U.S. Ex. 29,473); 109882674-2679 (U.S. Ex. 21,507); 775036039-6067 (U.S. Ex. 21,053); 650008449-8480 (U.S. Ex. 76,192); 105658168-8179 (U.S. Ex. 85,418); 101234971-5018 (U.S. Ex. 21,645); 80192103-2113 (U.S. Ex. 55,288); 00045061-5071(U.S. Ex. 34,210) (U.S. Ex. 47,327); Deposition of Carolyn Levy, Engle v. R.J. Reynolds Tobacco Co., June 8, 1998, 124:6-126:20; see also Low Tar Section at IV.F.

2141. The FTC machine does not take these compensating behaviors into account when it measures tar and nicotine yields. As a result, for human smokers, the actual amount of tobacco, the nicotine content, and the smoke-producing potential of a "light" cigarette and its corresponding "regular" or "full flavor" version are generally similar even though their machine-determined tar and nicotine ratings may be very different. The primary means by which the

differences are achieved is through the use of physical design characteristics and ingredients that can be used to manipulate the amount of smoke delivered to a machine, while leaving the human smoker free to obtain substantially higher levels of smoke and nicotine. Expert Report of Jack E. Henningfield, Ph.D. in United States v. Philip Morris, et al. (R. 681; filed Nov. 15, 2001).

2142. In a 1997 deposition, Cathy Ellis testified about her years as a scientist for Philip Morris and plainly stated that she was aware that the FTC method did not "accurately represent what a consumer gets when they [sic] smoke a cigarette" and that the FTC method "was never intended" to accurately represent tar and nicotine deliveries. Deposition of Cathy Ellis, State of Mississippi v. American Tobacco Co., et al., March 20, 1997, 38:12-39:3.

2143. Several Liggett scientists and executives admitted in sworn testimony in 2002 that they were aware of the phenomenon of compensation and the flaws in the FTC method. Notwithstanding this knowledge, the company still uses product design methods that result in nicotine delivery amounts greater than those claimed in its FTC disclosures. This continued use of features that induce misleading FTC yields comes despite Liggett's corporate affiliate's stated ability to produce cigarettes whose true yields are substantially closer to those measured by the FTC and other smoking machine tests. Deposition of Robert D. Bereman, United States v. Philip Morris, et al., April 23, 2002; Deposition of Anthony Albino, United States v. Philip Morris, et al., April 26, 2002; Deposition of Bennett S. LeBow, United States v. Philip Morris, et al., June 21, 2002.

2144. The Cigarette Company Defendants did not disclose to the FTC that they had data that could have helped the FTC change the smoking machine so that it would provide a more valid comparative estimate of the maximum amount of tar and nicotine that a smoker might

reasonably expect to achieve. To the contrary, the Cigarette Company Defendants' internal documents reveal they took advantage of this flawed machine testing process and designed their cigarettes to increase the flexibility of their tar and nicotine dosing capacity to smokers even as they reduced the tar and nicotine yields as determined by machine tests. Expert Report of Jack E. Henningfield, Ph.D. in United States v. Philip Morris, et al. (R. 681; filed Nov. 15, 2001).

2145. For example, Defendants used physical design features, such as burn accelerants that burn a higher proportion of tobacco in between the puffs of the machine as compared to generally much more rapidly puffing humans, to reduce the tar and nicotine measured by the machine. The FTC test does not account for the fact that cigarettes are engineered to burn at different rates in the testing machine, in part to achieve different tar and nicotine yields on the test. Another feature is the use of ventilation holes that can be easily covered by the smoker's lips or fingers but are never covered by the machine's holders. Expert Report of Jack E. Henningfield, Ph.D. in United States v. Philip Morris, et al. (R. 681; filed Nov. 15, 2001).

2146. The FTC Method has serious flaws when compared to smoking behavior by humans. For example, many cigarettes contain a small area between the filter and the tobacco rod – the filter overwrap – that contains tobacco. Because it does not smoke to the filter, the FTC smoking machine does not smoke all of this tobacco. Thus, there is tobacco in the cigarette rod that the smoking machine does not measure but that can still be smoked by human beings. This tobacco can provide several puffs of smoke and, due to its location at the end of the rod, it is more concentrated in its delivery of nicotine and tar. It is more highly concentrated because it is closest to the filter – and thus not filtered by the other tobacco – and because it is smoked last, when the filter's effectiveness is decreased from previous smoking. The industry has long been

aware that if a person simply takes a couple of extra puffs beyond the point on the cigarette where the FTC smoking machine stops smoking, the person likely will get a much higher load of tar and nicotine than the amount measured by the FTC test. Expert Report of Jack E. Henningfield, Ph.D. in United States v. Philip Morris, et al. (R. 681; filed Nov. 15, 2001).

2147. Defendants have spent decades manipulating nicotine in cigarettes through ingredients and design features in order to control the amount and form of nicotine delivered to the smoker and which are not detected by the FTC smoking machine. Expert Report of William A. Farone, United States v. Philip Morris, et al., (R. 663; filed Nov. 15, 2001); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al., (R. 681; filed Nov. 15, 2001).

(i) Defendants Modified the Tar to Nicotine Ratio of Their Products to Ensure Adequate Nicotine Delivery in All Cigarettes, Including Those Marketed as "Low Tar/Low Nicotine" Products

2148. As the cigarette market increasingly shifted to products marketed as "low tar/low nicotine" cigarettes, Defendants undertook extensive efforts to manipulate the ratio of nicotine to tar in cigarettes in order to deliver more nicotine than might naturally be delivered by cigarettes with less tar. While Defendants' research and nicotine manipulation was used in the many "light," "ultra light," "mild," and "low tar" products brought to market since the 1960s and 1970s, Defendants directed their efforts to all types of cigarettes, including "regular" and "full flavor" brands.

2149. The companies often worked together in order to conduct this research. For example, Philip Morris, R.J. Reynolds, American Tobacco Company, and Liggett conducted a joint research study to determine if genetically different tobacco varieties differed in relative “nicotine-to-tar” ratios. X003675-3677 (U.S. Ex. 85,419).

2150. Cigarette Company Defendants sought to appear responsive to public health concerns regarding tar and nicotine without abandoning their fundamental need to provide sufficient nicotine delivery to smokers. Thus, despite claiming publicly that "nicotine follows tar," – i.e, that the amount of nicotine follows the amount of tar in a fixed ratio – the companies conducted years of research to develop methods of changing the ratio of tar to nicotine in tobacco smoke. Defendants implemented such methods in order to provide addiction creating and/or sustaining amounts of nicotine, while ostensibly lowering levels of "tar" and nicotine. Expert Report of Jack E. Henningfield, Ph.D. in United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

a. Philip Morris

2151. Philip Morris understood more than forty years ago that a high nicotine-to-tar ratio was important in formulating a successful cigarette strategy. A February 9, 1960 memorandum from L.L. Long, Research and Development Engineer, to A.B. Clarke, Research and Development Scientist, and copied to Robert Seligman, who became Vice President of Research and Development, discussed Philip Morris's ongoing efforts to manipulate the amount of nicotine received by a smoker through concentration of nicotine in tobacco smoke while maintaining lower levels of tar. Long wrote:

> One of the objectives of the 1960 cigarette project is the control of TPM ["total particulate matter," or tar] at a low level while maintaining the nicotine level in the smoke at its current level of about 1 mg/cigt. Several years ago some work was conducted along these lines. Nicotine Maleate was added to a low nicotine filler with a resulting increase in nicotine in the smoke. It would be most helpful if you could conduct some investigation in this area along with your work on nicotine control through extraction.

This issue received further attention throughout 1960. 1001919958-9958 (U.S. Ex. 85,460); 1001919941-9941 (U.S. Ex. 21,753).

2152. Philip Morris also knew no later than 1960 how to remove nicotine entirely from cigarettes, demonstrating Philip Morris's ability both to manipulate and control the level of nicotine in its cigarettes. In March 1961, Helmut Wakeham reminded Philip Morris executive Hugh Cullman that, "[W]e have available in Research and Development two processes for reducing nicotine in smoke. . . ." 2021657722-7722 (U.S. Ex. 20,352) (U.S. Ex. 78,914).

2153. In 1962, Hugh Cullman, Philip Morris's President, instructed Helmut Wakeham, then Philip Morris's Vice President and Director of Research and Development, to evaluate R.J. Reynolds's processing methods. Cullman had determined that R.J. Reynolds's cigarettes were "significantly lower in T.P.M. for a given nicotine level than all other cigarettes tested, including those of Philip Morris." Cullman concluded that R.J. Reynolds's method of controlling T.P.M. did not involve "any of the variables generally tested," was likely not "accomplished through leaf selection," but rather was most likely "the result of a method of tobacco processing, or the use of certain additives, not yet generally known to the rest of the industry." Thus, in light of his conclusion that a high nicotine-to-tar ratio would be important to the company's future, and that R.J. Reynolds might obtain a competitive advantage in this area, Cullman instructed Wakeham to research the issue further. 1000235191-5193 at 5191 (U.S. Ex. 20,082); 2022241584-1587 (U.S. Ex. 36,850).

2154. On March 26, 1964, scientists from the Philip Morris Research and Development Department provided an outline of their work on a "1965 Cigarette" that would have lower tar amounts but that would still contain at least 7 milligrams of nicotine per cigarette. The outline

proposed to "add nicotine to [the] cigarette and define contribution of nicotine to flavor." The committee focused on the question, "Can we transfer nicotine from filter to smoke?" The same outline set forth goals for a "1966 Cigarette" that would have "lower carcinogens" at the same time that it provided "optimum nicotine relation to flavor and impact." 1001901299-1310 at 1301, 1309 (U.S. Ex. 35,573).

2155. Notes taken by a Philip Morris employee dated early 1965 demonstrate Philip Morris's incentive to produce a lower tar cigarette and its corresponding desire to retain the amount of nicotine needed to "hook" the smoker. The notes stated that the "company with flavorful-low tpm - enough nicotine to keep smoker hooked waiting will reap huge benefits." 2078099704-9723 at 9704, 9706, 9709, 9712 (U.S. Ex. 85,420) (emphasis in original).

2156. Philip Morris's Cathy Ellis has admitted that, during the 1970s, Philip Morris looked into increasing the nicotine delivery in its cigarettes while at the same time decreasing tar levels. Ellis testified that one method of achieving the higher nicotine delivery level was through selective tobacco blending. Deposition of Cathy Ellis, State of Mississippi v. American Tobacco Co., et al., March 20, 1997, 92:21-93:18.

2157. Philip Morris conducted multiple consumer research studies to determine the acceptability of various tar-to-nicotine ratios. Studies conducted in the early- and mid-1970s tested smokers' reactions to "low tar, high nicotine" cigarettes. These studies provided evidence that consumers preferred nicotine-to-tar ratios that were higher than those that occurred naturally in tobacco. 2062951842-1864 (U.S. Ex. 20,512); 1003288950-8967 (U.S. Ex. 20,166); 1003288934-8949 (U.S. Ex. 20,165); 2024545758-5773 (U.S. Ex. 20,402); 1000048633-8654 (U.S. Ex. 20,075); 1000350159-0186 (U.S. Ex. 35,241).

2158. In a January 18, 1971 memorandum from Thomas Schori, psychologist, to L.L. Long, Research and Development Engineer, Schori described a human smoking survey in which Philip Morris would mail to 600 Marlboro smokers ten experimental packs of four cigarettes each, with each pack having varying tar and nicotine levels, between .33 mg to 1.3 mg of nicotine per cigarette. The memorandum plainly stated, "[n]icotine will be added as needed." 1003285444-5445 at 5444 (U.S. Ex. 35,692).

2159. In 1971, Philip Morris asked some of its own employees to participate in a smoking study in order to "find out how the nicotine and tar levels of cigarettes affected their acceptability and consumption." One of the conclusions of the study was that the number of cigarettes the employees smoked per day was directly correlated to the nicotine levels, but not to the tar levels. 1003285443-5443 (U.S. Ex. 85,421).

2160. In November 1971, Philip Morris issued a special report on "Tar, Nicotine and Smoking Behavior," written by Schori and approved by William Dunn, Associate Principal Scientist. The report, which involved analyses of the results of tests involving human smokers, concluded that "tar deliveries of the currently best selling cigarettes might be reduced somewhat, leaving nicotine as it is, without any significant overall decrease in the cigarettes' acceptability." The study also found that test subjects received similar amounts of tar and nicotine each day, regardless of the levels available in the cigarettes they were smoking, thus proving that compensation existed. 1000350158-0188 at 0161 (U.S. Ex. 20,176).

2161. Philip Morris continued such research into 1972. On September 8, 1971, company R&D scientists, including Dunn, wrote to Paul Eichorn, then Manager of Technical Planning and Information Development, stating their intent to "concentrate upon the nicotine/tar

ratio as a factor in determining cigarette acceptability." The goal was to determine the "optimum" nicotine/tar ratio levels. The plans for 1972 included a focus on nicotine delivery between .3 and 1.2 mg of nicotine per cigarette "with a **systematic manipulation of the nicotine/tar ratio at incremental nicotine levels within this range**." 1003289951-9954 at 9951 (U.S. Ex. 85,422) (emphasis added); 1000351570-1595 (U.S. Ex. 85,423); 1003288521-8545 (U.S. Ex. 35,683) (U.S. Ex. 35,719).

2162. Correspondence between the Marketing Department and the Research Center at Philip Morris in 1972 reflects the company's desire to increase its share of the menthol cigarette market, then dominated by B&W's Kool cigarettes, by manipulating the nicotine-to-tar ratio and overall nicotine levels in Philip Morris's own menthol cigarettes, such as Alpine. 202244795-4801 (U.S. Ex. 85,424).

2163. In a July 8, 1974 letter from Philip Morris's Helmut Wakeham to Max Hausermann of Philip Morris Europe, Wakeham acknowledged receipt of a Research Progress Report from Hausermann and responded to studies highlighted in the report that had found discrepancies between the way that humans smoke cigarettes compared to the FTC smoking machine's workings. Wakeham agreed that Philip Morris had found evidence of the same phenomenon. He advised Hausermann not to publicly share this information:

> There is concern that if in the light of new findings, we are too strong in denunciation of the present test as being unrealistic, then some advocates might claim the advertised numbers are false and misleading. . . .
>
> I am not suggesting we defer the research or neglect to apply it to our product problems.
>
> We should by all means use it to the best of our advantage. On the

> other hand, I would propose deferring publication or presentations to committees or conferences, particularly those attended by our competitors, for obvious reasons.
>
> Let us pursue the research and hold back on the publicity until we can agree on some pro-industry approach to the problem.

1004863921-9975 at 3921 (U.S. Ex. 35,921); 1000356550-6576 (U.S. Ex. 85,425); 0000258064-8064 (U.S. Ex. 85,426).

2164. A study concluded in 1975, and distributed widely throughout the Philip Morris Research Center, confirmed that the "optimum nicotine to tar (N/T) ratio for a 10 mg tar cigarette is somewhat higher than that occurring in smoke from the natural state of tobacco. . . ." As a result, as detailed in the Special Report entitled, "Low Delivery Cigarettes and Increased Nicotine/Tar Ratios, A Replication," the researchers added nicotine to cigarettes in the form of nicotine citrate. The document urges development of:

> [a] low delivery cigarette that will both look and taste like a regular filter cigarette and thus will appeal to current regular filter smokers. . . . If a low delivery cigarette with impact and flavor were developed, it may cause the segment of current regular filter smokers who are concerned about their health but demand a flavorful cigarette to voluntarily switch to the low delivery cigarettes. This may seem at first to be a senseless venture since it might result in Marlboro smokers switching to this low delivery cigarette. However, we must recognize the possibility that if we do not develop such a cigarette, it may be developed by another tobacco company.

1003288950-8967 at 8951, 8954, 8952 (U.S. Ex. 20,166); 2076738596-8619 (U.S. Ex. 43,894).

2165. An additional study, entitled, "Low Delivery Cigarettes and Increased Nicotine/Tar Ratios, III," was conducted in 1976 and continued to find that many smokers preferred a cigarette with a higher nicotine/tar ratio, accomplished through the addition of

nicotine citrate to the cigarette. Studies involving nicotine citrate continued into 1977. 1003288934-8949 at 8943 (U.S. Ex. 20,165); 1003285418-5418 (U.S. Ex. 85,427); 2081925847-5856 at 5851 (U.S. Ex. 88,784).

2166. It is clear that the focus of the research during the 1970s was on how to retain nicotine delivery even if tar levels would be reduced. It is also clear that Philip Morris was not studying nicotine because it believed nicotine to be essential to the taste of the cigarette. William Farone, former scientist with Philip Morris has testified that, in 1976, Philip Morris actually included in its public statements on news programs regarding the Merit brand that nicotine is tasteless and odorless, pointing out that it could be put in candy without interfering with the flavor. Deposition of William Farone, United States v. Philip Morris, et al. April 2, 2002, 202:5-204:14.

2167. Although Philip Morris has claimed in public statements that its efforts were focused on lowering tar levels, and that nicotine levels followed, Philip Morris's emphasis on nicotine research is clear from the abundance of research and discussion that went into this topic. One part of this focus on nicotine, as outlined in a March 21, 1978 memorandum from scientists J.I. Seeman, Carolyn Levy, and E.B. Sanders to Thomas Osdene was Philip Morris's "Nicotine Program." The program was described in the memorandum as "aimed at elucidating the basic mechanisms of action of nicotine with a major goal of understanding and controlling the physiological effects of 'smoke.'" 1000128638-8645 at 8638 (U.S. Ex. 86,949); Deposition of Carolyn Levy, Scott v. The American Tobacco Company, May 8, 1997, 103:13-104:24; see also 2031436002-6002 (U.S. Ex. 20,433).

2168. Paul Mele, former Philip Morris scientist, has testified that when he worked for

Philip Morris in the early 1980s, it was "well-known at the research center that Philip Morris had tremendous technology to manipulate the tobacco, the cigarette, as an engineering instrument, and they certainly manufactured test cigarettes with varying quantities of nicotine. . . . **[Philip Morris] could manipulate nicotine content.** " This included making cigarettes with absolutely no nicotine at all. Deposition of Paul Mele, Engle v. R.J. Reynolds, December 10, 1998, 97:9-98:1 (emphasis added); Deposition of Paul Mele, Engle v. R.J. Reynolds, December 15, 1998, 17804:1-16.

2169. Beginning in 1989, Philip Morris briefly sold denicotinized cigarettes in test markets under the Next (Nicotine Extraction), Merit De-Nic, and Benson & Hedges De-Nic brands, using a fluid extraction process (akin to the process for making decaffeinated coffee) to remove about 97% of the nicotine from the cigarette. This demonstrates Philip Morris's ability to manipulate nicotine, even to extremes, in the delivery from a cigarette. Expert Report of William A. Farone, United States v. Philip Morris, et al., (R. 663; filed November 15, 2001) at 17.

2170. Philip Morris scientist Frank Gullotta has admitted that he conducted research for Philip Morris in the early 1980s, including human smoking studies, that involved holding tar levels constant and varying nicotine levels, in order to discover human smoking reaction to increased levels of nicotine delivery. This research informed his search for the optimal nicotine delivery level. Deposition of Frank Gullotta, Engle v. R.J. Reynolds, May 26, 1998, 67:8-71:7; 71:12-72:6.

2171. In a November 8, 1990 memorandum, Philip Morris scientists Frank Gullotta, Cynthia Hayes and Bobby R. Martin wrote to Cathy Ellis, then Manager of the Biochemical Research Division and later Senior Vice President, Worldwide Scientific Affairs for Philip

Morris, regarding "past, present and future" contributions of "Electrophysiological Studies to P.M. USA." The scientists listed first among their accomplishments, "Experiments conducted in our laboratory led us to the idea of how to produce an acceptable low tar cigarette. **It was our work which led to the development of cigarettes with altered tar/nicotine ratios.** The tobacco blend which we advocated . . . is now being used in Project Bold and may soon find its way to the marketplace." Another accomplishment was research showing that **"there are optimal cigarette nicotine deliveries for producing the most favorable physiological and behavioral responses,"** and that "**all forms of nicotine are not behaviorally or physiologically equal.** This observation is important for evaluating research cigarettes where the addition of nicotine is necessary." 2028813366-3368 at 3366, 3367-3368 (U.S. Ex. 20,430) (U.S. Ex. 47,529) (emphasis added); see also, Deposition of Frank Gullotta, Engle v. R.J. Reynolds, May 26, 1998, 49:11-52:13.

2172. Philip Morris continued into the 1990s to study various nicotine delivery levels while holding tar levels constant. In some of these studies, Philip Morris also examined the interactions between menthol, nicotine and tar levels in cigarettes, determining how menthol levels in cigarettes with different levels of nicotine affected smoker impact. These studies including human smoker studies. Deposition of Frank Gullotta, Engle v. R.J. Reynolds, May 26, 1998, 53:19-56:13.

b. R.J. Reynolds

2173. No later than 1972, R.J. Reynolds recognized an urgent need, in order to have a competitive advantage in the marketplace, to develop a lower tar cigarette that would deliver a high level of nicotine. In a May 19, 1972 internal memorandum to Claude Teague from Frank G.

Colby, Manager of Scientific Information, Colby recounted a conversation he had with an employee of Imperial Tobacco Company while preparing for an industry-wide conference: "He explained in some detail how desirable it would be to have a high nicotine tar ratio cigarette, but said that unfortunately he did not have any idea how to realize this technologically. Naturally, I did not mention in any way our interest in this subject." Colby also reported his suspicion that Philip Morris already was developing a high nicotine cigarette. Colby concluded: "I feel these two incidents prove that the high nicotine tar ratio cigarette is a concept which is 'very much in the air.' We should definitely make an effort to be first." 500790798-0798 (U.S. Ex. 20,651); see also 500901543-1545 (U.S. Ex. 85,428).

2174. In a March 28, 1972 paper from Claude Teague to E.A. Vassallo and Murray Senkus, who became Vice President of Research and Development, Teague noted that he believed R.J. Reynolds had identified the minimum nicotine delivery required to make a cigarette "acceptable" to a smoker as 1.3 milligrams. Teague's paper, entitled "A Gap In Present Cigarette Product Lines And An Opportunity To Market A New Type Of Product," advocated that R.J. Reynolds take advantage of the so-called gap in product lines by developing a cigarette that would deliver 1.3 milligrams of nicotine while delivering less tar than any current product: "[A]t the desired nicotine delivery, calculated to be 1.3 mg., the smoker will chose [sic] the cigarette offering the lowest T/N Ratio, if other qualities are satisfactory. With current brands at or even near the desired nicotine level, the smoker is offered no brand with a T/N Ratio below 13. Indeed, of all 121 brands tested by the FTC, the only one with a T/N Ratio less than 13 is Carlton, and it delivers only 0.4 mg. of nicotine." 500790776-0784 at 0776 (U.S. Ex. 29,473); 500254536-4544 (U.S. Ex. 21,747) (U.S. Ex. 48,079) (emphasis in original).

2175. An undated R.J. Reynolds document setting forth the objectives and strategies of its Tobacco Development Department reveals that R.J. Reynolds's early strategies for developing reduced tar products focused primarily on how to maintain adequate nicotine delivery if tar levels dropped. The document identified the "need for increased smoker satisfaction" as a key issue, and R.J. Reynolds's strategies for maintaining and improving smoker satisfaction included "proceed[ing] with tar reduction programs maintaining maximum nicotine deliveries in the smoke" and "study[ing] all means to maximize nicotine content of tobaccos and delivery to the cigarette smoke . . . [including] agricultural practices, leaf purchase program, blending, processing, nicotine transfer efficiency, casing levels, added nicotine, selective filtration, effect of wrapping materials." 504658762-8769 (U.S. Ex. 85,429).

2176. In recommending development of a new "youth-appeal brand," Frank G. Colby, Manager of Scientific Information, wrote in a December 4, 1973 memorandum to R.A. Blevins, Jr., about the importance of assuring that the new product delivered sufficient nicotine:

> In my judgment, for public relations reasons it would be impossible to go back all the way to the 1955 type cigarettes. As far as tar and nicotine in the smoke are concerned, I believe it should be possible to achieve the desired effect by going to a tar level of today's Pall Mall (non-filter type) of about 29 mg of tar and 1.8 mg nicotine. Still, with an old-style filter, any desired <u>additional</u> nicotine 'kick' could be easily obtained through pH regulation.

50116 6152-6153 at 6152 (U.S. Ex. 23,051) (emphasis in original).

2177. On June 5, 1974, a meeting occurred between individuals from R.J. Reynolds's research department and R.J. Reynolds's advertising agency, Tatham-Laird & Kudner, Inc., "to review a selected group of technical developments in the cigarette category . . . [and] to

determine whether any of the technical developments to date could, at this time, be utilized in the development of new brands for marketing." The memorandum memorializing this meeting demonstrates that one of the technical developments discussed was a low tar/high nicotine cigarette: "Until this development, tar and nicotine went either up or down in a cigarette simultaneously; **the technical development here has enabled RJR to deal with these two elements separately and therefore each can be controlled at virtually any given level desired.**" 501186367-6369 (U.S. Ex. 20,673) (emphasis added).

2178. In May 1976, R.J. Reynolds's Research Department prepared a document entitled "Planning Assumptions and Forecast for the Period 1977-1986+ for R.J. Reynolds Tobacco Company." The document demonstrates R.J. Reynolds's recognition of the significance of the need for research concerning the minimum level of nicotine that must be delivered to a smoker in order to keep a smoker addicted to cigarettes. Envisioning cigarettes delivering less than 0.8 milligrams of nicotine, R.J. Reynolds acknowledged that:

> **[I]t is essential that we are fully aware that, at these nicotine levels, smoking cessation will be very much facilitated. Some 'farmed out' or in house research on determining the minimum nicotine level (at the highest 'acceptable' pH) for providing 'satisfaction' should be considered.**

500884613-4638 at 4619-4620 (U.S. Ex. 85,430) (emphasis added); see also, 504707350-7372 at 7365 (U.S. Ex. 86,950); 504424968-4976 (U.S. Ex. 86,951).

2179. R.J. Reynolds analyzed Cambridge filter pads and found the "disturbing results" that the filter pads removed a large amount of smoke nicotine. This led R.J. Reynolds to look for ways to "manipulate variables to find the maximum smoke nicotine delivery[.]" Deposition of Charles Green, Arch v. The American Tobacco Co., September 30, 1997, 285:7-21;

295:18-297:4; 301:18-302:4; 505024234-4244 (U.S. Ex. 86,952).

2180. According to an August 19, 1976 report entitled "New Product/Merchandising Directions A Three Year Action Plan" (emphasis in original), R.J. Reynolds's "**top priority [was] to develop and market low 'tar' brands that: maximize the physiological satisfaction per puff – the single most import need of smokers.**" R.J. Reynolds was not content to allow tar reuctions to effect a proportionate reduction in nicotine: "It would be more desirable from our standpoint, i.e. providing satisfaction to the smoker and maintaining his allegiance to smoking if we could reduce 'tar' to whatever target we choose without a proportionate drop in nicotine." The report also outlined R.J. Reynolds's "approaches to decreased T/N ratio," including the development and commercialization of high nicotine tobacco, the development of "means to supplement nicotine" in tobacco, and the development of "means to increase nicotine transfer in smoke." 500672011-2172 at 2054, 2111-2112 (U.S. Ex. 20,645).

2181. An August 23, 1976 document titled "MBO Performance Report," outlined the objectives and activities of "Project 1250," a research project carried out by R.J. Reynolds's Chemical Research Division for the purpose of "search[ing] for fundamental information which will lead to new techniques and methods of altering and controlling nicotine/'tar' ratio, which will define important factors related to optimum nicotine level and smoker satisfaction." The report demonstrates that, through Project 1250, R.J. Reynolds was fully committed to developing its knowledge regarding the various ways to control nicotine content and delivery in low tar cigarettes. For example, the report defined R.J. Reynolds's objectives for 1977 as including: (1) "Identify factors influencing nicotine delivery efficiency, and determine means to increase nicotine to 'tar' ratio;" (2) "Determine minimum 'tar'-nicotine levels for smoker satisfaction

through panel testing and study effect of varying nicotine levels on low 'tar' blends;" (3) "Evaluate existing competitive brand data and crop analyses to determine factors related to nicotine and 'tar' delivery;" (4) "Evaluate various experimental and foreign tobaccos to determine the effect of these materials on 'tar' and nicotine delivery;" and (5) "Continue casing studies, particularly the effect of sugar on nicotine delivery." 511526479-6481 at 6479 (U.S. Ex. 85,431); see also 502966364-6374 at 6364-6367 (U.S. Ex. 85,432).

2182. In a January 5, 1977 memorandum on the subject of "Nicotine-Related Research," D.H. Piehl, Manager of R.J. Reynolds's Chemical Research Division, informed a large group of R.J. Reynolds employees that "[i]n 1977 we will be increasingly concerned with discovering new means for control of nicotine, tar to nicotine ratio and satisfaction in our products." 502740087-0087 (U.S. Ex. 85,433).

2183. On May 19, 1977, W.M. Henley sent a memorandum to Piehl concerning R.J. Reynolds's "Project 1250: Methods of Controlling Tar, Nicotine and Satisfaction." Henley outlined the research activities that were already underway in support of Project 1250's objective – to "identify factors influencing nicotine delivery efficiency and determine means to manipulate nicotine/tar ratio to provide a more satisfying smoke." The memorandum demonstrates that R.J. Reynolds was actively researching a variety of means to increase nicotine delivery to smokers of low tar cigarettes to assure that smokers would achieve "satisfaction," i.e., that smokers would ingest sufficient nicotine to keep them addicted to low tar cigarettes. 504476706-6706 (U.S. Ex. 85,434) (emphasis in original); 503558195-8200 (U.S. Ex. 50,410); 504423322-3327 (U.S. Ex. 50,614).

2184. In a January 4, 1978 memorandum, entitled "Nicotine and Smoker Satisfaction,"

D.H. Piehl wrote to Alan Rodgman, R.J. Reynolds scientist, that an objective of the 1977-1978 research was to "[d]etermine the means to alter and control 'tar'/nicotine ratio and increase nicotine transfer efficiency." Another objective identified by Piehl was to "[d]efine the optimum nicotine level in cigarette smoke required to maximize smoker satisfaction. Determine the existence of a minimum or threshold value of nicotine required for satisfaction. 517701466-1471 at 1466 (U.S. Ex. 85,435) (emphasis in original).

2185. The progress made by R.J. Reynolds in researching and developing means to increase nicotine delivery to smokers of low tar cigarettes is evidenced in Piehl's 1979 work plan. The work plan, which set forth the objectives and the results achieved by the Chemical Research Division, indicated that R.J. Reynolds had identified the "optimum and minimum nicotine deliveries that maximize satisfaction" for full flavor cigarettes; established the "optimum T/N for . . . low 'tar' cigarettes in house;" and demonstrated through research that "nicotine can be substantially relocated from one blend component to another, without affecting smoke delivery in blended cigarette." 502972546-2579 at 2547-2550 (U.S. Ex. 85,436).

2186. A document setting forth the mission and goals of R.J. Reynolds's "Tobacco Development Department" for 1980, 1981, and 1982 demonstrates that R.J. Reynolds intended by the early 1980s to modify the tar-to-nicotine ratios of its commercial products. For example, the document indicates that as part of R.J. Reynolds's "action plan" it intended to "[d]etermine means to optimize tobacco density and puff count on light brands" by 1981, and, "[i]n cooperation with Research, establish appropriate T/N ratio, absolute nicotine and strength index for each brand" by 1982. 500545614-5644 at 5627 (U.S. Ex. 86,953).

2187. In or around 1980, R.J. Reynolds President Gerald Long signed off on funding a

Marketing Development Department product research proposal entitled, "Nicotine Satisfaction Consumer Study." Deposition of Gerald H. Long, United States v. Philip Morris, October 18, 2001, 46:6-47:19; 500476354A-6356 (U.S. Ex. 86,954).

2188. In the early 1980s, with knowledge that FTC testing did not accurately measure the amount of nicotine inhaled by a smoker, R.J. Reynolds developed a human mimic smoking machine, or "HMSM," in order to obtain a more accurate picture of how much nicotine and other materials in cigarette smoke, on a puff-by-puff basis, a human smoker would inhale from smoking its products. In a February 26, 1981 memorandum from Alan Rodgman to Roy E. Morse, Rodgman reported that "[r]efinements to control calculations for the human-mimic smoking machine resulted in satisfactory performance in duplicating the shapes and volumes of a variety of human puffs. Minor problems with auxiliary equipment are being corrected." In a similar March 12, 1981 memorandum, Rodgman stated that "testing of the human-mimic smoking machine has shown that good replication of most puff shapes can be made." R.J. Reynolds used the human mimic smoking machine in its product development research throughout the 1980s and 1990s to replicate observed human smoking patterns, thereby enabling "the determination of the effect of individual human smoking behaviors on yields of mainstream smoke components" for any cigarette tested with the machine. For example, an April 4, 1992 research report authored by John H. Robinson, Sandra W. Ingram, Riley A. Davis, Mitchell F. Stiles, and David W. Griffith concerning R.J. Reynolds's Project XGT stated: "The mainstream smoke yield data presented in Table V [of the report] offer the opportunity to compare smoke yields under both human smoking conditions versus yields obtained via the FTC machine smoking method." The comparison revealed that two of the prototype cigarettes R.J. Reynolds

was studying – "XGT 'E'" and "XGT 'F'" – and an 85 millimeter Marlboro Light had FTC nicotine yields of 0.72, 0.78, and 0.78 respectively; those same cigarettes smoked under human smoking conditions, as measured by the human mimic smoking machine, had nicotine yields of 1.05, 1.09, and 1.19 respectively. The report noted this difference, stating "All three cigarettes yielded approximately equal amounts of nicotine when smoked by humans, and these yields ranged from 132% (XGT 'E') to 152% (ML [Marlboro Light]) of the FTC nicotine yields." 500952530-2532 at 2530 (U.S. Ex. 88,067); 500952551-2551 (U.S. Ex. 88,068); 508187782-7803 at 7785, 7789, 7790, 7792 (U.S. Ex. 88,069); see also 508389543-9607 at 9586-9588 (U.S. Ex. 88,070); 510786600-6623 (U.S. Ex. 88,071).

2189. A January 10, 1983 internal memorandum to W.M. Henley, C.L. Neumann, and Thomas A. Perfetti summarized R.J. Reynolds's research activities "directed toward the development of information relating to consumer perceptions to cigarette parameters." The memorandum indicates that R.J. Reynolds had conducted several consumer studies in which nicotine and/or smoke pH were controlled variables and that R.J. Reynolds reached conclusions about optimum nicotine deliveries and tar-to-nicotine ratios based on the studies. USX3621341-1345 at 1341,1343-44 (U.S. Ex. 77,401).

2190. In 1987, R.J. Reynolds conducted studies to create a product that would deliver the taste and satisfaction of a 7-9 milligram tar product with only 1-2 milligrams of tar. Researchers maintained consumer satisfaction (i.e., addicition) through the use of "nicotine salts" technology, facilitating more effective nicotine delivery. 506686631-6634 (U.S. Ex. 50,938).

2191. In 1989, R.J. Reynolds formed its "Intra-Company Nicotine Review Committee (INRC)," an "interacting group comprised of representatives from Research and Development,

Marketing and Marketing Research whose goal [was] . . . to develop a strategic plan that provides resources which will satisfy consumer wants and company needs related to nicotine." A document setting forth Nicotine Review Committee's priorities demonstrates that R.J. Reynolds was determined to employ nicotine as a key design element of its cigarettes. Under the heading "Nictoine Strategic Plan," the document stated that "[b]y building our knowledge base with respect to nicotine, as a key design parameter, R&D can place the company in a more responsive position to act on identified consumer wants and product ideas to maximize volume and share growth." The Nicotine Review Committee recommended that, in order to maintain its "technical leadership," R.J. Reynolds must "[m]eet existing and emerging consumer wants via new products or enhancements to current products that employ nicotine as a key design parameter." 507063957-3960 at 3957 (U.S. Ex.86,955); 507904528-4535 at 4530, 4533 (U.S. Ex. 86,956); see also 507070472-0473 at 0472 (U.S. Ex. 86,957).

2192. In the late 1980s, R.J. Reynolds began experimentation with preparing tobaccos using the "REST" [Reestablishment of Solubles in Tobacco] prcoess. A December 11, 1989 internal memorandum from Rhenda H. Steele to Barry S. Fagg explained the purpose of REST processing as follows: "Using this process, **all variables [in tobacco] are held constant except nicotine, which can be controlled.**" A May 3, 1991 report entitled "REST Program Review" explained R.J. Reynolds's goal for use of REST processing to manipulate nicotine in its products:

> To develop a viable process for the total control of nicotine in product, in conjunction with the 'REST' process without affecting smoke performance other than attributes connected to nicotine. Basic development and process specifications are to be completed by the end of 1991. . . . We are basically in the nicotine business.

> It is in the best long term interest for RJR to be able to control and effectively utilize every pound of nicotine we purchase. Effective control of nicotine in our products should equate to a significant product performance and cost advantage.

509887264-7264 (U.S. Ex. 85,437) (emphasis added); 509479574-9587 at 9582, 9854 (U.S. Ex. 20,829).

2193. REST processing was a vital part of R.J. Reynolds's "Nicotine Control Program" begun at least by 1990. The Nicotine Control Program included at least three distinct studies of methods for the manipulation of nicotine delivery:

> -Project "LN," the objective of which was to "optimize products with extremely low smoke nicotine yields" using, among other things, REST technology;
>
> -Project "GTX," the objective of which was to "develop basic information on how the design variables of nicotine, 'tar' yield and draft interact physicochemically;"
>
> -Project "Nicotine RSM," the objective of which was to "explore effects (independently and interactively) of nicotine, 'tar', and draft on smoker perceptions, behavior and acceptance" using, among other things, REST technology.

An August 22, 1990 report on REST technology stated that R.J. Reynolds had "**achieved on a development scale a practical process for selectively adjusting the nicotine content in a tobacco extract and, therefore, in the tobacco blend after REST processing**" and that R.J. Reynolds intended to use REST technology to "**[i]ndependently control nicotine delivery, from very low to elevated levels.**" 508112783-2807 at 2788, 2790, 2792, 2794 (U.S. Ex. 85,438); 509479574-9587 at 9576, 9577 (U.S. Ex. 20,829) (emphasis added); see also 509479799-9799 (U.S. Ex. 86,958); 508099588-9588 (U.S. Ex. 86,959); 507051133-1136 (U.S. Ex. 86,960); 512331601-1601 (U.S. Ex. 86,961).

2194. A document prepared for an August 6, 1990 meeting regarding the Nicotine Control Project's "Nicotine RSM Study" explained the benefit of REST processing: "A new process (REST) makes possible for the first time independent manipulation of three key product development variables (nicotine, 'tar', draft)." The document demonstrates that R.J. Reynolds designed consumer studies for testing products developed with REST processing for the purpose of developing "a comprehensive understanding of how to independently control nicotine, 'tar', and draft levels in RJR FFLT [full flavor low tar] and FF [full flavor] product lines to optimize smoker satisfaction. . . ." R.J. Reynolds's Biobehavioral Research Division also saw significant benefits of the use of REST technology in the Nicotine Control Program, as expressed in an April 9, 1990 memorandum from J.H. Reynolds to Mari-Jo Dryden: "**For the first time 'tar' and nicotine can be independently varied without excessive changes in blend. This has been a 'dream goal' of developers and researchers for years.**" 507523433-3477 at 3441 (U.S. Ex. 85,439); 510961941-1941 (U.S. Ex. 85,440) (emphasis added); see also 509347328-7336 (U.S. Ex. 85,441); 507973629-7348 (U.S. Ex. 86,962).

2195. In another consumer study relating to REST-processed tobacco, R.J. Reynolds endeavored "to assess the pharmacological component of smoking satisfaction by attempting to experimentally control the level of nicotine absorbed by smokers under normal smoking conditions." In a memorandum describing the experiment, Walter S. Pritchard and John H. Robinson explained that "[t]he nicotine yields of the experimental cigarettes will be controlled using the R.E.S.T. (Re-Establishment of Soluble Tobacco) process, with target nicotine yields of 0.06, 0.2, 0.4, and 0.8 mg. The target 'tar' yield of the experimental cigarettes will be 10 mg." 525246100-6103 at 6100 (U.S. Ex. 85,442).

2196. An R.J. Reynolds document entitled "Nicotine Strategic Plan September 26, 1990" apparently reflects a presentation given by R.J. Reynolds scientists, including A. Wallace Hayes, Mari-Jo Dryden, John Robinson, Tom Perfetti and Pat Lippiello, concerning several of their ongoing nicotine research projects. Regarding the "Nicotine RSM Study," the document described nicotine as a "critical variable[] for product development and noted that "**independent manipulation of nicotine will result in a better understanding than ever before of satisfaction.**" The document identified as one of the "Overall Study Implications" that the Nicotine RSM study would "result in definition of optimal combination of tar, nicotine, and draft to maximize acceptance among one or more smoker groups/mindsets." In addition, the document confirmed that the goals of R.J. Reynolds's Projects XGT and GTS were to"explore alternate methods/sources for enhancing nicotine yields of law 'tar' products." The document also identified as a "key issue" the "[o]ptimization of nicotine's sensory properties in smoking products." 514106716-6809 at 6737, 6781, 6803 (U.S. Ex. 51,775) (emphasis added); see also, 514940099-0120 (U.S. Ex. 51,894).

2197. A November 15, 1990 facsimile from Emily Etzel to Donna Wilson hypothesized on the "several reasons why Philip Morris would find it strategically advantageous to master nicotine manipulation." Etzel wrote that:

> Nicotine manipulation involves the changing of nicotine levels in their products other than by buying tobacco with high or low nicotine levels. The extraction of nicotine for such products and NEXT and Merit De-Nic results in an [sic] surplus of nicotine. This nicotine can be added to other products. . . . PM has successfully raised the nicotine levels on all their products (across the line) by using high nicotine tobaccos. Thus, they already have a better T/N ratio than their competitors. Adding nicotine could further improve that ratio.

509348227-8229 at 8228 (U.S. Ex. 88,072).

2198. A June 27, 1991 R.J. Reynolds document entitled "Nicotine Delivery Expert System" outlines mechanisms by which the "[a]vailable nicotine in [the] tobacco rod" can be modified, including by R.J. Reynolds's G-7, G-13 and REST processing procedures. 510962740-2741 at 2740 (U.S. Ex. 88,073).

2199. In a detailed April 1, 1992 report, Barry S. Fagg detailed R.J. Reynolds's continued investigation and progress of using REST technology in product development. Fagg described the rationale and strategy of the continued investigation:

> Previous development of the REST processing techniques has indicated that tobacco material can be disassembled into essentially water insoluble and water soluble portions, followed by controlled reassembly. . . . When coupled with the technology for denicotinization of aqueous tobacco extracts, **the expanded process provides the power to produce a variety of 'engineered' tobacco laminas in which the nicotine level is manipulated while other 'non-nicotine' compounds are effected [sic] to a minimum degree.**

Fagg concluded that "[t]he overall process has demonstrated the ability to start with lamina cut filler and produce processed tobacco cut filler in which the nicotine level within the tobacco can be controlled," and that "**[c]ontrolled nicotine materials allow novel manipulations of tar to nicotine ratios which significantly alter smoking sensations. Product opportunities are apparent and consumer testing has been included in the Winston and Vantage brand families.**" 508380001-0027 at 0008, 0014-0015 (U.S. Ex. 85,443) (emphasis added).

2200. On April 27 and 28, 1992, R.J. Reynolds held an "XB Integration Meeting," the purpose of which was to "pull together internal and external information that is germane to our sensory research efforts on XB." In an April 23, 1992 memorandum, J.C. Walker invited Mary

Stow, Mike Dube, Tom Perfetti, and Watson Dufour to attend the meeting and encouraged them to invite employees to the meeting with whom they worked. The meeting was videotaped. A document produced from R.J. Reynolds files roughly summarized the topics discussed over an eight-hour period on the "XB Integration Meeting Video Tapes." That document described one area discussed as "'We can take a cigarette unsmokeable because nicotine is so high and make it smooth with acid.'" Other issues discussed during the XB Integration Meeting included "add nicotine to cigarette," "load blend with high nicotine tobacco to get satisfaction," and "by adding nicotine, you can change tons of sensory attributes." The participants in the meeting apparently believed that they could discuss the addition of nicotine to low tar cigarettes freely since they expected the videotapes would be destroyed: "these tapes will be destroyed, we have to be careful with these." 517597880-7880 (U.S. Ex. 88,074); 511874643-4648 at 4644 (U.S. Ex. 88,075); 522531991-1993 at 1991, 1992 (U.S. Ex. 88,076); see also, 508364418-4419 at 4422 (U.S. Ex. 88,077); 517597869-7871 (U.S. Ex. 88,078).

2201. R.J. Reynolds continued its research into changing the nicotine-to-tar ratio throughout the 1990s. The company concentrated on research that would allow it to create an ultra low tar product that provided nicotine delivery similar to full-flavor products. 509308455-8459 (U.S. Ex. 20,827).

2202. Contrary to its public statements that it did not use nicotine as a design parameter or set nicotine targets for its products, an October 29, 1999 R.J. Reynolds document entitled "Specification Changes" demonstrates that R.J. Reynolds did set nicotine targets for its commercial products. The document identified problems with a number of R.J. Reynolds export brands and the actions taken to correct those problems. Included in the list were the following:

1. CAMEL Filter 83 CPB Export (Australia)

ISSUE: Low nicotine 1.037 versus target of 1.20.

ACTION: Change nicotine target to 1.0. . . .

3. Monte Carlo Lights 100 Export (Latin America)

ISSUE: Low nicotine 0.701 versus target of 0.75, high cigarette firmness 9.6 versus target of 8.0 and high borgwaldt ends 18.6065 versus target of 18.000

ACTION: Revisions made to include weight increase and dilution change.

523202896-2897 at 2896 (U.S. Ex. 88,079); see also, 523196629-6629 (U.S. Ex. 88,080); 523196631-6631 (U.S. Ex. 88,096); 523196638-6638 (U.S. Ex. 88,081).

d. BATCo/B&W/American Tobacco Company

2203. When asked during his April 23, 2002 deposition in this case, whether Brown and Williamson has the ability to manipulate tar and nicotine ratios, Honeycutt, B&W's Director of Research Services and Analytical Research stated: "Well, sure, absolutely. We don't, but we could." Deposition of Hugh Honeycutt, United States v. Philip Morris, et al., April 23, 2002, 161:15-19.

2204. M. Lance Reynolds, former B&W Director of Product Development and Director of Research, testified that from the beginning of his career at B&W in 1968 onwards, B&W and BAT Group companies had "projects to try and increase nicotine delivery with respect to tar, for many years." Deposition Testimony of M. Lance Reynolds, United States v. Philip Morris et al., Sept. 12, 2002, vol. 2, 301:1-301:23.

2205. BATCo was working to manipulate and change the tar-to-nicotine ratio in its

cigarettes as early as 1954, through Project Ariel. Project Ariel began when BATCo sought to respond to the British Ministry of Health's February 12, 1954 statement expressing the British government's view that the relationship between smoking and lung cancer could be taken as established. Sir Charles Ellis, who was appointed Scientific Advisor to the Board of BATCo in 1955, pressed for the development of a "'zero 'tar' cigarette, a device which would deliver nicotine aerosol without any combustion products." TIMN0105567-5568 (U.S. Ex. 21,765); 700743976-3996 at 3990 (U.S. Ex. 21,050).

2206. The research on Project Ariel continued into the 1960s, with some of the work being performed externally at Battelle Memorial Institute. In a February 8, 1966 report entitled, "Nicotine Administration: Ariel Smoking Devices," issued by D.G. Felton of BATCo's Research and Development Department, and distributed to D.S.F. Hobson, Esq., BATCo Production Director, S. J. Green, also of the Research and Development Department, and Sir Charles Ellis, a summary of the project revealed that the construction enabled controlled amounts of smoke from the tobacco outer to be mixed with the nicotine aerosol from the inner tube, resulting in the ability to create smoke of any tar/nicotine ratio. Although internal BATCo reports concluded that the product was marketable, executives at the highest levels of control within BATCo, including BATCo board member (and future Chair) D.R. Clarke, discouraged development and sale of the Project Ariel cigarette, apparently out of concern that Ariel represented an implicit admission as to the harmfulness of conventional cigarettes. The project foundered and, shortly thereafter, was de-funded. 100335808-5816 (U.S. Ex. 20,173); 105534272-4285 (U.S. Ex. 20,241); 301121935-1936 (U.S. Ex. 20,581); 301121911-1917 (U.S. Ex. 22,023); 105534272-4285 (U.S. Ex. 20,241); 301099888-9902 (U.S. Ex. 46,581); 201035126-5126 (U.S. Ex. 20,304);

110415482-5485 (U.S. Ex. 20,275); 301121057-1086 (U.S. Ex. 20,578); 110080519-0519 (U.S. Ex. 21,546); 107623976-3976 (U.S. Ex. 20,259); 301099888-9902 (U.S. Ex.21,547).

2207. BATCo also worked in the 1960s to manipulate nicotine and change tar-to-nicotine ratios in the research projects called HIPPO I (completed in January 1962) and HIPPO II (completed in May 1963), which investigated the actions of nicotine as it related to the cigarette habit and examining the physical and psychological effects of nicotine. The practical benefits of being able to provide seemingly smaller amounts of nicotine while still providing an addiction-creating-and-sustaining dose became clear to BATCo in the early 1960s as the Surgeon General's first report on smoking and health neared publication. Prior to the publication of the 1964 Surgeon General's report, B&W General Counsel Addison Yeaman evaluated the findings of HIPPO I and II, and became aware of the impact the Surgeon General's report could have upon potential litigation. Yeaman discussed the conclusions of the two reports, concluding "nicotine is addictive. We are, then, in the business of selling nicotine, an addictive drug effective in the release of stress mechanisms." Yeaman suggested the best reaction to the Surgeon Generals Report was to provide a filter capable of removing certain constituents of smoke considered suspect by public health officials, while still "delivering full flavor - and incidentally - a nice jolt of nicotine." 105620620-0683 (U.S. Ex. 20,247); 301083862-3865 (U.S. Ex. 20,577); 105620569-0605 (U.S. Ex. 20,246); 2046754905-4909 at 4908-4909 (U.S. Ex. 20,477).

2208. On March 11, 1964, BATCo published a report on the "Release During Smoking of Nicotine Added as Various 'Salts' to Extracted Tobacco Cigarettes," concluding, "**the transfer of nicotine, and thus the delivery per cigarette, is dependent upon the extent to which the nicotine is present as 'free base' (which in turn is controlled by pH). . . . [I]t appears**

possible to control nicotine transfer and this has some implications in the production of cigarettes giving a smoke of a low tar to nicotine ratio." The report described the free base nicotine as having a transfer three times greater than that of nicotine citrate, a salt. 400722326-2343 at 2327 (U.S. Ex. 21,577) (emphasis added).

2209. By the 1960s, Defendant American Tobacco Company was undertaking numerous studies designed to affect the tar/nicotine ratio naturally found in cigarettes. These methods included adding commercial nicotine to reconstituted tobacco, increasing the amount of Burley tobacco – which is naturally higher in nicotine content than other tobaccos – in a blend to determine its effect on the "nicotine yield," and producing tobacco plants, such as N rustica, that had almost double the concentration of nicotine as other tobacco plants used by American. MNAT00316688-6693 (U.S. Ex. 21,219); 003421-3431 at 3421, 3424 (U.S. Ex. 34,158); MNAT00881318-1323 (U.S. Ex. 21,221); see also X002999-3038 (U.S. Ex. 88,082).

2210. In 1969, American researchers, working with researchers from Philip Morris, R.J. Reynolds, and Liggett, conducted experiments "to determine if [genetically different tobacco] varieties differ in their ratio of nicotine to FTC 'tar.'" MNAT00533294-3295 at 3295 (U.S. Ex. 21,665).

2211. An April 29, 1974 memorandum from R.M. Irby, Jr., Manager of New Products Division for Research and Development, to Virginius Byran Lougee, III, executive, and E.C. Cogbill, scientist, entitled "Compound W" (American's euphemism for nicotine) describes the company's successful efforts to increase the nicotine content of its cigarette tobacco, thereby increasing the nicotine-to-tar ratio of its cigarettes:

Regular PALL MALL Red blend analyzing 1.95% nicotine . . . was

> treated with Compound W to increase nicotine in the blend by 19% . . . To make absolutely sure that the complete evaluation has been carried out at the desired nicotine level, the TC-22 blend will be modified with regular PALL MALL blend to yield an exact increase of 19% above the standard 1.87% nicotine blend. This is currently under way. . . LUCKY 100's blend was treated with Compound W to yield 2.58% nicotine; a 21% increase above the standard control of 2.13%.

It was also found that "Compound W added to tobacco has little effect on the overall taste of the cigarette. Impact is increased slightly." ATX050142123-2128 at 2123-2124 (U.S. Ex. 21,602).

2212. A progressive lowering in the ratio of tar to nicotine continued to be advocated at BATCo throughout the 1970s. BATCo recognized that this change would enable smokers "to satisfy their need for nicotine, while reducing their tar intake." 100431408-1414 (U.S. Ex. 21,796).

2213. BATCo, like the other cigarette manufacturers in the 1970s and 1980s, undertook research to manipulate or maintain nicotine delivery while reducing the tar in its cigarettes. This research was based on the corporate understanding that nicotine, unlike tar, was the essential part of the cigarette to smokers. For example, the basis for studies carried out in 1973 to assess the use of additives to reduce tar while at the same time increasing nicotine delivery to smokers was stated as follows: "The increased importance being placed on the lowering of TPM [total particulate matter] and **the controlling of nicotine delivery** has made it necessary to investigate the different methods available for producing these changes in smoke." The 1973 study also utilized "ADDITIVES FOR NICOTINE CONTROL," including nicotine tartrate, sodium bicarbonate, and diammonium hydrogen phosphate to increase the "extractable nicotine" in the smoke. The researchers found that certain combinations of additives successfully reduced tar

while "maintaining the impact and physiological strength levels of strength levels" of nicotine. 402390265-0282 at 0268, 0280 (U.S. Ex. 86,963) (emphasis added).

2214. In a 1977 document, American's researchers "suggested" "methods for increasing the [nicotine to tar] ratio" ["NTR"]: (1) "addition of nicotine to the tobacco"; (2) "addition of ammonia salts . . . to tobacco, which on smoking would free the ammonia and thereby cause an increase in nicotine transfer to the smoke"; (3) increasing "the porosity of cigarette paper"; (4) "adding a nicotine salt . . . to cigarette paper"; (5) "making cigarette filter tips basic [to] enhance the nicotine transfer in the smoke and [to] increase the NTR's. . . . Adding nicotine salts to the cigarette filter is also a means to increase the NTR"; and (6) "adding salts that enhance the combustion of the tobacco" to offset the "reduction in the nicotine content" caused by reducing tar. MNAT00533268-3286 at 3270-3272 (U.S. Ex. 22,175).

2215. BATCo held a Nicotine Conference in England, from June 6-8, 1984. BATCo Chairman C. I. Ayers was a speaker at the conference. The agenda for the conference demonstrates that BATCo, its subsidiaries and affiliates, were well aware of the addictive nature of nicotine as well as deeply involved in nicotine manipulation in order to maintain that addiction and build their business. Session titles include: "A smokers [sic] requirement for nicotine. A smoking behavior and market place view;" "Product elasticity, nicotine and perception of product strength," and "Product modification for maximal nicotine effects." Two out of the three "primary objectives" were listed as:

> -Review the research to establish the relationship between tar and nicotine (ratios and absolute levels) as controlling factors of smoking behavior and their role in product assessment and acceptance.

and

> **-Identify to what extent the nicotine dose on a puff-by-puff, per cigarette, or on a daily basis can be used to indicate a smokers [sic] requirement for nicotine or infer product acceptance**.

103393694-3698A at 3694A-3695, 3695A (U.S. Ex. 85,448) (emphasis added).

2216. Nicotine to tar ratios were also a central issue at the Smoking Behavior-Marketing Conference, held July 9-12, 1984. A presentation was given in which further study of nicotine was encouraged, particularly with the goal of **"enhanc[ing] the properties of nicotine in reduced delivery products.**" B12910303- 0501 at 0326 (U.S. Ex. 85,449); 521016789-6864 (U.S. Ex. 85,450) (emphasis added).

2217. A document entitled, "R&D Views on Potential Marketing Opportunities, marked, "Not for Circulation" and dated December 9, 1984 emphasizes the significant role nicotine delivery played in BATCo's research and marketing activities. The document refers to compensation and lists as a "high priority" development of "alternative designs (that do not involve obvious criticism) which will allow the smoker to obtain significant enhanced deliveries should he so wish." The author recommends that this action be taken "irrespective of the ethics involved." Also listed under "high priority" is an item described as "nicotine deliveries," in which it is admitted that:

> Nicotine is the key pharmacological component of cigarette smoke. . . . An area of importance is to distinguish whether smokers smoke for (a) transient peak effects or (b) threshold base-line levels throughout the day. **Another area of importance is the exploitation of physical and chemical means to increase nicotine transfer, ie [sic] to increase the effective utilisation of nicotine.**

109869437-9440 at 9437-9438 (emphasis added).

2218. In March 1985, BATCo scientist C. Ayers circulated a report about research being conducted to determine how to "make smaller amounts of nicotine work harder." 102440178-0179 (U.S. Ex. 21,729).

2219. In a September 26, 1986 Note to E.A.A. Bruell from A.L. Heard, Group Research Director, entitled "Tobacco Strategy Group: Position Paper," Heard described BATCo's contacts with Advance Tobacco Products Inc. to obtain access to the FAVOR plug, a filter containing nicotine and flavors that "may enable nicotine to be regulated quite independently of tar and other compounds." 109879044-9045 at 9044 (U.S. Ex. 34,921).

2220. BATCo realized that its approach to nicotine control required alternatives to simply adding nicotine during the manufacturing process, and made pursuit of additional techniques a top priority. In 1987, BATCo held a "Fundamental Research Review" in Southampton with scientists from the research and development department. It identified as one of its top three priorities for research in the United States, "Nicotine Control," in order to "optimise nicotine in current and future products." It explained the need for this research as "past experience with fortified products has shown poor taste – why?" 400260496-0514 at 0499 (U.S. Ex. 85,451).

2221. At the same time, BATCo's scientists continued to research increasing nicotine to tar ratios. In a May 14, 1987 document developed by the Southampton Research and Development Centre, with contributions from BAT Group participants, including B&W's R.R. Johnson, and distributed to the research and development departments throughout the BAT Group, the authors highlighted the success that the Barclay brand had enjoyed and cited as a reason for its success its nicotine to tar ratio, "using both high blend nicotine and high ventilation

levels, to give an NTR [nicotine/tar ratio] some three times that of a full flavour product. . . ." The document pointed out that "[t]echnologically, design of a high NTR product anywhere in the 1-10 mg tar range is possible immediately." The question for further research was how "NTR should vary with tar delivery to give 'acceptable' smoking characteristics at any given delivery level." 570346066-6151 at 6068 (U.S. Ex. 53,187).

2222. In "Chemosensory Research," by BATCo scientist Richard Baker, dated February 2, 1990, Baker argued for continued research on tar/nicotine ratios, maintaining that both ingredients were necessary – at the appropriate levels – to produce a successfully marketable cigarette. He wrote:

> The ultimate product of the tobacco industry is nicotine and research should continue to be directed at the development of low tar/medium nicotine cigarette smoke. Nicotine alone in smoke is not practical, nor are extreme tar/nicotine ratios, since nicotine is too irritating – other substances are required for sensoric reasons.

Since the 1960s, B&W conducted such nicotine delivery research as part of a coordinated BAT Group research strategy, with "work done by a variety of groups in Southampton, Louisville and elsewhere." It was known since the 1930s that "unbinding" nicotine could quicken the effects of nicotine in humans and increase "impact." 400854060-4066 at 4060 (U.S. Ex. 67,851); 401020175-0181 (U.S. Ex. 47,529).

2223. BATCo's Operating Group Five Year Plan 1991-1995, dated January 15, 1991, stated that "[b]asic research will continue into products delivering adequate levels of nicotine . . .[,] controlled release of nicotine . . . and enhancement of the transfer of nicotine . . . ." BATCo used this knowledge to develop ultra low tar products that delivered the nicotine at a level equal to regular cigarettes:

> Ultra Low Delivery Products - High priority will be given to the development of more satisfying products in the low and ultra low delivery ranges (1-9 mg). New concepts developed through Project FELT and GREENDOT will be applied to a range of products in the next 2-3 years, especially at low delivery levels . . . Project FELT which is to be test-marketed as B&H SM in Belgium in the second quarter of 1991, has demonstrated BAT's ability to design a 9 mg flue-cured product that has the impact, satisfaction and mechanics of a 14 mg commercial product (B&H SF). The principles applied to FELT will now be used to develop a 7 mg USB style product to match a 12 mg US style product.

201752782-2899 at 2823, 2837 (U.S. Ex. 36,303).

2224. BATCo and B&W's research on manipulating the nicotine-to-tar ratio continued into the 1990s. Various methods of nicotine manipulation are discussed in the companies' joint 1991 Fundamental Research Programme Review. The goal of the fundamental research programme was to produce "products which are superior to competition (particularly Philip Morris)." Projects identified to meet the goal of improving the smoke quality of the company's products included identifying and overcoming the "existing barriers to sensory acceptability" of low tar/high nicotine products. Another project, Greendot, was aimed at creating low tar-to-nicotine ratio products for which the company could achieve "both Marketing and Regulatory support." 401090280-0294 (U.S. Ex. 47,539).

2225. BATCo's efforts to modify the nicotine-to-tar ratio also centered around the use of a genetically-engineered, increased nicotine content tobacco known as Y-1 (discussed in further detail below).

2226. On March 8, 1994, BATCo published a "Review of Information on Sensory Effects of Changing Tar/Nicotine Ratio of Smoke," designed to summarize the company's knowledge on the "sensory effects of changing tar/nicotine ratios of smoke." The summary was

devised to help "point the way" toward "manipulat[ing] and modify[ing] the impact and irritation sensations and the balance between them." The summary pointed out the following main conclusions:

(1) impact increases when nicotine delivery is increased and tar remains constant;

(2) impact increases when nicotine delivery is held constant and tar is reduced;

(3) a decrease in the tar/nicotine ratio increases smoke pH, which increases impact; and

(4) nicotine is the source of impact.

Contrary to BATCo's assertions that it did not engage in nicotine manipulation, this report clearly demonstrates that BATCo's research in this area was aimed at "understanding how impact and irritation can be tailored to meet product requirements by optimisation of nicotine delivery." 575102998-3015 at 3002-3003, 3010 (U.S. Ex. 53,213).

d. Lorillard

2227. By 1971, Lorillard was analyzing the nicotine content and nicotine to tar ratio of several brands of cigarettes in connection with sales data for each brand. In a February 8, 1971 memorandum to Alexander Spears and C. L. Tucker, Jr., Director of Product Development and Marketing Research, S. T. Jones wrote that "[i]t has become apparent from the available data that the top sellers, e.g. Winston, Salem, Marlboro, and Kool are all fairly high in smoke nicotine. . . . The one other parameter common to the top sellers is the ratio of smoke nicotine to 'tar'." Jones concluded that "[t]he ratio of nicotine to tar can be controlled by blending high nicotine and tar grades with low ones resulting in a net gain of nicotine delivery over tar level." 00776195-6201 at 6195, 6196 (U.S. Ex. 34,293).

2228. Former CEO Alexander Spears testified in 1997 that Lorillard was able to "manipulate the yield of nicotine" forty-fold per cigarette by 1974. Deposition of Alexander Spears, State of Texas v. American Tobacco Co., July 24, 1997, 170:15-173:25.

2229. Lorillard's efforts to modify the nicotine-to-tar of its cigarettes ratio included a long-term program beginning in the mid-1970s to enrich its low tar cigarettes with nicotine. The "nicotine-enriched" low tar cigarette was a top priority at Lorillard in 1976. 526321374-1376 (U.S. Ex. 85,453); 526321377-1388 (U.S. Ex. 85,454); Deposition of Alexander W. Spears III, State of Minnesota v. Philip Morris Inc., C1-94-8565, September 23, 1997, 156:2-159:14.

2230. By 1976, Lorillard had embarked upon a comprehensive study of product design mechanisms for manipulating the nicotine content and delivery of its products with the goal of developing a "cigarette delivering lower tar while at the same time delivering a level of nicotine higher than could be obtained normally .by [sic] conventional cigarette construction." A May 4, 1976 memorandum to F. J. Schultz, Vice President of Research and Development, from Harry Minnemeyer, Director of Research, details the scope of Lorillard's extensive research plan, dubbed the "Nicotine Augmentation Project (NAP)". In the memorandum, Minnemeyer described proposed research into numerous mechanisms for manipulating nicotine, including, inter alia, adding "nicotine from an outside source to that naturally present in cigarette tobaccos"; chemical treatment of tobacco with ammonia to create more free nicotine in the smoke, which "would have a much greater physiological effect than nicotine salts"; air dilution of cigarette smoke; decreasing the acidity of smoke; and development of filters that selectively allow the passage of nicotine while reducing tar. 00050444-00050450 (U.S. Ex. 47,721), passim; see also 00044529-4533 (U.S. Ex. 34192); 00050440-0443 (U.S. Ex. 47,720).

2231. By 1976, Lorillard was evaluating methods it believed might be used by other Defendants, including Philip Morris and R.J. Reynolds, to externally apply nicotine to tobacco in order to "raise the impact" of low tar cigarettes "while maintaining a low 'tar' profile." In a March 9, 1976 memorandum from J. R Reid to Minnemeyer, Reid reported on the methods believed to be used by other Defendants and recognized that the research was important because of "[r]ecent public demand for low tar smoking materials." 00120379-0388 at 0379, 0380, 0384 (U.S. Ex. 85,455).

2232. In a March 2, 1976 memorandum to Alexander Spears regarding the "R&D Sedgefield Meeting," Lorillard's Schultz summarized the various research topics discussed at the meeting, which took place on February 3, 1976. Regarding the topic of "Enhancement of Nicotine or Nicotine Effects," Schultz stated that "[t]he modification of products to allow delivery of more of the available nicotine in the free form was discussed as a viable possibility." With regard to the topic "Very Low Tar Cigarettes" Schultz summarized that "[i]t was considered that cigarettes with tar deliveries of 2 mg or less are likely to become important but that reasonable levels of nicotine (0.5 mg or more) and relatively high flavor levels would be necessary to make such a product a leader in the field." 01111982-1985 at 1984-1985 (U.S. Ex. 34,311).

2233. In 1976, Lorillard also investigated spraying free nicotine or nicotine tartrate onto cigarette tobaccos using various solvents to increase the nicotine-to-tar ratio in the cigarette smoke. The resulting taste impact would be similar to that of naturally occurring nicotine in regular production cigarettes. 00781406-1417 (U.S. Ex. 20,029).

2234. In a June 8, 1976 report on a portion of Lorillard's Nicotine Augmentation Project

entitled "Application of Free Nicotine to Cigarette Tobacco and the Delivery of that Nicotine in the Cigarette Smoke," T. M. Larson and J. P. Morgan explained the purpose of the research: "Nicotine was applied as free nicotine and nicotine tartrate to different tobaccos for the purpose of increasing the nicotine to tar ratio in cigarette smoke." One conclusion of the study was that "only a small addition of free nicotine was needed to provide the impact of a higher nicotine cigarette." 00398312-8322 at 8312 (U.S. Ex. 85,456).

2235. In a June 16, 1976 memorandum to A.W Spears, H.J. Minnemeyer gave another progress report on Lorillard's "Nicotine Augmentation Project." Minnemeyer wrote that "[a]bout a dozen approaches have been recognized as a possible solution to the problem of delivering more nicotine in the smoke of low tar cigarettes." Minnemeyer stated that "One approach involved the procurement and addition of nicotine to tobacco to supplement that already present, while [another] attempts to optimize the delivery of nicotine already present in cigarette tobaccos. . . ." Minnemeyer also reported that small amounts of nicotine could be added to a blend without affecting the tar-to-nicotine ratios reported by FTC testing:

> Participants in this work now feel that a satisfactory low tar smoking article might be achieved by the addition of much less nicotine than was previously thought necessary. By sparing the blend with a small amount of nicotine it might be possible to get the impact of a higher T&N cigarette. This might be achieved without actually changing the T&N figures one would get from untreated tobacco.

00044525-4528 at 4525, 4526 (U.S. Ex. 34,191); 95539652-9655 at 9652, 9653 (U.S. Ex. 56,825).

2236. Also in connection with its Nicotine Augmentation Project, Lorillard concluded as early as January 31, 1977 that nicotine could be successfully added to reconstituted tobacco leaf

by spraying, that nicotine added in this manner was in fact delivered to the smoker in a normal manner, and that "the added nicotine improved the overall quality of the RL [reconstituted leaf] smoke somewhat." In an April 12, 1977 report concerning "Enrichment of Reconstituted Leaf Nicotine Content By Direct Addition of Nicotine Alkaloid to the RL Slurry," Morgan and Larson concluded that the "[n]icotine content of the final product can easily be controlled by the addition of predetermined amounts of nicotine alkaloid." In a June 30, 1977 memorandum, H.S. Tong recommended further study of the "enrichment" of reconstituted tobacco leaf through the addition of pure nicotine or nicotine salts, stating: "I think it is an important and worthwhile project because it gives us precise control over nicotine contents in all our products." 81090368-0380 at 0369, 0372 (U.S. Ex. 85,457); 00398474-8484 at 8474 (U.S. Ex. 20,025) (U.S. Ex. 46,443); 00045059-5059 (U.S. Ex. 34,209); 01254872-4876 (U.S. Ex. 20,043).

2237. A July 27, 1976 memorandum from Senior Chemist M. A. Skladanowski to Mary Sue Ireland described methods studied by Lorillard to "increase nicotine to tar ratios in the mainstream smoke of cigarettes." The memorandum notes that: "The use of air dilution to augment cellulose acetate filters has increased as the demand for low tar and nicotine cigarettes has increased. . . . The renewed interest in air dilution as a filter mechanism is due to the fact that these filters produce relatively high nicotine in the mainstream smoke." Later that year, Skladanowski reported in a November 4, 1976 memorandum the results of another internal research project concerning the effect of air dilution filtration on nicotine delivery and determined that among "[t]he advantages of a total air dilution cigarette are . . . higher nicotine to tar ratios . . . [and] [g]reater smoke pH." In an April 4, 1977 memorandum, Skladanowski again reported the results of a study of air dilution filtration, finding that:

> [a]ir dilution alone, without a cellulose acetate filter increased the nicotine to tar ratio in the smoke and the number of puffs per cigarette. . . . By simply removing the cellulose acetate filter and adding air vents, a True 85 cigarette with 11.6 mg tar and 0.6 mg nicotine was modified to deliver 13 mg tar and 1 mg nicotine. The nicotine to tar ratio in the smoke of modified cigarette . . . was 52% greater than in the control.

00044989-00044993 at 4989 (U.S. Ex. 34,207); 00044975-4984 at 4975 (U.S. Ex. 34,205); 00044955-4970 at 4959 (U.S. Ex. 85,459).

2238. A 1977 Lorillard research proposal offered as part of the Nicotine Enrichment Project detailed plans for two new Lorillard products: (a) a cigarette of 2 milligrams of tar having the taste level of a Kent Golden Light; and (b) a cigarette of 8 milligrams of tar having the taste of a Marlboro. The proposal included detailed plans to engineer the cigarettes to offer pre-determined amounts of nicotine. 01417830-7840 (U.S. Ex. 20,048).

2239. By 1977, Lorillard was investigating possible nicotine sources because it believed that one promising method for developing a low tar cigarette with a high nicotine to tar ratio was the addition of nicotine or nicotine salt directly to a low tar, low nicotine tobacco blend. A February 7, 1977 report by J. R. Reid entitled "Investigation into the Extraction of Nicotine from Tobacco" demonstrates that Lorillard's study of methods to remove nicotine from tobacco was part of this effort:

> Lorillard currently desires to introduce a low 'tar', moderate nicotine cigarette as a marketable sales brand. One means of accomplishing this goal is by the addition of nicotine . . . onto a low tar, low nicotine blend of tobaccos. . . . Our primary objective was to study the economically feasible sources of nicotine and its isolation and recovery as the pure alkaloid or as a nicotine salt.

00778281-8321 at 8285 (U.S. Ex. 34,296); see also 00118828-8832 (U.S. Ex. 34,269);

00044800-4803 (U.S. Ex. 34,197).

2240. A February 14, 1978 confidential report prepared by Harry Minnemeyer and P. D. Schickedantz reviewed the progress of Lorillard's Nicotine Augmentation Project. The report reveals that Lorillard had initiated a "major new project . . . in order to create the technology necessary to market a cigarette with a nicotine to tar ratio higher than is normally found in commercial cigarettes." The report reviewed the various technological mechanisms studied by Lorillard as a means of increasing nicotine delivery to the smoker in "ultra low- and low-tar" cigarettes, including: studies of Lorillard's manufacturing process for the purpose of determining whether nicotine could be extracted from the waste of normal tobacco processing; studies of the effect on nicotine delivery and impact of spraying tobacco with nicotine tartrate and free nicotine; studies of increasing the ratio of free nicotine to total nicotine by raising smoke pH; and studies of increasing the nicotine to tar ratio of "low tar" cigarettes through filter design and treatment of the filter with additives. 00782192-2223 at 2196-2199 (U.S. Ex. 54,377).

2241. In 1982, Lorillard experimented with adding bases to tobacco to enhance migration of nicotine to mainstream smoke and alter nicotine-to-tar ratios. 00053989-4018 (U.S. Ex. 34,217) (U.S. Ex. 47,723).

2242. An August 3, 1984 memorandum from M.A. Sudholt to M.S. Ireland acknowledged that "[o]ne object of the nicotine project has been to increase the level of nicotine relative to tar in cigarette smoke. Increased ratios of nicotine to DPM as high as 66% were obtained with diethylaminoethyl cellulose ion exchanger purchased from Whatman." 83897139-7142 at 7140 (U.S. Ex. 55,938); 81070723-0725 (U.S. Ex. 88,771); 81070726-0727 (U.S. Ex. 88,772).

e. Liggett

2243. Liggett also had projects to alter the ratio of nicotine to tar. In 1970, Liggett changed the tobacco blends of at least six brands, which resulted in an increased ratio of nicotine to tar in those brands. LG2013892-3893 (U.S. Ex. 21,189).

2244.

LWDOJ9165472-5472 (U.S. Ex. 22,169) (Confidential).

2245. In 1978, Liggett researched creating "Cigarettes with Elevated Nicotine." As part of this research, Liggett created test cigarettes using the additive nicotine malate to alter the nicotine-to-tar ratio. LG234157-4157 (U.S. Ex. 21,425).

2246.

VDOJ 25348-5348 (U.S. Ex. 64,735) (Category I).

2247.

VDOJ 25347-5347 (U.S. Ex. 64,736) (Category I).

2248.

A Liggett scientist has acknowledged that choice of filters, paper, and additives, can affect nicotine delivery. VDOJ 25339-5341 at 5339, 5340 (U.S. Ex. 64,737) (Category I); Deposition of Dennis Dietz, United States v. Philip Morris, et al., Inc. et al., July 1, 2002, 95:3-118:8.

2249. Liggett acknowledges that one aspect of a cigarette is that it is a system for the delivery of nicotine to the smoker because denicotinized products have not been that successful. Deposition of Dennis Dietz, Minnesota BC/BS v. Philip Morris, September 29, 1997 at 66:14-68:7.

(ii) Smoke pH and Ammonia

2250. The acidity or alkalinity (as measured by pH) of tobacco smoke affects the rate and amount of delivery and absorption of nicotine over time. The breadth of the Cigarette Company Defendants' research on this topic confirmed that the industry is well aware of this. The Cigarette Company Defendants have studied and utilized ammonia and other cigarette additives that, by altering the pH of the smoke, change the form and amount of nicotine delivered in cigarette smoke. Altering the pH level of cigarette smoke affects the ratio of free-base to bound nicotine in the smoke, the size of the particles, the sensory effects of the particles, and

many other features of modern cigarettes. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 21-23.

2251. When cigarette smoke is made more basic – i.e., the pH is increased – the percentage of "free" nicotine also rises, making the nicotine more rapidly transferable across membranes. The pH level affects the amount of nicotine that can be readily released from the tobacco rod of a cigarette and, in turn, readily absorbed into the body of the cigarette smoker. Molecule for molecule, the addictiveness of nicotine is not changed; rather, the pH of the tobacco and/or cigarette smoke is an important determinant of how many molecules of nicotine get into the bloodstream of a person exposed to nicotine through cigarette smoking. Expert Report of Jack E. Henningfield, Ph.D. in United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 21.

2252. Free nicotine is more volatile and more physiologically active than bound nicotine. As one R.J. Reynolds document explained: "In essence, a cigarette is a system for delivery of nicotine to the smoker in attractive, useful form. At 'normal' smoke pH, at or below about 6.0, essentially all of the smoke nicotine is chemically combined with acidic substances, hence is non-volatile and relatively slowly absorbed by the smoker. As the smoke pH increases above about 6.0, an increasing proportion of the total smoke nicotine occurs in 'free' form, which is volatile, rapidly absorbed by the smoker, and believed to be instantly perceived as nicotine 'kick'." 00776238-6250 (U.S. Ex. 21,477) (U.S. Ex. 54,369); 511223463-3484 at 3466 (U.S. Ex. 20,840).

2253. Increasing the pH by a few percent can double, triple, or quadruple the amount of free nicotine. Therefore, by increasing the pH on a small scale (e.g., from 0% unprotonated to

2% or 4%), a significant increase in free nicotine results. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 23.

2254. Internal research studies conducted by Defendants disclose industry studies where the pH of cigarettes has been intentionally manipulated. These documents show a variety of methods undertaken by the Defendants to affect pH, including altering the tobacco filler through leaf blending or through additives, and manipulating the paper, the wrapping, and/or the filter. Cigarettes were tested not only for their nicotine delivery, but also for their taste. In one case, one of the tobacco companies developed cigarettes that had a higher fraction of free nicotine by means of the pH manipulation, but the taste was unacceptable because too much nicotine is unpalatably harsh. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 22.

2255. Defendants have argued that the pH of cigarette smoke has not increased over the years. Yet the smoke pH of lower tar cigarettes, or cigarettes with higher nicotine-to-tar ratios, in fact has increased. For example, the pH of Now cigarettes shortly after their introduction was as high as 6.7. Enhancing pH levels was one of the tools used to increase nicotine impact in low tar cigarettes that began to be introduced in the late 1960s and throughout the 1970s. Expert Report of William A. Farone, United States v. Philip Morris, et al. (R. 663; November 15, 2001) at 22.

2256. Before the Cigarette Company Defendants started using additional ammonia in their products, the pH for cigarette smoke was much lower. Indeed, the pH of cigarette smoke has risen steadily since the late 1960s so that it has recently been tested at one pH unit higher than the level it was in the 1960s. One industry report clearly shows that pH in the 1960s was an order of magnitude (about 1 pH unit) lower than the cigarettes recently tested by the

Massachusetts Department of Health. The pH increases were associated with the introduction of the new "lower tar, lower nicotine" brands. Expert Report of William A. Farone, United States v. Philip Morris, et al. (R. 663; November 15, 2001) at 22; DXA120 0008-0012 (U.S. Ex. 88,093).

2257. The use of ammonia or ammonia-based compounds (which are alkaloids, and thus raise the pH level) is one of the many means of manipulating pH and the nicotine dosing characteristics of cigarettes. Ammonia compounds convert bound nicotine to free nicotine. This transformation facilitates consumer use of cigarettes for pharmacological purposes by: (1) increasing the amount of nicotine that is transferred from the tobacco to the smoke; (2) increasing the absorption of nicotine in the mouth; and (3) possibly increasing the speed of nicotine transfer to the brain. 511223463-3484 (U.S. Ex. 20,840); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; November 15, 2001); "Nicotine in Cigarettes and Smokeless Tobacco Products Is a Drug and These Products Are Nicotine Delivery Devices Under the Federal Food, Drug, and Cosmetic Act: Jurisdictional Determination," 61 Fed. Reg. 44619 (August 1996) (jurisdictional determination annex) at 44974-44975 (U.S. Ex. 33,031) (U.S. Ex. 76,038) (U.S. Ex. 61,237).

2258. In addition to raising the pH level, ammonia treatment leads to lower nicotine levels being reported through FTC testing than the nicotine level actually received by a smoker. This is true because ammonia treatment causes nicotine to be released from the tobacco as gas phase nicotine, and FTC testing devices do not measure gas phase nicotine. Research as early as 1975 showed that gas phase nicotine can account for 12% or more of the nicotine delivered to the mainstream in cigarettes. Expert Report of William A. Farone, United States v. Philip Morris, et al. (R. 663; filed November 15, 2001) at 22.

2259. Furthermore, studies on ammonia often do not accurately report the amount of ammonia present because they do not consider other materials within the cigarette that decompose to ammonia upon burning, such as diammonium phosphate and ammonium salts including urea, amino acids, and polypeptides. Expert Report of William A. Farone, United States v. Philip Morris, et al. (R. 663; filed November 15, 2001).

2260. Cigarette Company Defendants researched ammonia and the pH of cigarette smoke as part of their efforts to ensure the delivery of nicotine levels sufficient to create and sustain addiction. In fact, the need to deliver optimum nicotine delivery levels in a cigarette was recognized in industry documents. The industry began studying ammonia technology as early as the 1950s when Claude Teague of R.J. Reynolds investigated the ammoniation of tobacco. A comprehensive R&D effort at R.J. Reynolds in the 1970s reached the following conclusion (among others): "Studies of the effect of ammonia in smoke composition showed . . . an increase in the levels of . . . minor alkaloids. Smoking panel results showed a decrease in smoke irritation and harshness and an increase in physiological satisfaction with increasing ammonia content." 504438506-8512 at 8507, 8509-8510 (U.S. Ex. 21,386); Expert Report of William A. Farone, United States v. Philip Morris, et al. (R. 663; filed November 15, 2001) at 21-22.

2261. The use of ammonia to enhance nicotine production is spelled out in industry patents and research documents. An analysis of nicotine-to-tar ratios versus total ammonia compounds in filler to tar ratios show a clear effect for increased nicotine. Although Defendants have, in the past, cited the Surgeon General's report to support their claim that there is "virtually" no "free" nicotine in mainstream cigarette smoke, the test referred to only measured nicotine collected on the collection pad of the measuring device; it did not measure gas phase nicotine.

Gas phase nicotine is virtually all in the "free" state. Expert Report of William A. Farone, United States v. Philip Morris, et al. (R. 663; filed November 15, 2001) at 22.

2262. Ammonia compounds are among the top additives by volume in the industry. A B&W document concluded: "R.J. Reynolds alone has ammonia emissions of 900,000 lbs./year in North Carolina . . . . [T]he U.S. industry uses about ten million pounds of ammonia compounds a year," and industry ammonia usage "corresponds to about 10 mg. of ammonia compounds per cigarette produced." 566408585-8587 (U.S. Ex. 21,999); 508104011-4164 at 4017 (U.S. Ex. 20,807).

2263. By 1993, all the Cigarette Company Defendants used some form of ammonia technology in some cigarette products. For example, an April 12, 1994 list of "Ingredients Added to Tobacco in the Manufacture of Cigarettes" by the six largest U.S. manufacturers states that the companies added ammonia and other ammonium compounds to their cigarettes during the manufacturing process. 508104011-4164 (U.S. Ex. 20,807); 681001134-1139 (U.S. Ex. 21,016); LG2018563-8563 (U.S. Ex. 21,190); 606000841-0889 at 0842 (U.S. Ex. 53,325).

a. Philip Morris

2264. In a February 8, 1960 memorandum, L. L. Long wrote to A. B. Clarke, with copies to Seligman and G. E. Shaffer, Jr., discussing Philip Morris's ongoing efforts to manipulate the amount of nicotine received by a smoker through concentration on the make-up of tobacco smoke. Long wrote:

> [o]ne of the objectives of the 1960 cigarette project is the control of TPM at a low level **while maintaining the nicotine level in the smoke** at its current level of about 1 mg/cigt. Several years ago some work was conducted along these lines. Nicotine Maleate was added to a low nicotine filler with a resulting increase in nicotine

> in the smoke. It would be most helpful if you could conduct some investigation in this area along with your work on nicotine control through extraction.

1001919958-9958 (U.S. Ex. 85,460) (emphasis added).

2265. With the understanding that nicotine levels in cigarette smoke were essential to a smoker's experience, and armed with the knowledge of nicotine's addictiveness, Philip Morris undertook to manipulate the pH of tobacco to enhance the psychoactive effects of nicotine on the brain. 500606138-6153 (U.S. Ex. 48,334); 509314122-4154 (U.S. Ex. 51,456).

2266. Philip Morris appears to have been the first tobacco manufacturer to use the ammonia process in the United States, beginning in 1964 or 1965, on the heels of the 1964 Surgeon General's report. At the time, Philip Morris ranked far behind R.J. Reynolds in domestic cigarette sales. Internal R.J. Reynolds research speculated that Philip Morris introduced ammonia into certain cigarettes as early as 1965. Shortly after the introduction of ammonia processes into their products, Philip Morris's sales began to grow rapidly. 500990999-1004 (U.S. Ex. 20,666); 500540827-0832 (U.S. Ex. 20,639).

2267. By 1966, Philip Morris had conducted tests on Marlboro cigarettes and demonstrated that smokers compensated in order to obtain the level of nicotine needed to maintain their addiction. A March 31, 1966 Progress Report to R. N. Thomson, Philip Morris's Director of Development, indicated that nicotine delivery varied with smoke pH. It concluded that "nicotine delivery can be controlled via filler or smoke pH adjustment." 2051205600-5605 at 5600 (U.S. Ex. 85461).

2268. According to a 1970 inter-office memorandum from Jim Charles, Vice President of Research and Development, to Thomson, the company had developed a method for

determining the pH of whole smoke on a puff-by-puff basis and was analyzing per-puff pH content for Marlboro, its competitor, Winston, and other cigarettes and tobacco blends. 2028812066-2067 at 2066 (U.S. Ex. 20,429).

2269. By 1974, Philip Morris was undergoing multiple tests to manipulate levels of free nicotine in smoke through pH levels, so as to affect smoke impact. One of the tests varied the amounts of nicotine salts added to the tobacco and another manipulated the tobacco blend and the carbohydrate concentration in the smoke, with both effects leading to higher pH levels. In an October 1974 report, Philip Morris psychologist T. R. Schori concluded,, "[t]he amount of free nicotine in the smoke depends upon . . . total nicotine[] and pH of the smoke." 2047113252-3267 at 3264, 3266 (U.S. Ex. 85,462).

2270. Schori also wrote, in an October 22, 1979 document entitled, "Free Nicotine: Its Implication of Smoke Impact," that "we should be able to increase smoke impact by increasing the total free nicotine potential (i.e. by using high nicotine blends and/or nicotine additives) in the smoke." Schori identified burley blend tobacco and ammonia as two methods of increasing pH in tobacco smoke. 542001986-1996 at 1993 (U.S. Ex. 53,135).

2271. In the same paper, Schori explained:

> The way in which nicotine is typically reported can be misleading. This is due to the manner in which nicotine determinations are made. For instance, cigarettes X and Y may both be reported to deliver (based upon the standard smoking machine test) 2 mg. nicotine/cigt. However, a given smoker may actually inhale much more free nicotine from cigarette X than from cigarette Y. Likewise, cigarette W may deliver 1 mg. nicotine/cigt. while cigarette Z delivers 2 mg. nicotine/cigt. Yet a given smoker may inhale equal amounts of free nicotine from cigarettes W and Z. This paradox results from the fact that in making the nicotine delivery determinations strong bases are employed to free or

> release the nicotine from its bonds with other elements. . . . Thus, the amount of free nicotine available to the smoker is determined by the degree of alkalinity (or pH) of the smoke as well as his own degree of alkalinity.

542001986-1996 at 1989 (U.S. Ex. 53,135).

2272. Philip Morris's testing of the effect of ammonia on nicotine delivery continued throughout the 1970s. As summarized in a November 8, 1971 Special Report of the Research Center, entitled "Effects of Ammonia - Odor and Smoke," and distributed to, among others, F. E. Resnick, then Director of the Research Center and later Chairman and CEO of Philip Morris USA, Inc., scientists measured the differences in the impacts of nicotine levels in Marlboro cigarettes versus competitor brands. The study concluded that, for competitor brands containing less ammonia than Marlboro, addition of ammonia increased the "desirability" of the brands. 1000349937-9947 (U.S. Ex. 85,463).

2273. Philip Morris's nicotine-enhancing effects have been studied by other tobacco companies, including B&W. In 1984, R. R. Johnson authored a report entitled, "The Unique Differences of Philip Morris Cigarette Brands," that was sent to numerous B&W executives, including I. W. Hughes, B&W Chief Executive Officer, in which Johnson stated that "[a]mmonia treatments appear to be the most important aspect of PM's blend uniqueness. It is definitely used in making one of the two types of reconstituted tobacco and one of the two types of puffed tobacco in these blends. Results from a Marlboro matching project at R.J.R. provide strong evidence that they also treat their lamina with ammonia." Johnson went on to state that B&W's research department had reason to believe that Philip Morris began to develop some of their techniques from the early 1960s, and had spent the time since then optimizing their methods.

570322550-2583 at 2552, 2568 (U.S. Ex. 53,186), 103281081-1112 at 1082, 1098 (U.S. Ex. 20,234).

2274. At the same time, Philip Morris engaged in research regarding its competitors' methods of nicotine manipulation. Cathy Ellis has testified that Philip Morris extensively studied the ingredients and make-up of Winston cigarettes, particularly to discover tar and nicotine levels. Deposition of Cathy Ellis, State of Mississippi v. American Tobacco Co., et al., March 20, 1997, 131:1-132-3.

2275. On August 26, 1986, Philip Morris applied for a patent on a "process for modifying the smoke flavor characteristics of tobacco." The patent request related to Philip Morris using ammonia in order to increase the nicotine delivery of Bright tobacco. Philip Morris acknowledged, "[a]mmonia treatment of tobacco has been employed in the past, principally as a means to displace and effect release of nicotine." 2026377889-7896 (U.S. Ex. 37,347); 2026526349-6353 (U.S. Ex. 86,964); 2024761243-1250 (U.S. Ex. 86,965).

2276. On August 2, 1989, scientists Gullotta, Hayes and Martin reported to H. L. Spielberg on a Philip Morris study of the effect on the smoker of putting nicotine into cigarettes by overspraying the fillers with "equimolar nicotine" as either the base or the nitrate. The study participants were 12 employees from the research and development department. The results of the study showed similar effects between cigarettes using filler oversprayed with nicotine as the base and unextracted cigarettes with similar mainstream nicotine deliveries. "Cigarettes made from filler oversprayed with nicotine as the citrate . . . produce CNS [central nervous system] effects which are approximately half the magnitude of those obtained with the FB or unextracted cigarettes - at comparable nicotine delivery levels. These data indicate that we should conduct

Phase I ART studies using cigarettes made from filler oversprayed with a nicotine as the base." 2025986931-6935 at 6934 (U.S. Ex. 37,314).

2277. By 1990, Philip Morris's research efforts included producing low delivery cigarettes with more nicotine impact. Philip Morris theorized that manipulation of smoke pH would result in more free nicotine that would then, based on its previous findings, be perceived as having a greater nicotine impact. The finding of one study, explained in a December 14, 1990 memorandum from scientists Gulotta, Hayes and Martin, to R. D. Kinser, was "that one could produce a low nicotine delivery cigarette with a higher proportion of free to protonated nicotine. Such a cigarette would be analytically similar to other cigarettes at comparable nicotine deliveries, but would be judged to have much more impact." 2023107993-7999 at 7993 (U.S. Ex. 85,465), 2022262774-2775 at 2774 (U.S. Ex. 36,876); 2023105617-5623 (U.S. Ex. 85,464); 2025986942-6943 (U.S. Ex. 37,315).

2278. Others in the industry closely studied, and duplicated, Philip Morris's use of ammonia. Minutes of an Ammonia Technology Conference, held on May 18-19, 1989, and attended by representatives of the Defendants, concluded that ammonia technology "is the key to competing in smoke quality with PM worldwide." It was noted that all U.S. manufacturers except Liggett were using some form of ammonia technology on their commercial projects at the time of the conference. 508104012-4164 at 4016 (U.S. Ex. 53,249).

2279. In an October 23, 1992, memorandum authored by B & W's Research and Development Department entitled, "PM's Global Strategy: Marlboro Product Technology," B&W points to Philip Morris's "[a]mmonia technology [as] critical to the Marlboro character, taste and delivery," in part because of the smoke pH increase it produced and the "free nicotine/nicotine

transfer" that occurred through its usage. 570399133-9370 (U.S. Ex. 88,083); 510311835-1848 at 1845 (U.S. Ex. 85,466); 304569591-9595 (U.S. Ex. 46,615).

2280. Other Defendants held the same belief. R.J. Reynolds employee William Yates Rice, Jr., testified in a deposition in this case that Philip Morris's use of ammonia was responsible for Marlboro's popularity. Deposition of William Yates Rice, Jr., United States. v. Philip Morris, et al., July 11, 2002, 44:1-9.

2281. Philip Morris scientist Frank Gullotta has admitted that there is a correlation between nicotine and impact, and that as nicotine delivery increases, impact increases. Deposition of Frank Gullotta, Engle v. R.J. Reynolds, May 26, 1998, 59:14-19.

2282. Philip Morris also had offshore research conducted on smoke pH in 1994 to evaluate FDA Commissioner David Kessler's statements about smoke pH during the Waxman hearings before Congress. This research confirmed that higher smoke pH leads to quicker delivery of nicotine into the bloodstream. 2056128345-8379 (U.S. Ex. 20,496); see also 2026135139-5165 at 5149 (U.S. Ex. 86,966); 2056135151-5152 (U.S. Ex. 86,967).

b. R.J. Reynolds

2283. R.J. Reynolds has conducted multiple studies regarding the impact of smoke pH on nicotine delivery. For example, a December 16, 1971 report authored by D.P. Johnson demonstrates that R.J. Reynolds studied very early on a method "to increase the free nicotine content of the VANTAGE smoke by adding selected salts to the VANTAGE blend." Although Johnson recommended that the costs of adding the salts outweighed the benefits, R.J. Reynolds continued its study of methods for delivering more nicotine to the mainstream cigarette smoke of its products. 504414205-4211 at 4205 (U.S. Ex. 50,608).

2284. In 1973, R.J. Reynolds conducted an extensive study of the design of Philip Morris Marlboro cigarettes in an attempt to discover the reason for its competitor's sharp increase in sales. R.J. Reynolds discovered that the pH of Marlboro was consistently and significantly higher than R.J. Reynolds's brands and, accordingly, Marlboro contained more free nicotine and "would be expected to show more instantaneous nicotine 'kick' than our brands." The amount of free nicotine in Marlboro was found to be almost three times that found in the smoke of R.J. Reynolds's Winston brand. R.J. Reynolds also concluded that other popular brands – for example, B&W's Kool – also had an increased smoke pH and increased amounts of "free nicotine." R.J. Reynolds concluded that the high smoke pH attained by Philip Morris and B&W was "deliberate and controlled." R.J. Reynolds also found, using mathematical regression models, that the amount of free nicotine in a particular brand correlated positively to that brand's market share. 511223463-3484 at 3465-3466 (U.S. Ex. 20,840); 509314122-4148 at 4124-4125 (U.S. Ex. 20,828); see also 500990999-1004 (U.S. Ex. 20,666).

2285. In the same 1973 document, Claude Teague, Director of Research and Development at R.J. Reynolds, outlined the various methods the industry had identified to alter the pH of cigarette smoke:

> Methods which may be used to increase smoke pH and/or nicotine "kick" include: (1) increasing the amount of (strong) burley in the blend, (2) reduction of casing sugar used on the burley and/or blend, (3) use of alkaline additives, usually ammonia compounds, to the blend, (4) addition of nicotine to the blend, (5) removal of acids from the blend, (6) special filter systems to remove acids from or add alkaline materials to the smoke, and (7) use of high air dilution filter systems. Methods 1-3, in combination, represent the Philip Morris approach, and are under active investigation.

511223463-3484 at 3468 (U.S. Ex. 20,840).

2286. In an undated R.J. Reynolds document authored by Teague entitled "Implications and Activities Arising from Correlation of Smoke pH with Nicotine Impact, Other Smoke Qualities, and Cigarette Sales," Teague reported on the significance of smoke pH to the amount of free nicotine in Marlboro cigarettes: "As a result of its higher smoke pH, the current Marlboro, despite a two-thirds reduction in smoke 'tar' and nicotine over the years, calculates to have essentially the same amount of 'free' nicotine in its smoke as did the early WINSTON." Teague also reported on other benefits of altering the pH of cigarette smoke:

> In addition to enhancing nicotine 'kick', increasing the pH (increasing alkalinity) of smoke above about 6.0 causes other changes, particularly when the increase in smoke pH is achieved by adding ammonia to the blend. As smoke pH increases, in general stemmy taste, mouth irritation, flue-cured flavor and Turkish flavor are diminished. . . . It should be noted, however, that if the smoke pH goes much above 7 at normal total smoke nicotine levels . . ., the amount of 'free' nicotine becomes high, and this may cause harshness to the throat.

83826872-6879 at 6873, 6876 (U.S. Ex. 55,891).

2287. Another 1973 R.J. Reynolds study illustrated the discrepancies between FTC tar and nicotine data and actual cigarette strength. This study found that the smoke pH for the Marlboro and Kool cigarettes had been steadily increasing since 1964, while the pH for R.J. Reynolds's products had remained almost constant. At the same time, the FTC tar and nicotine levels had decreased for all the brands. These 1973 studies together suggested that the strength of a cigarette could be controlled in part by adjustment of smoke pH. The researchers concluded doing so would be extremely important to the successful performance of R.J. Reynolds's cigarettes. 500606138-6153 (U.S. Ex. 48,334).

2288. R.J. Reynolds soon developed its cigarette design in the same direction as Philip

Morris. In a 1973 memorandum to R. Blevins, Director of Marketing and Planning for R.J. Reynolds, Frank Colby, R.J. Reynolds scientist, discussed the use of pH manipulation, "to assure RJR a larger segment of the youth market." By 1974, R.J. Reynolds had "introduced ammoniated sheet filler in the Camel filter cigarette . . . . Better market performance was indicated in the subsequent years." 501166152-6153 at 6152 (U.S. Ex. 23,051); 509018864-8865A at 8864 (U.S. Ex. 20,820).

2289. In a December 4, 1973 memorandum from Frank G. Colby to R.A. Blevins, Jr. titled "Cigarette Concept to Assure R.J.R. a Larger Segment of the Youth Market," Colby stated that, in developing a low tar cigarette to appeal to the youth market, "any desired additional nicotine 'kick' could be easily obtained through pH regulation." 501166152-6153 (U.S. Ex. 23,051).

2290. An undated R.J. Reynolds document discussing the technology of ammoniation reveals that R.J. Reynolds "introduced ammoniated sheet material in the Camel filter product in 1974. . . . Low 'tar' products at RJR were designed with ammoniated sheet material beginning in 1974. . . . Ammoniated sheet was introduced into the Winston KS product in 1979." The document described the two of the characteristics of products that incorporate ammoniation technology as "cleaner taste with more free nicotine" and "stronger physiological impact with less harshness." 509018864-8865A at 8864, 8865 (U.S. Ex. 20,820); see also 510983376-3380 (U.S. Ex. 20,833).

2291. R.J. Reynolds continued to study the relationship between the amount of free nicotine in a cigarette, the smoke pH of a cigarette, and its market performance throughout the 1970s. A January 15, 1975 paper by John D. Woods and Sue H. Sheets, of R.J. Reynolds's

Chemical Research Division, analyzed these relationships, concluding: "With only a few exceptions, brands with high smoke pH performed better than those with low smoke pH. Correlations were also observed between calculated free nicotine and sales trends and total sugar in the blend and sales trends." 500615944-5960 at 5944 (U.S. Ex. 21,786).

2292. In a talk delivered to R.J. Reynolds's management on June 25, 1974, and to R.J. Reynolds's international management on August 4, 1976, Murray Senkus described R.J. Reynolds's knowledge of how the pH of smoke affected the delivery of nicotine in lower tar cigarettes. Senkus observed that, at that time, cigarettes lower in tar and nicotine had a taste difference, discernable to the smoker, that interfered with smoking "satisfaction." Senkus stated this problem could be remedied by raising the pH of the smoke so that it would deliver more nicotine: "So, simply by raising pH, say from 6.0 to 6.5 you raise the level of nicotine that is transferred to the taste buds and body fluid in the mouth to the same level as with the higher tar cigarette." In the same talk, Senkus recommended development of a low tar product with a specific nicotine to tar ratio and stated that "[it] is worth noting that our competitors are fully aware of the significance of pH with respect to smoking satisfaction and taste. Moreover, they are fully aware of the advisability of maintaining a low tar value and also maintaining the nicotine as high as possible." 50152 5355-5366 at 5359, 5363-64 (U.S. Ex. 29,531).

2293. By 1976, R.J. Reynolds was aware that the inhalation of cigarette smoke was the most effective method of administering nicotine to smokers. The company also understood the absorption of nicotine in the mouth was pH-dependent. Thus, the company emphasized research to determine the "minimum level of nicotine required for smoker satisfaction," and the particular chemical form of nicotine, i.e., whether "nicotine in smoke was 'free' or 'bound' or some mixture

of these two forms." 502967936-7944 at 7944 (U.S. Ex. 29,588) (U.S. Ex. 76,188); Deposition of Charles Green, Arch v. The American Tobacco Co., September 30, 1997, 362:23-366:10, 374:5-375:25, 381:17-25, 384:4-385:4, 385:23-388:19; 504424968-4976 (U.S. Ex. 86,968).

2294. A September 21, 1976 memorandum from John L. McKenzie to A.P. Ritchly confirms R.J. Reynolds's belief that altering the pH of cigarette smoke would affect nicotine delivery to the smoker. In the memorandum, McKenzie stated that "[t]he pH also relates to the immediacy of the nicotine impact. As the pH increases, the nicotine changes its chemical form so that it is more rapidly absorbed by the body and more quickly gives a 'kick' to the smoker." 500378383-8386 at 8385 (U.S. Ex. 85,467).

2295. One of R.J. Reynolds's significant research objectives outlined in an August 27, 1979 report by Alan Rodgman entitled "Research Department Program 1980" was to identify the advantages and disadvantages "of various treatments such as nicotine relocation, heat treatment, denicotinization, casing or use of other additives to control nicotine delivery to mainstream smoke." 502490232-0246 at 0242 (U.S. Ex. 85,406)

2296. An October 12, 1979 report written by Calvin L. Neumann and M.D. Wallace regarding "Nicotine Satisfaction, Consumer Test 2740," reveals that R.J. Reynolds conducted research regarding the minimum and optimum nicotine delivery required to "maximize[] consumer acceptance," and concluded that "[c]igarette strength is nicotine and pH dependent, increased with both increasing nicotine and increasing pH." The report was addressed to D.H. Piehl, Manager of R.J. Reynolds's Chemical Research Division, and its contents were presented to R.J. Reynolds's Research and Development management. 509069450-9466 at 9450, 9452-53 (U.S. Ex. 85,468).

2297. An August 9, 1982 draft paper sent to G.R. DiMarco from E. Bernasek and C.W. Nystrom set forth R.J. Reynolds's "position papers describing our rationale for using the following additives in RJRT tobacco flavor formulations: ammonia, sclareol, sclareolide, glucose tetraisovalerate." On the topic of ammonia, the document stated that one use of ammonia in R.J. Reynolds's processing operations was the "[a]mmoniation of reconstituted tobacco." The paper revealed that "[a]mmonia in smoke is one of the major pH controlling components" and that "[s]tudies of the effect of ammonia on smoke composition showed . . . an increase in physiological satisfaction with increasing ammonia content." 504438506-8512 at 8506, 8510 (U.S. Ex. 21,386).

2298. Another R.J. Reynolds document confirms that the Cigarette Company Defendants attempted to keep abreast of each other's understandings regarding the effect of smoke pH. In June 1988, an R.J. Reynolds researcher circulated a B&W report that concluded that smoke pH was related to the speed of delivery of nicotine into the bloodstream. 500104402-4424 (U.S. Ex. 21,492).

2299. A January 10, 1990 research report authored by W.M. Coleman, III, documents a portion of R.J. Reynolds's research relating to the manipulation of nicotine "through regulation of the pH of the dense fluid process stream." The purpose of the experiment described in the memorandum was to "refine" information gained from an earlier study in order to "optimize the ability to control the nicotine to the desired levels." The memorandum concluded:

> Evidence has been presented which confirms a novel process for the control and manipulation of the level of nicotine in tobacco and tobacco extracts. The process makes use of the chemistry of tobacco by extracting the available nicotine through a minor but subtle adjustment of the pH. . . . The full range of nicotine control

> can be realized. The process possesses many variables, among them being 1) pressure, 2) temperature, 3) NH_3 concentration, 4) flow rate, 5) flow volume, etc. With this number of degrees of freedom it is possible to dictate the level of nicotine in the extract as well as the tobacco.

508381102-1112 at 1102, 1103, 1105 (U.S. Ex. 85,469)

2300. Even in products R.J. Reynolds has developed to be potentially "reduced harm" products, it has experimented with ways to boost pH to increase their nicotine delivery. Scientist Gary Burger, who worked on Eclipse from its inception, concedes that, in 1993, Reynolds looked at adding L-arginine to Eclipse to see if it increased pH and, in turn, nicotine yield. Deposition of Gary Burger, Arch v. The American Tobacco Co., August 22, 1997, at 189-192; 51919 3178-3184 (U.S. Ex. 80,235).

2301. An R.J. Reynolds document apparently written on or around February 11, 1998 confirms that R.J. Reynolds used ammonium hydroxide to adjust the pH level of its reconstituted sheet tobacco. The document stated that "Ammonium hydroxide is applied to the G7 sheet via extract application. Ammonium hydroxide is applied to the extract to achieve a 6.3 pH prior to DAP addition. The calculated average rate of ammonium hydroxide application is 0.013 lbs. NH_4OH per lb. of finished G7 sheet on a dry weight basis." A typewritten notation on the document indicates that this information was "Reported to Donna T-O on 2/11/98 [and] Confirmed w/Tim Martin & Bill Boger." 521484265-4265 (U.S. Ex. 86,969); see also 521484544-4544 (U.S. Ex. 86,970).

2302. A January 22, 1999 "PAC NOTIFICATION," on the subject of "Change in Concentration Level of Ammonium Hydroxide Solution Currently Used in Production of Four (4) G7 Products," reveals R.J. Reynolds's continued use of ammonia compounds and continued

manipulation of the pH of its products. The document states that "RJR currently uses a 29% Ammonium Hydroxide solution on the production of four (4) G7 products. . . ." The document recommends that, in order to "avoid costs/complexity associated with regulatory compliance" of provisions of the Clean Air Act that would apply to facilities using ammonia solutions with a concentration of ammonia greater than 20%, R.J. Reynolds "[b]egin usage of an Ammonium Hydroxide solution at 19% concentration level versus current 29%." The document also states that "[t]ransition to the 19% solution will be transparent from a finished product standpoint, given that the G7 process controls pH on-line to target." 521484535-4536 at 4536 (U.S. Ex. 86,971).

c. BATCo/B&W/American Tobacco Company

2303. A June 30, 1980 American memorandum from N.L. Bodenhamer to Eugene Glock on "Increasing Nicotine Transfer in Smoke" stated: "There has been an interest in increasing the amount of nicotine that is transferred from the tobacco to the mainstream smoke while leaving the 'tar' level unchanged. Since most nicotine in tobacco is a non-volatile salt, it was thought that a greater transfer would take place if the tobacco was made basic causing the nicotine to volatilize when the cigarette is smoked." To test this hypothesis, researchers conducted an experiment in which they added 2% or 5% potassium carbonate to American's Tareyton tobacco blend. Taste tests "suggested that more nicotine had transferred to the smoke, with the 5% being more harsh than the 2%." In a follow-up memorandum between the same employees a month later, it was reported that using nicotine in a free base form could "volatize and thereby increase the amount of nicotine in the smoke. Some further work planned in this area is the addition of sodium carbonate, treatment of stems with alkali base, and treatment of

CARLTON blend to possibly increase smoke taste since cigarettes treated thus far have been much stronger than the control." MNAT00316810-6811 at 6810 (U.S. Ex. 21,542); X003498-3506 (U.S. Ex. 86,972).

2304. In a document entitled, "The Significance of pH in Tobacco and Tobacco Smoke," D.E. Creighton, BATCo employee, wrote that "free base nicotine is the most chemically and physiologically active form because it is most rapidly absorbed." 500104402-4424 at 4408 (U.S. Ex. 21,492); see also 400132742-2776 (U.S. Ex. 88,084).

2305. In 1964, a BATCo researcher recognized the effect that adding potassium carbonate – a base – to tobacco could have on pH and, as a result, on the nicotine "kick" a smoker receives: "There seems no doubt that the 'kick' of a cigarette is due to the concentration of nicotine in the blood-stream which . . . is a product of the quantity of nicotine in the smoke and the speed of transfer of that nicotine from the smoke to the blood-stream." The researcher concluded that "it is almost certain that the free nicotine base is absorbed faster into the blood stream. Thus [the] effect of this potassium carbonate treatment, **even though it does reduce the total quantity of nicotine in the smoke, may be to enhance the effect of what is left until it is equal or may be greater in psychological effect than the original smoke**." 100059066-9067 at 9067 (U.S. Ex. 20,102) (emphasis added).

2306. BATCo incorporated manipulation of nicotine delivery through smoke into its work on Project Ariel. The company revealed that its main objective was "to achieve the physiological response of normal cigarettes." Scientists working on the project began to theorize as early as 1964 that this effect may be a function of either "nicotine being present as a free base or at least partly in vapour form." 100175681-5687 at 5682-5683 (U.S. Ex. 20,116) (U.S. Ex.

34,622).

2307. Internal BATCo documents revealed the company's focus throughout the 1960s on manipulating nicotine delivery through changing smoke pH. A draft letter written in 1964 on that subject set forth BATCo's theory that "the rate of absorption or transfer of nicotine base to the blood stream is more rapid than [nicotine] salt." Based on this and related findings, the author of the draft letter concluded that "since the process of absorption of nicotine from smoke is via the saliva to the blood stream, I would think that there must be at least quantitative differences in the physiological response when the ratio of nicotine base to salt in the smoke is increased." 105521746-1748 at 1746-1747 (U.S. Ex. 20,240).

2308. A document produced by B&W reveals that, in 1964, BATCo data reported that nicotine transfer from the tobacco to the smoke was directly related to the relative degree to which the nicotine in the tobacco was in the “free” form.

> The results show that the transfer of nicotine, and thus the delivery per cigarette, is dependent upon the extent to which the nicotine is present as ‘free base’ (which in turn is controlled by pH), e.g. as base the transfer is three times greater than that of the salt, nicotine citrate.

689201723-1770 at 1758, 1760 (U.S. Ex. 31,049).

2309. In 1965, a BATCo research report entitled, "The Effect of Additives on Smoke Chemistry: Action of Gaseous Ammonium Flue-Cured Tobacco," noted the main effect of "treatment of flue-cured tobacco with ammonia" would be a 30% increase in delivery of nicotine. According to a November 1, 1995 document produced by B&W, this belief was corroborated during a subsequent Technical Development Meeting in September 1965. 570538281-8295 at 8283 (U.S. Ex. 20,941); 689201723-1770 at 1761, 1734, 1735 (U.S. Ex. 31,049).

2310. BATCo's Southampton Research and Development Establishment conducted extensive research on extraction in the 1960's. The Southampton center, under the leadership of Hughes, supplied over 150 reports a year to BATCo. Minutes taken by R.J. Johnson regarding a meeting of scientists at Southampton, on June 30, 1967, reveal that, at that time, BATCo was heavily involved in nicotine manipulation research, including: Project Ariel; studies on extractable nicotine; smoke pH; and alkaline filter additives that selectively increased nicotine delivery. 500012143-2159 (U.S. Ex. 85,471).

2311. A September 30, 1966 document, titled "Further Work on Extractable Nicotine," demonstrates that B&W was well aware at that time of the importance of smoke to an individual's receipt of nicotine from a cigarette. The document, issued by I.W. Hughes and distributed widely, including to Sir Charles Ellis, R.B. Griffith and the Research and Development Library, confirms a finding in an earlier report that "the reaction of a smoker to the strength of the smoke from a cigarette could be correlated to the amount of 'extractable' nicotine in the smoke, rather than to the total nicotine content." 83916527-6596 at 6530 (U.S. Ex. 55,968).

2312. B&W has concentrated its efforts on extractable nicotine ever since. On September 30, 1997, Brown & Williamson's corporate designee on cigarette design and addiction under Minnesota's equivalent of Fed. R. Civ. P. 30(b)(6), M. Lance Reynolds, who was also B&W's former Director of Research and Director of Product Development, testified that, up to at least close to his 1991 retirement from B&W, B&W and BATCo worked on the hypothesis that smoke pH and extractable nicotine were important to affect sensation. Deposition Testimony of M. Lance Reynolds, State of Minnesota and BCBS v. Philip Morris et al.,

C1-94-8565, 89:8-90:18, 93:16-93:19 (Minn Dist. Ct. Sept. 30, 1997).

2313. A B&W document entitled, "Use of Ammonia/Ammonium Compounds/Urea," stated that "reasons for use" of ammonia included, "[r]ais[ing] the pH of smoke and increas[ing] impact through increased levels of free form, vapour phase nicotine," and "[i]ncreas[ing] the efficiency of transfer of nicotine from tobacco to smoke." 303636914-6922 at 6914 (U.S. Ex. 46,608).

2314. M. Lance Reynolds, a chemist who worked for Brown & Williamson from 1968 to 1991, eventually rising to Director of Product Development and then Director of Research, agreed in a June 4, 1997 deposition that it was "a working hypothesis you had during the entire time you were at Brown & Williamson," i.e., from 1968 to 1991, that, as a 1979 Philip Morris document acknowledged, smoke impact is not determined by "the amount of nicotine in the smoke per se but rather it is the amount of free nicotine in the smoke." Deposition Testimony of M. Lance Reynolds, State of Minnesota and BCBS v. Philip Morris et al., C1-94-8565, vol. 1, 103:3-103:12 (Minn Dist. Ct. June 4, 1997); 542001985-1996 (U.S. Ex. 86,973).

2315. In a July 30, 1969 file note entitled "Added Ammonium Salts in Marlboro and Philip Morris Cigarettes," B&W research scientist C.J. Rosene reported that in a comparison of cigarettes manufactured by Philip Morris, including Marlboro, against Viceroy, "the [Philip Morris] tobaccos showed higher ammonia values than are normally encountered in U.S. blends." Dr. Rosene inferred that the higher ammonia values were due to ammonium salts, and speculated that "these compounds may contribute to physiological impact if free ammonia is released into the smoke." Accordingly, Dr. Rosene wrote, "We recommend that the effect of ammonium salts on B&W brands be studied." M. Lance Reynolds, a B&W chemist who began working at B&W

in 1968 and eventually rose to become B&W's Director of Product Development and then B&W's Director of Research, testified on June 4, 1997 that this was B&W's "earliest indication" that "ammonia chemistry was involved in Philip Morris cigarettes." 100025331-5331 (U.S. Ex. 34,585); Deposition Testimony of M. Lance Reynolds, State of Minnesota and BCBS v. Philip Morris et al., C1-94-8565, vol. 1, 217:12-217:15 (Minn Dist. Ct. June 4, 1997).

2316. A later file note, dated September 8, 1969, and entitled "Added Ammonium Salts in Marlboro and Philip Morris Cigarettes," reported that, as B&W continued researching Philip Morris's cigarettes, it found that they not only had higher ammonia values than B&W's own cigarettes, but higher phosphate levels as well. Based upon Philip Morris's patents for processes employing diammonium monohydrogen orthophosphate (DAP) as a reagent, B&W hypothesized that Philip Morris was using DAP in its reconstituted tobacco. 100025332-5334 at 5332 (U.S. Ex. 86,974).

2317. The Cigarette Company Defendants were aware of other chemicals that could affect the pH, and nicotine level, in smoke. In 1970, B&W Research wrote about the effects of urea on pH and nicotine. At this time, tobacco treated with urea and a urea enzyme system was reported to have achieved increases in extractable nicotine levels as great as 80%. Further, the tobacco's pH was reported to be elevated to as high as 7.5. 650360443-0458 (U.S. Ex. 20,949).

2318. In a January 4, 1980 document, a B&W scientist spoke about the varying levels of nicotine delivery through the use of smoke pH and free nicotine:

> [t]hese relationships are not unknown to those persons developing new products in the tobacco industry. We have seen many changes in these relationships at B & W, e.g., through filter technology, use of chemicals, as well as conversion products formed from using tobaccos treated with microorganisms, to yield smoke with both

increases and decreases in the free nicotine levels.

510000667-0670 at 0669 (U.S. Ex. 51,496) (U.S. Ex. 51,497).

2319. Minutes of a September 1984 Joint Research and Development/Marketing Session held during a Research and Development Conference in Marlow, U.K., reveal that discussions took place regarding the various ways in which BATCo was able to increase the level of nicotine transferred in smoke. According to the meeting minutes, "[a] direct method of enhancing nicotine in tobacco smoke is through additions of nicotine oxide or nicotine salts." 109872430-2447 at 2439 (U.S. Ex. 23,340).

2320. In a November 12, 1984 progress report on "Project SHIP," scientists from B&W, BAT Germany and Group Research and Development Center ("GR & DC") met together to discuss the status of the development of "major product change." The research and development of this new product centered around nicotine, and included a study of the best form in which to present the smoker with nicotine in order for the nicotine to be most "active." Many of the studies involved comparisons to what was known by BATCo of Marlboro's processing. 100543649-3659 (U.S. Ex. 34,670); 510001467-1478 (U.S. Ex. 88,085).

2321. Recognizing the importance of nicotine in smoking, notes of a BATCo research conference in Rio de Janeiro, held from August 22-26, 1983, state that "[t]here is an urgent need to prepare a status review on all major aspects of the pharmacological influences of nicotine in the smoking process." Areas of nicotine research included: (1) factors affecting the transfer of nicotine from leaf to smoke aerosol; and (2) factors influencing the rate of transfer of nicotine from particulate matter to the vapor phase. 102231077-1102 at 1092, 1091 (U.S. Ex. 34,685).

2322. Like R.J. Reynolds, B&W had long analyzed and evaluated Philip Morris's use of

ammonia and other methods to affect nicotine transfer. In 1984, a B&W researcher drafted a report on "The Unique Differences of Philip Morris Cigarette Brands" describing the way that Philip Morris achieved "lower blend alkaloids than competition brands, yet deliver[ed] the same smoke nicotine." The researcher noted that "[a]mmonia treatments appear to be the most important aspect of Philip Morris's blend uniqueness," resulting in "a mild and natural tasting smoke . . . favorable to nicotine transfer." 103281081-1112 at 1082, 1112 (U.S. Ex. 20,234).

2323. Smoke pH, and its connection to a cigarette's impact, continued to capture the attention of B&W executives and scientists throughout the 1980s. At a "Nicotine Conference," held in Southampton from June 6-8, 1984, participants concluded:

> If we are to make better use in product terms of the levels of nicotine in smoke currently available – and even more so if we are forced to market cigarettes with reduced levels of nicotine – then it is important to significantly increase our understanding of impact/satisfaction. There is an urgent need for experimental cigarettes in which the levels of nicotine in smoke (and smoke pH) are carefully controlled.

602759-2759 (U.S. Ex. 53,297).

2324. BATCo's W.B. Fordyce circulated a report called "The Addition of Nicotine to Tobacco Products" written by company scientist Terry Mitchell to BATCo directors under cover memorandum dated May 2, 1980. In his paper, Mitchell discusses three means of intentionally increasing the nicotine content of cigarettes, including the use of specialized high nicotine tobaccos (such as N. rustica), direct addition of nicotine/nicotine extracts, and the chemical "augmentation of smoke nicotine." Mitchell noted that smoke nicotine could be augmented by improving the nicotine transfer to smoke and by increasing the alkalinity/pH of smoke. 110088143-8143 (U.S. Ex. 34,965); 110088144-8155 (U.S. Ex. 34,966).

2325. In a January 4, 1980, Brown & Williamson Process Department "file note," entitled "Observation of Free Nicotine Changes in Tobacco Smoke," C.F. Gregory discussed pH and nicotine delivery in Philip Morris's Merit and Marlboro brands. Gregory's data revealed that Merit and Marlboro delivered equal amounts of "free" nicotine, although Marlboro's total nicotine content was almost double that of Merit. 654005805-5807 (U.S. Ex. 85,446); 689201723-1770 at 1751 (U.S. Ex. 31,049).

2326. Gregory commented that "In theory, a person smoking these [Merit and Marlboro] cigarettes would not find an appreciable difference in physiological satisfaction from either based on the amount of free nicotine delivered." He then gave other examples where cigarette manufacturers could maintain "free" nicotine despite reducing machine-measured nicotine yield. Gregory suggested this information could be used to gain Brown & Williamson a competitive advantage in marketing "Light" cigarettes:

> Is there not some way open now to use the knowledge we have gained in this area of tobacco and smoke research to give B&W a competitive advantage over its competition? **It appears that we have sufficient expertise available to "build" a lowered mg tar cigarette which will deliver as much "free nicotine" as a Marlboro, Winston, or Kent without increasing the total nicotine delivery above that of a "Light" product.**

654005805-5807 (U.S. Ex. 85,446) (emphasis added).

2327. Brown & Williamson scientist Tilford Riehl, who later became Vice President of Research and Development, received Gregory's "file note" and commented on an alternative to Gregory's proposal to increase "free" nicotine to boost "physiological satisfaction." Riehl's suggestion, while accepting Gregory's data and concept, proposed maximizing the effects of nicotine on smokers in a different way. Riehl wrote in the margin:

> Several of us have proposed an alternative (almost opposite) approach – design a low tar cig with high total nicotine / low to moderate % free nic. Theory: provide cig with "appropriate" level of sensory satisfaction/higher than usual "pharmacological" satisfaction.

510000667-0670 (U.S. Ex. 51,496) (emphasis in original).

2328. In reviewing Gregory and Riehl's statements, a November 1, 1995 Shook Hardy & Bacon commentary included the following observation from counsel: "This [Riehl's] marginalia comment, of course, raises an issue of the motivations of the company in designing cigarettes to provide pharmacological satisfaction to smokers." 689201723-1770 at 1754 (U.S. Ex. 31,049).

2329. In 1984, B&W studied the effects of varying the smoke pH of Kool cigarettes. The results of B&W's study were that increasing the smoke pH of Kool KS would increase consumer acceptance of the cigarette. 510004186-4190 (U.S. Ex. 20,832).

2330. A BATCo report entitled "Group R&D Programme Group Projects" detailed several BATCo Group research efforts and revealed that BATCo was keenly aware that individuals smoked to experience the effects of nicotine. This awareness fueled research aimed at enhancing BATCo's ability to control the doses of nicotine delivered by the cigarette to the smoker. The report disclosed that, among other things, BATCo Group companies sought to determine nicotine-carrying capacity of aerosols in cigarette smoke and the effect of nicotine enhancement on human smoking behavior. The report further found that the "impact" of the cigarette was a function of the aerosol pH, for which "optimal" levels were possible. In addition to viewing nicotine transfer efficiency as a way of increasing the impact of the cigarette on the smoker, BATCo recognized that increased nicotine transfer would result in significant savings for BATCo Group companies. Thus, BATCo sought to "evolve ways and means of ensuring that

smaller amounts of nicotine continue to give the satisfactory 'reward' to the smoker." 107472129-2302 at 2161, 2177 (U.S. Ex. 85,472); 1100393832-3838 at 3835 (U.S. Ex. 85,473); 103498901-8902 at 8901 (U.S. Ex. 21,384).

2331. The use of ammonia technology long has been perceived by B&W as key to the competitiveness of B&W's cigarette products worldwide. According to a "Restricted" B&W report containing the minutes of a B&W Ammonia Technology Conference held on May 18-19, 1989, "[a]ll U.S. manufacturers except Liggett use some form of AT [Ammonia Technology] on some cigarette products." The report further indicated that "[t]he U.S. cigarette industry use[d] about ten million pounds of ammonia compounds a year. This corresponds to about 10 mg of ammonia compounds per cigarette produced." 508104012-4164 at 4016, 4017 (U.S. Ex. 53,249).

2332. A 1991 B&W handbook regarding cigarette design entitled, "Root Technology: A Handbook for Leaf Blenders and Product Developers," created by B&W and other BAT Group company scientists, provided ammonia technology information "for the product developer who is looking for ways to incorporate [ammonia] technology . . . in a cigarette design." The handbook provided a history of the use of ammonia by the tobacco industry and described how B&W used ammonia technology to "increase smoke nicotine efficiency." It referred to ammonia technology as "a relatively new technology at B&W and within the BAT Group of companies," and went on to list five types of ammonia technology "currently used in production" by BAT Group companies. 621800840-0899 at 0843, 0844, 0855 (U.S. Ex. 86,908); 599003691-3695 (U.S. Ex. 22,077).

2333. The handbook also stated, "[The ammonia in cigarette smoke] can liberate free

nicotine from the blend, which is associated with increases in impact and 'satisfaction' reported by smokers." It explained:

> Ammonia, when added to a tobacco blend, reacts with the indigenous nicotine salts and liberates free nicotine. As a result of such change, the ratio of extractable nicotine to bound nicotine in the smoke may be altered in favor of extractable nicotine. As we know, extractable nicotine contributes to impact in cigarette smoke and this is how ammonia can act as an impact booster.

621800840-0899 at 0845 (U.S. Ex. 86,908).

2334. As Dr. Kessler explained to Members of Congress during his June 27, 1994 testimony to the Waxman subcommittee hearing, "The handbook indicates that this ammonia technology enables more nicotine to be delivered to the smoker than if the ammonia technology is not employed." TLT0730851-1975 at 1461 (U.S. Ex. 77,012).

2335. The Root Technology Handbook examined the methods employed by Defendants Philip Morris, R.J. Reynolds, Lorillard and American Tobacco Company to use ammonia technology, stating that B&W and Philip Morris used ammonia technology in almost all of their brands, and that it was heavily used by the other companies as well. A particular type of ammonia technology, involving reconstituted sheet and called "RCB" by B&W, was referred to by the scientists as "the soul of Marlboro." The objective in B&W's "CPCL [a band-cast reconstituted tobacco] development was to match PM's RCB in all important characteristics except for nitrate removal." The scientists observed, "This objective has been met." 621800840-0899 at 0853-0854, 0849, 0851 (U.S. Ex. 86,908).

2336. The Handbook also succinctly explained the various ways in which ammonia technology could be used during cigarette manufacturing. It described reconstituted tobacco not

only as "an ammonia source" itself, but found that it "incorporat[es] sugar-ammonia reactions. As a low alkaloid blend component, it also absorbs nicotine from higher alkaloid-containing components." Reconstituted tobacco served as "a positive blend contributor rather than merely a filler." It described various methods undertaken by B&W and the other cigarette manufacturers, including the addition of diammonium phosphate ("DAP") and Urea into "recon," and the use of several casings. 621800840-0899 at 0855-0861 (U.S. Ex. 86,908).

2337. The scientists who wrote the Handbook found "two consistent trends apparent in the U.S. market. First, recon is the preferred means for applying [ammonia technology]. Second, everyone is working hard to match PM smoking quality." 621800840-0899 at 0853 (U.S. Ex. 86,908).

2338. Former B&W Vice President of Research and Development Jeffrey S. Wigand testified that B&W uses ammonia technology as a method of managing or manipulating nicotine by converting bound nicotine to free nicotine. Wigand also testified about the Leaf Blender's Manual that he helped to edit. According to Wigand, the manual is a "comprehensive document [] deal[ing] with the use of ammonia and ammonia compounds to effectively convert, equilibrate, and change nicotine from sol [salt] into a free base." Deposition of Jeffrey S. Wigand, Butler v. Philip Morris, November 29, 1995, 116:1-116:4.

2339. By 1991, BATCo apparently decided that it was unwise to use the word, "ammonia" when referring to its ammonia technology. In a March 1, 1991 document by A. L. Heard to employees in the research department, including Wigand, Heard informed the employees that the "Tobacco Strategy Review Team has identified a need to add greater confidentiality to our use of ammonia technology throughout the BAT Group. They have asked

that for commercial confidentiality, we substitute a code word in place of the expression 'ammonia technology.'" The memorandum further stated that existing code words for ammonia-related processes such as "ammonia treatment of stems or lamina" would continue to carry code names already in existence. The new code word for ammonia technology was to be transmitted via separate cover. 400182372-2372 (U.S. Ex. 47,487).

2340. Nicotine transfer delivery has been regularly studied and monitored by B&W (and its affiliates), even throughout the 1990s, and is usually expressed as a percentage of the tobacco nicotine that is released into the cigarette smoke. This percentage is referred to as "nicotine transfer efficiency." Internal company documents reflect that nicotine transfer efficiency was of interest to B&W/BATCo at least since the 1960s and that this parameter was routinely measured. 689201723-1770 at 1758, 1760 (U.S. Ex. 31,049).

2341. A 1995 document produced by B&W revealed, "[r]aising the pH of the [nicotine] to a more alkaline level will increase the percentage of nicotine that is in the un-ionized ("free") form. . . . Since ammonia is an alkaloid (base), if added to tobacco in sufficient quantity, it would be expected to increase the prevailing pH of both the tobacco and the cigarette smoke." 689201723-1770 at 1761, 1734, 1735 (U.S. Ex. 31,049).

2342. As of 1997, Brown & Williamson's corporate designee on cigarette design and addiction under Minnesota's equivalent of Fed. R. Civ. P. 30(b)(6), M. Lance Reynolds, who was also B&W's former Director of Research and Director of Product Development, testified that "nicotine-transfer efficiency is one of the most basic parts of cigarette design." Deposition Testimony of M. Lance Reynolds, State of Minnesota and BCBS v. Philip Morris et al., Sept. 30, 1997 C1-94-8565, 112:15-112:16.

d. Lorillard

2343. Lorillard also was studying ways to alter the pH of its cigarette products. In 1973, Lorillard sought to improve the smoking quality of its reconstituted tobacco. Lorillard believed its research at that time demonstrated that the amount of free nicotine contained in mainstream smoke increased with higher pH, and that higher pH increased impact. Lorillard also studied how the Marlboro reconstituted leaf achieved a higher pH while maintaining a good flavor. Using different additives, types of leaf, and added nicotine, Lorillard tested numerous ways to increase the smoke pH in its reconstituted leaf. 00044833-4841 (U.S. Ex. 47,324); see also, 87644269–4277 (U.S. Ex. 56,273).

2344. A November 2, 1973 memorandum, entitled "Research 1–3–5 Year Projection of Major Projects," outlines Lorillard's research goals for "Tobacco Modification," among other things. The memorandum revealed that Lorillard had undertaken a research program designed "to explore the possibilities of modifying various physical and chemical properties of tobacco by means of chemical treatments or additives." One of the areas of interest in this regard was the "control of nicotine delivery." The memorandum noted that the ability to control nicotine and other parameters "will permit the design of low tar products with acceptable burning rates having specified nicotine deliveries." 00037787-7800 at 7790 (U.S. Ex. 85,474).

2345. A 1976 Lorillard study reiterated the connection between smoke pH and nicotine delivery. A July 12, 1976 study of the pH of smoke conducted by Leighton Chen in connection with Lorillard's Nicotine Augmentation Project provided an extensive review of "input variables affecting the pH of smoke" and the "effect of pH on smoke delivery." Chen reported, among other things, that "[t]he market leaders appear to have the higher pH's, and hence the higher

concentration of free base nicotine. If the desired goal is defined to be increased nicotine yield in the delivered smoke . . . increase the pH, which increases the 'apparent' nicotine content without changing the absolute amount." 00121909-1926 at 1921-1922 (U.S. Ex. 85,475); 526321367-1373 (U.S. Ex. 85,477); see also 00778258-8265 (U.S. Ex. 34,295); 00121921-1942 (U.S. Ex. 85,476); 00778109-8113 (U.S. Ex. 22,930); 00044939-4940 (U.S. Ex. 88,086); 83250763-0765 (U.S. Ex. 55,655).

2346. In a June 16, 1976 memorandum from H.J. Minnemeyer to A.W. Spears regarding Lorillard's Nicotine Augmentation Project, Minnemeyer reported that: "It is known that air dilution increases the pH of smoke and increases the nicotine/tar ratio. Some time is being spent to determine ways to maximize the favorable effects and to minimize the problems introduced by air dilution, as for example, unfavorable pressure drops. . . . Nicotine delivery might also be increased by . . . employing filter materials that as much as possible permit the passage of nicotine as compared to tar." 00044525-4528 at 4527 (U.S. Ex. 34,191), 95539652-9655 at 9654 (U.S. Ex. 56,825); see also, 83250781-0782A (U.S. Ex. 55,664).

2347. In an April 13, 1977 memorandum to Harry Minnemeyer entitled "Gas Phase Ammoniation of Tobacco," P. D. Schickedantz recognized that the addition of bases such as ammonia to tobacco might result in "a greater efficiency of nicotine delivery or in an increased smoke pH. An increased smoke pH would liberate nicotine free base from its salts to give a greater chest impact." Schickedantz also reported on several techniques to more accurately estimate the amount and form of ammonia that could be added without resulting in "the undesirable taste previously associated with ammoniated tobacco." 00778451-8457 at 8451, 8456 (U.S. Ex. 34,299) .

2348. Lorillard also studied filtration and pH systems in 1976 as other potential methods to enhance nicotine delivery. Lorillard found that free nicotine could be added to tobacco at practically any point in the manufacturing process using solvents such as water, alcohol, freon, or top flavor. 00778476-8490 (U.S. Ex. 34,300) (U.S. Ex. 54,372); 00778109-8121 (U.S. Ex. 22,930).

2349. A 1977 update on the "Nicotine Enrichment Project" informed management that the most promising method of enriching nicotine was to add nicotine alkaloid to tobacco. 526321428-1440 at 1428 (U.S. Ex. 85,478).

2350. Lorillard conducted research on ammonia and smoke pH well into the 1990s. In 1995, the company investigated the ability of diammonium phosphate to increase the level of nicotine delivery and smoke pH. In addition, a September 18, 1996 memorandum from J.M. Johnson to M.A. Sudholt reported on the subject of "Summary of the Effects of Ammonium Carbonate, Ammonium Bicarbonate, Urea and Diammonium Phosphate on Smoke pH, Smoke Data and Leaf Chemistry" concluded that:

> The addition of either ammonium carbonate or ammonium bicarbonate to cigarette tobacco was found to increase both smoke pH and leaf pH, but not leaf nicotine. For both additives, increases were observed in nicotine per CPM [corrected particulate matter] for both unfiltered and filtered cigarettes. . . . The addition of diammonium phosphate was found to increase leaf pH but not smoke pH or leaf nicotine. Changes in the nicotine delivery of the diammonium phosphate cigarettes appeared to be related to changes in puff count per cigarette that were observed for this additive.

In a related memorandum from J.M. Johnson and R.M. Striegel to M.A. Sudholt regarding three of the same additives, the authors concluded that "[f]or all three additives, as the amount of the

additive applied to the tobacco was increased, the smoke pH increased. Increased smoke pH results in increased calculated levels of unprotonated, or free, nicotine. 96522458-2467 at 2461 (U.S. Ex. 21,973); 83502523-2535 at 2523, 2531 (U.S. Ex. 55,858); 93848806-8818 at 8809 (U.S. Ex. 56,687); see also, 96522506-2542 (U.S. Ex. 21,822).

2351. As late as October 2000, Lorillard continued to use additives to affect smoke pH and produce ammonia. An October 3, 2000 Lorillard memorandum disclosed the concerns of Lorillard's then-CEO, Alexander Spears, concerning the use of ammonium carbonate to change pH balance: "[Spears] had a big concern about using ammonium carbonate to change the pH. His point was that much of the pH changes reported have shown that when the ammonia is generated is just as, if not more, important than the amount. He would like us to use urea instead, since it will allow ammonia to be generated at a more even rate and at higher temperatures than with the use of ammonium carbonate." 97014099-4099 (U.S. Ex. 21,853) (emphasis in original).

e. Liggett

2352. Liggett also aggressively pursued designing a cigarette with increased smoke pH. A 1971 progress report on project TE-5001 reported that "[i]ncreasing the pH of a medium in which nicotine is delivered increases the physiological effect of the nicotine by increasing the ratio of free base to acid salt form, the free base form being more readily transported across physiological membranes." The importance of this finding was explained: "[w]e are pursuing this project with the eventual goal of lowering the total nicotine present in smoke while increasing the physiological effect of the nicotine which is present, so that no physiological effect is lost on nicotine reduction." LG0262125-2126 at 2126 (U.S. Ex. 59,994).

2353. By early 1972, Liggett had achieved its goal of increasing the smoke pH. Another report on project TE-5001 was issued heralding the success of the pH studies: "[t]he original purpose of this development was to increase the smoke pH through the addition of a basic material to the tobacco in order to achieve a higher physiologic effect from the nicotine in the smoke. This has been accomplished." Liggett's researchers found related results from the study encouraging, reporting "the above-observed facts would seem to present intriguing possibilities in the development of new products, particularly in the development of low yield cigarettes where it is desirable to obtain a higher physiologic effect from a cigarette yielding relatively small amounts of nicotine." Liggett's problem became not one of increasing the pH, but rather one of taste. "Taste disadvantages" needed to be overcome in order to market the product. The report set forth various ways Liggett would attempt to make the cigarette smokable. LG0262506-2508 at 2506-2507 (U.S. Ex. 36,263).

2354. Liggett continued its work on the TE-5001 throughout the 1970s. During this time, company scientists developed a sound base of knowledge in the area and advised management of the perceived benefits of increasing smoke pH, writing: "[a] low smoke solids, low nicotine cigarette with an increased smoke pH would then have relatively more free nicotine in its smoke. Consequently, a higher nicotine impact would result producing a more satisfying smoke." This report, and others, went on to discuss methods, including filters, blends, and additives, by which the smoke pH could be altered. It was reported that "all the increased smoke pH cigarettes generally exhibited an increased physiological impact." LG0262127-2129 at 2127, 2128, 2129 (U.S. Ex. 21,185).

2355. In a January 29, 1974 report concerning the progress made by Liggett in 1973 on

Project TE 5001 – "Development of a Cigarette with an Increased Smoke pH" – J.R. Newsome explained: "The purpose of this project is to develop a method for increasing the smoke pH of a cigarette. A low smoke solids, low nicotine cigarettes [sic] with an increased smoke pH would then have relatively more free nicotine in its smoke, and consequently, a higher nicotine impact." Newsome also stated that "[f]uture plans on this project will consist of screening a number of basic materials on both the cigarette filter and blend in an attempt to find which additive is most effective in producing a smokeable increased smoke pH cigarette." The report confirms that Liggett continued studying various methods of manipulating cigarette smoke to increase smoke pH, including the use of filters, additives, and different tobacco blends. LG 0262130-2131 at 2130, 2131 (U.S. Ex. 21,596).

2356. Liggett continued its work on Project TE-5001 through at least 1978. Through this work and other research, by 1976, the company was aware of various methods of altering pH. Among the methods that Liggett believed could alter pH were changing the tobacco blend, adding additives to the tobacco or adding additives to the filter. LG0262155-2155 (U.S. Ex. 21,428); LG0262149-2151 (U.S. Ex. 21,186); LG0262152-2153 (U.S. Ex. 21,187); LG0262509-2512 (U.S. Ex. 36,264).

2357. Liggett was incorporating ammonia technology into some of its products no later than 1993, as demonstrated in a memorandum to Dennis Dietz, Liggett's Manager of Scientific Issues. LG2018563-8563 (U.S. Ex. 21, 190).

2358. Liggett was aware that nicotine can exist in "proteinated" or "nonproteinated" form. The "proteinated" form is the salt form. The "nonproteinated" form is known as the freebase form. Deposition of Dennis Dietz, Minnesota BC/BS v. Philip Morris, September 29,

1997, 22:15-24:1.

2359. Liggett also was aware decades ago that pH is a measure of acidity, and that if the smoke pH was 7 or less, the nicotine will primarily be in the salt form; conversely, if the smoke's pH was greater than 7, the nicotine will primarily be in the freebase form. As the pH increases, the more the nicotine becomes freebase. Deposition of Dennis Dietz, Minnesota BC/BS v. Philip Morris, September 29, 1997, 25:23-27:5.

2360. Since 1971, Liggett has hypothesized that the effect of increasing the pH of nicotine, and hence increasing the ratio of freebase nicotine to salt form, increases the physiological effect of the nicotine. Deposition of Dennis Dietz, Minnesota BC/BS v. Philip Morris, September 29, 1997, 28:1-32:3.

2361. Liggett pursued research into the manipulation of the pH of nicotine because it sought to lower the total nicotine present in smoke while increasing the physiological effect of the nicotine that remained. Deposition of Dennis Dietz, Minnesota BC/BS v. Philip Morris, September 29, 1997, 33:25-34:19.

2362. Liggett was aware that adding calcium hydroxide to tobacco would make the tobacco more basic, thus raising the pH and increasing the amount of freebase nicotine relative to the salt form of nicotine. Liggett added calcium hydroxide to the L&M blend. Deposition of Dennis Dietz, Minnesota BC/BS v. Philip Morris, September 29, 1997, 35:17-41:11.

2363. Liggett also experimented with increasing the smoke pH by making the filter more basic and thereby increasing the physiological impact of the nicotine. Deposition of Dennis Dietz, Minnesota BC/BS v. Philip Morris, September 29, 1997, 41:12-43:24.

2364. In 1976, Liggett continued its research into the modification of smoke pH, and

noted that a smoke pH of 6 resulted in the nicotine in smoke as salt form, while a pH of 11 resulted in nicotine as almost entirely freebase form. The most dramatic shift from salt form to freebase form occurred between pH 6 and pH 9. Deposition of Dennis Dietz, Minnesota BC/BS v. Philip Morris, September 29, 1997, 44:21-50:4.

2365. Timothy Jackson, the Vice President for Operations at Vector Tobacco, a Liggett subsidiary, wrote in a July 30, 2001 e-mail discussing Vector Tobacco cigarette testing that a third party had "previously tested the impact of expansion with a pretreatment of ammonia." VDOJ 25337-5337 (U.S. Ex. 64,738).

(iii) Manipulating Nicotine Content of Leaf Blend and Filler

2366. Nicotine delivery from cigarettes also has been controlled and manipulated by the Defendants through the use of selective leaf blending and otherwise adding or subtracting materials from tobacco filler. Defendants have been increasing the potency of nicotine in cigarettes through leaf blending and other filler manipulation at least since the advent of concern about health issues and the introduction of "low tar/low nicotine" cigarettes. 107472304-2464 (U.S. Ex. 20,254).

2367. Manufactured cigarettes contain a variety of materials. Some cigarettes contain pieces of stems. Some have actual tobacco leaf material. Most brands of manufactured cigarettes contain a substance known as reconstituted, or sheet, tobacco. There are different ways of making reconstituted tobacco. One way is to dissolve it in solvents, add various binding agents and other chemicals, and put it out on rollers in the form of brown paper. In this process, many water-soluble elements come out, including nicotine. The tobacco manufacturers then treat this material with nicotine and other substances so that it will form a paper that can be shredded,

will burn, and will deliver tar and nicotine according to the specifications for the particular cigarette brand. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; November 15, 2001).

2368. Philip Morris has been manipulating the leaf blending of tobacco to obtain desired levels of nicotine since at least 1954. In a document entitled "An Outline of Current and Proposed Quality Control, Development and Research for Benson and Hedges," circulated in 1954, Philip Morris explained that comparisons of "analytical data for the blend with estimates of nicotine, tar and pH of the smoke should enable us to set up certain limits or norms within which the chemical composition of the blend must be controlled in order to achieve desired smoking quality." The document recommended:

> enlarg[ing] the scope of our present analytical program to secure estimates of nicotine, nornicotine, total volatile bases, ether solubles and ash, not only for the blend but also for all the grades and types of tobaccos which go into the blend. There is no reason why such data cannot be used as a guide to purchasing. Once norms can be established for the composition of grades and types, samples falling outside the range of desirability can automatically be rejected by the buyers. In this way, the adverse effects of fluctuations in the blend originating in wide differences in leaf composition due to cultural and climatic conditions and crop year can be minimized.

1001761472-1484, 1474 (U.S. Ex. 35,556).

2369. In an outline of a presentation to the Philip Morris Products Committee, dated February 27, 1961, and entitled, "Research and Development Accomplishments for 1960 and Plans for 1961," Helmut Wakeham, Philip Morris's Vice President and Director of Research and Development, described, under the heading, "Data on Experimental Defensive Cigarettes," a "low nicotine" and a "high nicotine" cigarette, with the only difference between the two being the

blend of the cigarette. This difference in blends resulted in a .9 mg difference in the amount of nicotine per cigarette. 1000277448-7467 at 7458 (U.S. Ex. 85,479).

2370. By 1960, Philip Morris was studying the effects of adding nicotine maleate to blended leaf tobacco to determine if the nicotine content of cigarettes could be increased. 1001919941-9941 (U.S. Ex. 21,753).

2371. In a Research and Development Report Summary dated November 18, 1963 and presented to Hugh Cullman, Vice President and Assistant Chief of Operations for Philip Morris USA Inc., Robert Seligman, Manager of Philip Morris's Development Division, described Philip Morris's capabilities of switching from leaf-blended tobacco to all tobacco product (TFP) reconstituted tobacco for its cigarettes. Seligman pointed out to Cullman that "the greatest advantage of the proposed process is the diversity of products which can be produced on the same equipment." "[M]aterials can be added to or removed from the formulated product so that predetermined chemical specifications can be met . . . as dictated by the requirements of the marketplace." The research department recommended that Philip Morris "consider this TFP plant as a vital addition to our defensive and offensive armament in the tobacco and health situation which we believe will remain turbulent for many years." Seligman warned, "[o]ur chief competitors either already have the potential to make a tobacco formulated product by a similar process or are building it." 0000334739-4762 at 4751, 4755, 4759, 4761 (U.S. Ex. 85,480).

2372. A 1976 Philip Morris Special Report entitled, "Manipulating Smoke Impact in Very Low (Less than 8 mg Tar) Delivery Cigarettes," discussed the company's efforts to develop a new product with low tar and enough nicotine to equal Marlboro in consumers's preference for "strength" and "acceptability." The report detailed Philip Morris's study of relative influences of

blend, burley spray, and filter systems to produce "acceptable" impact, finding that the a "50% burley blend with a CA filter would be the model of choice." 1000360937-0955 at 0939, 0947 (U.S. Ex. 35,250).

2373. Altering the composition of the leaf blend was the subject of ongoing study at Philip Morris. In 1982, the Biochemical Research Division undertook studies of bright and burley cigarettes with "varying levels of added nicotine to determine the relationship, if any, between nicotine, nicotine pyrolysis products and *in vitro* biological activity." 1002978092-8098 at 8095 (U.S. Ex. 85,481).

2374. Former Philip Morris scientist Ian Uydess stated in a February 29, 1996 declaration that Philip Morris "routinely targeted and adjusted" nicotine levels in its cigarettes, through blend changes and blend design. Udyess stated that this was true of the overall nicotine found in the blends, as well as the "deliverable" nicotine found in the smoke. "Both of these sources . . . were[] considered by Philip Morris' development scientists when formulating a new or modified product." Udyess also explained that "Philip Morris routinely applied this knowledge of selective tobacco blending to achieve desired nicotine . . . levels in the products that it designed and marketed." 521102262-2286 at 2269, 2271 (U.S. Ex. 30,497).

2375. On April 14, 2002, William I. Campbell, Chief Executive Officer of Philip Morris, testified under oath before Congress regarding the tobacco blend used in the production of its Merit Ultima cigarette, which was the lowest tar cigarette in Philip Morris's Merit brand family. Campbell admitted that Philip Morris used a tobacco blend in the production of Ultima that had a higher concentration of nicotine than it used in producing Merit cigarettes. Campbell claimed that the use of a blend with a higher concentration of nicotine was "for taste and flavor"

and that its use was "irrelevant in terms of what the smoker gets." TLT0730001-0850 at 0766, 0767, 0768 (U.S. Ex. 77,011).

2376. American Tobacco Company actively studied blending as a method of increasing the nicotine yield in its low tar cigarettes. Company researchers investigated the effect of increasing the burley tobacco in its Lucky Strike tobacco blend in 1963 as part of their low tar cigarette studies. The objective of the research "was to determine the effect of increasing the Burley Tobacco in a blend on the yield of nicotine." MNAT00316738-6748 at 6738 (U.S. Ex. 21,226).

2377. In a document entitled, "The Effect of the Addition of 1% Nicotine on the Quality of RC Tobacco," dated October 8, 1963, American Tobacco Company revealed that it bought commercial nicotine from Conray Products Company, in the form of nicotine citrate, to increase the nicotine content of its RC tobacco. American ultimately held a panel survey of the experimental cigarette versus a regular Pall Mall cigarette. X003371-3376 (U.S. Ex. 85,482).

2378. In a May 2, 1968 report entitled, "Evaluation of Nicotine-Fortified RC-A Tobacco," American Tobacco Company discussed building a pilot plant to experiment with fortifying its reconstituted tobacco with nicotine in order to offset "nicotine reduction." American discussed increasing the nicotine content by adding nicotine maleate, which had a pH of 4.3. The report recommended that "in addition to increasing its nicotine content [reconstituted tobacco] should also include the other constituents present in natural leaf tobaccos, particularly those tobaccos of high nicotine content." 003366A-3370 (U.S. Ex. 34,346).

2379. American Tobacco Company experimented with adding commercial nicotine to its reconstituted tobacco in 1963. In 1967 and 1968, American investigated obtaining nicotine

from tobacco plants with almost double the concentration of nicotine. In 1969, American test-marketed Lucky Strike cigarettes in which nicotine maleate was added to increase nicotine levels. MNAT00881318-1323 (U.S. Ex. 21,221); MNAT00316688-6693 (U.S. Ex. 21,219); MNAT00316683-6684 (U.S. Ex. 21,670); MNAT00533224-3224 (U.S. Ex. 76,194) (U.S. Ex. 21,220); MNAT0533253-3253 (U.S. Ex. 21,673); MNAT00740105-0105 (U.S. Ex. 21,674); ATX140008085-8087 (U.S. Ex. 21,676).

2380. According to a June 21, 1963 memorandum entitled, "Tobacco Blends for Filter Cigarettes: Effect of Increasing the Concentration of Burley Tobacco in a Blend," company researchers increased the amount of Burley tobacco in a blend to determine the effect the addition of the Burley tobacco had on the "nicotine yield." One of the findings of the research was that the addition of Burley tobacco increased the volatile nicotine in the smoke of a cigarette. Later, in 1967, American Tobacco Company investigated the production of nicotine from tobacco plants (N rustica) with almost double the concentration of nicotine. MNAT00316688-6693 (U.S. Ex. 21,219); X003421-3431 at 3421, 3424 (U.S. Ex. 34,158); MNAT00881318-1323 (U.S. Ex. 21,221).

2381. In 1968, American Tobacco Company's researchers prepared four lots of Lucky Strike tobacco blend, and directed that twenty-five cartons of cigarettes be made from each lot. All four lots were "made up with a leaf blend to increase the nicotine level of this cigarette." The company increased the nicotine content of Lucky Strike Menthol Leaf Blend by .2% and tested the product with smoke panels. Also in 1968, American studied adding nicotine maleate in the finishing flavor of Pall Mall cigarettes and successfully increased nicotine by .5%. Another American research memorandum from 1968 reported on the effects of adding reconstituted

tobacco to leaf blends containing varying levels of nicotine. At all levels of reconstituted tobacco, a panel of 40 individuals preferred those cigarettes with the highest nicotine levels, around 2.5% nicotine. In early 1969, John T. Ashworth wrote to E.S. Harlow, informing him of anticipated costs of large scale orders to increase the nicotine content of reconstituted tobacco. Studies of Pall Mall cigarettes with increased nicotine in the reconstituted tobacco continued throughout 1969. MNAT00316699-6700 at 6699 (U.S. Ex. 21,616); X003388-3388 (U.S. Ex. 34,157); X003365-3366 (U.S. Ex. 34,155); X003363-X003364 (U.S. Ex. 34,154); MNAT00367431-7431 (U.S. Ex. 85,483); MNAT00367429-7430 (U.S. Ex. 85,484); MNAT00367420-7421 (U.S. Ex. 85,485); MNAT00367423-7424 (U.S. Ex. 85,486); MNAT00367422-7422 (U.S. Ex. 59,799); MNAT00367418-7418 (U.S. Ex. 85,487); MNAT00367417-7417 (U.S. Ex. 59,760); MNAT00367486-7486 (U.S. Ex. 85,489).

2382. In a June 4, 1968 American memorandum from O. N. Coty, Manager - Quality Control, Research and Development, to H.V.H. Stoever, Jr., Manager, Durham Branch, Coty explained that four experimental lots of Lucky Strike Menthol Blend tobacco ready for cigarette production were being sent to Stoever in order to be made into cigarettes and then returned to Coty. Coty identified the lots as "made with a leaf blend to increase the nicotine level of this cigarette." Coty instructed Stoever to "blend[] in with your regular production," any leftover tobacco. X003382-3383 (U.S. Ex. 34,156).

2383. In a May 7, 1969 American memorandum from Timothy Mann to Preston Leake, scientist and eventual Director of Research and Development, regarding the panel studies already completed on the reconstituted tobacco with higher amounts of nicotine, Mann stated, "[t]aking the proposition of higher nicotine cigarettes in general, I think that this is an area we are going to

be most interested in. Because of that, I would recommend to you that we consider testing additional ways of adding nicotine to cigarettes such as, as you suggested, in the form of a salt during the overshot process." MNAT00367425-7425 (U.S. Ex. 85,490).

2384. The studies of adding nicotine to cigarettes were of great interest to executives at American. Many top-level executives met with and requested information from the company's research and development department on this topic. In a memorandum dated April 25, 1972, John H. Hager wrote to R. Heimann, who would become American's President and Chief Executive Officer, stating:

> as discussed,
>
> higher nicotine at the same tar level is generally accomplished through the selection of tobaccos and Lorillard has bought some higher nicotine tobaccos recently. Other ways would include the addition of Compound W, a change in cigarette paper and the use of reconstituted instead of stems (stems have a very low nicotine content). The change in Newport is similar to our work on PM Menthol – increase in nicotine and menthol at the same tar. The oppositive situation is SANO – lower nicotine at a given tar level.

"Compound W" refers to nicotine. On May 14, 1969, John T. Ashworth distributed a memorandum to W.W. Sadler, J. G. Brooks, and R. D. Chumney that stated, "[i]n the future, our use of nicotine should be referred to as 'Compound W,' in our experimental work, reports, and memorandums, either for distribution within the Department of for outside distribution. In the event the nicotine is used in the form of a salt, such as nicotine dimalate, it should be referred to as 'Compound WM,' if used as citrate salt, refer to it as 'Compound WS,' etc." MNAT00117626-7627 (U.S. Ex. 59,786); MNAT00533224-3224 (U.S. Ex. 21,220) (U.S. Ex. 76,194).

2385. In 1974, American Executive Vice President J.B. McCarthy requested that the

research and development department outline the company's "current knowledge regarding increasing the nicotine content of reconstituted tobacco." In a four-page memorandum to McCarthy, dated June 5, 1974, researchers discussed: (1) adding nicotine to reconstituted tobacco; (2) replacing "the lower nicotine-containing leaf components such as Turkish . . . with high nicotine tobacco such as Malawi sun-cured scrap (5% nicotine)"; (3) keeping tobacco stem from being put into reconstituted tobacco "so that the reduction of the nicotine content of the ingoing components is decreased"; and (4) "increasing nicotine transfer to the smoke [by] dilution and/or additives to the filter." McCarthy responded the very next day, endorsing raising nicotine levels as "very beneficial," and directing the researchers to continue their studies, even though some of the studies would be "slow and costly." McCarthy stated that this was "an important project," and encouraged the scientists to call on him directly if need be. MNAT00316695-6698 at 6695, 6696, 6697 (U.S. Ex. 21,509); MNAT00367409-7410 (U.S. Ex. 85,491).

2386. The most senior levels of B&W's corporate executives also took a great interest in the company's nicotine manipulation research. This is demonstrated in documents such as a June 5, 1974 memorandum from R. M. Irby, Jr., Manager of New Products Division, Research and Development, to J. B. McCarthy, Executive Vice President, and copied to J. H. Hager, Executive Vice President. The memorandum, written at McCarthy's request, outlined B&W's research and knowledge on "increasing the nicotine content of reconstituted tobacco." The methods for accomplishing that included adding nicotine to reconstituted tobacco base sheets, replacing current leaf blends with higher nicotine tobacco, cast sheeting tobacco "dust" that is high in nicotine content, manipulating filters, and changing smoke content. Irby discussed studies done

to raise the nicotine delivery of Pall Mall and Lucky Strike cigarettes and to raise nicotine delivery in low tar cigarettes. MNAT00533225-3228 (U.S. Ex. 85,492).

2387. It was known within BATCo that blended cigarettes were less acidic and had a "greater proportion of free nicotine present in the smoke . . . which explains why these types of cigarettes tend to have higher impact than a flue-cured cigarette with the same nicotine delivery." 400132742-2776 at 2769 (U.S. Ex. 88,084).

2388. In 1976, BATCo developed a "Total Product Design" to allow its product designers to use a computer program to create trial product specifications to meet design criteria and minimize cost. The product designer was instructed to input into the program target values for tar and nicotine delivery, along with other specifications, and the program would "calculate the required blend nicotine." This information would then be calculated with further specifications to determine other materials required to produce a cigarette providing the desired nicotine delivery. 105425765-5818 (U.S. Ex. 85,493).

2389. A 1980 B&W document demonstrates the industry's general knowledge of nicotine levels in different types of tobacco after decades of studying and manipulating nicotine through leaf blending. A B&W scientist confirmed in a January 4, 1980 memorandum that the greater impact and smoker reaction occurring with cigarettes made of burley tobacco, versus tobacco made of flue-cured tobacco, was "as would be expected." 510000667-0670 at 0669 (U.S. Ex. 51,496).

2390. At the time that Tommy Sandefur was Chairman and CEO of B&W, in his testimony before the Waxman Subcommittee hearing, he admitted that, in 1984 or 1985, when he "became responsible for [B&W's] domestic business," he directed the Research and

Development Department to reverse engineer the Marlboro product. He said that "I wanted to find out how they were doing that because it was important if I was going to compete to improve the quality of my products." He stated that the B&W scientists reported to him that Philip Morris had used ammonia in the reconstituted sheet. Based upon this finding, Sandefur further admitted that B&W incorporated the same technology and applied the same technique of adding ammonia to the reconstituted tobacco in its commercial cigarettes at the time of the hearing. TLT0730851-1975 at 1620 (U.S. Ex. 77,012).

2391. At an experimental farm in North Carolina during the 1980s, BATCo and B&W developed a tobacco that the companies referred to as "Y-1." The tobacco was genetically engineered to have a nicotine content approximately twice the nicotine content of conventional tobacco. Seeds from the genetically-engineered strain were used to grow artificially high nicotine tobacco in Brazil. This nicotine-enhanced tobacco was blended with other tobaccos in order to alter tar to nicotine ratios in commercial cigarettes sold in the United States. 661071395A-1396 (U.S. Ex. 20,956); 510003880-3882 (U.S. Ex. 20,831).

2392. An undated B&W document explains that Y-1 achieves a "unique genetically engineered tobacco delivering more taste/satisfaction at a lower tar level versus competition." This would be achieved through "increased nicotine content versus traditional tobaccos" and "modification in tar/nicotine [sic] ratio." 661071395A-1396 at 1395A (U.S. Ex. 20,956).

2393. B&W oversaw the filing of two patents regarding the Y-1 tobacco, including U.S. patent application #761,312, filed on September 17, 1991, and Brazilian Patent P1 9203690A, filed on September 16, 1992. 2072566619-6619 (U.S. Ex. 88,087); 566633222–3222 (U.S. Ex. 88,088); 682515783-5803 (U.S. Ex. 88,089).

2394. B&W continued to use Y-1 tobacco products in various B&W cigarettes until as late as January 1994. 682637648-7650 (U.S. Ex. 21,027); 500004560-4580 (U.S. Ex. 20,607).

2395. Tommy Sandefur, Chairman and CEO of B&W, admitted before Congress on June 23, 1994, that B&W incorporated the Y-1 leaf into its Viceroy and Richland style cigarettes, using Y-1 "as a blending tool." Sandefur also admitted that the company attempted to use as much as 30% Y-1 in a blend, but that it ultimately reduced this percentage to 10% because consumers rejected that large amount of nicotine in the cigarettes. TLT0730851-1975 at 1619 (U.S. Ex. 77,012).

2396. R.J. Reynolds long has measured the amount of nicotine in a tobacco plant. Deposition of Charles Green, Arch v. The American Tobacco Co., September 29, 1997, 76:20-77:12.

2397. R.J. Reynolds experimented with adding nicotine to tobacco stem as early as 1956. 501052852-2856 (U.S. Ex. 20,671).

2398. R.J. Reynolds used leaf blending as a method for controlling the nicotine content of its cigarettes prior to the time that consumers began demanding cigarettes that allegedly delivered less tar. Like the other Cigarette Company Defendants, R.J. Reynolds was aware that cigarettes with high levels of nicotine were harsh and unpalatable, so it used leaf blending, among other means, to control the amount of nicotine in its products. A December 10, 1964 report to Murray Senkus authored by W.M. Bright stated: "Nicotine contents of burley and flue-cured crops of tobacco have increased considerably. In order to avoid significant increases in the nicotine content of tobacco and smoke of our cigarettes, it will be necessary to make blend changes, filter changes, paper changes, to denicotinize additional quantities of burley strips, or

use a combination of these factors." 502825193-5203 at 5201 (U.S. Ex. 86,977).

2399. In 1977, R.J. Reynolds embarked on a search for new means of "control[ling]" nicotine. R.J. Reynolds studied of the nicotine delivery of individual blend components and the transfer of nicotine from individual blend components. Deposition of Charles Green, Arch v. The American Tobacco Co., September 30, 1997, 277:6-278:2; 359:6-19; 502740087-0087 (U.S. Ex. 86,978).

2400. As part of its effort to learn how to control the nicotine content of tobacco independently of other components, R.J. Reynolds studied agricultural variables that might influence nicotine content in flue-cured and burley tobaccos. In an April 28, 1977 memorandum from William B. James to A. H. Laurene entitled "Improved Nicotine Satisfaction," James discussed (1) how variables such as climate, fertilizer, and the height of the tobacco plant affect the amount of nicotine in smoke, and (2) R.J. Reynolds's current research efforts directed at developing flue-cured and burley tobacco with higher nicotine content. 508799518-9519 (U.S. Ex. 85,494).

2401. An internal memorandum from Alan Rodgman, scientist, to Dr. Roy E. Morse dated September 8, 1980 reveals that R.J. Reynolds was using its knowledge gained from nicotine research in the development of commercial products. The memorandum briefly outlined the types of nicotine technology R.J. Reynolds had studied and also compared, over a decade, nicotine levels in R.J. Reynolds's Winston cigarettes and Philip Morris's Marlboro cigarettes. Rodgman's analysis of this comparison was that, as a result of R.J. Reynolds's research efforts "since mid-1977, we have 'caught up' to PM insofar as its current use in the Marlboro of nicotine technology is concerned; our approach has been primarily one of controlling the smoke

parameters noted above by blend formulation and denicotinization rather than by addition or transposition of nicotine." 501522719-2726 at 2720 (U.S. Ex. 48,913).

2402. R.J. Reynolds also tracked the year-to-year variations in the nicotine content of various flue-cured and burley tobacco crops in order to "provide background information for nicotine control and grade substitution projects." An October 19, 1982 memorandum authored by E.H. Villegas summarized and analyzed the nicotine content of various crops of tobacco from 1977 to 1981 and concluded: "These graphs and tables provide an easy guide to grade, crop and belt comparison and may provide a new perspective on grade substitution. . . . From a nicotine control point of view, substituting adjacent grades with a given crop year is more logical than substituting a different crop year of the same grade/belt." 510723285-3286 at 3286 (U.S. Ex. 88,090).

2403. In an August 18, 1983 memorandum from G.M. Stewart to J.D. Frederickson, Stewart reported the results of R.J. Reynolds's research concerning the modification of tobacco blends, stating: "[T]obaccos with varied levels of ammoniation products, nicotine and expansion can be produced in pilot plant quantities for evaluation as components of new and existing blends. **Such modified tobaccos may provide new ways to control nicotine delivery and modify smoking characteristics**." 504140118-0127 at 0118 (U.S. Ex. 85,495) (emphasis added).

2404. An October 9, 1985 internal memorandum from Melanie V. Murriell to L.J. Inman revealed R.J. Reynolds's research plans to develop "NOW-type cigarettes with increased nicotine." In the memorandum, Inman wrote "In response to your memorandum on the NOW-type product with increased nicotine, the proposal has been researched and considered." Inman

then outlined two approaches to the development of such cigarettes, including increasing the nicotine content of a low tar cigarette through blend modifications, i.e., the use of high nicotine tobaccos, and through addition of a "nicotine salt complex . . . to increase the nicotine delivery." 509108038-8040 at 8039, 8040 (U.S. Ex. 85,496).

2405. An October 17, 1985 internal invention disclosure prepared by Dwo Lynm and Carl Morrison and addressed to Grover Myers of R.J. Reynolds's Legal Department, described a new proposed method for developing a cigarette that "will meet most of the consumers' needs" by delivering a "high impact of nicotine with low tar delivery." Lynm and Morrison wrote that "the amount of nicotine required for smokers to get an appropriate 'kick' has been calculated to be 10 mg per cigarette in addition to the endogenous nicotine content." Lynm and Morrison proposed adding carbonized flue-cured [CFC] tobacco impregnated with 10 milligrams of nicotine to "the end or in the middle of the hollow tobacco rod in order to deliver more nicotine . . . **This additional nicotine would lower the T/N ratio drastically**." 505624894-4898 at 4894, 4895 (U.S. Ex. 85,497) (emphasis added).

2406. A July 22, 1976 memorandum from J.P. Morgan to H.J. Minnemeyer demonstrates that Lorillard added nicotine to several samples of the blend it used to produce Kent Gold Light cigarettes and periodically monitored the nicotine content of the blend in order to determine the "shelf life of added nicotine on the Kent Gold Light blend." The memorandum also indicates that Lorillard periodically measured the pH of the samples with added nicotine. 83250849-0851 at 0850 (U.S. Ex. 55,671).

2407. A November 22, 1976 memorandum from M.S. Ireland to H.J. Minnemeyer reported that: "Since the initiation of the nicotine addition project was begun a number of

samples have been made which have added impact but with reduced tar levels. . . . Experiments have indicated that free nicotine can be added at almost any place in the manufacturing process, or in the RL [reconstituted leaf] with no appreciable loss and that said nicotine will be delivered into the smoke in the same manner as naturally occurring nicotine. The addition of free nicotine has a direct effect on the pH of the leaf and the smoke." 94937063-7065 at 7063 (U.S. Ex. 56,780).

2408. Minnemeyer reported to Alexander Spears in an April 13, 1977 Lorillard memorandum entitled "Present Status of the Nicotine Enrichment Project" on several approaches to the development of "low tar, enriched nicotine products" and concluded, among other things, that "nicotine can be added to the RL [reconstituted leaf] slurry to give predictable levels of nicotine in the final product. . . . The addition of nicotine to the RL slurry appears to overcome many of the problems associated with earlier work involving the spray application of nicotine solutions." 00044787-4799 at 4787, 4789 (U.S. Ex. 34,196); see also 00305013-5016 (U.S. Ex. 34,284).

2409. In 1977, Lorillard researchers submitted a report of an investigation on "Enrichment of Reconstituted Leaf Nicotine by Direct Addition of Nicotine Alkaloid to the RL Slurry." In the report, dated April 12, 1977 and authored by J.P. Morgan and T.M. Larson, the researchers concluded the "[n]icotine content of the final product can easily be controlled by the addition of predetermined amounts of nicotine alkaloid." This was one of various methods studied by Lorillard in the 1970's to directly add nicotine to tobacco. 00398474-8484 at 8474 (U.S. Ex. 46,443); 83251091-1096 at 1092 (U.S. Ex. 55,701); 00778322-8334 (U.S. Ex. 34,297) (U.S. Ex. 54,371); see also 83250965-0969 (U.S. Ex. 55,679); 83251170-1192 (U.S. Ex.

55,726).

2410. On June 30, 1977, R.S. Marmor reported on Lorillard's "Danville Flavor Enriched RL Experiment of May 17, 1977 and Subsequent Research." In this project, Lorillard studied the potential for using waste from tobacco processing that was high in nicotine, referred to as "black water," as an additive to reconstituted tobacco to increase nicotine delivery. 00118797-8807 (U.S. Ex. 34,268) (U.S. Ex. 34,415).

2411. On April 14, 1994, Alexander Spears, then Vice Chairman and Chief Operating Officer of Lorillard, testified before Congress, under oath, that cigarette makers could adjust the level of nicotine in their products by blending different types of tobacco to create a blend with a higher nicotine concentration. TLT0730001-0850 at 0722 (U.S. Ex. 77,011).

2412. Liggett's manipulation of nicotine through leaf blending and other manipulations of tobacco filler continues today.

VDOJ25348-5248 (U.S. Ex.

64,735) (Category I).

2413. With regard to Liggett's Quest product, developed in 2001-2002, Vector blended genetically modified reduced nicotine tobacco with conventional tobacco "to achieve specific nicotine levels." Deposition of Timothy Jackson, United States v. Philip Morris, et al., March 21, 2003, 54:9-54:13, 57:11-57:15.

2414. Jackson testified that he was aware of cigarette design methods that would allow the same blend of cigarettes to be altered to deliver varying amounts of tar and nicotine under the FTC test. Deposition of Timothy Jackson, United States v. Philip Morris, et al., March 21, 2003 at 95:3-98:3, 100:16-100:21.

2415. The tobacco companies also spent substantial resources researching the nicotine manipulation strategies of their competitors and comparing them to their own methodologies. For example, in a January 22, 1974 report entitled, "A Chemical Examination of B & W and Competitive Reconstituted Tobacco," R. R. Johnson of B&W's Louisville, Kentucky Research and Development Department found that reconstituted tobaccos were in use by B & W, Philip Morris, R. J. Reynolds, American, Lorillard, and Liggett. The report acknowledged, "[m]ost reconstituted tobaccos gain significantly in nicotine content during cigarette manufacture," and pointed out that the nicotine transfer for Philip Morris cigarette products was "massive." 650106026-6042 at 6028 (U.S. Ex. 86,979).

(iv) Other Product Design Techniques and Additives Affecting Nicotine Delivery

a. Filter Design

2416. The Cigarette Company Defendants researched and designed filters that affect nicotine delivery. As industry researchers explored potentially effective filters for tars, they well understood that if nicotine delivery was affected it could reduce the addictive properties of their product.

2417. Cigarette filters as designed and manufactured do not eliminate nicotine transfer into the body. To the contrary, Defendants have engineered cigarette filters to enhance the

addictive effects of nicotine by assisting in quick delivery a sufficient does of nicotine to the lungs. The effectiveness of a filter with respect to any particular substance depends on what the filter is designed to screen, the design of the filter, and the size of the particles that attempt to pass through it. Cigarette filters as designed and manufactured by Defendants assure quick delivery of an amount of nicotine sufficient to create and sustain addiction. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; November 15, 2001) at 12-13.

2418. Defendants have engineered cigarette filters to enhance the addictive effects of nicotine by assisting in quick delivery a sufficient does of nicotine to the lungs. Cigarette filters as designed and manufactured do not eliminate nicotine transfer into the body. To the contrary, the tobacco manufacturers have engineered filters to increase the amount of nicotine delivered from the cigarette to the lungs. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; November 15, 2001) at 12-13.

2419. In the 1950s, when filters were put on more cigarettes, many in the health community believed that filters trapped some of the suspected toxins previously ingested by smokers. However, modern filter technologies utilized by tobacco companies, by varying the type and density of the filter materials, can selectively trap certain substances but not others, including tar and nicotine. Tobacco manufacturers also use filters to control the particle size entering the body. If the particles are too big or too small, they cannot efficiently get into smokers' lungs. Physiologically, such particles cannot efficiently get into the deep alveoli of the lung regardless of how hard the smoker sucks or smokes a cigarette. The importance of particles getting deep into the lungs is that, as with most addictive drugs in general, the faster the particles

are delivered, the stronger their effect. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; November 15, 2001) at 14.

2420. The fastest way to get the drug to the brain is through the lung. The tobacco industry recognized as early as the 1950s that, (a) if the tobacco manufacturers wanted their cigarettes to have a quick effect, they needed to find a way to get the drug deep into the airways where it can be almost instantly absorbed like oxygen, and (b) since particles that were too big or too small were not readily deposited in the lung, controlling particle size would be one method to reduce cigarette toxicity, i.e., to engineer the particles so they do not stick in the lung. To this end, industry scientists devised ways to deliver absorbable particles of nicotine. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; November 15, 2001) at 14.

2421. A March 24, 1969 memorandum from Philip Morris scientist Warren Claflin to R. M. Ikeda, entitled "Factors Affecting Nicotine Concentration in FTC Tar," demonstrates that Philip Morris had considered several different filters, air dilution, and improved internal filtration, and had determined the effects that these methods would have on the tar and nicotine levels read using the FTC method. 1001883866-3870 at 3867 (U.S. Ex. 35,572).

2422. As early as 1954, Philip Morris was already testing other companies' cigarettes to "ensure fuller evaluation of relative filter efficiency and of the composition of the smoke and the tobacco blends." 1001761472-1484 at 1476 (U.S. Ex. 35,556).

2423. It is undisputed that, by the late 1950s Philip Morris was studying the impact of particle size on nicotine and tar delivery. P.E. Resnick, Supervisor of the Physical Section of the Research and Development Department, exchanged correspondence with General Electric in early 1959 regarding a small particle detector. On a Philip Morris Library routing slip dated

December 17, 1959 to several top level scientists, including Seligman, forwarding an article entitled, "Drug Administration by Means of Cigarettes," a handwritten note states: "I note that data in Table V [of the article] are very much in line with our smoke retention (nicotine and tar data)." PM3000136167-6173A (U.S. Ex. 61,553); PM3000136166-6166 (U.S. Ex. 61,554); PM3000136018-6018 (U.S. Ex. 61,566).

2424. The ability to manipulate nicotine both in the tobacco filler of the cigarette as well as through the filter has been known for decades. For instance, in a document entitled, "Project 0706: Flavor and Aroma of Tobacco and its By-products," the Philip Morris Research and Development Department wrote that one of the accomplishments of this project in 1964 was to find that "[a]dded nicotine seems beneficial to the smoke flavor enhancement of hi-fi cigarettes. . . . Better efficiency in nicotine delivery results from filler than filter additives." Philip Morris filed patents regarding filter modification and possible effects on nicotine delivery during that time period. 1000849809-9811 at 9810 (U.S. Ex. 35,476); MNAT00367426-7426 (U.S. Ex. 59,800).

2425. In a February 18, 1964 memorandum, Helmut Wakeham, Philip Morris's chief scientist, advocated Philip Morris gaining a competitive advantage by increasing in-house research on smoking and health issues and developing a "superior filter cigarette with acceptable taste having high gas-phase absorption and very low TPM" that would be "biologically approved on all major health questions." Wakeham referred to research on carbon filters that had been conducted by Philip Morris in the 1950s. 1000335612-5625 at 5615, 5616, 5617, 5618 and 5623 (U.S. Ex. 22,986) (U.S. Ex. 63,579).

2426. As early as 1962, according to an August 8, 1963 memorandum from the

Analytical Chemistry Section to E.S. Harlow, American Tobacco Company was experimenting with filter design to increase the nicotine content of smoke solids. "Preliminary experimental work has been carried out to determine if the use of carbon tips impregnated with nicotine or nicotine salts may be feasible as an efficient means of increasing the nicotine content of smoke solids. . . . Transfer to the smoke of about 22% of the nicotine absorbed on the carbon have been achieved." X003579-3579 (U.S. Ex. 34,160) (emphasis in original).

2427. In late 1967 and early 1968, American Tobacco Company conducted a series of tests to determine nicotine content in puffs of cigarette smoke achieved through the addition and manipulation of a carbon filter to its Tareyton cigarettes. The results of the studies clearly reveal that American Tobacco Company was aware that nicotine and tar levels could be manipulated individually. At the same time, BATCo was conducting similar tests on carbon filters, examining how they affected nicotine and smoke pH. X003580-3586 (U.S. Ex. 34,161); 682638573-8629 (U.S. Ex. 25,453).

2428. In a March 17, 1967 study by BATCo, entitled "Relation between 'Extractable Nicotine' Content of Smoke and Panel Response," and distributed to Sir Charles Ellis, S.J. Green, R.B. Griffith, and others, author P.J. Wood described the study in which the "delivery of 'extractable nicotine' was manipulated, to cover a convenient range, by suitable additions of PEI (polyethleneimine) to the filters." 750039365-9385 at 9367 (U.S. Ex. 88,091).

2429. At a 1984 Smoking Behavior-Marketing Conference, T.F. Riehl, B&W's Vice President for Research and Development, gave a presentation on Project Aries, a new filter design intended to lower FTC tar counts. After comparing puff counts for individuals smoking Aries cigarettes and commercial cigarettes, Riehl pointed out that the "smoke chemistry" of the

Aries cigarette provided "nicotine enrichment in latter puffs." A summary of the project noted that some of the findings of the study had "been incorporated in the design of next generation unique filters." 536000308-0507 at 0334 (U.S. Ex. 85,298); 682637850-7928 (U.S. Ex. 88,063); 00040880-0880 (U.S. Ex. 88,064).

2430. In 1986-1987, BATCo undertook studies that revealed that nicotine delivery could be increased through filter modifications, with one study finding up to a 30% increase in nicotine per puff and a 19% increase in the tar to nicotine ratio. 400260652-0674 (U.S. Ex. 76,183).

2431. Lorillard extensively studied the effect of the treating filters with various chemical additives on the nicotine to tar ratios in mainstream smoke. For example, in an April 8, 1982 memorandum from M. A. Sudholt to M.S. Ireland, Sudholt described the "Results of Preliminary Experiments to Increase Nicotine to Tar Ratios in Mainstream Smoke by Augmenting Nicotine Elution from the Filter." Sudholt concluded that increasing the amount of nicotine in a filter, modification of particle size in the smoke aerosol, and modification of the polarity of a filter were all possible mechanisms by which more nicotine could be "eluted" from a filter and thus by which the nicotine to tar ratio could be increased. 00054361-4368 at 4361, 4367 (U.S. Ex. 34,220).

2432. A July 25, 1984 memorandum from J.M. Johnson to M.S. Ireland reported on Lorillard's "Evaluation of Potassium Acetate as a Cellulose Filter Additive." The report concluded: "Addition of potassium acetate cause significant increases in nicotine delivery (28%, 45%) and nicotine/CPM [corrected particulate matter] levels (19%, 36%) relative to the control." 83897124-7127 at 7125 (U.S. Ex. 55,935).

2433. A February 6, 1985 memorandum from Sudholt to Ireland described the "ultimate

goal" of Lorillard's ongoing study of filter design as "increas[ing] the amount of nicotine which 'migrates' to the filter from the tobacco while cigarettes are stored, prior to consumption. It is hoped that shifting more nicotine to the filter than is currently shifted with cellulose acetate filters will increase the smoke impact." Sudholt also admitted that the "major objective" of Lorillard's study of nicotine was "to increase the physiological impact and/or nicotine to tar ratio in ultra low tar cigarettes." 80551040-1042 at 1040 (U.S. Ex. 55,381).

2434. In a January 25, 1985 memorandum entitled "Addition of Inorganic Acetates to Cellulose Filters Increases Nicotine/Tar Levels," J.M. Johnson reported to M.S. Ireland the results of Lorillard's study of the addition of magnesium and sodium acetate to cigarette filters. Johnson concluded that the addition of "inorganic acetates caused significant increases in nicotine delivery (21% to 44%) and nicotine/CPM levels (18% to 41%) relative to the control. . . . For each compound, the more inorganic acetate on the filter, the higher the nicotine and nicotine/CPM levels." 88169525-9528 (U.S. Ex. 56,437); see also 80642659-2661 (U.S. Ex. 21,996); 526321761-1763 at 1761 (U.S. Ex. 79,655) (Confidential).

2435. An internal R.J. Reynolds memorandum dated February 18, 1984 from Charles Green, Prinicipal Scientist, Mary Stowe on the subject of "Status Report of TGA [thermal gravimetric analysis] Studies As Of February 15, 1985." The memorandum discloses that R.J. Reynolds continued to research means of "optimizing" nicotine delivery through modification of cigarette filters. The memorandum stated that the purpose of one experiment was to manipulate particular variables of filter design, including length and chemical composition, in order "to find maximum nicotine delivery." The memorandum indicated that the results of the experiment "show that nicotine and glycerine deliveries can be greatly altered by the manipulation of

variable[s]" in filter design, and that R.J. Reynolds was in the process of designing additional experiments to "optimize" nicotine delivery. 505006266-6276 at 6274, 6275, 6276 (U.S. Ex. 85,499); see also 506339873-9880 (U.S. Ex. 85,500).

2436. Defendants admit that the filter ventilation techniques used in their commercial products are less efficient at filtering nicotine than filtering tar and other components of cigarette smoke, i.e., the filters do not reduce the amount of nicotine in proportion to their reduction of other smoke components. An American Tobacco Company has stated:

> The American Tobacco Company pioneered the commercialization of filter ventilation to afford the smoking public alternatives for lower 'tar' and nicotine delivery cigarettes. . . . Although filter ventilation reduces the delivery of all mainstream smoke components, all components are not reduced in the same proportion. An inherent consequence with filter air dilution is removal efficiency that is slightly greater for 'tar' than nicotine. Increasing the degree of filter air dilution increases the magnitude of this relationship.

Thus, the use such filter ventilation techniques results in an increase in the nicotine-to-tar ratio of mainstream cigarette smoke inhaled by a smoker. **946182186-2221 at 2199 (U.S. Ex. 88,092).**

b. Paper Selection, Perforation, and Ventilation Holes

2437. The Cigarette Company Defendants also have used paper selection, perforation, and placement of ventilation holes to increase delivery of nicotine to smokers.

2438. The paper used for cigars and hand-rolled cigarettes does not burn well and evenly, and it often self-extinguishes. Cigarette paper used on manufactured cigarettes is different. It is treated with both chemicals that can affect nicotine delivery and burn accelerant chemicals that make the cigarettes burn hotter and faster so as to deliver less tar and nicotine to FTC smoking machines – which puff much less frequently than most people – than they do to

people.

2439. Cigarette paper is of controlled porosity. Controlling porosity is another means of controlling the composition and amount of smoke by altering the mix of gases, temperature of the burning tobacco, and the speed at which the cigarette is burned. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001) at 15.

2440. Researchers employed by the tobacco companies, such as B&W's scientists Tilford Riehl, D.V. Cantrell, and C.M. DiPietro, studied the effect of paper on nicotine delivery and found evidence that some papers enhanced nicotine delivery to smokers of low tar cigarettes. 510000661-0662 (U.S. Ex. 85,501); see also 400132742-2776 (U.S. Ex. 88,084).

2441. BATCo's focus on enhancing the transfer of nicotine to the consumer was reiterated in a January 1985 internal document titled "Tobacco Research in BAT Industries." That memorandum indicated that "[m]ore resources will be provided for research into means of enhancing nicotine transfer to smoke and experimental combustion research, including cigarette paper effects." 109070972-0979 at 0976 (U.S. Ex. 34,858).

2442. BATCo has been aware of the importance of ventilation holes since the 1960's. 110083832-3838 at 3833 (U.S. Ex. 34,964); see also 400132742-2776 (U.S. Ex. 88,084).

2443. Ventilation holes are small perforations in cigarette filters. These holes dilute smoke with air during FTC testing. Because ventilation holes generally are not easily visible, however, smokers generally do not know they exist or, if they see them, are given no information on the package to explain their function. Nevertheless, the industry blames the actual increase in nicotine delivery that the industry wants, but seeks to conceal in FTC testing, on smokers for compensating and for covering the ventilation holes. Expert Report of Jack E. Henningfield,

United States v. Philip Morris, et al. (R. 681; November 15, 2001) at 15.

2444. There are several ways cigarette manufacturers could have designed their products to avoid ventilation problems, thereby preventing excess particles from getting to the smokers' lungs. Such options range from very simple to very sophisticated. For example, one of the simplest ways would be for tobacco manufacturers to place the ventilation holes where the lips and hands are less likely to cover them accidentally. If smokers are not able to block the holes, they will inhale less tar and nicotine into their lungs. But the cigarette manufacturers have not done this. Monograph No. 13 at 17 (U.S. Ex. 20,921); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; November 15, 2001) at 15-16.

c. Other Additives

2445. Cigarette smoke contains chemicals that can act synergistically to produce effects that might be even more reinforcing to addiction than those of nicotine alone. For example, levels of acetaldehyde (a chemical involved in alcohol dependence) in smoke can be manipulated through additives so as to produce a mixture of acetaldehyde and nicotine that studies by the Defendants have indicated would be more addictive than either drug alone. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; November 15, 2001).

2446. A Philip Morris Special Report entitled the "Manipulation of Nicotine Delivery by Addition of Acids to Filler," prepared by Joseph J. Cipriano and distributed widely through the Research Center, discussed manipulation of nicotine in the smoke through the use of acid. This method was not recommended because, even though some results found increased levels of nicotine in smoke, levels of free nicotine had been reduced, thus equalizing any potential effect. 1000051228-1240 (U.S. Ex. 35,109).

2447. Philip Morris studied the compound acetaldehyde during the 1980s, beginning as early as 1980, because it had been shown to have positive reinforcing effects, i.e., that it enhanced a smoker's desire to continue to ingest nicotine. In 1982, a Philip Morris scientist wrote that acetaldehyde readily penetrates the blood-brain barrier. In a 1982 memorandum, Bruce Davis wrote to Cathy Ellis, Associate Senior Scientist, of research that had been performed by Victor DeNoble, Associate Senior Scientist, in which DeNoble "detected a synergistic or 'additive' effect with acetaldehyde-nicotine combinations." In 1983, Philip Morris determined that acetaldehyde could enhance the positive reinforcing effect of nicotine, and the company set as a goal finding the ratio of acetaldehyde to nicotine that would have "optimal reinforcing effects." Philip Morris scientists even charted the effect of the presence of acetaldehyde in cigarettes upon sales. 1000390648-8764 (U.S. Ex. 35,259); 1000400923-0925 (U.S. Ex. 35,267); 1002973586-3615 at 3598 (U.S. Ex. 35,633) ; 1003198459-8461 (U.S. Ex. 20,156); 2048376436-6437 (U.S. Ex. 85,503); 1003060364-0441 (U.S. Ex. 35,642); 1000413881-3964 (U.S. Ex. 20,100); 2022261214-1225 (U.S. Ex. 20,364).

2448. On January 30, 1981, Thomas Osdene, then Director of Research and later Vice President of Science and Technology of Philip Morris, received a letter from Philip Morris consultant L.G. Abood, informing Osdene of research showing that acetaldehyde was self-administered by rats and that it could reinforce smoking behavior. Abood postulated that acetaldehyde may "enhance" the behavioral effects of nicotine and suggested that further studies be done to see how acetaldehyde interacts with nicotine. 2058212035-2036 (U.S. Ex. 64,776).

2449. Victor DeNoble testified to Congress on April 28, 1994, that research he produced for Philip Morris "confirmed that . . . the reinforcing properties of acetaldehyde and nicotine

combinations would interact producing additive effects" in rats and that "[t]hese results formed the basis for the hypothesis that . . . the[] interaction [of nicotine and acetaldehyde would result in an enhanced reinforcing effect in humans." DeNoble also testified that it was senior research management and senior executives of Philip Morris who reviewed the scientists' research and were the decisionmakers regarding whether or not research would be conducted throughout the time of his employment. TLT0730851-1975 at 0863-0864, 0865 (U.S. Ex. 77,012).

2450. Former Philip Morris scientist Paul Mele, who worked with DeNoble, has testified that Jim Charles directed Mele and DeNoble to conduct self-administration tests with rats in order to discover the optimal nicotine-acetaldehyde ratio. Deposition of Paul Mele, Engle v. R.J. Reynolds, December 10, 1998, 46:19-47:10; see also Deposition of Paul Mele, Engle v. R.J. Reynolds, December 15, 1998, 17787:22-17788:23.

2451. Former B&W Director of Research Jeffrey S. Wigand testified that acetaldehyde is an impact booster that B&W knowingly used to augment the effect and transport of nicotine. Deposition of Jeffrey S. Wigand, Butler v. Philip Morris, November 29, 1995 at 122:2-124:7.

2452. BATCo researchers were aware as early as 1968 of the importance of nicotine and of the potential value of a product that combined nicotine with some other chemical to increase the pharmacological effects of nicotine. Minutes, written by S.J. Green, from a BATCo conference held in Hilton Head, South Carolina, on September 24-30, 1968, included the following conclusion:

> In view of its pre-eminent importance, the pharmacology of nicotine should continue to be kept under review and attention paid to the possible discovery of other substances possessing the desired features of brain stimulation and stress-relief without direct effects on the circulatory system. **The possibility that nicotine and**

> **other substances together may exert effects larger than either separately (synergism) should be studied** and if necessary the attention of Marketing Departments should be drawn to these possibilities.

700673-0679 at 0675 (emphasis added).

2453. In 1969, American test-marketed Lucky Strike cigarettes to which it had added nicotine malate to increase the nicotine levels of the cigarettes. Staff Report prepared by the Majority Staff Subcommittee on Health and the Environment of the Committee on Energy and Commerce House of Representatives titled "Evidence of Nicotine Manipulation by the American Tobacco Company" (December 20, 1994) at 2 (U.S. Ex. 76,044).

2454. By 1978, Lorillard was studying means by which nicotine migration – the redistribution of nicotine within a cigarette from the tobacco to the outer periphery for the purpose of increasing the amount of nicotine in mainstream smoke – could be maximized. In a February 23, 1978 memorandum to Harry Minnemeyer, M. S. Ireland set forth the "steps which are planned in the nicotine migration project," including maximizing migration through the addition of acids or other compounds and determining the maximum amount of nicotine that can be migrated. A 1980 report entitled "A Progress Report on Acid-Induced Nicotine Migration," authored by R.W. Hurst and R.W. Slaven, reported that "It has been demonstrated that the impregnation of cigarette paper with acid can cause migration of nicotine to the periphery. This in turn elevates delivery of nicotine in mainstream smoke." 00041868-1869 at 1868 (U.S. Ex. 34,190); 00114987-4998 at 4987 (U.S. Ex. 34,264); 82514726-4735 at 4726 (U.S. Ex. 55,527).

2455. By 1980, Lorillard was aware that "nicotine could be manipulated within a cigarette to a specific area. The objective of such a redistribution within the cigarette would be

to increase the delivery of nicotine to the mainstream smoke." Thus, in a February 6, 1980 memorandum to Minnemeyer, Ireland proposed to study possible cigarette additives that would facilitate the migration of nicotine from other parts of the cigarette to the cigarette paper, recognizing that "the major portion of the mainstream smoke is generated from the outer periphery of the cigarette." Lorillard in fact conducted such studies, and concluded in a July 31, 1980 research report by Roger Hurst, research chemist, and R.W. Slaven that: "It has been demonstrated that the impregnation of cigarette paper with acid can cause migration of nicotine to the periphery. This in turn may elevate delivery of nicotine in mainstream smoke." 00115043-5045 at 5043 (U.S. Ex. 34,267); 83896877-6879 at 6878 (U.S. Ex. 55,922); 00114962-4975 at 4962 (U.S. Ex. 34,263); see also 00041734-1735 (U.S. Ex. 34,189); 000115023-5025 (U.S. Ex. 34,265); 83896952-6954 (U.S. Ex. 55,925).

2456. In a February 25, 1982 paper entitled "A Progress Report on Nicotine Migration and Manipulation", Slaven concluded that "[a]ddition of bases to tobacco was found to substantially enhance migration of nicotine to acid impregnated media." On March 2, 1982, Slaven again reported on the results of internal Lorillard research in a report titled "Nicotine Migration, Manipulation and Mechanisms (B-412); 1982 Report," summarizing the work as follows: "A variety of cigarette constructions were tested with the aim of increasing the nicotine/CPM ratio. New filter additives, cigarette papers and means of migrating nicotine to cigarette paper were evaluated." 00053989-4018 at 3989 (U.S. Ex. 34,217) (U.S. Ex. 47,723); 00041682-1696 at 1682 (U.S. Ex. 34,188); see also 00041734-1735 (U.S. Ex. 34,189); 01305503-7553 (U.S. Ex. 34,524); 00397548-7553 (U.S. Ex. 34,289).

2457. A December 6, 1983 memorandum from J. M. Johnson to M. S. Ireland described

the purpose of another study of filter additives as "to increase smoke pH and therefore increase free nicotine in smoke by adding an aryl alkyl amine to the filter." The results of the study revealed "increased smoke pH and a six-fold increase in free nicotine." 87632595-2598 at 2595 (U.S. Ex. 56,265)

2458. Even to this day, the cigarette industry is unwilling to fully disclose information regarding tobacco additives on a brand-specific basis. Some companies recently have begun to provide limited information on their website, but those websites contain various disclaimers and means of preventing regulatory agencies and public health scientists from knowing the full array of ingredients that are used to control tar and nicotine levels in particular brands. These ingredients include what are sometimes referred to as "processing aids" and "flavorings," components that typically are not included in the publicly available "ingredient disclosures," and the decision as to how such categorizations and exclusions are made is by the manufacturer and not by a disinterested regulatory agency. Furthermore, ingredients and design features in the paper and filter also help meter dosing, but also are not fully disclosed. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; November 15, 2001); 321205145-5146 (U.S. Ex. 86,980); 321205312-5312 (U.S. Ex. 86,981).

2459. By providing incomplete ingredient disclosures on a brand-by-brand basis and a long list of approximately 600 potential ingredients, the cigarette companies assure that their disclosures have only a very limited usefulness to research scientists outside the industry who study nicotine pharmacology. Even based on these limited disclosures, however, it is clear the Cigarette Company Defendants use other chemical additives to facilitate the delivery of nicotine. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; November

15, 2001) at 19.

2460. For instance, the disclosures make it clear that alternate ammonia sources have been explored and that several other compounds that can become ammonia during combustion are used in cigarettes. As Lorillard's Alexander Spears conceded, urea and glycine, both of which are ingredients in cigarettes, produce ammonia during combustion and pyrolysis. Indeed, urea produces more ammonia than ammonia phosphates on a weight basis, so that a cigarette with a high urea weight would has ammonia than one with a similar weight of ammonia phosphates; and yet, virtually no extractable ammonia would be found from the urea. Expert Report of William A. Farone, United States v. Philip Morris, et al. (R. 663; filed November 15, 2001).

2461. Internal documents show that B&W sought to find ways to modify current ingredients to produce ammonia. An undated B&W presentation reported that the company was assessing emerging technology, including using "natural methods to generate ammonia (e.g., fermentation)." 661071395A-1396 (U.S. Ex. 20,956).

2462. An April 30, 1984 draft "TGA [thermal gravimetric analysis] Monthly Report" from Calvin L. Neumann to M.D. Shannon reports on the progress of R.J. Reynolds's "Nicotine Delivery Experiments." The draft report demonstrates that R.J. Reynolds continued extensively to study cigarette design mechanisms that would result in efficient and effective delivery of nicotine to the smoker. For instance, the report presents the following conclusions, inter alia, from R.J. Reynolds's nicotine delivery experiments:

> -Nicotine transfer is a function of nicotine level and form. Nicotine transfers most efficiently as the free base, and least efficiently as the salt with added acid present.

> -When nicotine is present as a free base, transfer begins at about the same puff as aerosol generation begins (puff #2) and lasts for only 4-6 puffs. When nicotine is present as a citrate salt with excess acid, nicotine delivery is delayed for 1-2 puffs, but lasts until ca [approximately] puff 11. Without excess acid nicotine delivery from the citrate salt is intermediate between these cases.

505008446-8460 at 8447 (U.S. Ex. 85,504); see also 506517246-7300 (U.S. Ex. 85,505).

2463. On February 19,1988, R.J. Reynolds employee Ken Shu sent an inter-office memo to Brian Lawrence regarding using levulinic acid derivatives and nicotine levulinate salts to reduce "throat harshness" in high nicotine tobacco products. Shu recommended use of high nicotine tobacco extracts to make nicotine levulinate salt "so it may be legally considered a natural process." 506448793-8794 at 8793 (U.S. Ex. 20,758); see also 514894567-4676 at 4579 (U.S. Ex. 20,862) (U.S. Ex. 76,199).

2464. In an April 22, 1988 internal invention disclosure prepared by Barry Fagg and addressed to August J. Borschke of R.J. Reynolds's Legal Department, Fagg described a method for incorporating levulinic acid into tobacco materials, noting that the "addition of levulinic acid to tobacco materials has proven in the past to effect desirable smoking characteristics to a tobacco product incorporating the material; i.e. reduced harshness, **modified nicotine delivery**, etc." 508675959-5961 at 5960 (U.S. Ex. 85,506) (emphasis added).

2465. R.J. Reynolds's study of the use of levulinic acid as an additive indicates that R.J. Reynolds believed that levulinic acid or other organic acids could be used to remove and/or mask the harshness associated with tobacco or cigarette smoke with a high concentration of nicotine. An undated R.J. Reynolds document described an invention whose purpose was: "Cigarettes having high nicotine content tobacco cut filler are rendered smooth smoking and palatable by

incorporating an organic acid additive therein. For example, a cigarette having a cut filler with a blend nicotine content of greater than 2 percent has at least one organic acid additive incorporated into the cigarette in an amount of greater than 1 percent. . . . Alternatively, cigarettes having a salt such as nicotine levulinate incorporated therein can exhibit low FTC 'tar' to nicotine ratios while providing a smooth, palatable and flavorful taste." The document described the incorporation of "one or more salts provided from nicotine and an organic acid" into a cigarette: "The use of such salts can provide for a cigarette having a relatively high nicotine content as well as provide the organic acid additive." The affect of adding an organic acid salt to a high nicotine concentration tobacco was also described: "Typically, the FTC 'tar' to FTC nicotine ratios of a cigarette having a nicotine/organic acid salt incorporated therein can be lowered by up to about 80 percent of that ratio of a similar cigarette not having the salt additive incorporated therein." Thus, using a salt additive was modified the tar to nicotine ratio by altering what would otherwise be a proportional drop in nicotine when tar was reduced. 507873543-3593 at 3543,3558, 3565 (U.S. Ex. 86,982); see also 522531991-1993 at 1991 (U.S. Ex. 88,076).

2466. In handwritten notes dated December 1, 1988 from an internal meeting on the topic of levulinic acid, the positive attributes of adding levulinic acid to cigarettes were described as "permitts [sic] increased product nicotine levels without increasing smoke harshness" and "permitts [sic] reduction of 'tar' to nicotine ratio." 507862863-2870 at 2867 (U.S. Ex. 85,507).

2467. Liggett's research confirmed the research conducted by BATCo and R.J. Reynolds. BATCo found that treatment of tobacco with potassium carbonate reduced the total quantity of nicotine in the smoke while enhancing the physiological effect. Deposition of Dennis Dietz, Minnesota BC/BS v. Philip Morris, September 29, 1997, 57:12-59:17. Similarly, R.J.

Reynolds found that pH in smoke can affect the physiological impact, and that ammonia is one of the major pH controlling components. Deposition of Dennis Dietz, Minnesota BC/BS v. Philip Morris, September 29, 1997, 59:19-61:3.

2468. Liggett added diammonium phosphate to its cigarettes between 1993 and 1996. Deposition of Dennis Dietz, Minnesota BC/BS v. Philip Morris, September 29, 1997, 61:7:-19.

d. Other Research Efforts

2469. Many other methods of manipulating nicotine content have been investigated by the Cigarette Company Defendants. The extensive research conducted further confirms the companies' intent and design to control the amount of nicotine delivered to the smoker.

2470. Cigarette smoke contains both particulate matter and gaseous components. In general, the particulate matter comprises the mix of substances that can be trapped on a filter and measured and evaluated, and constitutes the cigarette's "tar." By February 1972, Philip Morris believed it had substantial control over the content of the smoke delivered to smokers by its products, and could limit the delivery of substances in the particulate phase of smoke it acknowledged were "unhealthful." In a memorandum memorializing an "Idea Disclosure for an Indirect Cigarette," a Philip Morris scientist described a product that could use indirect heat to generate and deliver to the smoker an aerosol. The researcher stated that "[t]he particulate phase of the aerosol is generated from pure substances and its composition **is under full control; hence, it is capable of being made not only not unhealthful, but positively healthful**." Philip Morris never actively pursued the idea of a such an aerosol product. 2026378749-8750 at 8749 (U.S. Ex. 20,425) (emphasis added).

2471. In late 1993, Philip Morris briefly revived this technological approach through its

"Ideal Smoke Program," which had as its mission developing "products that deliver only those components necessary to achieve market-place acceptable subjectives and satisfaction." An outline for "research areas applicable to tobacco products only" stated that the objective was to "develop an aerosol delivery system for desired compounds only." The program envisioned a product in which "compounds attributing to taste and impact on large particles which will be trapped in the upper airways and nicotine on small particles which can reach the lungs to achieve the systemic nicotine dose desired." Another 1993 document concerning the Ideal Smoke program, from a high-ranking scientist at INBIFO to Gerry Nixon, a scientist in Philip Morris's Research and Development Department with whom the scientist worked closely, stated that among "[d]esirable components," "[n]icotine and flavor components are perceived as essential." 2050742052-2053 (U.S. Ex. 20,491); 2061945926-5928 at 5926 (U.S. Ex. 20,509); 2023119230-9231 at 9231 (U.S. Ex. 20,376).

2472. A detailed October 7, 1988 paper authored by several R.J. Reynolds scientists described the company's "Integrated Research Program for the Study of Nicotine and its Analogs." The stated objective of this research program was "[t]he development and initiation of an integrated in-house/ex-house program to increase understanding of the basic physical, chemical, pharmacological, and toxicological properties of nicotine and its analogs." 507044266-4275 at 4266 (U.S. Ex. 51,118); see also 523233384-3391 (U.S. Ex. 85,509).

2473. R.J. Reynolds continued to conduct studies comparing the nicotine content of its cigarettes to the content of nicotine in cigarettes manufactured by other Defendants in the 1990s. For example, an October 1, 1991 memorandum authored by Kenneth A. Beard reported on the results of studies conducted to determine the amount of "volatile nicotine," i.e., free nicotine, in

R.J. Reynolds's Winston and Winston Light as compared to Philip Morris's Marlboro and Marlboro Light. The study compared the brands in terms of the amounts of "volatile nicotine," total nicotine, and volatile nicotine as a percentage of total nicotine. 508257695-7696 (U.S. Ex. 86,983).

2474. In the early 1990s, R.J. Reynolds employee Ken Shu sent an inter-office memo to Brian Lawrence regarding using levulinic acid derivatives and nicotine levulinate salts to reduce "throat harshness" in high nicotine tobacco products. Shu recommended use of high nicotine tobacco extracts to make nicotine levulinate salt "so it may be legally considered a natural process." 506448793-8794 at 8793 (U.S. Ex. 20,758).

2475. R.J. Reynolds's continued study of mechanisms for efficient transfer of nicotine from tobacco to smoke is confirmed by recent research documents. For example, June 12, 2000 e-mail exchange between Tom Perfetti and Jeffrey Seeman described the results of studies concerning the "thermal stability and peak nicotine release temperatures" for different types of nicotine salts. Perfetti also reported the results of his study of peak nicotine release temperatures in a paper entitled "The Themochemical Properties of Nicotine Salts." Perfetti also prepared a paper with B.M. Gordon and W.M. Coleman, III, in 2000 or later, reporting on the results of R.J. Reynolds's study of the transfer efficiency of different types of nicotine into mainstream smoke. RJR000000116104494070026060 5-0607 at 0605 (U.S. Ex. 86,984); RJR000000118505457770026349 9-3515 (U.S. Ex. 86,985); RJR000000116104488970026057 6-0596 (U.S. Ex. 86,986).

2476. In 1973, Lorillard investigated trapping and collecting nicotine from the exhaust gases of its drying operations and calculated the total pounds needed for producing cigarettes.

81082148-2154 (U.S. Ex. 21,068).

2477. Defendants researched other sophisticated methods of manipulating the addictive potential of cigarettes. In 1977, BATCo scientists discussed the drug etorphine, noting that it "is 10,000 times as effective an analgesic as morphine and has addictive characteristics," noting that "[p]erhaps a regular dose of 0.2 ug/day would generate an addictive craving for the source. If so, 6 ug in, say, 30 cigarettes would provide such a dose . . . . Do you think the possibility that competitors might use such a route to create brand allegiance for low delivery cigarettes ought to be discussed at the Research Managers Conference?" 107467542-7542 (U.S. Ex. 20,250).

2478. By 1981, R.J. Reynolds was denicotinizing burley tobacco. This tobacco may have then been added back into certain tobacco blends to help control nicotine levels. 501754849-4866 (U.S. Ex. 20,685) .

2479. By 1982, Philip Morris had the ability to manufacture experimental cigarettes containing very low amounts of nicotine. Consumer acceptance of these cigarettes was very low. Philip Morris concluded that consumers would not accept over a long period of time cigarettes with a minimum amount of nicotine. Nicotine-free cigarettes therefore were determined to be "most unacceptable." Philip Morris revived the idea of a nicotine-free cigarette in the late 1980s. After a period of test marketing, the cigarette was withdrawn from the market. 2000515580-5580 (U.S. Ex. 20,297).

2480. By 1991, Philip Morris was exploring the combined effects of tar, nicotine and menthol on the "impact" of a cigarette and the smoker's perception of the menthol flavor. 2047348210-8218 (U.S. Ex. 38,596).

2481. The tobacco companies also investigated stereoisomers of nicotine – which have

the same chemical formula as nicotine, with the molecules arranged in a different fashion – for their pharmacological activity. 101117452-7459 (U.S. Ex. 20,233); 508880478-0478 (U.S. Ex. 20,818); 2025986606-6612 (U.S. Ex. 20,421).

2482. Even research conducted in and around the early 1990s, at the time when the Food and Drug Administration ("FDA") was investigating the industry's nicotine manipulation and its implications for product regulation (discussed further below), confirmed that Defendants had a greater understanding of nicotine manipulation than that to which their CEO's claimed under oath in 1994 before Congress.

2483. For instance, R.J. Reynolds's research on smoke pH and nicotine transfer efficiency continued even as the Congressional tobacco hearings were being held. A 1994 Research Summary sent to in-house attorney Charles Blixt from R.J. Reynolds researchers discussed efforts to "determine the effects of the addition of K2CO3 [potassium carbonate] (a base) to tobacco on smoke nicotine transfer." 511872061-2087 at 2061 (U.S. Ex. 20,844).

2484. Lorillard conducted in-house research that was relevant to the FDA's examination of whether and how the tobacco industry was manipulating the nicotine yield of its cigarettes with additives. In 1996, Lorillard published an internal memorandum confirming that cigarette additives increased the smoke pH and the smoke nicotine. 88029439-9460 (U.S. Ex. 22,048).

(e) Conclusions

2485. The above-described conduct of Defendants in manipulating the nicotine content of their cigarettes was material to the decisions of smokers to continue smoking and prospective smokers as to whether to begin smoking. Thus, Defendants' conduct materially influenced the decisions of persons to initiate, continue, or quit smoking, as well as the decisions of others to

initiate, forgo, or otherwise affect efforts to address smoking and health issues, including addiction, thereby increasing the number of cigarettes sold.

2486. But for Defendants' misconduct described in the foregoing findings of fact, fewer people would have begun to smoke, fewer would have become addicted to cigarettes, and those who had begun but desired to quit would have realized that the task might require professional and/or medical assistance. The length of time in which, and the vigor with which, the Defendants pursued their campaign of obfuscation, misrepresentation, and concealment about the effects of nicotine and, in particular its powerful addictiveness, leads this Court to the conclusion that the profitability of this misconduct was high.

2487. The Cigarette Company Defendants designed cigarettes to ensure low tar and nicotine numbers, while still delivering sufficient levels of nicotine to create and sustain addiction and expose smokers to dangerous levels of tar. Documents demonstrate that, at least by the early 1970s, all of the Cigarette Company Defendants engaged in various efforts to control nicotine levels precisely and at levels that would continue to addict smokers.

2488. Many other documents demonstrate that each of the Cigarette Company Defendants implemented one or more methods to control the delivery of nicotine, to ensure that smokers would remain addicted, and to fool smokers into believing that they were somehow using a less addictive and less harmful product.

F. Defendants' Fraud Regarding Filtered and "Low Tar/Nicotine" Cigarettes

Introduction and Overview

2489. As awareness and concern about the adverse health risks associated with smoking began to grow in the early 1950s, Defendants began developing cigarettes they internally referred to as "health reassurance" brands in an effort to keep smokers in the market. Initially, Defendants explicitly marketed and promoted these brands as safer as the result of an added filter which purportedly protected smokers from the harmful tar in cigarette smoke. Having established the link in the minds of consumers between low tar/filtration and reduced harm through use of explicit health claims, Defendants' later advertisements contained implied health claims that built on their earlier advertisements in an effort to avoid suggesting to consumers that any cigarettes were harmful. For several decades, Defendants have marketed and promoted their so-called "low tar/nicotine" cigarettes using brand descriptors like "Light," "Ultralight," "Mild" and "Medium" and claims of "low tar and nicotine" to suggest to consumers that these products are safer than regular, full flavor cigarettes. Expert Report of Robert J. Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001) at 14.

2490. Defendants made, and continue to make, health benefit claims regarding filtered and low tar cigarettes when they either lacked evidence to substantiate the claims or knew that they were false. Internal industry research documents show that Defendants never had adequate support for their claims of reduced health risk from low tar cigarettes, but rather confirm Defendants' awareness by the late 1960s – early 1970s that low tar cigarettes were unlikely to provide any health benefit to smokers compared to full flavor cigarettes. In fact, the public

health and scientific communities now recognize what Defendants have long known internally: there is no meaningful reduction in disease risk in smoking low tar cigarettes as opposed to smoking regular cigarettes.

2491. In addition, Defendants have known for decades that their low tar cigarettes, as designed, do not actually deliver the low reported and advertised levels of tar and nicotine – which are derived from a standardized machine test originally developed by Defendants and adopted by the Federal Trade Commission in 1967 ("FTC Method") – to human smokers. Defendants have long known that nicotine delivered by cigarettes is addictive (see U.S. FPFF § IV.E(1), supra (Addiction)), and that to obtain an amount of nicotine sufficient to satisfy their addiction, smokers of low tar cigarettes modify their smoking behavior, or "compensate," for the reduced yields by inhaling smoke more deeply, holding smoke in their lungs longer, covering cigarette ventilation holes with fingers or lips, and/or smoking more cigarettes. As a result of this nicotine-driven smoker behavior, smokers of light cigarettes concurrently boost their intake of tar, thus negating what Defendants have long promoted as a primary health-related benefit of light cigarettes: lower tar intake.

2492. For decades, Defendants have affirmatively exploited their understanding of compensation by deliberately designing low tar cigarettes that register low tar yields on the standardized FTC Method, but that also facilitate a smoker's ability to compensate to ensure adequate delivery of nicotine to create and sustain addiction. Even as they designed low tar cigarettes to facilitate compensation, and despite having evidence that low tar cigarettes provide no health benefits and may in fact deter people from quitting, Defendants have withheld and

suppressed such evidence from public dissemination. In 2002, the United States District Court for the Eastern District of New York found:

> It was not seriously disputed at a prior trial that defendants [Philip Morris USA, R.J. Reynolds, Brown & Williamson, BAT Industries, p.l.c. (parent company of both Brown & Williamson and BATCo), Lorillard and Liggett] failed to inform the public about their knowledge of the limited health benefits of low tar cigarettes and their knowledge of smoker compensation by a change in the smokers' habits.

In Re Simon II Litigation, 211 F.R.D. 86, 123-124 (E.D.N.Y. 2002).

2493. Indeed, Defendants' deceptive conduct in this area continues to this day, as the Cigarette Company Defendants (except for Liggett) refuse to publicly acknowledge that nicotine is addictive, let alone explain to consumers that the advertised FTC yields for light cigarettes are unreliable because smokers' addiction to nicotine causes them to compensate, and thus inhale substantially more tar and nicotine than measured by the FTC machine test. To the contrary, Defendants continue to disseminate statements downplaying the existence and prevalence of smoker compensation, while at the same time continuing to advertise low tar cigarettes with low tar brand descriptors and claims of low tar and nicotine, which Defendants know consumers interpret as implying a safer cigarette.

2494. Extensive evidence shows that Defendants used terms such as "Light" and "Low Tar" intentionally to convey their false "health reassurance" message rather than just a "taste" message, because their research showed that people smoked low tar products **despite**, not because of, the taste. Accordingly, Defendants' marketing themes repeatedly tried to convince smokers that their brands could provide the main claimed benefit of light cigarettes – increased

safety – without sacrificing "taste." Further, Defendants used both verbal and non-verbal communications to convey their health reassurance message, employing colors and imagery that their research indicated people associated with healthier products.

2495. Defendants' campaign of deception has impacted Americans' decisions to smoke. The availability of low yield cigarettes and the messages conveyed by Defendants' advertising, marketing, and public statements regarding low tar cigarettes, has caused many smokers to perceive them as an acceptable alternative to quitting smoking. As a result of Defendants' conduct, health concerned smokers have switched from regular cigarettes to those with lower reported tar yields rather than quitting smoking altogether. Smokers of "light" and "ultra light" cigarettes are less likely to quit smoking than are smokers of regular cigarettes. Additionally, as a result of Defendants' fraudulent marketing and deceptive design of "light" and "ultra light" cigarettes, many smokers of these cigarettes consume more cigarettes than do smokers of regular cigarettes. Defendants' conduct relating to low tar cigarettes furthers the aims of the Enterprise and the scheme to defraud by providing a false sense of reassurance to smokers that weakens their resolve to quit smoking, and serves to draw ex-smokers back into the market. In short, Defendants' concerted campaign of deception regarding low tar cigarettes has been a calculated – and extremely successful – scheme to increase their profits at the expense of the health of the American public.

(1) Defendants Communicated To the Public That Their Low Tar Cigarettes Were Less Harmful than Regular Cigarettes

(a) <u>Defendants Made Express and Implied Statements of Reduced Harm and Used Deceptive Brand Descriptors</u>

2496. In an effort to quell growing concern among consumers about the potentially adverse health risks associated with cigarette smoking, Defendants, in the early 1950s began placing filters on cigarettes and making claims in marketing that filtered cigarettes were less harmful to health than unfiltered cigarettes. Expert Report of William A. Farone, United States v. Philip Morris, et al. (R. 663; filed November 15, 2001); accord 1981 FTC Report (noting that Philip Morris's Parliament and American Tobacco's (subsequently Brown & Williamson's) Tareyton cigarettes "imply that their special filters minimize the risks of smoking"), 680114503-4819 at 4605 (U.S. Ex. 20,988).

2497. Following the first Surgeon General's Report in January 1964, which heightened consumers' awareness of the health effects of smoking, Defendants in the 1960s introduced so-called "low tar" cigarettes, marketing these cigarettes as less harmful brands to reassure health concerned smokers. Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine. Smoking and Tobacco Control Monograph No. 13 at 199. Bethesda, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health (Oct. 2001) ("Monograph 13") (U.S. Ex. 58,700). Defendants have introduced both stand-alone cigarette brands which purport to be low in tar (e.g., Merit brand cigarettes) as well as low tar "brand extensions" of existing full flavor cigarette brands (e.g., Marlboro Lights and Ultra Lights as extension of full flavor Marlboro brand).

2498. Defendants acknowledge that "[t]oday every major manufacturer has brands and brand extensions in both the 'light' (6-15 mg tar) and ultra light (less than 6 mg tar) categories, and the majority of smokers now smoke such products." JD. Rebuttal PFF, ¶ 2145. Each

manufacturing Defendant continues to manufacture, market, and sell numerous filtered and/or low and ultra low tar brands, and brand extensions of its regular cigarettes in the United States, including, but not limited to, the following brands:

Philip Morris:	Basic; Benson & Hedges; Cambridge; Chesterfield (purchased from Liggett in 1999); Lark (purchased from Liggett in 1999); L & M (purchased from Liggett in 1999); Marlboro; Merit; Parliament; Saratoga; Virginia Slims
R.J. Reynolds:	Camel; Doral; Now; Salem; Vantage; Winston
Brown & Williamson:	Barclay; Belair, Capri; Carlton (acquired from American Tobacco via merger in 1995); GPC; Kool; Pall Mall (acquired from American Tobacco via merger in 1995); Lucky Strikes; Misty; Tareyton (acquired from American Tobacco via merger in 1995); Viceroy
BATCo:	du Maurier, State Express 555
American:	American's brands were acquired by Brown & Williamson via merger in 1995, but prior to that, American's brands included Carlton, Lucky Strikes, Pall Mall; Tareyton Lights
Lorillard:	Kent; Newport; Old Gold; Satin; Style; Triumph; True
Liggett:	Chesterfield (sold to Philip Morris in 1999); Eve; Lark (sold to Philip Morris in 1999); Liggett Select; L & M (sold to Philip Morris in 1999); Pyramid

Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., Sept. 29, 2003 at ¶ 8 (U.S. Ex. 75,968).

2499. From the 1960s to the present, Defendants advertised, marketed, and promoted

low tar cigarettes as "safer" cigarettes, and devoted disproportionate amounts of their marketing budgets to promoting filtered and low tar cigarettes to increase consumer awareness and purchase by communicating to the public that these cigarettes were less harmful. Defendants advertised and marketed low tar cigarettes using claims such as "low tar and nicotine," "lowered tar and nicotine," "ultra low tar and nicotine," and so-called "brand descriptors" such as "light," "medium," "mild," and "ultra light." In addition, Defendants used marketing imagery in their low tar cigarette advertisements that is intended to convey a lighter, healthier cigarette.

2500. Defendants have marketed low tar cigarettes with claims such as "light" and "ultra low tar" to implicitly communicate to consumers that smokers of these products inhale less tar and nicotine than smokers of regular cigarettes. As the 1981 FTC Report on cigarette advertising noted, many of Defendants' advertising campaigns had, over the course of the preceding four decades, "impl[ied] that smoking a particular brand solves the health problem or at least minimizes the risk." The advertisements for Philip Morris's Parliament cigarettes, R.J. Reynolds's Vantage cigarettes, Brown & Williamson's Viceroy and American Tobacco's (subsequently Brown & Williamson's) Tareyton cigarettes, as well as Lorillard's True cigarettes, are cited in the report as examples of advertising campaigns implying that the brands marketed are either not harmful or less harmful. 680114503-4819 at 4605-4606 (U.S. Ex. 20,988).

2501. Defendants' early advertisements from the 1930s to 1950s explicitly stated that filters and/or reductions in machine-measured tar and nicotine yields made their cigarettes better for your health, and thus directly linked the concept of "low tar" to less hazardous. Defendants soon realized, however, that making explicit health claims "had the undesirable effects [for

Defendants] of making health concerns salient or predominant in the minds of consumers, and encouraged consumers to use 'healthfulness' as the criterion by which they judged cigarettes." Acting on the advice of "motivation researchers" and "trade analysts," Defendants shifted their approach from explicit health claims toward advertising and marketing that conveyed implied health messages. Monograph 13 at 199 (U.S. Ex. 58,700).

2502. A prominent report prepared by the Institute of Medicine in 2001 cited the advertisements of Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, American Tobacco, Lorillard, and Liggett as examples of advertisements that relate health benefits to particular low tar cigarette brands. Institute of Medicine, Clearing the Smoke: The Science Base for Tobacco Harm Reduction, National Academy of Sciences (K. Stratton, et al., eds., National Academy Press 2001) (U.S. Ex. 20,919); 99053048-3558 at 3124-27 (U.S. Ex. 57,494).

2503. Having established the link in the minds of consumers between low tar/filtration and reduced harm through use of explicit health claims (without any evidence that low tar and filtered cigarettes were less harmful), Defendants knew that their later marketing campaigns, containing implied health claims that built on their earlier advertisements, would be perceived in the minds of consumers as indicating that their low tar and filtered cigarettes were harmless or less harmful products. For instance, evidence shows that Defendants have long known and intended that consumers rely on brand descriptors as an indication of the tar level of the cigarette, and its relative safety, and not as an indication of its taste.

2504. Indeed, in a 1993 survey, 56% of smokers understood use of the term "low tar" as intended to convey relative safety compared to full flavor cigarettes. In a 1980 survey, 36% of

low tar smokers thought their cigarette did not significantly increase the risk of disease over nonsmokers; and a 1987 survey showed that 46% of smokers of cigarettes with tar yields of 6 mg. or lower (per the FTC Method) believed they had reduced cancer risk compared with smokers of cigarettes with higher FTC tar yields. 2074759740-9746 at 9741 (U.S. Ex. 43,526).

2505. Surveys regarding smokers' awareness of the difference between the FTC tar and nicotine ratings and what they actually get when they smoke a cigarette reveal that smokers: (1) are not always familiar with the FTC rating, however they: (2) know whether their cigarettes are "light" cigarettes or regular cigarettes; (3) believe that "light" cigarettes deliver less tar and nicotine than regular cigarettes; and (4) believe that regular cigarettes are more hazardous than "light" cigarettes. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681, filed November 15, 2001); Expert Report of David Burns, United States v. Philip Morris, et al. (R. 664; filed November 15, 2001).

2506. Defendants' longtime and continuing use of brand descriptors is itself misleading and deceptive conduct in light of Defendants' research-based understanding of consumers' perceptions of terms like "light" and "low tar," Defendants' knowledge of compensation, and Defendants' design of cigarettes to facilitate compensation that their research shows **negated** any potential benefit from cigarettes with low machine-measured tar yields. Expert Report of David Burns, United States v. Philip Morris, et al. (R. 664; filed November 15, 2001).

2507. The FTC's 1967 report to Congress noted that "the belief that filter cigarettes are less hazardous appears to be widespread. It may be assumed therefore that to people holding this belief, the word 'filter' itself connotes 'less hazard.' And through the addition of suitable

adjectives to the word 'filter', this impression can be enhanced. Thus, in current advertising there are 'recessed filters' (Benson & Hedges and Parliaments), 'white filters' (Yorks), 'menthol filters' (Springs) . . . ." The report also found that the word "mild" was used in advertising as a euphemism for "cloaking the dangers of increased cigarette smoking . . . . Carlton filters have 'Good mild taste . . . created for those who are interested in the amount of tar and nicotine in the smoke of their cigarette . . . . Montclair (menthol filter) cigarettes are made especially for smokers who seek exceptional mildness . . . . You get Pall Mall's famous extra length of fine tobaccos . . . and a filter tip. Result? A new longer length, a full 100 millimeters long and a new milder taste . . . . (Chesterfield kings) made to taste even milder through longer length." FTC, Report to Congress Pursuant to the Public Health Cigarette Smoking Act (June 30, 1967) at 20-21 (U.S. Ex. 22,148).

2508. As explained more fully below, Defendants' internal documents reveal that Defendants carefully designed their low tar marketing so that it would provide consumers with a health reassurance message – that filtered and low tar cigarettes are either harmless or less harmful than full-flavor cigarettes – and aimed this message at smokers concerned with the ill health effects of smoking. Such marketing messages had to be implicit, rather than explicit, because an explicit message that low tar cigarettes were safer would have contradicted Defendants' core fraudulent public relations position that **no** cigarettes were unsafe. Deposition of Robert J. Dolan, United States v. Philip Morris, et al., May 9, 2002, 121:7-122:10 (testifying that Defendants' internal documents reveal that Defendants' basic motivation in marketing low tar cigarettes was health reassurance, and that Defendants communicated this health reassurance

message to the public through largely implicit means).

2509. Defendants made, and continue to make, false and misleading statements including assertions that low tar cigarettes deliver "lowered tar and nicotine" than regular cigarettes and claims that low tar cigarettes are "mild" or deliver "clean" taste, with full knowledge that consumers interpret these claims as an indication of reduced harm. For instance, an April 30, 2001 e-mail from Shari Teitelbaum, a Philip Morris consumer researcher, to Nancy Conrad, former Marlboro Brand Manager and Category Director, and others at Philip Morris stated: "As we have heard in recent qualitative research, **smokers seem to associate the risks of smoking with tar and nicotine levels** . . . ." 2712800348-0348 (U.S. Ex. 46,209) (emphasis added); Deposition of Nancy Conrad, United States v. Philip Morris, et al., July 30, 2003, 245:24-247:16. Similarly, Defendants continue to advertise low tar cigarettes using brand descriptors such as "light" and "ultra light" with full knowledge that consumers interpret these descriptors as an indication of reduced harm.

2510. As further illustrated below, Defendants used, and continue to use, marketing imagery, such as lighter colors, to convey health reassurance. For example, a BATCo document entitled "Lights Segment Project Consumer Insight Into Smoking Lights" listed under the heading "How to Create a Positive Lights Culture" the following three ways to "differentiate the lights from full flavor smoking . . . Color, Cues e.g. Blues & Whites . . . Lighter Lifestyles e.g. water related outdoor fun activities . . . Light symbols e.g. Bubbles[;] Air balloons[;] Light winds." 321546706-6724 at 6719 (U.S. Ex. 46,770).

2511. As the following section demonstrates, the evidence is overwhelming that

Defendants' marketing of low tar cigarettes exploited consumers' desire for an actually less hazardous cigarette and that Defendants knew and intended that consumers interpret "low tar" and "light" brand descriptors as evidence that such brands were "healthier" to smoke. The evidence is similarly overwhelming that Defendants employed language and marketing imagery for light cigarettes with the specific intent to convey this **health-related** message, aware from their own consumer research that consumers were willing to sacrifice taste to smoke brands that they perceived – because Defendants so implied in their marketing of these brands – to be less hazardous.

(i) TIRC/CTR

2512. In an August 26, 1958 letter from Clarence Cook Little, Scientific Director of the Tobacco Industry Research Committee ("TIRC"), to Timothy Hartnett, Chairman of TIRC, Little indicated that the cigarette industry's statements of reduced tar and nicotine were perceived by the public as indications that these cigarettes were less harmful, and cautioned that insofar as industry advertisements promised a reduction in health hazard, they contained an implicit admission that cigarettes are harmful. Little stated that "[a]lthough this serious danger exists, I believe that it can and should be eliminated by prompt and unanimous action by the industry" in the form of a denial that cigarettes are harmful and a statement that the cigarettes and corresponding advertisements regarding filters and reduced deliveries are "in response to public demand and to nothing else." 1002607478-7481 at 7480 (U.S. Ex. 20,138) (emphasis in original).

2513. To this day, Defendants' false statements to the public have been remarkably

consistent with the approach recommended by Little in 1958. Defendants claim that consumer demand for low tar cigarettes resulted from limited statements of the United States Department of Health and Human Services in the late 1960s to early 1970s relating to low tar cigarettes, and further, that Defendants only developed and marketed low tar and filtered cigarettes in response to this demand. JD. PFF at 199-211 ¶¶ 413-433; U.S. FPFF § IV.F(4), infra; see also U.S. FPFF § IV.F(1)(b) (Defendants made false and misleading statements regarding their low tar cigarette marketing). The falsity of this claim is demonstrated by the fact that, as noted above, the Cigarette Company Defendants themselves were making explicit (and baseless) health claims relating to their low tar and filtered cigarettes from the early twentieth century through the 1950s. Deposition of David Burns, United States v. Philip Morris, et al., July 22, 2002, 51:10-53:4.

(ii) Philip Morris

2514. Some examples of early Philip Morris advertisements making explicit claims of reduced harmfulness are:

- "If, like millions today, you are turning to filter cigarettes for pleasure plus protection . . . it's important that you know the Parliament Story." (1952 Parliament ad). 696000888-0916 at 0894, 0905, 0908 (U.S. Ex. 21,387).

- "Parliament's exclusive Filter Mouthpiece gives you the important extra protection of the Parliament 'Safety-Zone' Construction . . . As the irritants, brown tars and colorless nicotine are trapped, they remain where they belong–in the recessed filter, completely out of contact with your lips." (1952 Parliament ad) 696000888-0916 at 0894, 0905, 0908 (U.S. Ex. 21,387); see also U.S. Ex. 2,731 (1954); U.S. Ex. 2,756 (1956).

- "The cigarette that takes the FEAR out of smoking!" (1954 Philip Morris brand cigarette ad). 696000888-0916 at 0894, 0905, 0908 (U.S. Ex. 21,387); U.S. Ex. 88,712 (1953).

2515. A 1974-1975 advertisement for Philip Morris's Benson & Hedges Multifilter

brand distinguished between great taste and low tar, acknowledging that its claims of low tar delivery were intended to imply health benefits, stating: "Today people not only want a great tasting cigarette, but one that's low in 'tar' and nicotine. Nothing's simple anymore. . . . we've managed to lower the 'tar' and nicotine and still give you a cigarette with full rich flavor for you to enjoy." U.S. Ex. 87,184 (1974); see also 03496228-6630 at 6326 (U.S. Ex. 20,057).

2516. In order to communicate the low tar nature of cigarettes, Philip Morris USA also has used a "lighter, more white background" and a "white filter as opposed to a cork colored filter." Deposition of Nancy Brennan-Lund, Price v. Philip Morris, Inc., September 20, 2002, 179:6-17.[1] Susan Norris, a 15-year Philip Morris employee and former Marlboro Brand Manager from 1995-1999, testified at her deposition in this case that colors such as silver and light blue are cues that communicate to consumers that a cigarette is an ultra light brand. Deposition of Susan Norris, United States v. Philip Morris, et al., July 31, 2003, 162:6-165:8, 179:17-184:19.

2517. As explained below, evidence shows that over several decades, Philip Morris has capitalized on consumers' health concerns with the introduction of numerous low tar brands and brand extensions that were intended to offer smokers with health reassurance.

2518. Marlboro Lights. A November 15, 1971 document bearing the letterhead "Philip Morris U.S.A. Inter-Office Correspondence" to James Morgan from the Philip Morris USA Marketing Research Department set forth results of a Philip Morris consumer study on Marlboro Lights. Under the heading "Advertising Awareness," the report stated that "[l]ow tar and nicotine

[1] The case Price v. Philip Morris, Inc., 2003 WL 22597608, *6 (Ill. Cir. Mar. 21, 2003), was originally styled Miles v. Philip Morris, Inc. For the sake of uniformity, all citations to deposition testimony and to the judgment used herein are to Price v. Philip Morris, Inc.

remained the most frequently mentioned comment." 1000292744-2762, 2745 (U.S. Ex. 35,205).

2519. A December 1971 Marlboro Lights "Product Promotion Plan" distributed to the Philip Morris sales force discussed the introduction of Marlboro Lights and ways to market and maximize sales of the brand. It stated: "The introduction of Marlboro Lights is a very timely move on the part of your company. The consumer is becoming increasingly aware of tar and nicotine contents in cigarettes and many are searching for one with low tar and nicotine content and full flavor. Marlboro Lights will fill this need." 2045404133-4163 at 4141 (U.S. Ex. 85,000).

2520. A retrospective Philip Morris document dated September 1991 entitled "Background Information on PM Brands," stated: "To capitalize on the booming low tar market, Marlboro Lights was introduced in 1972. It became the first successful low tar line extension in the industry . . . Marlboro further broadened its appeal to low tar smokers with the addition of Marlboro Lights 100's in 1978, Marlboro Lights King Size Flip-Top Box in 1980 and Marlboro Lights 100's Flip-Top Box in 1984." 2070143190-4433 at 3192 (U.S. Ex. 27,257).

2521. James Morgan, former President and CEO of Philip Morris USA, testified at his 2002 deposition in the Price v. Philip Morris, Inc. case that Marlboro Lights were positioned as "lower in tar and lighter in taste than Marlboro Red" and were marketed to people seeking a low tar and nicotine cigarette, including smokers of both high and low tar cigarettes. Deposition of James Morgan, Price v. Philip Morris, Inc., June 5, 2002, 20:13-21:6, 32:22-33:16, 33:17-34:11; 2045404133-4163 (U.S. Ex. 85,000). Morgan testified at the trial in Price that Philip Morris has used the phrases "lowered tar and nicotine" and "Lights" in association with Marlboro Lights for

over 30 years. Trial testimony of James Morgan, Price v. Philip Morris, Inc., February 18, 2003, 64:4-7.

2522. A May 31, 1988 Philip Morris USA Marketing and Research Department report co-authored by N. Stamell and K. Goldstein from Philip Morris's primary advertising agency, Leo Burnett, and Philip Morris consumer researchers Karen Eisen and Jeanne Bonhomme that copied Nancy Lund, then working in the Marketing and Research Department of Philip Morris USA, recited focus group results and stated that "[m]any felt that Marlboro Lights was gaining in favor because of health concerns." 2044743883-3891 at 3885 (U.S. Ex. 85,001); Deposition of Nancy Brennan-Lund, Price v. Philip Morris, Inc., September 20, 2002, 190:1-192:11.

2523. In the Price case, the Court found that "Marlboro Lights and Cambridge Lights were health reassurance cigarettes in that they expressly and impliedly conveyed the notion of a positive health attribute through the representations of 'Lights' (with respect to Marlboro Lights and Cambridge Lights) and the representation of 'Lowered Tar and Nicotine' (with respect to Marlboro Lights)." The Price Court further found that "the term 'Lights' not only conveyed a message of reduced harm and safety, but also conveyed . . . that the 'Lights' cigarette product was lower in tar and nicotine." Price v. Philip Morris, Inc., 2003 WL 22597608 at *6 (Ill. Cir. Ct. Mar. 21, 2003).

2524. Benson & Hedges. A Philip Morris document dated September 1991 entitled "Background Information on PM Brands" stated:

> Benson & Hedges 100's Lights and Lights Menthol were introduced in 1977 in response to consumer preference for a milder, lower tar cigarette . . . today Benson & Hedges is among the leading low tar cigarettes. In mid-1982, Benson & Hedges

> Deluxe Ultra Lights was launched to take advantage of dynamic growth in both the 100mm and ultra low tar markets. The regular and menthol packings, both at 5mg tar, were instant successes. Fueled by distinctive packaging and taste richer than that of other ultra low (hence the ad slogan "rich enough to be called deluxe"), Deluxe Ultra Lights is a major contributor to the image and sales strength of Benson & Hedges.

The document listed the following "Benefits Statement" regarding Benson & Hedges 100's Deluxe Ultra Lights: "Benson & Hedges 100's Deluxe Ultra Lights gives you only 5mg tar, yet is rich enough to be called Deluxe" and "Benson & Hedges 100's Deluxe Ultra Lights Menthol delivers cool, rich taste with only 5mg tar." 2070143190-4433, 3211-3214 (U.S. Ex. 27,257); see also ADV004 1118-1120 (U.S. Ex. 745) (1982); ADV004 1133-1135 (U.S. Ex. 750) (1982); ADV021 0335-0338 (U.S. Ex. 7,187) (1982); ADV023 1161-1163 (U.S. Ex. 8,278) (1986); ADV023 1310-1312 (U.S. Ex. 8,325) (1986); ADV016 0010-0012 (U.S. Ex. 87,492) (1982).

2525. Cambridge. The misleading and deceptive use of brand descriptors by Philip Morris is demonstrated by Philip Morris's selective use of brand descriptors to name and market products with similar or identical machine-delivered tar and nicotine yields. Philip Morris has even marketed "light" products, such as Marlboro Lights or Cambridge Lights, that have FTC tar and nicotine yields that exceed the yields for products marketed without such descriptors, like Merit; and has marketed Virginia Slims Cigarettes yielding 15 mg of tar as both full flavor and Virginia Slims Lights. FTC, 'Tar', Nicotine, and Carbon Monoxide of the Smoke of 1294 Varieties of Domestic Cigarettes For the Year 1998 (2000) at 6, 17-18, 32 (U.S. Ex. 52,977).

2526. Notes from the scientist charged with recording the discussion at the regular "new products" meetings of Philip Morris scientists – known as "Richmond meetings" – indicated

Philip Morris's awareness of the consumer appeal of low tar numbers and confirmed Philip Morris's intent to capitalize on consumers' perception of Cambridge as the lowest tar cigarette. Tom Goodale's handwritten notes from the October 15, 1979 Richmond meeting indicate Philip Morris' plan to create an impression in consumers' minds of Cambridge as extremely low in tar by introducing it with a tar level below the then-lowest FTC tar brand sold – Carlton – and then to raise the tar level over time. The notes reveal, under the heading Project Trinity, which was Cambridge's project name prior to commercial introduction, "Hit mkt [market] below Carlton tar - afterwards can drift higher." 1001507595-7596 at 7595 (U.S. Ex. 85,102).

2527. This is exactly what Philip Morris did. In 1979, Philip Morris manufactured Cambridge, a cigarette that measured 0.0 mg tar on the FTC test. Philip Morris initially marketed and sold Cambridge as a stand alone brand yielding of **0.0 mg tar** (less than 0.1 mg tar), without a brand descriptor indicating that it was a low tar cigarette. In 1986, Philip Morris repositioned and re-introduced several Cambridge brand extensions which had inordinately higher tar yields than the parent brand, but most of these line extensions bore Lights brand descriptors indicating that they were **lower** in tar than the original Cambridge. Specifically, "Cambridge Lights" yielded **12 mg tar** on the FTC test, and "Cambridge Ultra Lights" yielded **6 mg tar** on the FTC test. In November 1988, Philip Morris introduced Cambridge Full Flavor Kings with **16.1 mg tar**, per the FTC test. 2024983860-3862 at 3860 (U.S. Ex. 20,015); Deposition of William A. Farone, United States v. Philip Morris, et al., April 2, 2002, 88:5-17; 91:6-22; 102:1-109:14; 110:16-21.

2528. Nancy Brennan-Lund, Senior Vice President of Marketing at Philip Morris,

confirmed in a 2002 deposition that Cambridge Lights had more tar and nicotine than the original Cambridge. Lund testified that as the tar and nicotine numbers were not on the packs of Cambridge Lights cigarettes, the only way consumers could possibly know that Cambridge Lights had more tar than Cambridge regular was by a perceived taste difference. Deposition of Nancy Brennan-Lund, Price v. Philip Morris, Inc., September 20, 2002, 145:5-154:16.

2529. An April 28, 1986 memorandum authored and signed by Larry Glennie of Philip Morris to the "Entire Sales Force" with the subject-heading "Cambridge Lights National Introduction" discussed Philip Morris's introduction of Cambridge Lights at 12 mg tar (per the FTC test). This FTC tar level was many times that of the original Cambridge cigarette introduced by Philip Morris without the "lights" brand descriptor. **The original Cambridge cigarette was widely marketed and established as an ultra low tar cigarette.** The memorandum stated: "The Cambridge name will give us an opportunity to build upon established familiarity and create a new image for Cambridge through advertising and promotional activities." 2043793128-3181 at 3131 (U.S. Ex. 20,450); Expert Report of William A. Farone, United States v. Philip Morris, et al. (R. 663; filed November 15, 2001); Deposition of William A. Farone, United States v. Philip Morris, et al., April 2, 2002, 88:5-17; 91:6-22; 102:1-109:14; 110:16-21.

2530. This demonstrated Philip Morris's ability to develop and market a product that delivered no tar by the FTC method, as well as its misleading and deceptive use of brand descriptors. Philip Morris's use of brand descriptors was misleading and deceptive because, as demonstrated above, Philip Morris sold a product called "Cambridge" with less than .1 mg tar

without a low tar brand descriptor. Then, after establishing consumers' association with "Cambridge" as a low tar (i.e., "healthier") product, Philip Morris introduced "Cambridge Lights," which in fact had about **120 times** more tar than the original non-Light Cambridge, and an "Ultra Lights," which in fact had about **sixty times** more tar than the original Cambridge. They also sold one version of the product with the **identical** name (i.e., Cambridge without any descriptor) that had **160 times** the tar of the original product by the same name.

2531. Merit. In 1976, Philip Morris introduced Merit brand cigarettes as a freestanding health reassurance brand. Philip Morris's marketing documents demonstrate that Merit's marketing was aimed at health-conscious smokers, and used claims that Merit cigarettes offered the same taste as regular cigarettes but with reduced harm, because of its claimed lower tar delivery. For instance, Jeanne Bonhomme, Director of Youth Smoking Prevention Research for Philip Morris and former Manager of Marketing Research from 1981-1985 and 1994-1996, testified at her deposition in this case that marketing for Philip Morris's Merit brand has historically included messages intended to appeal to smokers interested in switching down to a lower tar product. Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 541:22-542:4; see also 03297227-7249 at 7240 (U.S. Ex. 88,631) (report prepared for Lorillard indicating: "In 1976 Philip Morris introduced Merit (9 mg tar), accompanied by the heaviest advertising spending plan since the arrival of Marlboro in the mid-1950's.").

2532.

Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 528:24-529:4, 534:11-15; 2063711117-1117 (U.S. Ex. 27,137); 2063711118-1120 (U.S. Ex. 27,138) (Confidential); 2063711121-1121 (U.S. Ex. 27,139) (Confidential).

2533. Suzanne LeVan, Philip Morris Vice-President of Premium Brands from 1991-2001 with responsibility for Merit, testified at her deposition in this case that "the Merit strategy is to convince smokers who are switching down [in tar levels] and who are looking for a good tasting cigarette that Merit is a brand that they should try." Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002, 178:13-181:2; accord 2063690017-0018 (U.S. Ex. 85,002).

2534. The deposition testimony of Defendants' own expert, A. Clifton Lilly, demonstrates that Philip Morris did not intend to market Merit as a "lighter tasting" cigarette, but rather as one that tasted just like a full flavor cigarette, yet with a health benefit. Lilly, Vice President of Technology and Research for Philip Morris at the time of his May 7, 1998 deposition in Engle v. R.J. Reynolds Tobacco Co., et al., testified that:

> The Merit brand, as I remember, came out in 1976, and it was the first lights product. And R&D did a lot of basic research on taking

> tobacco and actually getting compounds for a flavor system that were the most flavorful ones in smoke, so that the cigarette would be lower tar but taste like it was more like the popular cigarettes, and they were all at that time full flavor.

Deposition of A. Clifton Lilly, Engle v. R.J. Reynolds Tobacco Co., et al., May 7, 1998, 34:3-39:2; 522893332-3483 at 3365-3370 (U.S. Ex. 85,043).

2535. Contrary to Philip Morris's post-hoc claim that "light" brand descriptors are used to convey a taste message, its marketing in fact emphasized light brands' taste **despite**, not because of, these brands' claimed lower tar delivery. Jeanne Bonhomme, Director of Youth Smoking Prevention Research for Philip Morris, and former Manager of Marketing Research from 1981-1985 and 1994-1996, testified at her deposition in this case that Philip Morris's Merit brand of cigarettes utilized a marketing strategy entitled "Merit Solutions," which was intended to communicate to smokers that Merit was a good solution to the problem of low tar cigarettes having poor taste. Bonhomme testified that the strategy stood for: "being able to find a cigarette that had both good taste and a low tar level." Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 480:19-481:25.

2536. According to a retrospective Philip Morris document dated September 1991 entitled "Background Information on PM Brands," the "Benefits Statement" of Merit was: "You'll enjoy low tar and good flavor with Merit." "At only 7 mg. of tar, Merit delivers the rich flavor of leading cigarettes with twice the tar." "With Merit Menthol you get rich menthol flavor at only 8 mg tar." The document indicated that Merit Ultra Lights and Merit Ultra Lights 100's were introduced in 1981. 2070143190-4433 at 3211-3214 (U.S. Ex. 27,257); accord 2063724711-4714 (U.S. Ex. 39,838).

2537.

2048200699-0727 at 0707 (U.S. Ex. 38,648) (Confidential) (emphasis added – bold type); see also Deposition of Shari Teitelbaum, United States v. Philip Morris, et al., April 16, 2002, 132:21-137:21; 2044905001-5007 at 5001 (U.S. Ex. 20,454).

2538. A Philip Morris 1976 advertisement for Merit cigarettes stated: "New Low Tar

Entry Packs Taste of Cigarettes Having 60% More Tar." U.S. Ex. 5,087 (1976); see also 2001256595-6595 (U.S. Ex. 21,841).

2539. In May 1978, Philip Morris placed an advertisement in various magazines for Merit cigarettes entitled "Best Move Yet," which stated that Merit's "ability to satisfy over long periods of time could be the most important evidence to date that MERIT is what it claims to be: The first real alternative for high tar smokers." U.S. Ex. 5,951 (1978); see also U.S. Ex. 5,939 (1978); U.S. Ex. 5,890 (1978); U.S. Ex. 6,112 (1979); U.S. Ex. 6,054 (1979); 2061015513-5513 (U.S. Ex. 20,506).

2540. Other Merit advertisements stated the following:

- "New Low Tar Entry Packs Taste of Cigarettes Having 60% More Tar." U.S. Ex. 5,087 (1976).
- "Merit Solving Smoker Dilemma." U.S. Ex. 5,483 (1977); U.S. Ex. 5,704 (1978).
- "Merit Key Factor in Smoking Shake-Up." U.S. Ex. 5,707 (1978).
- "Filters Fall Short." U.S. Ex. 4,981 (1976); U.S. Ex. 5,055 (1976).
- "You can do it!" U.S. Ex. 9,206 (1993); U.S. Ex. 9,227 (1994); U.S. Ex. 9,575 (1997); U.S. Ex. 14,123 (1998); U.S. Ex. 14,135 (1999).
- "You Won't Miss What You'll Miss." U.S. Ex. 9,257 (1988).
- "Our Less Is Your Gain." U.S. Ex. 8,556 (1988).
- "If at first you don't succeed, try ours." U.S. Ex. 8,659 (1989).
- "Smoke This Page. If That Reminds You of Your Ultra Lights, Read This Ad." U.S. Ex. 8,711 (1989).
- "Flavor You Could Drive A Truck Through." U.S. Ex. 8,855 (1990).

2541.

2028817401-7576 at 7506 (U.S. Ex. 20,016) (U.S. Ex. 76,180) (Confidential); 2500002189-2207 at 2199 (U.S. Ex. 21,460).

2542. A September 16, 1987 research report prepared for Philip Morris by Leo Burnett U.S.A. entitled "Merit Brand Image Study," noted in a section entitled "Attitudes Toward Smoking" that "[w]hile health concerns are motivating factor, taste/enjoyment are still key." A summary at the end of the report stated: "Merit smokers we sampled are committed smokers . . . However, they have mixed feelings about smoking – health concerns/loss of control . . ." and their switching to Merit "provides health reassurance." 2072735414-5500 at 5431, 5492 (U.S. Ex. 41,598).

2543. A January 1991 document entitled "Merit Positioning Study" assessed "perceptions of Merit's positioning within the low tar category." The document stated: "While they are feeling pressure to quit, Merit smokers find low tar cigarettes to be a satisfying alternative." Under the heading "Attitudes that define Down Switchers," the document noted that an overwhelming majority of downswitchers agreed with the following statements: "I'm planning to cut down;" "I feel uncomfortable smoking when others are not;" "I feel more pressure not to smoke;" "Low tar cigarettes are a sensible choice;" "Friends pressuring me to quit;" and "I'm starting to feel self-conscious that I smoke." Under the heading "What Down Switchers want in

a cigarette," the document noted that approximately half of downswitchers found "very low tar" (50%) and "very low nicotine" (48%) to be "absolutely essential." 2048976844-6906 at 6850, 6890, 6892 (U.S. Ex. 85,004).

2544. Consumer feedback confirmed that Philip Morris's intended message was being received. An August 1991 report prepared for Philip Morris entitled "Merit Positioning Strategy Development" observed that "[i]n addition to advantages associated with lesser tar and nicotine delivery, low tar users note that **such brands allow higher volume, deeper inhalation smoking with few tradeoffs**." The report also commented that Ultra Light users "note their further downswitching to ultralights from lights for health benefits primarily." The report also noted that **Merit users "like perceiving [Merit cigarettes] as rather safe, sensible, middle-of-the-road, non-threatening, and generating the feeling that they aren't doing anything wrong**." 2072735123-5247 at 5131, 5132 (U.S. Ex. 41,596) (emphasis added).

2545. In a July 1993 Philip Morris presentation prepared by Norma Suter Drew, Philip Morris Vice President for Portfolio Brands and former Brand Manager and Marketing Director for Merit cigarettes from 1992-1994, entitled "Merit Franchise," Drew reported that "Merit is a brand smokers switch to in order to reduce tar/nicotine." Elsewhere in the presentation, Drew wrote that one of the top two "Goals" for Merit advertising was to achieve a "[s]ignificant increase in Merit's highest brand image statement, 'Are among the lowest in tar/nicotine', versus Carlton and Now." The presentation also noted that "70% of industry switching is between tar levels." Under the heading "Merit Advertising," the presentation noted that "Merit smokers tell us that they come to the franchise because they desire a lower tar cigarette that still tastes good –

switching down makes them feel better about the fact that they smoke." 2070661683-1727 at 1685, 1687, 1696, 1716 (U.S. Ex. 40,337) (emphasis in original).

2546. A February 28, 1994 letter on Leo Burnett letterhead from Leo Burnett employee Kathy Kochanek to Minda Maggio, a Philip Morris employee working on Merit cigarettes, entitled "Merit March Direct Topline Audience Profile," discussed the audience profile of the upcoming Merit March direct mail program. The letter stated: "This first mailing introduces the "You've Got Merit Awards" theme, which is intended to communicate a positive, rewarding message to reinforce the Merit smoker's feeling of achievement derived from switching down to a lower tar level." 2071097019-7024 at 7019 (U.S. Ex. 22,019).

2547. In March 1994, Philip Morris sent a "Merit Awards" direct mail piece to Merit smokers that bore the following advertising slogan: "You've got MERIT," "You can switch down to lower tar and still get satisfying taste." The direct mail piece included a letter to Merit smokers signed by Norma Suter Drew, then Brand Manager for Merit, which read in part:

> As a Merit smoker, you're special. Why? Because you already know you can switch down to lower tar and still get satisfying taste. You've made the switch, and we'd like to reward you for it. That's why we created Merit Awards - an ongoing offer of special things we can give to you, to show you how special you are to us.

2071096880-6894B at 6894 (U.S. Ex. 22,016) (emphasis in original); see also ADV026 0408-0410 (U.S. Ex. 9,306) (1994); ADV026 0759-0761 (U.S. Ex. 9,419) (1995); ADV026 1053-1055 (U.S. Ex. 9,517) (1996); ADV026 1068-1070 (U.S. Ex. 9,522) (1996); ADV009 0544-0546 (U.S. Ex. 2,330) (1997).

2548. A circa 1994 advertisement for Merit cigarettes stated: "Yes you can! You can

switch down to lower tar and still get satisfying taste. You've got MERIT." The ad depicted the low tar rating on various Merit brands. ADV026 0152-0154 (U.S. Ex. 9,224) (1994); ADV026 0207-0209 (U.S. Ex. 9,241) (1994); ADV026 0489-0491 (U.S. Ex. 9,333) (1994); see also 2041771505-1505 (U.S. Ex. 20,441) (emphasis in original).

2549. An internal Philip Morris memorandum dated May 16, 1995 from Lauren Herman, an employee in the market information and planning group, to Norma Suter Drew, then acting Brand Manager for Merit cigarettes, entitled "Merit Alternative Campaign Qualitative Exploratory – Final Report," discussed the results of research conducted to gauge consumer interest and appeal of Merit marketing campaigns. Under the heading "Key Findings," Herman reported that "Competitive smokers appear to be most likely to respond to the concepts that offer the clearest product cues. These smokers require the most rational reason why they should smoke Merit, (e.g. lower tar)." Under the heading "Implications," Herman recommended that "[s]ince low tar is essentially the core of these alternative concepts, the low tar message should be more pronounced." 2063724960-4962 at 4960, 4962 (U.S. Ex. 39,842).

2550.

2045628330-8330 (U.S. Ex. 26,955) (Confidential) (emphasis added); 2045628331-8363 (U.S. Ex. 26,956) (Category 2).

2551.

2045596010-6012 at

6011 (U.S. Ex. 26,952) (Confidential); 2045596013-6040 at 6032 (U.S. Ex. 26,953) (Confidential).

2552.

2045596010-6012 at 6011 (U.S. Ex. 26,952) (Confidential); 2045596013-6040 at 6032 (U.S. Ex. 26,953) (Confidential).

2553. Nancy Lund, Senior Vice President of Marketing at Philip Morris, testified that Philip Morris did change the name of Merit Filters to Merit Lights, and that there was no difference in the cigarette. Deposition of Nancy Lund, Price v. Philip Morris, Inc., September 20, 2002, 157:15-22.

2554. Similarly, Philip Morris has marketed a 15 mg. cigarette as both Virginia Slims and Virginia Slims Lights. FTC, *Tar, Nicotine, and Carbon Monoxide of the Smoke of 1294 Varieties of Domestic Cigarettes For the Year 1998*. 525311179-1223 at 1222 (U.S. Ex. 52,977)

(2000).

2555.

2045628312-8328 at 8312, 8321 (U.S. Ex. 22,217) (Confidential); see also Deposition of Shari Teitelbaum, United States v. Philip Morris, et al., April 16, 2002, 137:22-142:1; 2048941223-1236 at 1229 (U.S. Ex. 85,005).

2556.

2045628312-8328 at 8326 (U.S. Ex. 22,217) (Confidential).

2557.

2071522201-2203 at 2201 (U.S. Ex. 27,299) (Confidential).

2558.

2063687348-7527 at 7350, 7353-7356 (U.S. Ex. 39,820) (Confidential); see also 2063686921-6942 at 6934 (U.S. Ex. 88,629) ("Kane Bortree makes use of a variety of innovative, psychologically derived techniques. These

techniques allow us to get inside the consumers' heads . . . ."),

2559.

2063687348-7527 at 7356, 7357, 7359

(U.S. Ex. 39,820) (Confidential).

2560.

2080486996-7108 at 7010-12

(U.S. Ex. 45,330) (Confidential) (emphasis added).

2561.

2080486996-7108 at 7080, 7084, 7085, 7106 (U.S. Ex. 45,330) (Confidential).

2562.

2070657640-7650 at 7644, 7646 (U.S. Ex. 22,015) (Category 1).

2563. Marlboro Ultra Lights.

2041097977-7999 at 7984 (U.S. Ex. 85,006).

2564.

2041097977-7999 at 7987 (U.S. Ex. 85,006).

2565. On May 1, 1989, Philip Morris began test marketing Marlboro Ultra Lights, which it positioned as delivering 6 mg. of tar (per the FTC Method). In an internal Philip Morris memorandum dated February 8, 1989, Richard Camisa delivered to a distribution list of fellow Philip Morris employees the "Marlboro Ultra Lights Marketing Plan Overview." The overview set forth the target audience for Marlboro Ultra Lights, noting that "[c]onsumer research suggests that there are vast numbers of smokers, including Marlboro smokers, who are seeking lower tar but who are also unwilling to sacrifice flavor and/or smoking satisfaction in return. The opportunity for Marlboro lies in its ability to offer smokers the lower tar they seek with less trade off in taste." The overview emphasizes the importance of providing "ultra low tar reassurance" to consumers through careful selection of the cigarette pack and tipping color. Jeanne Bonhomme, Director of Youth Smoking Prevention Research for Philip Morris, and former Manager of Cigarette Marketing Research from 1981-1985 and 1994-1996, testified that "low tar

reassurance," as that phrase was used at Philip Morris, refers to the process of ensuring that a cigarette's advertising and packaging accurately communicates that the cigarette is positioned in the low tar category; or, in the case of Marlboro Ultra Lights, that consumers can easily identify it as an ultra low tar cigarette. Bonhomme testified that using the color blue in a cigarette's pack is one way that Philip Morris communicates to consumers that a cigarette is a low tar product. 2070624747-4763 at 4748 (U.S. Ex. 22,014); Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 503:16-504:16.

2566. A February 16, 1990 interoffice memorandum from Nancy Lund, former Marlboro Brand Manager, to David Dangoor, Senior Vice President of Marketing for Philip Morris, discussed a testing plan for Marlboro Ultra Lights. Lund wrote: "[a]ccelerated category growth could result from heightened health/social concerns and/or a marketplace destabilized by the introduction of a revolutionary product." 2041268603-8605 at 8603 (U.S. Ex. 37,934).

2567. Philip Morris conducted research to determine how cigarette pack and tipping color influenced consumer perceptions of Marlboro Ultra Lights' strength and tar level. In a June 25, 1990 memorandum from Jeanne Bonhomme, then a contract consumer marketing researcher for Philip Morris, to Richard Camisa, entitled "Marlboro Ultra Lights Portfolio Test," Bonhomme reported the results of a cigarette ad pack test conducted on consumers for Marlboro Ultra Lights. Bonhomme reported that for consumers tested, "[p]redictably, expectations about [Marlboro Ultra Lights'] strength and tar level were influenced by the pack and tipping color. Red/Cork was viewed as being strongest tasting and higher in tar than the two white tipped options, particularly Blue/White." Bonhomme testified at her deposition in this case that based

on her experience in consumer marketing research at Philip Morris, a cigarette's pack and tipping color can lead to expectations in consumers relating to the cigarette's tar level before the consumer actually purchases the cigarette and tries it. 2070197338-7340 at 7338 (U.S. Ex. 40,255); Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 558:11-15.

2568. Bonhomme testified at her deposition in Price v. Philip Morris, Inc. that in addition to terminology, Philip Morris attempted to portray Marlboro Ultra Lights as light and low in tar through use of imagery, such as white filters (instead of regular Marlboro's cork-colored filter) and lighter packaging colors, with full knowledge that some smokers wanted lower tar cigarettes because they thought they were healthier. Deposition of Jeanne Bonhomme, Price v. Philip Morris, Inc., August 28, 2002, 85:7-90:8, 92:23-93:19.

2569. A November 15, 1990 interoffice memorandum from Richard Camisa to Nancy Lund entitled "Nashville Focus Groups Top-line Report," noted that from the Nashville focus group, "[c]learly, MUL [Marlboro Ultra Lights] is a brand for smokers looking to quit, cut down, and/or otherwise concerned about health." 2062149029-9032 at 9029 (U.S. Ex. 39,406).

2570.

Susan Norris, a fifteen-year Philip Morris employee who served as Brand Manager for Marlboro from 1995-1999 and was heavily involved in creating the marketing for the national launch of Marlboro Ultra Lights, testified at her deposition in this case that the research study was conducted because the Marlboro brand group "wanted to make sure that having a low tar brand available from Marlboro didn't change people's, you know, perception, belief, that now – that Marlboro has less flavor. They just didn't want to have any negative impact on consumers' understandings/perceptions that Marlboro stood for flavor." 2063716549-6586 (U.S. Ex. 27,140) (Confidential) (U.S. Ex. 27,141) (Confidential); Deposition of Susan Norris, United States v. Philip Morris, et al., July 31, 2003, 96:14-107:10, 162:6-165:8.

2571.

2071535027-5090 at 5033, 5043 (U.S. Ex. 22,020) (Confidential).

2572. Susan Norris testified at her deposition in this case that Marlboro Ultra Lights was launched nationally on January 28, 1998. Norris further testified that Philip Morris targeted **all** Marlboro smokers with Marlboro Ultra Lights, not just current low tar smokers. Deposition of Susan Norris, United States v. Philip Morris, et al., July 31, 2003, 132:17-23, 162:6-165:8, 121:13-125:11.

2573. Marlboro Medium. In June 1991, Philip Morris launched Marlboro Medium, a Marlboro low tar line extension which targeted full flavor smokers who wanted to receive lower tar. A Philip Morris document dated September 1991 entitled "Background Information on PM Brands" stated that Marlboro Medium was aimed at "consumers still looking for a satisfying low tar cigarette with flavor." 2070143190-4433 at 3206 (U.S. Ex. 27,257).

2574.

2063731671-1688 (U.S. Ex. 22,222) (Confidential) (emphasis added). Bonhomme testified at her May 21, 2003 deposition in this case that this was the expected response, because low tar and nicotine was "a main feature of the brand." Bonhomme further testified that she currently

believes that low tar cigarettes are no less harmful than full flavor cigarettes, and admitted that as a result, the majority of consumers who began smoking Marlboro Medium started smoking it for a feature that it did not provide. Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 428:13-24, 431:24-432:6, 445:24-446:3, 437:8-14, 451:16-452:8.

2575.

2048735500-5604 at 5562, 5543, 5548-5549 (U.S. Ex. 21,971) (Confidential) (U.S. Ex. 66,785) (Confidential).

2576. A December 1994 report entitled "Report for a Concept Test for Marlboro Medium in Saudi Arabia," prepared for Philip Morris by Pan Arab Research Center W.L.L. found:

> Brand switching within the Marlboro family from the regular to the lights version, has been initiated due to a combination of health factors and the need for a lighter cigarette. In particular, Marlboro lights has been chosen because it is less harsh on the chest.

2501130255-0360 at 0287 (U.S. Ex. 45,898).

2577.

2063731689-1710 at 1695 (U.S. Ex. 79,820) (Confidential).

2578. Parliament. As demonstrated below, the recessed filter on Philip Morris's Parliament brand was intended to convey health reassurance.

2579. A Philip Morris document dated September 1991 entitled "Background Information on PM Brands" stated:

> It was during the proliferation of filtered cigarettes in the 1950's that Philip Morris gave Parliament its hallmark of today – the recessed filter. Unlike ordinary filter tip cigarettes, Parliament's famous recessed filter kept tar from touching the smoker's lips. Since the addition of this unique filter, Parliament smokers have enjoyed their brand's approach to smoking: clean, sophisticated, and distinctive. In 1979, Parliament's name was changed to Parliament Lights. This change reflected the brand's low tar status and helped capitalize on a growing low tar trend.

The document listed the following "Benefit Statement": "Parliament Lights – since tar on the filter tip never touches your lips, the taste is refreshingly light." 2070143190-4433 at 3217-3218, 3222 (U.S. Ex. 27,257).

2580. A 1974-1975 Philip Morris Parliament advertisement depicts a famous deep-sea diver who "couldn't fathom the idea of smoking without his cigarette holder. Because it gave him clean taste. No need for a cigarette holder today. Parliament's filter is recessed, so you taste only clean tobacco flavor. It adds new depth to clean taste." 03496228-6630 at 6383 (U.S. Ex.

20,057); see also U.S. Ex. 4,885 (1975); U.S. Ex. 4,595 (1975); U.S. Ex. 4,709 (1975); U.S. Ex. 4,412 (1974); U.S. Ex. 4,348 (1974).

2581. A 1977 Parliament advertisement stated: "Low-tar Parliament Choose more than just a number. . . . As you smoke, tar builds up on the tip of your cigarette filter. That's 'filter feedback.' Ordinary flush-tipped filters put that tar buildup flat against your lips. . . . Parliament's filter is recessed to keep tar buildup from touching your lips." ATX9274830144-0230 at 0204 (U.S. Ex. 88,782); see also ADV029 0247-0249 (U.S. Ex. 10,614) (1977); ADV029 0275-0276 (U.S. Ex. 10,623) (1977); ADV103 0011-0013 (U.S. Ex. 87,448) (1977); ADV103 0014-0016 (U.S. Ex. 87,449) (1977); ADV103 0017-0019 (U.S. Ex. 87,450) (1977); ADV108 0004-0006 (U.S. Ex. 87,505) (1978).

2582. As noted in the 1981 FTC Report on cigarette advertising, a Philip Morris Parliament advertisement from the time period preceding the Report (i.e., late 1970s – 1981) implied that its "**special filters minimize the risks of smoking**." 680114503-4819 at 4605 (U.S. Ex. 20,988) (emphasis added).

2583.

2063709250-9252 at 9250 (U.S. Ex. 27,136) (Confidential) (emphasis in original).

2584. Jeanne Bonhomme testified at her deposition in this case that she was aware that some consumers perceived Parliament's recessed filter as making the product better for their health. Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 545:20-546:7.

2585.

2072651442-1456 at 1448 (U.S. Ex. 27,339) (Confidential).

2586.

2080490776-0774 at 0779 (U.S. Ex. 77,751) (Confidential).

2587. Philip Morris Research On the Low Tar Cigarette Category. As demonstrated below, internal Philip Morris documents reveal that Philip Morris conducted consumer marketing research not just on individual low tar cigarette brands, but on low tar cigarettes as a category. These documents indicate that Philip Morris has long known and intended that its advertisements and marketing for low tar cigarettes featuring claims of lowered tar and nicotine

and "light" and "ultra light" brand descriptors contributed to, and reinforced consumers' notion that low tar cigarettes are better for their health, and caused consumers to smoke them for this reason. For example, a July 24, 1958 memorandum on Philip Morris letterhead from C.V. Mace to Dr. R.N. DuPuis entitled "Brief comments on a program to produce a low delivery filter cigarette with flavor," proposed a push for developing a "low delivery cigarette having good flavor." The memorandum stated:

> I'll bet that the first company to produce a cigarette claiming: a substantial reduction (say 50% less than the present Parliament and Kent) in tars and nicotine, or an ersatz cigarette whose smoke contains no tobacco tars, and with good smoking flavor, will take the market. Further, if he has the intestinal fortitude to jump on the other side of the fence (provided he has some convincing experimental evidence to back him up) on the issue of tobacco smoking and health, just look what a wealth of ammunition would be at his disposal. Of course, we would have to be careful to infer that the reason for the change in dress was the continuing evidence linking cigarette smoking with health, and that although the evidence is not altogether irrefutable we have decided upon this course of action in the public interest. **In this way, we have protected our bridges behind us because we have not admitted there is a direct relationship between smoking and health, and we are building new bridges ahead which we will need if there is a flood, but which we will not need if there is no flood**. In other words, we are planning for the worst; and in the event it proves unnecessary in the future, the experience gained should be useful for other purposes.

1001920356-0357 at 0357 (U.S. Ex. 85,007) (emphasis added).

2588. A June 1966 Philip Morris report prepared by Philip Morris marketing researcher Myron E. Johnston, Jr. for Helmut Wakeham and others indicates that Philip Morris's goal in marketing a "health cigarette" was not to reduce the harm to smokers, but to develop a cigarette that gave the **appearance** of being less harmful. This is illustrated by the fact that Philip Morris

only planned to market these cigarettes in response to a "health scare" related to smoking: "I have accepted as a working definition of a health cigarette the definition commonly used in the Research Center: All cigarettes about which health claims have been made or implied . . . . **My recommendation is that we not introduce a new health cigarette unless there is another health scare or additional restrictive legislation is passed** . . . . [O]ur entry should be determined by the form of the scare or legislation." 1001913853-3878 at 3858-3859 (U.S. Ex. 20,123) (emphasis added).

2589. Nancy Lund, Senior Vice President of Marketing at Philip Morris, testified in a 2002 deposition that Philip Morris was aware in the 1970s and 1980s that some consumers believed that light/low tar cigarettes were safer than full-flavored cigarettes. Lund further testified that during this time period, Philip Morris marketed cigarettes to these consumers and profited from those sales. Deposition of Nancy Lund, Price v. Philip Morris, Inc., September 20, 2002, 326:6-334:5.

2590. James Morgan, who served as Brand Manager of Marlboro from 1969 to 1972 and was Director of Brand Management at Philip Morris at the time of his 1974 deposition in the Philip Morris Inc. v. R.J. Reynolds Industries, Inc. et al. case, testified that the marketing of Marlboro Lights brand cigarettes was always intended to communicate that the brand was low in tar – as opposed to a brand that was lighter in taste:

> From the very beginning the phrase, 'Lowered tar and nicotine' was going to be on the package [of Marlboro Lights]. That was the phrase that described to the consumer what the product was in our judgment . . . . **We felt the brand name, Marlboro Lights, was a real help in terms of the description of the product being low in**

> **tar and nicotine** which appeared on the pack from the inception of the project . . . . [T]he proposition that we were going to push . . . was described on the pack with a lowered tar and nicotine cigarette . . . . **We are not talking, in my judgment, talking about light . . . as a taste**. It's not a term that means anything in terms of taste, and the name Marlboro Lights as I said before, a word which we feel has appeal in a different sense than suggesting what the cigarette even tastes like . . . . It was our desire in this entire Marlboro Lights brand project to constantly position Marlboro Lights as being – as having lower tar and nicotine from Marlboro [Reds] . . . . [W]hen I was in New England during the Marlboro Lights test market, I have heard one person ask for 'that lowered tar and nicotine Marlboro [and] among my compatriots who were in the test market, . . . most of them also ran across this same phenomenon.

Deposition of James Morgan, Philip Morris Inc. v. R.J. Reynolds Industries, Inc. et al., October 15, 1974, 4:9-10; 10:15-11:4; 78:20-79:14; 79:25-80:5; 81:8-12; 85:23-86:4 (emphasis added); Deposition of James Morgan, Philip Morris Inc. v. R.J. Reynolds Industries, Inc. et al., November 25, 1974, 247:11-14.

2591. Morgan, who later became President and CEO of Philip Morris, testified at his June 5, 2002 deposition in Price that he was well aware that consumers did not understand very well the FTC tar and nicotine numbers. Morgan further testified that "the major influence in people's perceptions in the tar of a cigarette would have come from the marketing positioning of a brand as opposed to people literally reading the FTC [tar and nicotine figures]." Morgan explained that "if you took the advertising, the point of sale, whatever may have been said on the racks or the cartons, the whole panoply of what the consumer saw about a cigarette brand would be more influential in that consumer's perception of the tar of that brand . . . than the fact that they may or may not have sat down and looked at a newspaper that had the latest Federal Trade

Commission report." Morgan further testified that a brand's "image perhaps is more important than the product's characteristics itself." Deposition of James Morgan, Price v. Philip Morris, Inc., June 5, 2002, 45:7-52:14, 53:14-57:15; accord 502641641-1646 at 1641 (U.S. Ex. 85,008) (1974 Philip Morris USA interoffice correspondence sent to Morgan indicating that "Lowered Tar and Nicotine" on Marlboro Lights packs "clearly means 'less tar' and 'better for your health'" and that actual FTC tar and nicotine yield numbers have less of "this positive kind of connotation" with smokers).

2592. Morgan testified at his deposition in Price that the trend in the 1970s toward low tar cigarettes was due in large part to consumer perception that they were less hazardous to health than higher tar cigarettes, specifically testifying that "the consumer was perceiving in the 1970s lower tar as tied to less hazardous." Although Morgan testified that "we were aware of that," he testified that despite being armed with this knowledge, Philip Morris took no additional steps to counter that perception. Deposition of James Morgan, Price v. Philip Morris, Inc., June 5, 2002, 42:16-45:6, 63:10-67:19; 1004888470-8484 (U.S. Ex. 85,009); 502641641-1646 (U.S. Ex. 85,008).

2593. Morgan further testified in his Price deposition that the Philip Morris marketing department often drove new product development. Morgan testified that the Philip Morris marketing and research and development departments held regularly scheduled meetings, where they discussed among other things how to increase the market of low tar cigarettes through research and development. Morgan also testified that:

> I believe that I characterized the marketing R&D relationship as 70 to 80 percent marketing, saying to R&D here are the marketplace

> conditions, here are the issues from a cigarette standpoint that we see; what can you do. And then the balance 20 percent or 25 or 30 percent R&D saying, hey, here are some things we developed, what do you think you can do with these in the marketplace.

Deposition of James Morgan, Price v. Philip Morris, Inc., June 5, 2002, 95:13-99:5.

2594. A May 1976 study prepared for Philip Morris by The Roper Organization, Inc., entitled "A Study of Smokers' Habits and Attitudes With Special Emphasis on Low Tar Cigarette" stated:

> [T]his study shows that the smoking public is convinced that to the extent any brands are better for health, it is the low tar brands that are. . . Low tar brand smokers cite as the most liked characteristic of their brand . . . as compared with smokers of flavor filters, they say it is '**better for your health**' and cite its 'more effective filter.' . . . **Brands Thought Better For Health – The low tar brands have cornered opinion that to the extent any brands are better for your health, they are**. . . Three in ten of all smokers said some brands were better for health than others, and almost half of the low tar brand smokers said this. . . . Furthermore, it is the lower tar content of these brands that make people say they are better for your health.

2024921314-1612 at 1333, 1348, 1352-1353 (U.S. Ex. 20,403) (emphasis added).

2595. A January 1979 study prepared for Philip Morris stated:

> **These ultra low tar smokers indicated that they are aware of the low tar levels in their brands and that they switched to them specifically because of advertising calling this fact to their attention** . . . As lower and lower tar brands become available, it would appear smokers are subject to advertising pressure and brand availability, and the opportunity for switching obviously occurs. . . Characteristics of ultra low tar smokers were: people who want to quit . . . more interested in health. . . When asked how they happened to switch to the brand they are now smoking many of the Carlton smokers cited advertising and tar and nicotine ratings. . . . When Carlton ads were shown in the groups, it was obvious that most respondents had seen them and were aware of

> the copy claims. It was these claims and other Carlton ads to which smokers referred prior to exposure and when discussing the fact that advertising had been one of the factors causing them to try the brand. **This would seem to indicate that ultra low tar smokers are paying attention to and being attracted by the advertising**. Respondents . . . appeared to react favorably to the Triumph ads. They said that 3 mg. tar was within the ultra low tar range implying that it represented a safer cigarette.

2040066740-6766 at 6747, 6748, 6751-52, 6754, 6756, 6757 (U.S. Ex. 20,435) (emphasis added).

2596. A Philip Morris document circa 1979 prepared by Judy John and Helmut Wakeham entitled "Breakthrough of the High Taste, Low Tar Cigarette: A Case History of Innovation," stated that the cigarette companies' "emphasis on low-tar products is the result of consumer demand spurred at least in part by the smoking and health controversy." 1000208603-8625 at 8604 (U.S. Ex. 85,010).

2597. A March 1979 report entitled "A Study of Smokers' Habits and Attitudes With Special Emphasis on Low Tar and Menthol Cigarettes" prepared for Philip Morris by The Roper Organization stated:

> **The appeal of low tars is simple and single–better for you, less harmful, easier on the lungs, throat, etc.** The weakness or objection to low tars is also simple–tasteless, lacking in satisfaction, and the related factor of hard to draw on. At the same time **there is clear evidence that if the appeal–safety–is strong enough, people can over time grow used to, and in some cases come to actually like, the main objection to low tars–low taste**.

2049455309-5318 at 5315 (U.S. Ex. 22,218) (emphasis added); see also Deposition of Jeanne Bonhomme, Price v. Philip Morris, Inc., August 28, 2002, 78:3-81:24.

2598.

2041097977-7999 at 7990 (U.S. Ex. 85,006) (Confidential) (emphasis added).

2599.

2028817401-7576 at 7506 (U.S. Ex. 20,016) (Confidential).

2600. A July 27, 1987 letter on Philip Morris Asia letterhead from Joe Tcheng to Cecil Yow stated: "The mild/lights segment is the fastest growing segment in the Hong Kong market. . . . There is definitely a growing health consciousness in the market due to regular Government anti-smoking campaign. . . . Research shows that Lights = Mild = Less Harmful. Government's anti-smoking measures will intensify and . . . . [t]his may further increase health concern and it is very likely that the mild/lights segment will continue its rapid growth." 2084587895-7895 (U.S.

Ex. 85,011); 2504046594-6601 (U.S. Ex. 85,012).

2601. An August 13, 1987 research report prepared for Philip Morris by Leo Burnett entitled "Marlboro Ultra Low Tar Campaign Strategy" observed that "[l]ights smokers perceive current Ultra Low Tar smokers as: 'a chronic smoker who's noticed a smoker's cough'." The report also found that smokers primarily try Ultra Low Tar cigarettes due to "health concerns = downswitching." 2049437636-7689 at 7666, 7678 (U.S. Ex. 38,741).

2602. A February 12, 1988 memorandum on Philip Morris USA letterhead from L. Suwarna to D.E.R. Dangoor, stated: "[T]he combination of increased consumer demand for 'safer' cigarettes with a technological breakthrough delivering acceptable tasting filter cigarettes led to the transformation from non filter to filter cigarettes." 2043876284-6291 at 6285 (U.S. Ex. 26,943).

2603. A Philip Morris document circa 1990 relating to "New Brand Development" in Pakistan indicated Philip Morris's knowledge that packing communicates the low tar or mild nature of cigarettes to consumers and that smokers' "anxiety about the health/safety issue" is what drives sales for low tar cigarettes:

> There was little doubt that the pack design with its reliance upon the central gold panel against a white background effectively projected the impression of a very mild cigarette. . . . The evidence as a whole seemed to indicate, in fact, that anxiety about the health safety issue had not yet reached the level where avowedly very mild cigarettes . . . could expect an extensive franchise. . . . Over time, anxiety levels would rise, as they have done in other markets and when this happened mild/light brands . . . would begin to achieve respectable sales.

2504008471-8519 at 8478, 8518 (U.S. Ex. 85,013).

2604. A February 12, 1991 Philip Morris marketing research department report described the smoker profile of a Marlboro Extra Lights smoker as close to that of a traditional low tar smoker, which included "Health Conscious Smokers." 2041497481-7503 at 7485 (U.S. Ex. 22,145).

2605. A September 26, 1991 research report entitled "Qualitative Research on Menthol/Nonmenthol Smokers," prepared for Philip Morris by the research firm ASI Market Research (Japan), revealed Philip Morris's knowledge that the ideal cigarette for both menthol and non-menthol smokers would present no risk or minimal risk to health. 2057096412-6532 at 6526, 6528 (U.S. Ex. 87,881).

2606. Philip Morris USA's 1992-1996 Strategic Plan stated:

> The development of products which address perceived health concerns . . . is very much an R&D issue. Previous product changes driven by "perceived health concerns" were the growth of filtered products from 3 to 70% of the market between 1945 and 1953, and the growth of the low tar segment to nearly 50% of the market by 1985. . . . Filtered cigarettes now make up over 96% of the market . . . .

2021529528-9638 at 9608 (U.S. Ex. 85,084).

2607.

At her deposition in this case, Bonhomme explained

"What I believe I was referring to was there

was **a notion among many smokers that low tar cigarettes were a better choice, that they were healthier**, and that this sentence, I believe, relates to some of these people believing that they were . . . making a better choice by . . . being more responsible." 2071535456-5469 at 5456 (U.S. Ex. 22,021) (Confidential); Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 577:20-578:3 (emphasis added).

2608.

2063704131-4132 (U.S. Ex. 27,134) (Confidential) (U.S. Ex. 39,829) (Confidential); 2063704088-4091 at 4090-4091 (U.S. Ex. 39,827) (Confidential); 2063704092-4099 at 4099 (U.S. Ex. 39,828) (Confidential); 2063704135-4136 (U.S. Ex. 27,135) (emphasis added).

2609.

2610. In a May 1996 meeting with the FTC, representatives from Philip Morris, including Denise Keane, Philip Morris General Counsel, R.J. Reynolds, Brown & Williamson, and Lorillard were referred to a January 1996 article by Joel Cohen concerning how smokers misinterpret brand descriptors and are unaware of the tar/nicotine levels of the cigarettes they smoke. Despite having been present at this May 1996 meeting with the FTC; having been given the information on the Cohen article concerning smokers' misinterpretation of brand descriptors; and the decades of consumer and marketing research conducted or commissioned by Philip Morris concerning consumers' interpretation of these terms (see supra), Denise Keane testified at

her October 2002 deposition in this case that she still had not read the Cohen article, that she was unaware of **any** research on smokers' perceptions of brand descriptors, and that Philip Morris had not conducted any research to determine how consumers actually perceive brand descriptors, not even in response to a 1997 request from the FTC. Similarly, Keane testified that Philip Morris has not conducted any research to ascertain consumers' awareness of the tar and nicotine levels of cigarettes that they smoke. 2048216131-6135 at 6134 (U.S. Ex. 38,655); Deposition of Denise F. Keane, United States v. Philip Morris, et al., October 2, 2002, 380:4-382:3, 385:7-385:25, 436:23-438:12.

2611. A draft Philip Morris "Discussion Points" memorandum dated January 8, 1999 bearing the handwriting of Denise Keane, Philip Morris General Counsel, shows Philip Morris's recognition that brand descriptors are **not** linked to taste strength, despite the company's insistence to the contrary. The memorandum stated that "use of descriptors [is] not consistently tied to strength of taste in advertising." For this proposition, it relies on "POL [product opinion laboratory] data on consumer perception of descriptors." 2074759155-9155 (U.S. Ex. 43,524); Deposition of Denise Keane, United States v. Philip Morris, et al., October 2, 2002, 419:17-420:9.

2612. Jeanne Bonhomme testified that she was familiar with the reasons why smokers switch from one cigarette brand to another, and that in her experience, smokers generally are not aware of the specific tar levels of the cigarettes they smoke, and therefore rely on descriptors such as "light" or "low tar" as a guide for the perceived amount of tar contained in their cigarette. Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 587:7-

588:3.

2613. A May 1996 research report prepared for Philip Morris by the Sun Research Corporation, entitled "Highlights of 17 Triads with Potential In-Switchers, Merit Ultima and Carlton/Now Smokers," was intended in part to "[b]etter understand the wants, motivations, and decisions of potential downswitchers about what they seek in the way of taste, lightness, and brand imagery for a lowest tar brand." The report hypothesized that "[p]otential in-switchers seem very far from actually switching to a lowest tar cigarette although they say they are 'definitely' or 'probably' interested. They say they are concerned about perceived health issues." The report found that "[e]ach potential in-switcher had a rationale for their particular choice in a light brand, believed that it was lighter . . . perceived to be better for them . . . than the brand they had previously smoked." 2048941177-1201 at 1180, 1183, 1187 (U.S. Ex. 38,731) (emphasis in original).

2614.

2072675414-5417 at 5415 (U.S. Ex. 27,347) (Confidential).

2615.

2072675414-5417 at 5415-5416 (U.S. Ex. 27,347) (Confidential) (emphasis added – bracketed material in original).

2616. In an e-mail dated November 21, 1999, from David Davies, Chief General Counsel for Philip Morris International, to Wilfried Dembach of the Confederation of European Community Cigarette Manufacturers, Davies wrote that "there is undoubtedly a view among the public that low tar cigarettes offer some health benefits." 321533760-3762 at 3760 (U.S. Ex. 22,050).

2617. Jeanne Bonhomme testified at her deposition in this case that, in her experience, reasons for switching brands included "filters, low tar, ultra low tar [and] new developments in the category" which "for some people could be bundled together into some perceived health benefit." Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 460:3-461:7; accord Deposition of Jeanne Bonhomme, Price v. Philip Morris, Inc., August 28, 2002, 36:9-39:21, 69:18-71:12, 72:22-77:16 (testifying that she was aware that some smokers were switching to low tar cigarettes because they thought they were healthier than regular

cigarettes and that she was not concerned about the fact that consumers held this perception).

2618. Bonhomme further testified that one of the main reasons that some smokers were interested in an ultra light cigarette product (e.g., Marlboro Ultra Lights) was because they believed it was less harmful. When asked whether or not it was important for Philip Morris to quantify the percentage of consumers who believe that light/low tar cigarettes offer a health benefit, Bonhomme testified: "I think not, because if I thought it was important, I was in a position in the company that I would have recommended that we do it." Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 586:4-9, 419:17-22.

2619. Ellen Merlo, then Senior Vice President of Corporate Affairs at Philip Morris USA, testified at her deposition in Price that notwithstanding the placement of the Surgeon General warning on cigarette packs, some people were smoking low tar cigarettes because they thought they were better for their health. Deposition of Ellen Merlo, Price v. Philip Morris, Inc., October 2, 2002, 159:7-18; 160:13-24.

(iii) R.J. Reynolds

2620. Camel. Camel Lights advertisements circa 1978 used the slogan "Introducing the solution," representing Camel Lights as the solution to the problem "[e]verybody knows," i.e., that low tar cigarettes do not have an acceptable taste (1978, *Penthouse*: "New Camel Lights Introducing the solution."); ("Introducing the solution. New Camel Lights. Everybody knows the problem [referring to poor taste of low tar cigarettes]. Now Camel Lights has the solution."). U.S. Ex. 5,872 (1978); U.S. Ex. 87,195 (1978); U.S. Ex. 87,192 (1978); U.S. Ex. 87,204 (1978); U.S. Ex. 5,709 (1978); see also ATX9274830144-0230 at 0202, 0303 (U.S. Ex. 85,014).

2621. Camel Lights advertisements in the 1980s continued to promise the "solution" of low tar cigarettes that provided "[s]atisfaction" by containing acceptable "taste," which was lacking in low tar cigarettes:

- "Discover Camel Lights. Satisfaction. Low tar." 519315788-5789 (U.S. Ex. 79,583) (April 1980 *Nat'l Lampoon*)
- "Discover satisfaction. Camel Lights. The Camel World of satisfaction comes to low tar smoking. . . . Camel Lights brings the solution to taste in low tar." 519315792-5792 (U.S. Ex. 79,583) (May 1980 *Nat'l Lampoon*); 519315793-5793 (U.S. Ex. 79,583) (July 1980 *Nat'l Lampoon*)
- "Camel Lights. Low tar. Camel taste." 519315796-5796 (U.S. Ex. 79,583) (December 1981 *Nat'l Lampoon*)
- "Camel Lights. . . . Same low tar, same Camel taste." 519315795-5795 (U.S. Ex. 79,583).

2622. In the 1990s, R.J. Reynolds used slogans such as "GET ULTRA" to advertise its Camel Ultra Lights brand. U.S. Ex. 1,877 (1991); U.S. Ex. 1,878 (1991); U.S. Ex. 1,884 (1991); U.S. Ex. 1,893 (1991); U.S. Ex. 8,943 (1991); 970469347-9474 at 9442 (U.S. Ex. 85,104) (circa 1991 Camel "GET ULTRA" advertisement); see also U.S. Ex. 1,870 (1990); U.S. Ex. 8,920 (1990); U.S. Ex. 8,935 (1990); U.S. Ex. 8,937 (1990); 970469347-9474 at 9440-9441 (U.S. Ex. 85,104) (other Camel Ultra Lights advertisements circa 1990-1991).

2623. R.J. Reynolds's 1994 marketing research on Camel Special Lights advertising ("Concept #17: The Special Lights Filter. Takes out impurities other filters can't touch") included the following statements from smokers that the advertisement conveyed to them:

- "It sounds like it's taking the poison out of the cigarette."
- "Takes out the impurities–makes it sound like a healthier cigarette."

- "The special filter would clean the cigarette and make it a healthier cigarette to smoke."
- "It makes me feel I can enjoy smoking without harming myself because the filter takes out impurities. It sounds safer to smoke."
- "[I]t's safer for you."
- "Sounds like it would save your lungs."

509619620-9625 at 9620, 9622, 9624, 9625 (U.S. Ex. 85,015).

2624. Doral. A September 17, 1968 R.J. Reynolds Doral Filter brand cigarette advertisement stated:

> New Doral. A whole new kind of low 'tar' and nicotine cigarette – with a whole new kind of filter system. Cellulon fiber to reduce 'tar' and nicotine . . . and a strange-looking polyethylene chamber with baffles and air channels. You'd need a scientist to explain it. But Doral says it all in two words: 'taste me.'

509134626-4626 (U.S. Ex. 20,824); see also U.S. Ex. 87,452 (1972); U.S. Ex. 87,453 (1972); U.S. Ex. 87,454 (1972).

2625. A 1974-1975 R.J. Reynolds Doral advertisement implied a health benefit to smoking low tar cigarettes by analogizing them to a "Doral Diet." The advertisement, depicting a youthful man lighting a cigarette, stated: "How I lost 700 mg. of 'tar' the first week . . . without losing out on taste. I'm not too big in the willpower department. But I lost 700 milligrams of 'tar' the first week on what I call 'The Doral Diet.' Now I can still enjoy smoking, and cut down on 'tar' and nicotine, too. . . . For a pack a day smoker like me, my Doral Diet really ads up." U.S. Ex. 4,746 (1975); U.S. Ex. 4,758 (1975); U.S. Ex. 4,783 (1975); see also U.S. Ex. 4,961 (1976); U.S. Ex. 4,789 (1975); U.S. Ex. 4,811 (1975); 03496228-6630 at 6329 (U.S. Ex. 20,057).

A 1975 R.J. Reynolds consumer research report for Doral advertising indicated the following focus group response: "The main idea of the ad was **to try a healthier smoke, try the Doral Diet**." 501457575-7706 (U.S. Ex. 22,150) (emphasis added).

2626. In a 1975 advertising research report for a Doral advertising campaign prepared by R.J. Reynolds's Marketing Research Department, respondents, when asked about a specific "Doral Diet" advertisement, indicated that they believed that it promoted the notion that Doral cigarettes, because they were low tar, were healthier to smoke than other cigarettes. Consumers had the following perceptions of the campaign:

- My impression was that they claim it's safer to smoke Doral than other cigarettes.
- My impression was that it's worth a try if it is healthier for me.
- The main idea was that it would be better to smoke it because it's lower in tar.
- The main idea was that it's safer to smoke.
- I got the impression that they want you to switch to Dorals and save your health.
- They brought out the idea that it might be a good cigarette to try if you're worried about the amount of 'tar' and nicotine your lungs are absorbing. The main idea was to save your health, but if you still want to smoke, smoke Doral.
- Nothing was brought out except, I guess, if you have to smoke, you should choose a low 'tar' cigarette for health reasons.
- The main idea was that it's less dangerous to your health than any other cigarette.
- The main idea was that you would get as much satisfaction, and it wouldn't be as bad for you.
- The ad said it is lower in tar; therefore, it is healthier. The idea brought out was it would be a safer cigarette. The main point was it is healthier to smoke, since it is lower in tar.
- The main idea of the ad was to try a healthier smoke, try the Doral Diet.
- The main idea they were trying to get across was they're better for your health.
- The main point of the ad was that they were safer for your health because of lower tar and nicotine. Their main idea was that they would still taste

good, but they're low in tar and nicotine and would consequently be better for you.

- The main idea was you have less chance of danger to your health with Doral than another brand.
- My impression was it's much less of a health risk.
- My impression was that obviously because of dangers, cigarette companies are starting to cut down on tar.
- The main point was it's safer because you take in less tar.
- The pitch was if you smoke Doral, you may have better health.
- It gave me the idea if you are conscious of your health, you should smoke these.
- The main point was that it's a healthy cigarette to smoke compared to other cigarettes.

501457575-7706 (U.S. Ex. 22,150).

2627. Another 1975 study regarding the effectiveness of a particular Doral advertising campaign summarized that: "Attitude diagnostics indicated that smokers had no problem understanding the 'Wise Up' campaign. Respondents felt that 'Wise Up's' main point was a low tar and nicotine claim (84%) with some taste mentions (24%)." By way of example, some of the respondents noted:

- The main idea they were trying to get across was it's less dangerous to the health and better tasting.
- I guess the idea is that Doral is safer to smoke, as it has less tar and nicotine than others.
- My impression was that Doral is less harmful.
- The main idea they were trying to get across was to smarten up because the cigarettes have less tar.
- The main point of the ad was you can have good taste and be a little less harmful, too.

501719738-9761 at 9738, 9748-49, 9752, 9755 (U.S. Ex. 22,075).

2628. A July 27, 1976 letter discussing the need to "reposition" Doral noted that the "**smoker we are going after must be concerned about the health controversy**. It is

understood that we cannot necessarily target our media against 'concerned' smokers, but that this must be accomplished via creative. Nevertheless, we believe it is an important factor in further 'segmenting' our target audience." 50224143-4151 at 4147-4148 (U.S. Ex. 22,103) (emphasis added); see also 501164932-4933 at 4932 (U.S. Ex. 48,731) (the marketing position for Doral should be to "position DORAL to fill the needs of those 'concerned' smokers who seek extremely low 'tar' yet are unwilling to completely sacrifice taste").

2629. An August 10, 1976 Doral Brand Review recognized, as a major factor in the market, that low 'tar' and nicotine smokers worried about health and that they wanted low/lowest tar and nicotine. 501145582-5682 at 5607 (U.S. Ex. 22,105).

2630. In discussing a Doral 4 advertising research proposal in June 1977, the copy strategy was described as: "Convince the Prime Prospect that new Doral 4 is the solution to his concern about the smoking controversy because it offers the optimum combination of ultra-low tar and taste satisfaction." As a result, the advertising was to be addressed to smokers "seriously concerned about the alleged hazards of smoking," and who, "because of his concern, seek[] one of the lowest tar levels available (or an ultra-low level)." 501533008-3011 (U.S. Ex. 22,107).

2631. Vantage. R.J. Reynolds's marketing campaign for its Vantage cigarettes clearly conveyed the alleged health benefits of this brand. Vantage advertisements from the late 1970s used testimonials of persons reflecting their choice to switch to Vantage out of health concerns, such as the following:

- "You don't cop out. We don't cop out. You demand good taste. But want low 'tar' and nicotine. Only Vantage gives you both. Vantage. The only full-flavor cigarette with low 'tar' and nicotine." U.S. Ex. 3,545 (1971); U.S. Ex. 3,566 (1971); U.S. Ex. 3,581 (1971); U.S. Ex. 3,602 (1971); U.S.

Ex. 3,627 (1971); U.S. Ex. 3,653 (1971).

- "Why I smoke Vantage. I read the papers. I watch TV. I hear the things some of them are saying about smoking. . . . And then, frankly, all that the critics say about 'tar' and nicotine has to make an impression. Fact is, they don't make me feel guilty about smoking Vantage." U.S. Ex. 3,683 (1972); U.S. Ex. 3,828 (1972).

- "Why we smoke Vantage. Oh, Lou and I were concerned about smoking a long while before that. You can't read in the papers day in and day out what they're saying about smoking and not be concerned." U.S. Ex. 3,742 (1972).

- "What I'm doing about smoking. But that doesn't make me bury my head in the sand and ignore the stuff on the papers about smoking. My attitude is, OK, if high 'tar' and nicotine cigarettes are a concern to me, I'd better to do something about it. So I did, I started to smoke Vantage." U.S. Ex. 4,207 (1973); U.S. Ex. 4,553 (1974).

- "I smoke. And I'm not going to apologize for it. Sure, I've heard it all. I'd light up at a cocktail party. And somebody would remind me of what they've read about smoking in the papers. Well, I read the papers, too. I've heard all that stuff they say about high 'tar' and nicotine. And I'd be less than honest if I said it didn't make me concerned." U.S. Ex. 4,144 (1973); U.S. Ex. 4,504 (1974).

- "Maybe you'll smoke them for the same reason I do. There's been a lot of words in the paper about smoking. Kind of reminds me of that old line - 'everything I like is either illegal, immoral, or fattening.' Now I won't say that I wasn't hassled by what I read. But, I just didn't want to give up smoking. I guess I enjoy it too much. But it sure was enough to get me thinking." U.S. Ex. 4,421 (1974).

- "If you smoke. We're not telling you anything you don't already know when we acknowledge that a controversy about smoking exists." U.S. Ex. 3,789 (1972); U.S. Ex. 3,914 (1972); U.S. Ex. 4,728 (1974); U.S. Ex. 4,805 (1975); U.S. Ex. 5,116 (1976); U.S. Ex. 5,187 (1976).

- "If you don't smoke, show this ad to someone who does. You could tell them that if they really enjoy the taste of their present cigarette but are concerned about 'tar' and nicotine, they should understand that where there is taste there is smoke and where there is smoke there has to be some

'tar' and some nicotine." U.S. Ex. 4,234 (1974).

- "Are you still smoking? If you're still a smoker, you've probably heard the charges leveled against 'tar' and nicotine. You may have become concerned. And chances are you even tried to do something about it." U.S. Ex. 5,038 (1976).

- "How is it possible? Through a unique blend of very select, flavorful tobaccos." U.S. Ex. 6,255 (1979).

2632. Additional advertisements for Vantage included the following:

- "By now, as an adult, you must have read and heard all that's been written and said for and against cigarettes. . . . Vantage gives you real flavor, like any high 'tar' and nicotine cigarette you ever smoked, without the high 'tar' and nicotine. And since it is the high 'tar' and nicotine that many critics of cigarettes seem most opposed to, even they should have some kind words for Vantage." U.S. Ex. 3,764 (1972); U.S. Ex. 88,685 (1972); see also U.S. Ex. 3,666 (1972); U.S. Ex. 3,683 (1972); U.S. Ex. 3,817 (1972); U.S. Ex. 3,829 (1972); U.S. Ex. 4,369 (1974).

- "Maybe the people who criticize smoking should stare the facts in the face. Then they might recommend that if you've decided to smoke, but are concerned about 'tar' and nicotine, you might smoke Vantage. . . . Vantage is both high in flavor and low in 'tar' and nicotine." U.S. Ex. 87,455 (1975); U.S. Ex. 87,464 (1975); see also U.S. Ex. 4,913 (1975); U.S. Ex. 5,157 (1976).

- "Anybody who smokes knows there's a controversy about smoking going on. And that most of the controversy is about 'tar' and nicotine. . . . [W]hat Vantage Menthol . . . doesn't have is anywhere near the 'tar' and nicotine most of the other menthols have." U.S. Ex. 4,521 (1974); U.S. Ex. 4,728 (1975); see also U.S. Ex. 4,182 (1973); U.S. Ex. 4,930 (1975); U.S. Ex. 5,066 (1976); U.S. Ex. 5,237 (1976).

- "Are you still smoking? In the years since the criticism against smoking first appeared, many people have given up cigarettes. But many more people haven't. . . . [W]e'd like to talk to. . . . [t]hat even larger group of people who are still smoking today. If you're a smoker, you've probably heard the charges leveled against 'tar' and nicotine. You may have become concerned. And chances are you even tried to do something about it. Like trying . . . low 'tar' and nicotine cigarettes. . . . Vantage cuts down

substantially on the 'tar' and nicotine you may have become concerned about. . . . So, if you still smoke, but would like to cut down on 'tar' and nicotine, Vantage is one cigarette you should seriously consider." U.S. Ex. 5,038 (1976); see also U.S. Ex. 4,383 (1974); U.S. Ex. 4,625 (1975); U.S. Ex. 4,711 (1975); U.S. Ex. 5,013 (1976); U.S. Ex. 5,198 (1976).

- "Vantage cuts down substantially on the 'tar' and nicotine you may have become concerned about." U.S. Ex. 5,038 (1976); see also U.S. Ex. 4,913 (1975).

See also 502612446-2446; 03496228-6630 at 6313 (U.S. Ex. 20,057); 502612740-2740 (U.S. Ex. 21,891); 500713420-3420 (U.S. Ex. 48,350).

2633. An internal February 11, 1975 Brown & Williamson memorandum by "J.V.B." commenting on R.J. Reynolds's Vantage advertisements, stated that R.J. Reynolds's advertisement ("Why do you smoke? With what you've been hearing about smoking these days, you probably wonder sometimes why you smoke at all") was "address[ing] the health issue for competitive purposes." R.J. Reynolds received similar feedback in advertising research reports dated July 3, 1975 and December 18, 1975. 690007757-7760 at 7759 (U.S. Ex. 21,039); 501457520-7574 (U.S. Ex. 22,073); 501457468-7495 (U.S. Ex. 22,074).

2634. Other Vantage advertisements from the late 1970s used testimonials characterizing the harmful effects of smoking as relating only to "high-tar" cigarettes, intimating that lower tar cigarettes are less harmful and utilizing the specific marketing slogan "Vantage. A lot of taste without a lot of tar," including the following:

- "Smoking. Here's what I'm doing about it . . . . [L]ike a lot of people I'm . . . aware of what's being said [about the harm of cigarette smoking]. And like a lot of people I began searching for a cigarette that could give me the taste I like with less tar . . . . Vantage. It's everything the ads say it is . . . . What am I doing about smoking? I'm smoking Vantage." U.S. Ex. 273 (1978); U.S. Ex. 5,578 (1977); U.S. Ex. 5,605 (1977); U.S. Ex. 5,580

(1977); see also U.S. Ex. 324 (1978); U.S. Ex. 4,784 (1975); U.S. Ex. 4,954 (1975).

- "I have my own ideas about smoking . . . [T]here's no getting away from the stories I keep hearing about cigarettes and high tar. . . . [Vantage is] the only low-tar cigarette I've found (and I've tried several other brands) that really gives me taste and satisfaction." U.S. Ex. 87,210 (1978); U.S. Ex. 87,201 (1978); U.S. Ex. 284 (1978); U.S. Ex. 287 (1978); U.S. Ex. 5,645 (1978); U.S. Ex. 5.655 (1978); U.S. Ex. 5,711 (1978); see also U.S. Ex. 239 (1977).

- "Vantage is changing a lot of my feelings about smoking. . . . I'm not living in some ivory tower. I hear the things being said against high-tar smoking as well as the next guy. And so I started looking for a low-tar smoke that had some honest-to-goodness cigarette taste. . . . As far as I'm concerned, when I switched to Vantage, I changed to a cigarette I could enjoy." U.S. Ex. 87,456 (1977); U.S. Ex. 87,200 (1978); U.S. Ex. 5,619 (1978); U.S. Ex. 247 (1977); U.S. Ex. 252 (1977).

- "My wife got me to switch to Vantage. . . . My wife . . . would remind me of the stories being told about high-tar cigarettes. Well, I began looking into those new low-tar cigarettes. . . . [Vantage] tasted really good and they actually had less than half the tar of my old brand. . . . So now, I smoke Vantage. I get the taste I want and the low tar . . . ." U.S. Ex. 258 (1977); U.S. Ex. 5,501 (1977); U.S. Ex. 5,514 (1977); U.S. Ex. 87,457 (1977).

- "These days, why do I smoke? . . . . With all the talk about smoking and high tar, it didn't take much imagination for me to conclude that the cigarette of the future would taste good and probably be low in tar as well. . . . Then I discovered Vantage. It was my kind of cigarette. It gave me taste. Pleasure. And the low tar I was looking for." U.S. Ex. 5,683 (1978); U.S. Ex. 295 (1978); U.S. Ex. 5,691 (1978).

See also ATX9274830144-0230 at 0190, 0191, 0193, 0195 (U.S. Ex. 88,782).

2635. Several other advertisements also presented this theme of switching to Vantage out of concern for the health effects of "high tar," without the "A lot of taste without a lot of tar" slogan:

- "'Why I choose to smoke. . . . I'm not deaf to what's being said about tar. So I searched out a cigarette that would give me taste with low tar. . . . Vantage has all the taste I enjoy yet, surprisingly, much less tar than my old brand." ADV017 1498-1498 (U.S. Ex. 5,725) (1978); ADV017 1557-1558 (U.S. Ex. 5,745) (1978); ADV017 1666-1667 (U.S. Ex. 5,782) (1978); ADV017 1589-1591 (U.S. Ex. 5,756) (1978); ADV017 1616-1617 (U.S. Ex. 5,765) (1978).

- "'Vantage gives us more taste and less to argue about. My husband and I . . . . [are] both aware of the things being said against high tar. So there we were facing each other every day, smoking our high-tar cigarettes and daring each other to switch to something lower. . . . Today, we both smoke Vantage. You could say we're getting less tar and we're getting along – with Vantage." ADV108 0001-0003 (U.S. Ex. 87,504) (1978); see also ADV017 0339-0341 (U.S. Ex. 5,467) (1977); ADV018 0406-0408 (U.S. Ex. 5,932) (1978); ADV018 0580-0582 (U.S. Ex. 5,990) (1979).

See also ATX9274830144-0230 at 0194, 0197 (U.S. Ex. 88,782).

2636. The foregoing marketing campaigns demonstrate, and an April 19, 1978 memorandum makes clear, that "Vantage has traditionally limited its target market to 'concerned' full flavor smokers." That same memorandum points out, however, that "[m]any current VANTAGE smokers, in an effort to alleviate their concerns for smoking, are switching to lower tar cigarettes offering compatible taste." 500210073-0075 (U.S. Ex. 22,108).

2637. In a 1981 memorandum to M.M. Sheridan entitled "Reactions to the VANTAGE/Merit Image Study," K.A. Schmitt reported that based upon the study, "smokers in our target category have two primary product desires: a lower tar product which addresses their safety/health concerns, and a product which provides taste satisfaction." The memorandum further reported that "VANTAGE is seen as not dealing as directly or effectively with the health/safety concerns of the consumer as Merit. Our current advertising approach focuses much more heavily upon the taste/pleasure aspects of our brand than on the safety/health aspects." As

a result, the memorandum recommended that Vantage marketing be modified to better "target" smokers with health concerns: "Perhaps a more balanced approach is needed, both to tone down the perceptions of harshness and to renew the belief that VANTAGE does indeed address the target consumer's health/safety concerns." 523474848-4851 at 4848 (U.S. Ex. 22,156).

2638. In a 1981 R.J. Reynolds document entitled "Vantage Strategic Review," it was recommended that the Vantage Family copy platform reassure "moderation smokers that they have made a series of good decisions in selecting VANTAGE as their brand." 502178177-8216 at 8210 (U.S. Ex. 49,060).

2639. A 1981 R.J. Reynolds marketing document entitled "Vantage Family," discussed a "moderation" smoker profile, to whom they targeted Vantage Ultra Lights. The "moderation" segment "realizes that there are both positive and negative aspects of smoking, resulting in a desire to resolve the conflict by compromising/moderating on their brand choice." 502177978-8009 at 7981 (U.S. Ex. 49,058).

2640. An August 1981 consumer research study entitled "Vantage Personalities" prepared for R.J. Reynolds by Social Research, Inc., noted that people in the Vantage target market "have very definite concerns about the alleged health hazards connected with smoking. It is these qualms that have prompted many of them to seek out lower tar brands." That report likewise noted that the target market "abandoned [] harsher brands in search of milder brands with lowered tar and nicotine. This movement was almost always prompted by health concerns. In some cases, people were experiencing actual problems such as coughing, throat irritation, and shortness of breath. Others may not have experienced actual symptoms, but were worried about

the publicized alleged health hazards associated with stronger cigarettes." 503148009-8077 at 8006, 8070 (U.S. Ex. 22,159).

2641. An April 1982 research study entitled "Vantage and Merit Smokers" prepared for R.J. Reynolds by Social Research, Inc., stated:

> Both Vantage and Merit smokers have similar early smoking histories . . . switching to lighter cigarettes to relieve physical symptoms and as an acknowledgment of increased concerns about alleged health hazards. . . . [quoting a Vantage smoker]: 'They are lighter, lower in tar and nicotine. . . . They are satisfying like a full-tar cigarette, but they are better for my health. . . . The filter seems strong and effective as a trap for 'harmful' ingredients.' Vantage smokers believe that the filter itself is strong enough to catch these impurities. . . . These ideas make them think the end product is a milder and more 'healthful' smoke. . . . [Quoting a Vantage smoker]: 'I like the filter because there's a lot of it, like it's filtering out a lot of the harmful things, like the tar.'

511469097-9250 at 9105, 9116 (U.S. Ex. 20,842) (emphasis in original).

2642. Winston. An April 1974 Qualitative Consumer Evaluation for four Winston Lights Positionings noted that those who liked Winston Lights believed that a low tar cigarette was a "'safe' cigarette." Some of the panelists admitted to switching to a lower tar and nicotine cigarette for health reasons. It was further explained that "[f]or Winston smokers becoming concerned with health it could make the transition to a low tar cigarette easier by 'staying in the family.'" The report regularly referred to the cigarette as a safer cigarette. With respect to the target audience, it was understood that the "women felt that men and women are equally concerned about the harmful effects of smoking and would be glad to switch to a brand which could deliver good taste with low tar and nicotine." 502041366-1415 at 1373, 1383, 1385, 1385-86, 1391 (U.S. Ex. 22,147).

2643. A 1979 study prepared for R.J. Reynolds by Dancer-Fitzgerald Sample, Inc. entitled "An Exploratory Study of Smokers' Comprehension of and Reaction to Several Proposed Winston Lights Campaigns" noted, with respect to one of the Winston Lights advertisements, that consumers typically reported that they understood the advertisement to mean: "A low tar cigarette that tastes good, is satisfying and **safer**." 501071439-1530 at 1453 (U.S. Ex. 22,110) (emphasis added).

2644. Similarly, advertisements for Winston Ultra Lights described them by indicating that they were ultralight cigarettes with rich taste: "New Rich Winston Ultra Lights The Search For Taste Is Over . . . . THE RICHER ULTRA 6mg. 'tar', .05 mg. nicotine av per cigarette by FTC method . . ." 970469347-9474 at 9435, 9437 (U.S. Ex. 85,104).

2645. Now. Advertisements for R.J. Reynolds's Now cigarette in the 1980s and 1990s repeatedly described Now as "the lowest," "lowest in tar" and "lowest tar champion," including the following advertisements:

- "LOWEST TAR CHAMPION. NOW MENTHOL IS LOWEST By U.S. Gov't. testing method." See U.S. Ex. 6,571 (1980); U.S. Ex. 6,591 (1980); U.S. Ex. 6,605 (1989); U.S. Ex. 6,684 (1981); U.S. Ex. 6,722 (1981).

- "NOW is LOWEST Of All Softpack 100's." See U.S. Ex. 6,751 (1981); U.S. Ex. 6,780 (1981); U.S. Ex. 6,798 (1981); U.S. Ex. 6,829 (1981); U.S. Ex. 6,844 (1981).

- "Pick the Lowest. NOW IS LOWEST By U.S. Gov't Testing Method." See U.S. Ex. 6,704 (1981); U.S. Ex. 6,859 (1981); U.S. Ex. 6,881 (1981); U.S. Ex. 6,895 (1981).

- "WHEN IT COMES TO THE LOWEST IN TAR, ONLY ONE MEASURES UP. NOW IS LOWEST Of All Soft Pack 100s. By U.S. Gov't. testing method." See U.S. Ex. 6,816 (1981); U.S. Ex. 6,827

(1981); U.S. Ex. 6,922 (1981); U.S. Ex. 6,950 (1981); U.S. Ex. 6,971 (1981).

See also 970469347-9474 at 9430, 9429, 9427, 9431 (U.S. Ex. 85,104).

2646. A 1983 Now Brand Image report prepared for R.J. Reynolds recognized that health concerns played a major role in determining which cigarette individuals used and that the perception was that the lower the tar, the more healthy the product was. It stated that "[a] major motivation in brand switching has been concern over health. . . . The typical solution to this dilemma is the two pronged approach of trying to cut down and/or moving to a lower tar brand." The report went on to indicate that, when respondents were asked what the words "low" and "lowest" in the advertisements meant to them, "**[t]hey interpret this to mean that the two brands are 'safer' and pose less of a health hazard**. Consequently, they reason, this would make the brands more appealing to younger people who are very health conscious or to older, long-time smokers who are concerned about the long-range effects of tobacco." 506671319-1418 at 1379 (U.S. Ex. 22,160) (emphasis added).

2647. R.J. Reynolds's Research on the Low Tar Cigarette Category. As demonstrated below, internal R.J. Reynolds documents reveal that R.J. Reynolds conducted research not just on individual low tar cigarette brands, but on low tar cigarettes as a category. These documents indicate that R.J. Reynolds has long known and intended that its advertisements and marketing for low tar cigarettes featuring claims of lowered tar and nicotine and "light" and "ultra light" brand descriptors contributed to, and reinforced consumers' notion that low tar cigarettes are better for their health, and caused consumers to smoke them for this reason. For instance, an R.J. Reynolds report on tar and nicotine ("T&N") awareness stated: "In 1971, curiosity was the main

reason for interest in T&N numbers. Since then, increased interest has been health related." In fact, by 1975, more than 60% of every age group (from 18 to 50+) exhibited a concern over the hazards of smoking cigarettes. At the same time, a 1974 survey showed that "**a substantial majority of smokers said they agreed with the statement, 'low tar and nicotine cigarettes are a major step in making smoking less harmful to their health**.'" Those concerned about health became labeled as "worriers" and were targeted accordingly. 501238259-8269 at 8265, 8269, 8271 (U.S. Ex. 22,072); 501238270-8357 (U.S. Ex. 48,736) (emphasis added).

2648. An internal 1975 R.J. Reynolds memorandum, under the heading "UPDATED REVIEW AND ANALYSES OF 1974 COMPETITIVE BRAND DATA" stated: "The VANTAGE and Kent 100 brands performed better than expected according to the correlation. This was most probably due to the low 'tar' and nicotine image." 500615944-5960 at 5949 (U.S. Ex. 21,786).

2649. A

50231320- 3308 at 3253 (U.S. Ex. 22,151) (Category 1).

2650. A November 17, 1975 report prepared for R.J. Reynolds by Rosenfeld, Sirowitz & Lawson, Inc. entitled "An Evaluation of the 120MM Market and Its Potential for RJR" stated:

> Currently RJR divides the total cigarette market into three basic categories: Full Flavor; Medium Flavor; High Filtration. However, the recent rapid growth of the High Filtration segment, may be a signal that the consumer is beginning to be more health conscious than ever before, and will be even more so as time goes on. If this is the case, we believe that <u>consumers</u> will ultimately divide the market into three categories which <u>in their minds</u> would be categorized as: 'Least Safe Brands' 'Safer Brands' 'Safest

Brands.'"

The R.J. Reynolds report defined the "Safer" and "Safest" brand categories as follows:

> Safer Brands: These are brands which are perceived to combine an acceptable level of taste with mildness. Smokers of these cigarettes, while not overtly concerned with health, do switch to them after feeling some physical discomfort from their previous brand. Although they are not aware of T&N numbers, they know they are 'moving down' to a milder cigarette.
> Safest Brands: Cigarettes in this category are perceived to have a mild taste. Smokers of these brands are very concerned about health and quite aware of T&N numbers. Their concern – more than any physical discomfort – causes them to switch to brands with low T&N numbers.

The report further stated: "We believe that the most dramatic evidence of the growing interest in Safer Cigarettes may be seen in the growth of the various Lights/Milds line extension products." 500671364-1454 at 1402, 1403, 1405 (U.S. Ex. 22,158) (emphasis in original); see also Deposition of Gary Burger, Arch v. The American Tobacco Co., August 21, 1997, 226:9-14 (E.D. Pa. 96-5903) (indicating that consumers told Reynolds that they wanted light cigarettes "because they believe [they're] better for them").

2651. In analyzing the reasons why smokers switched to their current brand, the R.J. Reynolds report recognized that "smokers of High Filtration brands really believe they are killing themselves by smoking. While they have not been able to give up smoking to date, they feel the low tar and nicotine brands are much safer and much less of a health hazard. They are readily willing to sacrifice taste for a 'longer life.'" The report also stated: "As previous research has indicated, Smokers of Lights/Milds products (designated in this report as Safer Brands) are not aware of T&N numbers. Hence, the fact that a 120MM Lights entry will have high T&N

numbers (on a total cigarette basis) should not impede its progress." 500671364-1454 at 1408, 1436-37 (U.S. Ex. 22,158).

2652. In 1976, the research firm Leber Katz Partners prepared a research report for R.J. Reynolds entitled "New Product Concepts." In a section entitled "Smoker Awareness of Tar and Nicotine Levels," the report identified "worried about my health" as a key reason for increased interest in knowing tar and nicotine numbers. The report also noted that there was an increase in familiarity with tar numbers between 1971 and 1975. Also at this time, smokers attributed harm to tar content. 500742394-2419 at 2401, 2409-2411 (U.S. Ex. 48,362).

2653. A November 16, 1976 R.J. Reynolds document entitled "New Brand Development" recommended introducing a "New, Single-Minded Advertising Campaign" that would "convey our lowest 'tar' benefit." In terms of future plans, the document stated "[f]or example, in the new and special wants area, there is style and value which we met with MORE, extreme health concerns which we are meeting with NOW [brand cigarettes], and with the evolution of the market toward low 'tar', many more opportunities will be present in this area . . ." A section of the document entitled "Super Low 'Tar' Products" stated: "We will also be working on super low tar products which address the wants of very concerned smokers. A growing number of smokers seek products with tangible/visible features to assuage their concern about smoking." 501282466-2513 at 2480-2481, 2488, 2496, 2502 (U.S. Ex. 48,813).

2654. A 1980 internal R.J. Reynolds document entitled "Salem Lights" identified part of the "Psychographic Profile" for Salem Lights smokers as "[t]hey are health conscious and want low tar but still desire a satisfying, refreshing menthol taste from their cigarette."

503515298-5301 at 5298 (U.S. Ex. 50,406).

2655. A May 8, 1980 "Copy Research Project Request Memorandum" from Vicki J. Forrest, Brand Research Manager to Jack Bellis described a test advertising project for Salem HC, an ultra low tar Salem line extension. In the memorandum, the "Prime Prospect" to smoke Salem Ultra is identified as a woman who is ". . . very aware of the smoking and health controversy, but enjoys the light refreshing taste of a low tar menthol cigarette." 501357172-7189 at 7172, 7175 (U.S. Ex. 48,837).

2656. A June 1980 consumer research report prepared for R.J. Reynolds by New Product Insights, Inc. entitled "HR Concept Development" explored consumer reactions to advertising for a proposed new brand called HR. Under the heading "Concepts," the report stated: "1. To convince the HR person that the brand is a payoff for his forced decision to sacrifice by going down in tar level. 2. To convince the HR person that the brand is the one that signifies his rational, sensible decision to switch to a low tar." With respect to the former concept, the report stated:

> There is a segment of the HR target who has switched to an ultra low tar to get the world 'off his back.' Like other elements of his life, he has been forced into an unpopular sacrifice. . . The reality of an ultra low tar is poor reward for giving in to external pressure to quit smoking or, at least switch to a 'nothing ULT.' However, true to his life pattern, he suffers in silence - occasionally rising up to plaintively cry out, 'Get off my back will you; it's bad enough I've got to smoke these things, can't you see what a sacrifice I've made?'. . . **This segment of the HR target will be susceptible to strategies which will suggest that there is a 'pot of gold' at the end of the low tar black cloud**.

Under the heading "Focus of Sale," the report stated: "To convince the target that HR is

the cigarette that is made to reward him for his low tar category choice" and under the heading "Promise," the report stated: "HR is specifically formulated to give low tar switchers a rewarding smoking experience to pay off their decision to smoke lower." 501694806-4853 at 4810-4813, 4822 (U.S. Ex. 85,016) (emphasis added).

2657. A June 21, 1982 Product Research Report on Non-Menthol Ultra Low Tar Consumer Probes, published by the Marketing Development Department of R.J. Reynolds Tobacco Co., stated: "Most respondents [ultra low tar smokers] preferred a white filter to a cork filter because they considered white to be more indicative of ULT cigarettes. The white filter generated strong associations with gentleness, purity, cleanliness, modernization, and innovativeness." 503394459-4485 at 4464 (U.S. Ex. 85,036).

2658. A July 26, 1988 R.J. Reynolds "Script for Contact of State Officials" stated that "today's cigarettes yield significantly less 'tar' and nicotine than they did 30 years ago." 506898596-8602 at 8596 (U.S. Ex. 20,770).

2659. A 1990 R.J. Reynolds document researching the "U.S. Cigarette Market in the 1990's" to determine "positioning opportunities" indicated that a "Large" and "Confirmed" mindset was "Personal concern." This mindset represented 33% of smokers. The mindset included "[t]ak[ing] measures to ensure good health," and "Product Wants" for this mindset included: "Would switch to low tar if more taste." Under "Marketing Implications," the document stated: "Personal concerns continues to be a major positioning opportunity for the 90's. Current RJR[] moderation brands (Vantage/Now) represent the best opportunity to launch enhanced solutions to personal concern issues[.]" 514202983-3023 at 2984-2985, 2990-2991,

2993, 3023 (U.S. Ex. 30,070).

2660. A May 1991 consumer research report prepared for R.J. Reynolds by Gene Shore Associates entitled "R.J. Reynolds Project XB" explored smokers' reactions to the following new cigarette concepts: (1) for full flavor/lights smokers: "A new ultra low tar cigarette with all the great taste and easy draw of the light cigarette you currently smoke. All the taste with less than half the tar"; and (2) for ultra lights smokers: "A totally new cigarette with the extra low tar of a Carlton or a NOW, but all the great taste and easy draw of the cigarette you currently smoke. All the taste with less than half the tar." The report found that "ULT [ultra low tar] smokers want more to believe smoking a lower tar cigarette has potentially more personal benefits than smoking a full flavor or FF/LT cigarette." The report further stated that "[s]ome ULT smokers are more likely to express a desire to quit smoking. Although they enjoy smoking, some tend to describe it as a 'Bad habit.' Their negative feelings about smoking motivate them to experiment with a variety of lower tar brands." 514343517-3566 at 3522 (U.S. Ex. 51,848).

2661. The report also stated: "Women are more optimistic about new brands that could offer lower tar. They are more **willing to compromise on taste if they feel a cigarette has more personal benefits, although 'It would be great if it has good taste, too**.'" The report further stated that ultra low tar smokers "want as little tar as possible, but they want taste to be at least on par with current ULT brands. They feel they have made taste trade-offs by smoking a ULT." The report continued: "It is unlikely ULT smokers would switch brands if the tar level of the new cigarette is equivalent to their current brand. Lower tar is a strong motivating factor." The report also recognized that smokers perceive low tar cigarettes as having less desirable taste,

stating: "The main obstacle appears to be to convince smokers the new cigarette delivers a more flavorful, richer taste, and lowering the tar does not reduce taste and smoking satisfaction." The report also noted: "Women seem to be more accustomed to moderation in their lifestyles. For example, they are inclined to trade-off some taste for the weight control and health benefits of low calorie and low fat foods. They **want some taste assurance, but are open to compromise. They are willing to tolerate an adjustment period as they become acclimated to a new product they perceive to be better for them**." The document further stated: "**ULT smokers perceive low tar claims to be credible**. They try to balance their desire to smoke and personal concerns." Finally, under the heading "ULT Mindset" the document stated that this smoker "[w]ould like to quit smoking . . . . [p]erceives smoking as a bad habit, although he/she enjoys it . . . . [and] [w]ants to believe lower tar cigarettes are safer." 514343517-3566 at 3522, 3524-26, 3530, 3540, 3556 (U.S. Ex. 51,848) (emphasis added).

2662. Gary Burger, Senior President of Research & Development for R.J. Reynolds at the time of his deposition in Arch v. American Tobacco Co., Inc., et al., testified that R.J. Reynolds was aware that consumers smoke low tar cigarettes for the perceived health benefit. Burger testified that "[c]ertainly, smokers perceive lower tar cigarettes in some ways to be better for them and therefore they want them." Burger further testified that consumers "have that impression that there are higher levels of bad stuff in high tar cigarettes and lower levels of bad stuff in low tar cigarettes." Deposition of Gary Burger, Arch v. American Tobacco Co., Inc., et al., August 21, 1997, 226:9-243:18; 519192158-2420 at 2383-2400 (U.S. Ex. 85,017).

(iv) Brown & Williamson

2663. Kool. A Brown & Williamson memorandum dated June 27, 1958 from J. N. Ravlin in Brown & Williamson's legal department transmitting a draft letter to smoker Mr. Rudy Santick stated:

> Thank you for your recent letter asking us about the nicotine and tar content of KOOL cigarettes. . . . Our KOOL filter king cigarette is made of the same fine tobacco to which is added a clean, pure filter, derived from cellulose. In our opinion the KOOL filter assures excellent filtration. It removes substantial quantities of tars and nicotine and rates very well when measured by testing methods which we believe are the most accurate and the most significant to the average smoker.

620082950-2951 at 2951 (U.S. Ex. 20,946).

2664. A Brown & Williamson document entitled "Kool Family Utopian Objectives 1979-1985" stated under the heading "Share Objectives" that "Kool must move into the health reassurance segment so that 45% of KOOL business will be in the perceived product safety arena by 1982 which will approximate the 45% of total smokers who will be smoking hi-fi products by 1982." Under the heading "Strategies," the document stated: "Provide product safety reassurance while enhance [sic] the satisfaction and refreshment perception of the appropriate KOOL styles through the successful national launch in 1979 of either: 1. Low 'tar' parent [or] 2. Repositioned KOOL Milds." 680559149-9162 at 9149-9150 (U.S. Ex. 54,048); Expert Report of Robert J. Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001) at 14; accord 2077864793-4793 (U.S. Ex. 45,069).

2665. An internal March 25, 1983 Brown & Williamson memorandum from A. J. Mellman, a Brown & Williamson marketing employee, to R.A. Blott, Brown & Williamson Senior Vice President of Domestic Marketing, regarding current cigarette project ideas for the

Kool brand family, including low tar brands, stated as follows: "KOOL maintained a three share level for over 30 years (through mid-60's) while positioning itself as a specialty cigarette to be smoked only for remedial or medicinal purposes." The fourth project idea was: "Improve health aspect: Anything that can be done to decrease the risks associated with cigarettes is a positive to most consumers." 514110006-0009 at 0007-0008 (U.S. Ex. 21,745).

2666. Viceroy. Brown & Williamson Viceroy advertisements in the early 1950s made express health-related claims about the benefits of its filter. For example:

- "Filtered cigarette smoke is better for your health." (1951)
- "The nicotine and tars trapped by this Viceroy filter cannot reach your mouth, throat or lungs!" (1951)
- "Filtered Cigarette Smoke is Better for Your Health . . . Yes! The Nicotine and Tars Trapped by the VICEROY FILTER Cannot Reach Your Throat or Lungs!" (1952)
- "Prominent physician tells patients– 'Smoke Viceroy Filter-Tip Cigarettes. The nicotine and tars trapped by this Viceroy filter cannot reach mouth, throat or lungs!' . . . . For Greater Health Protection Get Viceroy with the new Health-Guard Filter." (1952)
- "New King-Size Viceroy gives Double-Barreled health protection" (1953)
- "[Viceroy] is safer for throat, safer for lungs than any other king-size cigarette." (1953)
- "Viceroy Gets the Votes . . . from Happy Throats." (1953)

696000888-0916 at 0914, 0915 (U.S. Ex. 21,387); 682811354-1354 (U.S. Ex. 21,465); 672010223-0223 (U.S. Ex. 53,895).

2667. A 1975 Brown & Williamson document entitled "Viceroy Marketing Strategy" identified the "Problem Advertising Must Solve": "[A]dvertising must . . . cope with consumer

attitudes about smoking, **providing either a rationale or a means of repressing the health concern**." 680113760-3763 at 3762 (U.S. Ex. 20,987) (emphasis added).

2668. A July 19, 1976 Brown & Williamson internal memorandum from E.A. Willets III to G.T. Reid entitled "VICEROY Advertising Objectives and Creative Strategies 1936-1975" demonstrates that Brown & Williamson was aware that its deceptive marketing portraying its low tar cigarettes as less harmful was effective at misleading consumers. The memorandum noted the following marketing objectives:

- Prior to 1942: "[a]ttract smokers of competitive non-filter brands by promising mild, clean smoke and health benefits because of filter."
- 1942 -1946: same as prior to 1942, but adds the word "implied" in parentheses in front of the promise of general health benefits.
- 1950-1952 (3rd quarter): to "[a]ttract smokers of competitive non-filter brands by promising health benefits, supported by published research by independent body, because of VICEROY's filter."

The memorandum's "evaluation" found that this strategy had resulted in a "[p]rompt and effective exploitation of an advertising windfall" and, as a result, Brown & Williamson developed a "[s]tronger commitment to high filtration, low risk positioning." 670001750-1766 at 1750-1752 (U.S. Ex. 20,962).

2669. The memorandum noted that in 1953-1954, Viceroy's advertising campaign slogan was "'VICEROY's double barreled health protection' and 'Better Your Health,' with the 'objective and creative strategy' being to '[a]ttract smokers of all other cigarette brands by promising superior health protection because of more effective filtration from both a new filter and a longer length.'" The memorandum concluded that "**[t]hese two product changes firmly**

positioned VICEROY as a high-filtration, **healthier cigarette and attracted smokers in droves**." The same theme continued in 1955-56, when one of the "Objectives and Creative Strategies" listed was to "Attract smokers of non-filter brands and the new filter brands by promising good taste equivalent to non-filter brands and superior health protection because of blend and filter." 670001750-1766 at 1752-1754 (U.S. Ex. 20,962) (emphasis added); U.S. Ex. 87,465 (1953); U.S. Ex. 87,466 (1953); U.S. Ex. 87,467 (1953); U.S. Ex. 87,468 (1953); U.S. Ex. 87,469 (1953); U.S. Ex. 87,470 (1953).

2670. Carlton. Carlton is a low tar brand that was originally manufactured by American Tobacco until it was acquired by Brown & Williamson in 1995. A Brown & Williamson document circa 1996-1997 entitled "Carlton Creative Plans" indicated that the first "Primary" trait of Carlton's target audience was "Health conscious." With respect to print advertisements, the report stated: "Magazine [advertisements for Carlton] Will be Driven by Editorial That is: 'Health Conscious.'" Carlton's "brand strategy" was "to continue to defend the franchise while communicating its 'lowest' positioning to maintain switching inflows from those smokers trading down in tar levels." The document went on to state that "CARLTON packaging issues will be explored to determine how best to communicate ultra light product cues . . . . hype its increased communication of ultra low tar." 176020783-0800 at 0783, 0785, 0792, (U.S. Ex. 23,351); 176020801-0818 (U.S. Ex. 23,352); 176020819-0831 (U.S. Ex. 23,353); 176020832-0842 (U.S. Ex. 23,354);176020843-0845 (U.S. Ex. 23,355); 176020846-0855 (U.S. Ex. 23,356); 176020856-0926 at 0868-0869 (U.S. Ex. 23,357).

2671. In February 1999, Brown & Williamson started a campaign identifying Carlton

cigarettes as Ultra Ultra Light, including packs stating "1 mg.," and used the slogan "Isn't it time you started thinking about number one?" ADV027 0780-0782 (U.S. Ex. 9,846) (1999); ADV045 0468-0470 (U.S. Ex. 11,362) (1999); ADV027 0795-0797 (U.S. Ex. 9,851) (1999); ADV045 0493-0495 (U.S. Ex. 11,370) (1999); ADV032 0011-0013 (U.S. Ex. 10,678) (2000).

2672. In March 1999, Nicholas Brookes, Chairman and CEO of Brown & Williamson from 1995 to 2000, became aware of a discrepancy in the tar delivery of Carlton cigarettes. The cigarette, when smoked by human smokers, delivered 3 milligrams instead of the advertised 1 milligram. Because Brown & Williamson had just introduced a new advertising campaign "touting Carlton as the '1' for you," Brookes attempted to delay the publication of a study that would have alerted the public to the findings. Brookes did **not** direct Brown & Williamson's marketing department to discontinue the "Carlton is the '1' for you" campaign, even though he acknowledged that it might cause confusion for consumers. 190245079-5080 (U.S. Ex. 85,018); Deposition of Nicholas Brookes, United States v. Philip Morris, et al., March 31, 2003, 146:18-148:12; 149:3-149:20; 150:14-150:18; see also ADV027 0780-0782 (U.S. Ex. 9,846) (1999); ADV027 0878-0880 (U.S. Ex. 9,878) (1999); ADV027 0924-0926 (U.S. Ex. 9,892) (1999); ADV027 0936-0938 (U.S. Ex. 9,896) (1999); ADV027 0975-0977 (U.S. Ex. 9,909) (1999).

2673.

250255336-5347 at 5340, 5343-5347 (U.S. Ex. 22,031) (Category 1). These statements were repeated in an August 8, 2000 document prepared for Brown & Williamson by Kay Harwood, Marketing Analysts, Inc. entitled "Carlton Advertising Research: Report of Key Findings." 250255060-5075 at 5064, 5066-5068, 5071-5075 (U.S. Ex. 22,170).

2674.

250221262-1294 at 1275, 1277, 1287 (U.S. Ex. 22,030) (Category 1).

2675. Lucky Strikes. An advertisement for Brown & Williamson's Lucky Strikes stated: "Cut your 'tar' in half with Lucky 100's." U.S. Ex. 4,399 (1974); U.S. Ex. 4,405 (1974); U.S. Ex. 4,415 (1974); U.S. Ex. 4,946 (1975); U.S. Ex. 4,959 (1975).

2676. Belair. An advertisement for Brown & Williamson's Belair brand stated: "Lighten Up!" See U.S. Ex. 6,546 (1980).

2677. Brown & Williamson's Research on the Low Tar Cigarette Category. As demonstrated below, internal Brown & Williamson documents reveal that Brown & Williamson conducted research not just on individual low tar cigarette brands, but on low tar cigarettes as a category. These documents indicate that Brown & Williamson has long known and intended that its advertisements and marketing for low tar cigarettes featuring claims of lowered tar and nicotine and "light" and "ultra light" brand descriptors contributed to, and reinforced consumers' notion that low tar cigarettes are better for their health, and caused consumers to smoke them for this reason. For instance, a 1967 Brown & Williamson advertising and marketing strategy for high-filtration/low tar products describes Brown & Williamson's marketing strategies to "capitalize" on smokers' perception that low tar cigarettes are less harmful by portraying them as such:

- [Vanguard brand strategy:] "To capitalize upon a prevalent smoker desire to lessen the health risk involved in his smoking via a switch to a low tar cigarette . . . . Advertising Objective – Communicate a dual smoker benefit: low tar and satisfying taste."

- Modified LIFE "Marketing Strategy - To fully capitalize on health vs. cigarette smoking publicity and publishing of tar/nicotine data by marketing LIFE as the lowest tar cigarette in the filter 85 segment."

- Filter 70's "Marketing Strategy – To capitalize on smoker concern of 'smoking too much' by offering a means for reducing smoking without . . . cutting down on number of cigarettes smoked . . . . Advertising – Filter 70's would offer smokers the opportunity to smoke up to one-third less (shorter tobacco section), but they can light up as often."

670186789-6824 at 6790, 6792, 6798, 6802, 6804 (U.S. Ex. 21,431).

2678. An August 1967 Brown & Williamson document entitled "A Psychological Map of the Cigarette World" stated that "PEOPLE WHO SMOKE FILTER CIGARETTES . . . ARE MORE CONSCIOUSLY IN CONFLICT ABOUT SMOKING . . . . THEY CAN'T COMPLETELY ENJOY SMOKING BECAUSE THEY KNOW IT IS NOT HEALTHY. . . . THEY MAY BE RECEPTIVE TO ADVERTISING WHICH HELPS THEM ESCAPE FROM THEIR INNER CONFLICTS ABOUT SMOKING." 680289225-9275 at 9248 (U.S. Ex. 22,973).

2679. A 1969 marketing document from Brown & Williamson's files prepared by a consultant for Imperial Tobacco, the sister company of Brown & Williamson, stated that the smoker "seeks a new covenant between himself and the tobacco industry" and has "**trust**" that the industry "**is going to provide him with a product that he can enjoy without fear of physical or psychological reprisal**." 680082943-3125 at 2959-2960 (U.S. Ex. 20,983) (emphasis added).

2680. An October 21, 1971 Philip Morris document acknowledged that it "was abundantly clear" that manufacturers in the United States, and Brown & Williamson in particular,

"are concentrating on the low TPM [total particulate matter] and Nicotine segment in order to create brands with distinctive product features which aim . . . to reassure the consumer that these brands are relatively more 'healthy'" than regular full-delivery cigarettes. "Hence B&W is devoting its efforts entirely to the Hi-Fi ["high filtration"] segment, and its two major projects . . . demonstrate this strategy." 100028935-8937 at 8935 (U.S. Ex. 20,089).

2681. A September 1974 Brown & Williamson marketing research study entitled "The 'New' Smoker" which examined the "Behavioral Factors" of new smokers, concluded that new smokers are "mis-informed on cigarette strengths." The study concluded that new smokers believed that low tar cigarettes were "**better for you**." 779217794-7833 at 7822-7823 (U.S. Ex. 21,055) (emphasis added).

2682. A November 29, 1976 Brown & Williamson memorandum from F.E. Latimer to B.L. Broecker and M.J. McCue, all Brown & Williamson marketing employees, represented the role of cigarette advertising as allaying smokers' fears of the health consequences of smoking:

> [B]ecause such large numbers of the institutions and leaders he believes in are against smoking, the average smoker often seeks self-justification for smoking. Good cigarette advertising in the past has given the average smoker a means of justification on the two dimensions typically used in anti-smoking arguments. . . . **All good cigarette advertising has either directly addressed the anti-smoking arguments prevalent at the time or has created a strong, attractive image into which the besieged smoker could withdraw**.

680086039-6044 at 6039-6040 (U.S. Ex. 20,984) (emphasis added).

2683. A May 1977 Brand Position Paper prepared by the research firm PKG for Brown & Williamson identified a link between interest in low tar cigarettes and "smokers who harbor

'health' concerns." The paper, entitled "B&W New Products Part II - Progress," noted that the "key growth segment" for that time was called "taste with a contemporary health benefit." The paper also stated that "[c]igarette brands that have succeeded have had consumer benefits which tend to evolve along the long-term continuum toward 'health' and modernity." 660931250-1282 at 1250, 1252-1253, 1263 (U.S. Ex. 53,595).

2684. A July 25, 1977 Brown & Williamson Internal Marketing Study entitled "Low 'Tar' Satisfaction, Step 1 Identification of Perceived and Underperceived Consumer Needs" recited the percentage of starters and quitters from 1969-1976, and stated:

> As the dynamic proportion of quitters continues to be larger than the proportion of starters, actual smoking incidence has declined about ten percentage points over the last ten years . . . . Increases in per capita consumption are assumed to correlate with lowered 'tar' delivery as well as other factors . . . . **HEALTH REASSURANCE: Almost all smokers agree that the primary reason for the increasing acceptance of low 'tar' brands is based on the health reassurance they seem to offer** . . . . It must be assumed that Full Taste smokers come down to 'low tar' expecting less taste . . . [t]hey are willing to compromise taste expectations for health reassurance.

775036039-6067 at 6043-6044, 6047, 6052 (U.S. Ex. 21,053) (emphasis added).

2685. A document circa 1977 bearing the Brown & Williamson seal contained several indications that Brown & Williamson's Belair cigarette was intended to convey reduced harmfulness by providing "'health' reassurance" due to its low tar:

- "Does Belair have growth opportunities? – Increasing 'health'-orientation of cigarette marketing and the correspondingly greater potential for "lighter" cigarettes."

- "To realize this growth opportunity, Belair must: . . . – compete directly in the low 'tar' segment where greatest potential is. . . ."

- "Current Positioning Objective: To reestablish and maintain the relevancy of Belair's heritage as a cigarette which provides a light, yet, satisfying menthol alternative and a 'health' reassurance relative to full-taste brands . . . ."

- "July 1977 'tar' reduction . . . will allow for specific low 'tar' support of the important 'health' reassurance element of this brand positioning . . . ."

- "Overall Belair Operating Strategy: - Through advertising, make the Belair historical image/positioning as a "light" cigarette more relevant to the current 'tar' conscious environment . . . ."

- "Belair Copy Strategy: To position Belair as a cigarette which offers . . . lower "tar" reassurance relative to full-taste brands. . . ."

- "Belair Prime Prospect: The current Belair smoker with whom the reassurance of the lower "tar" positioning addresses possible concerns which might otherwise prompt the user to switch to a competitive low "tar" cigarette."

779027336-7360 at 7339-40, 7350-51, 7354-55 (U.S. Ex. 22,163).

2686. A September 26, 1977 letter from P.J. Tighe, Senior Brand Manager of New Products for Brown & Williamson, to colleague Don Johnson discussed additions to Low Tar Brand Plans. The letter stated that the "Low 'Tar' Menthol Plan" needed to provide "Health Reassurance." 660093935-3935 (U.S. Ex. 53,576).

2687. In a document entitled "Social Smoking Project: 1977-1978 Marketing Plan", it was noted that "[t]o the extent that health reassurance equates with smoking fewer of less 'harmful' cigarettes, the reassurance must be handled carefully, since **consumers clearly consume low 'tar' cigarettes in greater quantities**." The document also concluded that "[t]he greatest need in the marketplace is for a cigarette that promises and delivers: 1) Taste/Flavor, 2)

Product Quality, and 3) Health Reassurance . . . in that order." 676038546-8594 at 8573, 8578, 8590 (U.S. Ex. 53,923) (emphasis added).

2688. A Brown & Williamson document entitled "Low 'Tar' Menthol: 1977/1978 Plans Review" discussed smokers that moved to the low tar segment. The plan stated that those smokers who switched to low tar "hold health reassurance as their primary need briefly. Once a commitment to the segment is made, taste/flavor takes over as the primary need and becomes the key brand selection criterion." Based on this theory, the plan concluded that "[h]ealth reassurance, then, is a short lived primary need that is satisfied, generally, by virtue of the brand's position as a low 'tar'. It continues as a secondary need after brand selection and may vary in importance over the long term dependent on external pressures." In a summary of information taken from smoker group studies, the document maintained that "[t]he vanguard of low 'tar' smokers consciously traded off taste and satisfaction to attain a greater measure of health reassurance. **Social pressures and advertising appear to be leading greater numbers of smokers to make this trade-off**." 676038685-8731 at 8691-8692, 8695 (U.S. Ex. 53,923) (emphasis added).

2689. A 1978 Brown & Williamson document entitled "Purite Filter" acknowledged that the "common area of leverage" of successful brands was implied health benefits due to low tar:

> The move to hi-fi cigarettes is continuing, motivated by consumers who demonstrate personal concerns towards smoking in either the health, social areas, or both. To capitalize on these perceived consumer needs, **three successful positionings have emerged in hi-fi: health reassurance, taste reassurance, and social acceptability. All three positionings use low "tar" as a common thread**. . . . To stem the continued decline in smoking incidence, the industry must rapidly move to a point where it can

> address cigarettes in a totally positive light . . . . The modern hi-fi segment . . . has been growing dramatically over the last five years. This growth has been spurred by the consumer desire for health protection, as achieved through particulate matter reduction and the industry response in offering low "tar" brands with heavy marketing support. . . . Although the hi-fi segment is continuing its rapid expansion to a projected 50% by 1982, only three positionings are demonstrating vitality and durability among the freestanding low "tars": low "tar"/implied health, i.e. Carlton, True; extra flavor, i.e. Merit; social acceptability, i.e. Vantage. . . . Low "tar"/implied health is the common area of leverage with all these entries.

680559100-9124 at 9100, 9101, 9110, 9120 (U.S. Ex. 21,003) (emphasis added).

2690. A March 22, 1978 "Private and Confidential" memorandum from G. Reid of Brown & Williamson to F.E. McKeon evidenced Brown & Williamson's understanding that both low tar claims and the "low gas" claims it sought to promote with its FACT brand of cigarettes were understood by consumers to be claims of reduced harmfulness. The document stated: "Extensive testing of FACT advertising over a three-year period has indicated that consumers do not perceive low gas as a different benefit than low 'tar'. **They both are perceived as generic health ideas**." 667059296-9299 at 9296 (U.S. Ex. 69,068) (emphasis added).

2691. A June 5, 1978 document entitled "Purite Filter Concept: Strategic Brand Review" listed as a decision requested from management: "[c]oncurrent initial pursuit of Health Reassurance and Social Acceptability positionings." The document also commented on the "[c]ancer concern" and "[h]ealth positioning." 300116546-6558 at 6547-6549 (U.S. Ex. 46,537); accord 661076932-6975 at 6933, 6934 (U.S. Ex. 53,622); 661076504-6632 at 6508, 6529 (U.S. Ex. 53,621).

2692. A November 14, 1978 document entitled "Low Delivery Cigarette Project For

Brown & Williamson Tobacco Corp." indicated that, between 1974 and 1976, 60-74% of consumers believed that "'low tar and nicotine cigarettes represent a major step in making smoking less harmful,'" and under the heading "'Health' vs. Image/Taste/Satisfaction" that Brown & Williamson's marketing plan included "**using acceptably Low Delivery numbers to provide assurance that the brand is at least at parity with its health-oriented competitors**." 670133560-3690, 3572, 3581 (U.S. Ex. 87,887) (emphasis added).

2693. A February 7, 1979 letter from Stephen D. Schwartz of Grey Advertising Inc. to Peter Ernst of Lisher & Company summarized focus group research measuring consumer reaction to product statements with "low gas" claims. It was suggested in the letter that ultra low tar smokers who were willing to sacrifice taste for low tar and trying to find a way to quit smoking should be "eliminated from all upcoming qualitative research work." 774138538-8545 at 8539 (U.S. Ex. 54,613).

2694. An October 1979 "History and Key Trends in the U.S. Cigarette Market" bearing the Brown & Williamson insignia, compiled by E.T. Parrack, Brown & Williamson Vice President of Brand Management, illustrated Brown & Williamson's knowledge that smokers turn to low tar cigarettes in response to health concerns, stating that one of the studies "pinpoints the location of various market segments on a continuum from high 'tar'/low health concern smokers to low 'tar'/highly concerned smokers." 670624932-5364 at 4935 (U.S. Ex. 53,869). The compilation contains the following statements, reflecting Brown & Williamson's knowledge that the increase in filtered and low tar cigarette sales from the 1950s through the 1980s was founded in consumers' belief that these products were less harmful, and was influenced by the extensive

marketing of these products:

- "The major developments in the cigarette market since 1950 are the most readily understood as a continuous effort by consumers and the industry to mitigate the perceived dangers of smoking. . . . this is clear in the growth of filters and in the emergence and growth of successive generations of Hi-Fi and low-tar cigarettes." 670624932-5364 at 4944 (U.S. Ex. 53,869).

- "[F]iltered products took off, rocketing from 3% of the market in 1950 to 53% in 1960. The most important reason for this growth would have to be growing health concern." 670624932-5364 at 5277 (U.S. Ex. 53,869).

- "Starting in 1953, filter cigarettes began a meteoric rise, growing 44 share points in five years. The pace of change reached its peak in 1957 and began to slow down to a low level in 1961. By then, filters had a 53% share." 670624932-5364 at 4945 (U.S. Ex. 53,869).

- "Filter Brands' Share of Market . . . Spurred by health concerns." 670624932-5364 at 5275 (U.S. Ex. 53,869).

- "In 1955, the FTC, reacting to conflicting claims as to tar and filtration, had imposed '**Cigarette Advertising Guides' banning all mention of tar, nicotine and filtration 'when not established by competent scientific proof'. This put a stop to such claims in advertising**." 670624932-5364 at 4997 (U.S. Ex. 53,869).

- "Hi-Fi was catapulted into existence . . . 1957. . . . There was no doubt as to the underlying interest at the time in protection from the dangers of cigarettes. 670624932-5364 at 5342 (U.S. Ex. 53,869).

- "**The success of hi-fi brands is due in part to the large sums being spent to advertise them**." 670624932-5364 at 5279 (U.S. Ex. 53,869).

- "[Between 1957 and 1960] the consumer was bombarded with messages regarding high filtration." 670624932-5364 at 5036 (U.S. Ex. 53,869).

- "Among the troubles of the early entrants [in the filter cigarette category, referring to Parliament, Viceroy, Kent and L&M] were: . . . All got into trouble with the FTC due to their filter claims and had to change their advertising." 670624932-5364 at 5321 (U.S. Ex. 53,869).

- "1964-1975 – Emergence of brands using low 'tar as primary appeal. . . .

appearance of brands which actually based their appeal on low tar and nicotine numbers." 670624932-5364 at 5275, 5277 (U.S. Ex. 53,869).

- "During th[e] period [from 1975 to 1976], unfiltered cigarettes continued to be crowded out at an increasing rate, corresponding to an increase in public concern about the dangers of smoking." 670624932-5364 at 4937 (U.S. Ex. 53,869).

- "Personal Concern – the dominant trend in the market influencing all major shirts in smoking habits since 1980. . . . Historically, products offering taste and personal reassurance benefits have been most successful. . . . The move from non-filters to filters in the 1950's was spurred by personal concerns . . . . Menthols performed strongly due to perceived personal concern benefits. . . . [From 1966 to 1970] True, Doral, and Vantage (new high-filtration, free standing brands) are introduced and successfully capitalize on the resurgence of personal concerns. . . . Currently . . . . [a] strong concern for health has drawn [smokers] . . . to the ultra-low 'tar' brands . . ., they are trying to eliminate the risks of smoking." 670624932-5364 at 5222-5223, 5239 (U.S. Ex. 53,869).

- "The Hi-Fi smoker wants cigarettes that reduce or appear to reduce the risks of smoking. . . . In view of the interest of Hi-Fi smokers in low-tar and the stress that Hi-Fi brands have placed on it in the past, it seems likely that: – Hi-Fi smokers will be strongly attracted to the new lower-tar cigarettes." 670624932-5364 at 4950 (U.S. Ex. 53,869).

- "Two forces are driving the current high rates of brand switching: Smoker concern about personal health [and] Smoker concern about social censure . . . . successful new brand development would have to be aimed at and satisfy the smoker needs arising out of these two key forces." 670624932-5364 at 5165 (U.S. Ex. 53,869).

- "About half of the smokers express a significant degree of concern about smoking. . . ." 670624932-5364 at 5170 (U.S. Ex. 53,869).

- "29% of smokers who have significant concerns about either health or social pressure . . . are a market of opportunity for new brand development." 670624932-5364 at 5187 (U.S. Ex. 53,869).

- "The health concerned smoker, we suspect from these data, finds it difficult to give up [nicotine] impact or effect. Target Audience For Lts" [second sentence handwritten]." 670624932-5364 at 5197 (U.S. Ex.

53,869).

Regarding the perceived health benefits of menthol cigarettes, the compilation stated:

- "[T]he split between menthol and Hi-Fi continued. Smokers were forced into a trade off of Hi-Fi vs. menthol. But was it indeed a trade-off? Ad we have noted, Salem was perceived as a relatively mild cigarette, and menthol itself had been promoted for years for soothing throats irritated by smoking and was the cigarette used by many when they had colds. Thus Salem and other menthols could be regarded as equivalent to a Hi-Fi." 670624932-5363 at 5036-5037 (U.S. Ex. 53,869).

2695. The Brown & Williamson International Tobacco 1980 Preview, dated May 6, 1980, noted that "[r]egulation and publicity of an anti-cigarette nature could influence brand choice favorably for BWIT with its portfolio of reassurance products." 660912814-2879 at 2824 (U.S. Ex. 53,582).

2696. A June 2, 1980 memorandum from Brian R. O'Hare to J.F. Roberts, both Brown & Williamson employees, stated: "It now becomes necessary, in light of the increasing importance of the smoking and health issue and Kent's repositioning as the health reassurance brand[,]" to implement the remaining phases of Brown & Williamson's plan to position Kent as a less harmful brand. The memorandum noted the significance of implementing this plan "as the smoking and health issue becomes more important on a worldwide basis." 660942115-2116 at 2115 (U.S. Ex. 53,580) (emphasis in original).

2697. A July 2, 1982 Brown & Williamson report authored by J. Kendrick Wells, Brown & Williamson Assistant General Counsel, detailed his opinion that Brown & Williamson should respond to attacks on low delivery cigarettes with a far-reaching campaign of misinformation:

> What Are the Obstacles/Enemies of a Swing to Low "Tar" and What Action Should We Take?: B&W will undertake activities designed to generate statements by public health opinion leaders which will indicate tolerance for smoking and improve the consumer's perception of ultra low "tar" cigarettes (5 mg. or less). The first step will be the identification of attractive scientists not previously involved in the low delivery controversy who would **produce studies re-emphasizing the lower delivery, less risk concept. Through political and scientific friends, B&W will attempt to elicit from the administrative and legislative branches of the federal government, and perhaps voluntary health groups, statements sympathetic to the concept that generally less health risk is associated with ultra low delivery cigarette consumption. The program is designed to produce statements of sufficient news interest to reach the public through the media**. In addition, B&W would seek to generate spontaneous mainstream media articles dealing with component deliveries, much as the old Readers Digest articles. . . . B&W will urge the industry to sponsor research in the ultra low delivery cigarette area which turns the principles used against the industry to positive use. . . . Industry positions favoring the low delivery cigarette can be effectively presented, but must be carefully structured.

680592164-2169 at 2164-2168 (U.S. Ex. 21,009) (U.S. Ex. 76,213) (emphasis added).

2698. A March 27, 1985 memorandum on Brown & Williamson letterhead that E.T. Parrack, Jr., Brown & Williamson's Vice President of Domestic Marketing, sent to Thomas E. Sandefur, Jr., Brown & Williamson's CEO, stated that "health reassurance" is one of the "'rational' benefits" that have been grafted on to the two "basic benefits" that cigarettes have always been offered to consumers. The two basic benefits are: "physical smoking satisfaction" (i.e. adequate nicotine delivery) and "Emotional (image/social) reinforcement: 'The me I want to be.'" After superior product and brand imagery meeting specific consumer emotional needs, the third strategic priority was exploiting rational benefits. The memorandum added that "[n]ew or

developing rational benefits represent the most direct and efficient means of obtaining short-term incremental volume." 528010755-0759 at 0755, 0757 (U.S. Ex. 20,926).

2699. A February 13, 1989 cover letter from Eugene Peck of the law firm of Shook, Hardy & Bacon to Robert H. Sachs, General Counsel, Product Litigation for Brown & Williamson, transmitting a memorandum called "A Proposed Response to the 'Bad' Ads: The Calfee Defense to Express Warranty Claims," written by Peck and based on the opinions of Jack Calfee regarding the company's potential liability for claims of breach of an express warranty of health or safety for the self-proclaimed "bad" cigarette advertisements of the 1950s, acknowledged that Defendants' advertisements during the 1950s contained explicit claims of reduced harmfulness:

> [R]oughly between 1952 and 1955, [cigarette advertising] continued to address symptomatic aspects of smoking but added a new element: fear appeals containing general, brand-related suggestions of safety . . . . This is the era of the most troublesome ads. Some advertisements stated that a particular brand was 'safer' or offered greater 'health protection' than another . . . . Calfee would agree that the manufacturers probably intended to reassure consumers by the 1952-55 health ads.

682718536-8559 at 8541, 8553 (U.S. Ex. 21,029).

2700. Brown & Williamson's 1997 New Products Annual Marketing Plan reviewed marketing strategies for new "health oriented" low tar brands to be directed at "the extremely health conscious (worried) segment of the market." According to the plan, the "Overall Objective" was "[t]o develop and successfully launch a product which distinctively positions itself as being the 'safest' alternative in smoking." In a review of Savannah brand cigarettes, the plan noted that the "Hi-Fi [high filtration] segment stems directly from the increasing concern

over the smoking and health issue." The Savannah brand was to be "positioned against those consumers with serious health concerns who continue to smoke full flavor brands." 670156293-6296 (U.S. Ex 53,745); 670156297-6424 at 6303, 6323-6324, 6342 (U.S. Ex. 53,746).

2701. This same 1997 Marketing Plan recommended that the:

> [a]dvertising copy should assume the tone of objectivity and genuine importance. **The authenticity and frankness of the copy must be arresting enough to gain the attention of those consumers concerned about their health. Taste reassurance for the brand should be subordinated in efforts to play up health reassurance claims**.

In a section titled "Market Review," the plan went on to say that "[t]he appeal of the brands competing in this segment [enriched flavor ultra low tar] is solely on the basis of implied health claims." 670156293-6296 (U.S. Ex. 53,745); 670156297-6242 at 6324, 6327 (U.S. Ex. 53,746) (emphasis added).

2702. A December 16, 1999 "Presentation of Findings" for "STAR Tobacco Focus Groups" prepared for Brown & Williamson by "Rabid Research," identified "4 segments of light/ultra smokers (segmented based on motivation for smoking light/ultra variant)." One of the four segments was identified as "those who switched because they believed lights/ultras are less harmful than full flavor and who feel they will not quit smoking." The Presentation noted these smokers were "very interested in the concept" of STAR reduced-nitrosamine tobacco, and that they "know they want to quit and want to reduce their risk . . . . focused on less 'bad stuff.'" The Presentation went on to acknowledge that many consumers smoke low tar cigarettes because they believe they are healthier, stating: "It's important to understand that **not all** light/ultralight

smokers are smoking a non-full-flavored cigarette specifically due to health concerns. . . . Of those who switched due to some sort of 'health' concern, respondents who were consciously seeking a less risky cigarette in their switch to lights/ultras are the most interested in the Star [reduced-nitrosamine] proposition." This document also illustrates that, as is the case with low tar cigarettes, the advertisements and marketing efforts of the Defendants were intended to (and did) condition consumers to respond favorably to Defendants' harm reduction claims: "Nobody knows what a nitrosamine is[.] Consumers are currently focused on tar & nicotine[.] A direct statement helps to add 'nitrosamines' to the list of things I don't want in a cigarette." 190200047-0116 at 0061, 0071, 0073, 0095 (U.S. Ex. 22,162) (Category 1) (emphasis added).

2703. Nicholas Brookes, Chairman and CEO of Brown & Williamson at the time of his 2000 testimony in the trial of Falise v. American Tobacco Co., et al. testified that he was aware that consumers' "general perception" of low tar cigarettes is that they are less harmful to health and that the reason consumers smoke them is because they believe they are safer. Mr. Brookes further testified that "I can't actually point to an independent piece of research" to prove that low tar cigarettes do in fact provide any health benefit." Trial Testimony of Nicholas Brookes, Falise v. American Tobacco Co. et al., 99-CV-7392, 3236:5-3237:1, 3293:10-3295:9 (E.D.N.Y. Dec. 27, 2000), 523787670-7829 at 7672-7673, 7729-7731 (U.S. Ex. 85,046).

(v) BATCo

2704. du Maurier. A 1954 advertisement for BATCo's Du Maurier brand that appeared in *Newsweek* stated "now you don't have to choose between a filter cigarette and a good smoke . . . you get both with Du Maurier." TLT0940002-0031 (U.S. Ex. 88,611); see also ADV01120001-

0003 (U.S. Ex. 88,730) (1954).

2705. Another 1954 BATCo du Maurier (Imperial – Canada) advertisement stated: "A new frontier in safer smoking . . . If you have been concerned about your cigarette habit . . . du Maurier tip filters out so much harmful smoke it will also filter out much of the 'worry' in every puff you take." 696000888-0916 at 0895 (U.S. Ex. 21,387) ("A Review of Health References in Cigarette Advertising 1927-1964" – document contains a "Brown & Williamson – Louisville" variance sheet).

2706. BATCo's Research On the Low Tar Cigarette Category. As demonstrated below, internal BATCo documents reveal that BATCo conducted research not just on individual low tar cigarette brands, but on low tar cigarettes as a category. These documents indicate that BATCo has long known and intended that its advertisements and marketing for low tar cigarettes featuring claims of lowered tar and nicotine and "light" and "ultra light" brand descriptors contributed to, and reinforced consumers' notion that low tar cigarettes are better for their health, and caused consumers to smoke them for this reason.

2707. For instance, a May 3, 1974 note from Anthony D. McCormick of BATCo's Legal Department "[t]o all Members of the Conference" enclosed a document for discussion by BATCo employees at an upcoming internal conference. Under the heading "SMOKING AND HEALTH ASSUMPTIONS," the enclosed document stated: "**On legal grounds alone it will continue to be to the industry's advantage not to make explicit health claims. The industry will make increasingly competitive use of products for which health claims are implied.**" The statements quoted above also appear later in the document in a chart under the same

headings. 100428581-8599 at 8581, 8583, 8599 (U.S. Ex. 34,649) (emphasis added).

2708. An internal April 14, 1977 BATCo memorandum by P.L. Short, Manager of BATCo's Marketing Department, describing BATCo's marketing plan, stated that "[a]ll work" would be "directed toward providing consumer reassurance about cigarettes and the smoking habit . . . provided . . . by claimed low deliveries, by the perception of low deliveries and by the perception of 'mildness.' Furthermore, advertising for low delivery or traditional brands should be constructed in ways so as not to provoke anxiety about health, but to alleviate it, and enable the smoker to feel assured about the habit and confident in maintaining it over time." 100427791-7800 at 7794, 7799-7800 (U.S. Ex. 34,641) (emphasis in original).

2709. An August 5, 1980 BATCo memorandum signed by J. Kendrick Wells III, Brown & Williamson Assistant General Counsel, demonstrated the Defendants' concern that their unsubstantiated representations that low tar products were less harmful could lead to legal liability, because smokers would likely rely on these representations: "Statements by a manufacturer that certain cigarettes may be smoked with reduced or zero health risk could constitute an express warranty. A plaintiff who followed the representation and then got lung cancer might have a stronger case because the defense of voluntary smoking could be eliminated." 680050983-1001 at 0986 (U.S. Ex. 20,981).

2710. An April 1982 document entitled "Conference on Marketing Low Delivery Products: January 1982" stated: "The BATCo.'s Board policy stated in the Market Expansion document is to lead the industry in the trend towards lowering deliveries. . . . [C]onsumers will probably believe that lower deliveries mean less 'risky' products." 690120722-0756 at 0726,

0728 (U.S. Ex. 21,043).

2711. A BATCo report entitled "The Product in the Early 1980s," which "considers the main threats to the smoking habit [and] the probable constraints on the type of product in the future," indicated that BATCo's focus was on portraying the "image" that its products were less harmful, as opposed to producing products that were, in fact, less harmful. The report stated that "opportunities exist for filter and cigarette designs which offer the **image** of 'health re-assurance.'" 110069974-9982 at 9974, 9979 (U.S. Ex. 20,268) (emphasis added).

2712. A September 1992 BATCo Business Review prepared by Norma Simamane, BATCo Lights Project Manager, stated that consumers "perceive a strong association between the numbers with 'perceived health effects'. Basic understanding is that 'the higher the numbers, the stronger the negative health effects'." Instead of prohibiting advertisements intimating that low tar cigarettes are healthier, the document stated: "Reference to **overt** communication of health related issues must be avoided." The document also advocated using brand descriptors such as "'Light,'" "'Ultra'" and "'Suave (indicating Lights)'" as opposed to tar and nicotine yields, because "T&N numbers . . . tend to highlight negatives and to remind consumers of the negatives of smoking thereby increasing the 'guilt' feeling." 321683062-3099 at 3087, 3090 (U.S. Ex. 28,586) (emphasis added).

2713. A November 1994 BAT presentation entitled "Low Tar Band Market Overview and Lights Review" sought to use recent and previous studies and other market data to provide a review of "the dynamics and characteristics of the 0-4mg tar band segment and the perception of Lights" within the Australian cigarette market. A goal of this presentation was to provide

feedback for "the expansion of Lights and lower tar deliveries in other BATCo markets." In discussing smoker understanding of lights descriptors, the document indicated that the lights descriptors misled smokers into believing that the lights brands had less tar than they actually did, stating: "**Respondents got a 'surprise' when they read the mg content of the proposed range. They feel they have been somewhat mislead from the point of view that these are really 'normal' mild's posing as 'something' healthier**." 500262133-2183 at 2134, 2170, 2174 (U.S. Ex. 48,139) (emphasis added).

2714. The same document reported as a "Key Finding" that Lights were "**perceived as a clever psychological ruse intimating that the smoker was indulging in a low tar content, an innocuous cigarette**." The presentation cited a December 1992 study that found that 16% of those surveyed preferred Lights because they thought they would be "safer for health reasons" and a September 1992 survey of 286 smokers which found that more than half of the smokers reported being under pressure to quit, and wished to quit, and the group that most wanted to quit was in the Ultra Low Tar category. 500262133-2183 at 2155-2156, 2173-2174, 2179-2182 (U.S. Ex. 48,139) (emphasis added).

2715. A January 1995 consumer research report prepared for BATCo entitled "Silk Cut Brand Status Check & Concept Evaluation" stated under the heading "Attitudes to LTN [low tar and nicotine]":

> There was universal agreement . . . amongst full flavor smokers that they would switch to LTN if and only if a lights brand with taste could be produced. But that seemed almost a contradiction in terms for many of them as many ff [full flavor] smokers described a direct correlation between tar and nicotine levels and taste. Regular lights brands smokers – even Marlboro Lights – were

reassured about health concerns by choosing to smoke such brands.

800056515-6581 at 6526 (U.S. Ex. 31,643).

2716. A July 28, 1995 research report, prepared for Malaysian Tobacco Company Marketing by Acorn Marketing and Research entitled "Project Grasshopper: Exploratory Research into the Lights and Menthol Segments" was directed at better understanding consumer dynamics in relation to Menthols and Lights. The research suggested that brands were successful when a market niche was created, and that there was now a niche for Lights, in that social forces have worked ". . . to create a gap for a cigarette less hazardous to health." The report also concluded that "[l]ights are compatible with the 'healthy', 'moderation' lifestyle of the new generation," and that "**[h]ealth considerations would provide the rational justification for overcoming the 'less taste' attribute of Lights**." Under the heading "Understanding and Perceptions of Lights" the report noted that "[most] Smokers know that lower tar and nicotine relates to health considerations," and one focus group respondent was quoted as saying "[lights] is not so bad for the body." 800504239-4268 at 4241, 4244-4247, 4257-4259, 4267-4268 (U.S. Ex. 56,650) (emphasis added).

2717. In January 1995, Marketing Improvements Research LTD prepared a report for BATCo entitled "Ultra-Lights Consumer Dynamics: Research to Assist BATCo to Better Understand Consumer Motivations, Behaviour & Requirements." The report, which examined the Ultra Lights segment in the Swiss market, indicated that "[r]isk management" is a "Key Motivation" for the terminology "Ultra Low Tar." 700326442-6455 at 6446, 6449 (U.S. Ex. 54,501).

2718. A June 1995 draft report prepared for BATCo by Marketing Improvements Research entitled "Low Tar Consumer Dynamics Phase 2 Report" examined various aspects of Light, Ultra Light and low tar cigarettes, including attitudes towards smoking, consumer behavior and usage patterns, and impacts of market terminology. The report noted: "Lights/UL smokers described their ideal cigarette as offering," among other things, "lowest possible damage to health." The report concluded that one of the "transitions in attitude and behaviour that need to be achieved" was that "[f]ear of negative health consequences" needed to change to an attitude of "[p]ersonal gain in physical well-being." The report also stated that some smokers who "trade down" to Lights/Ultra Lights "report stronger inhalation" and that "[p]hysical sensation (associated with intake of "active" substances) . . . can be achieved by UL smokers very quickly by smoking several cigarettes." 500154681-4727 at 4689-4692, 4695, 4699-4700, 4706, 4716, 4721 (U.S. Ex. 67,903).

2719. A June 23, 1995 document entitled "B.A.T. Industries Strategy Review" stated that "BAT must take advantage of the opportunity to develop a free-standing Lights brand." The first reason given for this "strategic imperative" was that "[t]he world market is gradually shifting to lower tar and nicotine levels. This is partly in response to health concerns and partly because Lights brands are seen as more contemporary. The age profile of Lights consumers is becoming younger." 321797455-7518 at 7489 (U.S. Ex. 67,830).

2720. Two documents entitled "Kent Filter Issue Q&A Draft: September 21st 1995" reflect that BATCo's proposed response – "Some consumers probably choose lighter products because they believe they are safer" – to the question: "Do filters make cigarettes safer?" was

edited out by hand by BATCo lawyers. 800493953-3954 at 3954 (U.S. Ex. 56,649); 900027738-7747 at 7747 (U.S. Ex. 57,905).

2721. A BATCo document bearing the heading "Barclay Business Review 1996" indicates both that consumers rely on product packaging and marketing (as opposed to FTC tar and nicotine deliveries) to indicate low tar level and that reduced tar level significantly increases purchase interest:

> Consumers – with the exception of 1MG smokers – are not able to quote correct tar/nic deliveries of the brand they are smoking currently. This means that the consumer does not segment the market in terms of deliveries but he uses colour coding and descriptors to distinguish FF, Lights and Ultra Lights. . . . shelving according to [FTC tar and nicotine] deliveries has a positive impact on the awareness of the Lights category in general. The willingness to try Barclay increased significantly.

700767443-7457 at 7452 (U.S. Ex. 22,123); accord 321184656-4672 (U.S. Ex. 22,045).

2722. This BATCo document further found that, "[i]n non-developed light markets" such as Norway, "[t]he growth of the [brand] family is driven by Barclay Number One which is an attractive offer for smokers switching down because of health concerns." It went on to state that:

> The results of the . . . smokers motivations study in Belgium show that the key drivers to the [ultralights] segment are health concern and peer/family pressure. . . . In the past the key driver to lights was consumers switching down from higher delivery products predominantly because of health concerns. Within this scenario Barclay attracted full flavour smokers around the age of 25-35.

700767443-7457 at 7444, 7448, 7451 (U.S. Ex. 22,123).

2723. A February 8, 1996 report entitled "Project Tailight," prepared by On Track

Marketing and Research Consultants for BAT Services Limited, Taiwan Branch, summarized "exploratory qualitative research" undertaken to analyze the growth of the lights/mild segment in Taiwan due, in part, to "[i]ncreased anti-smoking and health pressures." The report stated that the "Lights Phenomenon" was attributed in part to "[c]onsumers . . . growing awareness and concern for health" and that those not interested in lights were "[n]ot concerned/worried about health yet." It further noted that "[t]he stronger the addiction or need, the more likely 'lights' cannot fulfill the 'satisfaction'." A "key finding" listed in the report was that "true lights" smokers "claim to be smoking a light cigarette due to concerns about the health-related dangers (particularly death) of smoking." 800493562-3773 at 3565, 3569-3571, 3588 (U.S. Ex. 56,616).

2724. An October 6, 1997 BATCo document relating to cigarette promotion in Horeca stated: "The Lights segment is growing fast for the last two years due to the strong adoption among YAUS [young adult urban smokers] who smoke Lights for being less harmful for the health . . . ." 760008107-8111 at 8107 (U.S. Ex. 54,587).

2725.

321551304-1323 at 1304, 1305 (U.S. Ex. 22,057) (Category 1).

2726.

760008596-8803 at 8681, 8683-8685 (U.S. Ex. 54,588) (Category 1).

2727.

760008596-8803 at 8686, 8692-8693 (U.S. Ex. 54,588) (Category 1) (emphasis added).

2728.

321541810- 1835 at 1810 (U.S. Ex. 22,053) (Category 1).

2729. A 1998 BATCo research report entitled "Hungary – The Drive to Lights" examined the growth of the lights segment in Hungary to "develop key learning's [sic] derived from the Hungary example to share with markets in order to support their Lights business and help drive the Lights segment." The report concluded that "the primary motivator for people smoking Lights cigarettes in Hungary is related to health." Noting the prevalence and influence of Western culture in the country, the BATCo report found that: "Western culture advocates a healthier way of life educating consumers about potential health and social issues associated with consumable products. Through this exposure, consumers begun [sic] to make the association between Lights cigarettes and their perceived 'health' benefits." The report also examined consumer perceptions of the word "lights," and found that the word 'Light' is "associated with a 'healthier' product that is less harmful to the health," while "Lights products are perceived to serve as an intermediate stage between healthy and harmful, mainly in the case of cigarettes." 321629213-9245 at 9213, 9222, 9243 (U.S. Ex. 22,065) (Category 1).

2730. A February 1998 internal BATCo report entitled "The Evolution of Lights in the USA" provided "an analysis of the light evolution for the cigarette category in the unique scenario of the USA market" in order to "identify the forces that ignited and accelerated the [lights] segment development and extract learnings from the strategies that the key players applied to take their brands to top positions." The report noted that the "Ultra Lights segment's

franchise is mainly composed by 51+ year smokers who are willing to trade off taste by ultra low tar due to their health concerns." 321629186-9196 at 9190, 9194 (U.S. Ex. 22,062).

2731. A February 24, 1998 BATCo document contained in BATCo's "Kent BAT Russia 1999 Brand Plan" noted that "[t]he key elements in packaging that indicate Lightness to consumers are: The word 'Lights[,]' White colour of pack," and "Blue & White colour combinations of pack." After acknowledging that tar and nicotine numbers "bring about feelings of guilt and embarrassment from smoking," the document stated in its "Key Conclusions" section that, while numbers can enable consumers to distinguish between deliveries of different brands, they should be minimized: "Word descriptors cannot stand alone to help consumers understand Lights and Lights variants. Numbers can more clearly distinguish lights variants, but they have to be used carefully (e.g. in a smaller size or in the side panel)." 760008596-8803 at 8768-8769 (U.S. Ex. 54,588) (internal numbering omitted).

2732. A March 4, 1998 internal BATCo draft report entitled "Lights Information Kit," which provided "a summary of British American Tobacco's understanding of Lights cigarettes" to assist BATCo in its attempt to "take an increasing share of this segment," equated cigarette brand descriptors with brand descriptors used for food and drink products. The report noted that "[t]here has been a clear trend over the past two decades in many food and beverage categories towards lighter products, often on the basis of an offer of lower calories or lighter taste but also often portrayed as a modern choice." Citing diet colas, light beers, and lower fat foods as examples, the report noted that "[t]rends for lighter food and beverage products can act as an indicator of trends towards lighter cigarette brands." 321478980-8985 at 8980, 8982 (U.S. Ex.

22,049).

2733. A BATCo document from 1998 or thereafter entitled "Perception of Lights" and based on BAT research in Hungary, indicated under the heading "Advantages of Lights" that clearly the most cited reason that smokers choose light cigarettes (given by 40.5% of the smokers questioned) is that they are believed to be "[l]ess damaging to overall well being." The document stated that "[p]eople see advantages of 'Lights' to mainly be 'less damaging to overall well-being', 'milder, lighter', and 'less nicotine, tar'. . . . **Lights smokers cite reasons for smoking them as – health, social pressure, prestige and as an attempt to reduce addiction**." Taste was not mentioned as a "reason for smoking" light cigarettes. 321541609-1679 at 1609, 1644, 1652 (U.S. Ex. 22,052) (emphasis added).

2734. Dr. Michael Dixon, Principal Research Scientist for BATCo at the time of his 1998 trial testimony in State of Minnesota v. Philip Morris Inc., et al., testified that both health-conscious and taste-conscious consumers would rationally conclude that as between two brands of cigarettes, the brand displaying smaller tar and nicotine numbers and advertised as being lower in tar and nicotine is safer for their health. Trial Testimony of Dr. Michael Dixon, State of Minnesota v. Philip Morris Inc., et al., April 8, 1998, 11205:14-11212:11; 525470373-0614 at 0555-0562 (U.S. Ex. 85,019).

2735. A 1999 BATCo document entitled "Lightning – Extreme Smoking Regimes Testing Results and Implications for IT and The Light-Mild Issue" cited a "Smokers' attitudes report" that found that 39% of those who switched to a Light/Mild brand did so for "[h]ealth reasons" and 18% did so as a "step to quit[ting]." Further results indicated that more smokers

perceive the terms "light" and "mild" to indicate low tar than to connote taste or any other characteristic. 321989078-9276 at 9121-9122 (U.S. Ex. 28,819).

2736. A 1999 BATCo presentation on marketing in Europe bearing the headings "Research" and "Heathrow Proposition" stated that many smokers want to "trade down" in tar in order to minimize risk and harm caused by their cigarettes: "[S]trong potential for a new low tar brand – many smokers looking to trade down. . . . Low tar Minimise Risk, Maximise Pleasure. . . . New Product Proposition Low tar product with smoother yet fuller smoking experience[.] All, bar quitters, welcome proposition – more fun/enjoyment, less harm." 321628040-8076 at 8056, 8059, 8061 (U.S. Ex. 22,060).

2737.

760008596-8803 at 8676-8679 (U.S. Ex. 54,588) (Category 1).

2738. A January 2001 BATCo file entitled "Consumer Concept Trial Notes Jan 2001 Project Baltec II" contains a section dated January 10-12, 2001, entitled "Philadelphia – General

Impressions and Summary," which revealed the results of consumer research on low tar cigarette smokers. The document stated: "There was some guilt over smoking . . . some had switched to lights with the belief that lights are better for them. . . . General feeling that lights are healthier." 325238922-8994 at 8981, 8991-8994 (U.S. Ex. 22,079)

2739. A January 10, 2001 BATCo document written by Steven Coburn entitled "Project Balcony," which referenced Philadelphia, Pennsylvania marketing studies related to proposed campaigns, acknowledged that low tar and nicotine messages in advertising imply a health benefit. The document stated "3rd board impresses the low nic/tar idea – appears to imply healthier though no cig is healthy." 325239028-9036 at 9029 (U.S. Ex. 22,083). An identically titled document from the same author dated January 11, 2001, stated under the heading "Benefit": "Lights are supposed to be more healthy." 325239035-9036 at 9035 (U.S. Ex. 22,083). A BATCo document dated January 15, 2001 with the same title and author, but which referenced Santa Monica, California marketing studies related to proposed campaigns, stated "less tar nic – less harmful." 325239014-9027 at 9015 (U.S. Ex. 22,082). A January 23, 2001 document with the same title and author and referencing Tokyo, Japan smokers stated "low nic tar idea is positive – healthier." 325239001-9005 at 9004 (U.S. Ex. 22,081). Another document with the same date, title and author (also regarding smokers in Tokyo and Japan) stated "3rd board – sounds healthier – lower nic/tar. . . . Other Benefits/potential issues: What do you look for if you change brands? Tar/nic levels – low as possible but still get satisfaction from cig[;] Taste[;] Health consciousness – lower tar." 325239006-9007 at 9006-9007 (U.S. Ex. 22,081).

(vi) American Tobacco

2740. Like the other Defendants, American used descriptive terms and low FTC tar ratings to convey misleading and unsubstantiated health messages to the public. For instance, a "1969 Survey of Cigarette Smoking Behavior and Attitudes" performed for American Tobacco illustrates American's understanding that consumers perceived certain brands as less harmful to smoke than others. The survey contained the following questions: "What brand or brands of cigarettes come to mind when I say: Is safest to smoke? Is most effective in eliminating the things that are bad for you? Can prevent cigarette cough? Is best for people who are just starting to smoke regularly?" 650340129-0193 at 0151 (U.S. Ex. 20,948) (U.S. Ex. 22,117).

2741. A November 11, 1976 report prepared by Fay Ennis Creative Research Services for F. William Free & Company, an advertising agency used by American, summarized focus group sessions relating to low tar cigarettes. The report noted that all of the group participants had switched to low tar cigarettes "because they felt that low tar cigarettes are healthier than high tar cigarettes." The report identified as another reason for switching, "[t]here was a feeling low tar cigarettes are packed with less tobacco than the high tar variety and therefore are less harmful because there is actually less tobacco, i.e., less tar and nicotine in each cigarette." When asked to define a low tar cigarette, some participants responded: "Lets less tar and nicotine get into my lungs." ATC013 7310-7324 at 7318-7319 (U.S. Ex. 87,890).

2742. Carlton. American Tobacco led the way in the use of low tar brands as a marketing tool to keep smokers in the market with the introduction of Carlton. Advertisements that appeared in *Time* and *Newsweek* in 1964 for Carlton cigarettes stated: "Everything about Carlton is selected and crafted to produce this one result: A cigarette that is low in 'tar' and

nicotine – yet high in smoking pleasure. Carlton is so low in 'tar' and nicotine that we print test results on all packs, on all cartons. . . . Carlton – lightest smoke of all. See for yourself." ATX040070514-0519 (U.S. Ex. 21,125); see also ADV011 1575-1579 (U.S. Ex. 3,028) (1964); ADV107 0020-0022 (U.S. Ex. 88,689) (1964); ADV107 0023-0027 (U.S. Ex. 88,690) (1964).

2743. A June 8, 1964 report prepared by Gardner Advertising Company for American entitled "A Summary Report of Two Carlton Research Studies" summarized "Carlton Concept Research" and "Carlton Penetration Research." The report stated as a "Highlight" that "Based on Ad Exposure Before Product Availability," smokers "[s]aw CARLTON as a high filtration cigarette, low in tar and nicotine. Although the advertisement made no mention of it, there was a tendency to interpret CARLTON as **lower** in tar and nicotine, **safer**, less harmful." ATC2503644-3706 at 3650 (U.S. Ex. 87,891) (emphasis in original).

2744. American labeled Carlton an "unusual new cigarette" which is "so low in 'tar' and nicotine we print test results on all packs and cartons." In 1968, Carlton advertising stressed the fact that it was found lowest in 'tar' by U.S. Government testing and cited its "unique Air-Stream Filter" as the source of its ability to reduce tar down to 4 mg. (as compared to a then industry average of over 20 mg.). ATX40397140-7141 (U.S. Ex. 85,020); MNAT00386652-6652 (U.S. Ex. 85,112); Expert Report of Robert J. Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001) at 14.

2745. Advertisements for Carlton cigarettes relied heavily on the FTC test yields to imply a Government endorsement of American's "low tar" claim, which they knew conveyed – and intended to convey – a message to consumers that Carlton cigarettes are less harmful:

- "For 10th straight published Gov't Report Carlton. Still lowest in 'tar' of all regular filter kings tested . . . . For the last 10 consecutive Government Reports. Carlton has been found lowest in 'tar' of all regular filter kings tested. That's every Report since October 1968." See U.S. Ex. 88,692 (1975); U.S. Ex. 88,693 (1975); U.S. Ex. 88,691 (1975).

- "Of all filter kings tested: Carlton is lowest. Look at the latest U.S. Government figures for other brands that call themselves low in tar." U.S. Ex. 87,205 (1975); U.S. Ex. 87,207 (1975); U.S. Ex. 4,949 (1975); U.S. Ex. 4,889 (1975); U.S. Ex. 4,867 (1975).

- "Of all filter kings tested: Carlton is lowest. For the 12th straight time, the U.S. Government has reported Carlton to be the lowest in tar of all filter kings tested." U.S. Ex. 87,178 (1974); U.S. Ex. 87,179 (1974); U.S. Ex. 87,181 (1974); U.S. Ex. 87,182 (1974).

- "Of all filter kings tested: Carlton is lowest. Look at the latest U.S. Government figures for other brands that call themselves low in tar." U.S. Ex. 87,183 (1974); U.S. Ex. 4,639 (1975); U.S. Ex. 10,424 (1975); U.S. Ex. 10,439 (1975); U.S. Ex. 10,454 (1975).

- "U.S. GOVERNMENT REPORT: CARLTON LOWEST. Carlton claim confirmed. Many cigarettes are using national advertising to identify themselves as 'low tar.' Consumers, however, should find out just how low these brands are–or aren't. Based on U.S. Government Report: 14 Carltons, Box or Menthol, have less tar than one Vantage. 11 Carltons, Box or Menthol, have less tar than one Merit. 11 Carltons, Box or Menthol, have less tar than one Kent Golden Lights. 6 Carltons, Box or Menthol, have less tar than one True
. . . . This same report confirms of all brands, Carlton Box to be the lowest with less than 0.5 mg. tar and 0.05 mg. nicotine." U.S. Ex. 5,961 (1978); U.S. Ex. 5,978 (1978); U.S. Ex. 6,355 (1980); U.S. Ex. 6,370 (1980).

- "Carlton is lowest. See how Carlton stacks down in tar. Look at the latest U.S. Government figures [table comparing Carlton favorably with Winston Lights, Vantage, Salem Lights, Kent Golden Lights, Merit and True cigarettes]" U.S. Ex. 5,811 (1978); U.S. Ex. 5,835 (1978); U.S. Ex. 5,992 (1979); U.S. Ex. 5,999 (1979); U.S. Ex. 6,052 (1979).

- "Based on latest U.S. Government Report: Carlton is lowest. See how Carlton stacks down in tar. Look at the latest U.S. Government figures [referring to table indicating Carlton has lower tar than Winston Lights,

> Vantage, Salem Lights, Kent Golden Lights, Merit and True cigarettes]." (The copy of the advertisement produced from American Tobacco's files contains a handwritten notation indicating that the tar yield represented in the advertisement may have been falsely low: "Showed Box at < 0.5 MG, even though [tar] was same as Now (1 MG each)."). U.S. Ex. 5,948 (1978); U.S. Ex. 5,992 (1979); U.S. Ex. 5,999 (1979); U.S. Ex. 6,052 (1979).

See also ATX040070514-0519 (U.S. Ex. 21,125); 03496228-6630 at 6309, 6310, 6580 (U.S. Ex. 20,057).

2746. A September 1973 report prepared for American entitled "Tareyton, Iceberg 10, Carlton" discussed marketing strategies for these three brands. In the "Advertising Strategy Statement" for Carlton, in a section entitled "The Prospect's Problem," the report noted that in focus group interviews "the 'health' problem is most frequently mentioned, but people tend to ignore the negatives and continue to smoke out of pleasure or habit." The report went on to say that "Carlton's copy strategy for 1973/1974 will continue to be straight forward and factual, **appealing to those smokers whose concern for 'health' hazards leads them to seek out a cigarette with truly low 'tar' and nicotine content**." ATC2472182-2243 at 2216, 2225 (U.S. Ex. 87,892) (emphasis added).

2747. When Eric Gesell, designated representative of American who worked for American from 1963-1994, was asked at his deposition in the Minnesota case what American meant by its Carlton cigarette advertisements from 1974 and 1978 using the slogans "Carlton is lowest" and "Carlton lowest," Gesell testified that, "[w]hat [American is] doing in this ad is using the FTC figures in order to try to sell a cigarette." Gesell also testified that "[w]hat [consumers] would get from" the advertisement "is that Carlton is the lowest in tar." Gesell had

no evidence that smokers are aware that the way they smoke a cigarette significantly affects the tar delivery. Deposition of Eric Gesell, State of Minnesota v. Philip Morris Inc., et al., September 18, 1997, 5:8-6:6; 6:10-17; 115:19-118:14; ATX040070514-0519 (U.S. Ex. 21,125).

2748. A 1977 Advertisement for Carlton cigarettes depicted a healthy, smiling female holding a cigarette, stating: "I switched to less tar. Carlton is lowest in tar and has a light mild taste I really enjoy! I switched. You can too! . . . . Carlton is lowest in tar and nicotine." ATX040268971-8971 (U.S. Ex. 21,127); see also U.S. Ex. 9,257 (1994); U.S. Ex. 9,268 (1994); U.S. Ex. 9,275 (1994); U.S. Ex. 9,285 (1994); U.S. Ex. 9,292 (1994).

2749. Carlton's 1981 Marketing Plan, dated August 18, 1980, discussed ways to make Carlton cigarettes "the brand of the 1980's." The forward of the plan noted that "[t]he Ultra Low segment of the market is continuing to grow rapidly as more and more smokers search for smoking pleasure at tar levels more in tune with the mores of the times. **Carlton, as innovator and category leader, is well poised to capitalize on this trend by its inherent positioning**." ATC0735197- 5261 at 5199 (U.S. Ex. 87,893) (emphasis added – bold type).

2750. The Carlton 1981 Marketing Plan also discussed "1981 Specific Problems and Opportunities." In this section, the report stated:

> [i]t is anticipated that a new FTC Report will be released in January, 1981. Although the Report may cite the tar and nicotine data of a Box product we are not currently marketing, **we will create new advertising to capitalize on the Report as fully as possible**.

ATC0735197- 5261 at 5237-5238 (U.S. Ex. 87,893) (emphasis added).

2751. A circa 1983 letter to H.W. Bahrenburg, American Tobacco Product Manager,

from Tom Keane of Laurence, Charles & Free, Inc., discussed advertisements for American's Carlton cigarettes, stating that American would proceed with the advertisement that best communicated that Carlton was "'lowest'" in tar and nicotine: "Our recommendation was to go with the B ad – 'Compare' with the 'U.S. Gov't Report.' This ad did very well in the general low-tar area and in fact it was the only ad which showed a 'lowest' playback on the primary question – 'What do you get out of this ad?' . . . . [W]e are proceeding with 'Compare' and 'U.S. Gov't' on the new . . . ad." The advertisement stated: "Compare to your brand . . . . Box King – lowest of all brands – less than 0.01 mg. tar, 0.002 mg. nic. Carlton is lowest. . . . U.S. Gov't Report – no brand lower than Carlton Box King – less than 0.5 mg. tar, 0.05 mg. nic . . . . FTC Report Mar. '83." U.S. Ex. 7,683 (1984); see also U.S. Ex. 7,725 (1984); U.S. Ex. 7,536 (1983); U.S. Ex. 7,567 (1983); 991034809-4816 at 4809, 4816 (U.S. Ex. 85,113).

2752. An August 4, 1983 memorandum on American Tobacco letterhead from John A. McGinn, Product Manager, to W.J. Moore, Marketing Director, entitled "CARLTON Slims," stated: "At a 6 mg. tar level, this 100 mm product would be responsive to those consumers seeking low tar . . . . It would also extend CARLTON's 'lowest' position to yet another cigarette category." 991341428-1440 at 1428 (U.S. Ex. 85,114).

2753. A February 1987 magazine advertising campaign for Carlton also prominently featured claimed tar and nicotine reduction: "If you smoke . . . Compare your cigarette to Carlton. If you're interested in smoking an ultra low tar and nicotine cigarette, you should compare the tar and nicotine content of your cigarette to Carlton. Most cigarettes sold today have 10 times the tar and nicotine of Carlton Box Kings & Box 100's." Another Carlton advertisement

campaign from the late 1980s also had lowest tar as its centerpiece and implied a United States Government endorsement, listing Carlton as having lower tar than Philip Morris's Merit and R.J. Reynolds's Vantage cigarettes:

> If you smoke . . . Here's the latest comparative information for smokers who want lower tar & nicotine. . . . CARLTON became the first brand to put these [tar and nicotine] figures right on the pack. . . . In the last 21 reports issued by the U.S. Government, no cigarette has tested lower than Carlton. . . . If you are interested in the tar content of your cigarette, you should compare the tar content of your cigarette vs CARLTON. If you are interested in the lowest . . . LATEST U.S. GOV'T REPORT CONFIRMS: no brand lower than Carlton Box King.

MNAT00746229-6229 (U.S. Ex. 21,230); see also U.S. Ex. 8,262 (1986); U.S. Ex. 8,246 (1986).

2754. A 1987 advertisement for American's Carlton cigarette stated: "**Carlton cuts tar by 40%! . . . . Carlton is lowest**. Reduced to 3 mg. tar." Eric Gesell, corporate designee on behalf of American, testified in 1997 that the FTC yields were not intended to approximate human smoker intake. He also testified that American did not place any disclaimer with this advertisement to indicate that the FTC yields that were the basis of American's claim that "Carlton cuts tar by 40%" did not refer to the amount of tar and nicotine to which a smoker of these cigarettes would be exposed. Deposition of Eric Gesell, State of Minnesota v. Philip Morris Inc., et al., September 18, 1997, 5:8-6:6; 6:10-17; 128:4-17; 131:22-132:19.

2755. A February 29, 1988 memorandum on American Tobacco letterhead from R.E. Smith, Director of Brand Management, to K.P. Noone, Product Manager, stated:

> The singular objective of all consumer communication should be registering Carlton's lowest positioning. We must continue to hammer this lowest message home to our current franchise. It's why they came to Carlton. As switching losses to Now show, it's

> the best way to lure them away. . . . It is my belief that most smokers will continue to seek lower tar. They have switched for it in the past, often several times.

991216857-6858 at 6857 (U.S. Ex. 85,115).

2756. A "Carlton Creative" collection of advertisements included "testimonials" of people who allegedly "Switched to Lowest Tar" and also received satisfying taste:

- "I Switched To Lowest Tar." Like many other smokers I thought I'd have to sacrifice flavor for a low tar cigarette. But when I found Carlton . . . and I switched. How about it? Why not try Carlton and go with the lowest! . . . . U.S. Gov't. Test Method confirms of all King soft packs: Carlton is lowest in tar and nicotine.

970469347-9474 at 9452 (U.S. Ex. 88,612) (1994); see also U.S. Ex. 9,285 (1994); U.S. Ex. 9,292 (1994); 970469347-9474 at 9453-9457 (U.S. Ex. 88,612); 970557462-7465 (U.S. Ex. 85,116) (Dec. 6, 1993 letter on American Tobacco letterhead from James M. Murray to Nancy Gavlick attaching similar "print ad comps" for Carlton).

2757. A 1992 advertisement for Carlton stated: "10 packs of Carlton Menthol have less tar than 1 pack of these brands." U.S. Ex. 9,093 (1992); U.S. Ex. 9,104 (1992); U.S. Ex. 9,127 (1992); U.S. Ex. 9,182 (1993); U.S. Ex. 9,192 (1993); see also Deposition of Sharon Smith, Howard et al. v. Brown & Williamson Tobacco Corp., March 5, 2002, 69:24-70:4 (Brown & Williamson's Director of Marketing Services and Operations testifying pursuant to Fed. R. Civ. P. 30(b)(6) that Brown & Williamson ran an advertisement that displayed ten packs of Carlton to one pack of a competitive brand and invited smokers to smoke "ten of ours for one of theirs").

2758. Other Carlton advertisements from the 1990s made representations that Carlton provided less tar:

- "If you want less tar please try Carlton . . . . U.S. Gov't. Test Method confirms of all king soft packs: Carlton is lowest in tar and nicotine." 970469347-9474 at 9460 (U.S. Ex. 85,104) (1994); see also U.S. Ex. 9,285 (1994); U.S. Ex. 9,292 (1994).

- "10 to 1 . . . 10 packs of Carlton have less tar than 1 pack of these brands [depicting Marlboro, Camel, Winston, Kent]. Carlton is lowest in tar and nicotine." U.S. Ex. 9,182 (1993); U.S. Ex. 9,192 (1993); see also 970469347-9474 at 9464 (U.S. Ex. 85,104) (1993); 970469347-9474 at 9465 (U.S. Ex. 85,104) (1995).

- "A WHOLE CARTON OF CARLTON . . . HAS LESS TAR THAN 1 PACK OF THESE BRANDS [depicting Marlboro, Camel, Winston, Kent]. Carlton is lowest in tar and nicotine." U.S. Ex. 9,186 (1993); U.S. Ex. 9,112 (1992); 970469347-9474 at 9466 (U.S. Ex. 85,104) (1993).

- "I Switched to Less Tar." U.S. Ex. 9,285 (1994); U.S. Ex. 9,257 (1994); U.S. Ex. 9,268 (1994); U.S. Ex. 9,275 (1994).

- "I switched to Lowest Tar." U.S. Ex. 9,298 (1994); U.S. Ex. 9,292 (1994).

2759. A September 13, 1994 document prepared for American Tobacco entitled "LCF & L Agency Orientation Handbook" describes American's print advertising strategy to "[p]rompt competitive target smokers to question their Brands Tar Level and present CARLTON as a contemporary, satisfying answer for those smokers seeking lower tar. The strategy and presentation should start and build from a common 'truth' in our prime prospects mindset – to serve as a reminder that they too want less tar." The "Positioning Statement" was: "Carlton is the brand chosen to 'switch' to in the ULT category because it is the lowest in tar and nicotine, as confirmed by the U.S. government FTC method. By smoking Carlton you get the lowest and you do not have to sacrifice flavor." 970469347-9474 at 9354, 9411 (U.S. Ex. 85,104).

2760. Sharon Smith, Brown & Williamson's Director of Marketing Services and Operations, testified that Carlton advertising focused on tar delivery: "For Carlton . . . it's not an

imagery campaign. It's more communication of tar levels. . . . I'm familiar with . . . consumers of competitive brands to Carlton, talking [in focus groups] about what's more important to them to convince them to switch from their brand . . . to Carlton is just an understanding of what the tar levels are. . . ." Deposition of Sharon Smith, Howard et al. v. Brown & Williamson Tobacco Corp., March 5, 2002, 135:12-136:3.

2761. Pall Mall. Two American advertisements from 1968-1969 for Pall Mall Gold cigarettes advertised mildness/lowered tar and nicotine and stated: "You make out better at both ends." Eric Gesell, designated corporate representative of American, testified in 1997 that this advertisement indicated two benefits, "flavor at one end on the cigarette, and the other is a longer filter." Regarding a Pall Mall Gold advertisement with the same slogan, Gesell testified, as representative of American, that: "[T]his is an ad that says Pall Mall Gold is now lower in tar than the best-selling filter king." Deposition of Eric Gesell, State of Minnesota v. Philip Morris Inc., et al., September 18, 1997, 5:8-6:6; 6:10-17; 93:2-21; 94:10-17; 96:3-12; ATX040696413-6413 (U.S. Ex. 88,613); MNAT00282147-2147 (U.S. Ex. 88,614); see also ATC2596953-6953 (U.S. Ex. 85,117); U.S. Ex. 87,476 (1968); U.S. Ex. 88,720 (1953); U.S. Ex. 87,209 (1969 *Life* magazine ad stating: "Pall Mall Gold 100's now lower in 'tar' than the best-selling filter king! . . . tastier. . . milder. . . You make out better at both ends!").

2762. A 1976 advertisement for American's Pall Mall Extra Mild cigarettes (published in periodicals including the *New York Post*) featured the heading "De-tarred but not de-tasted." U.S. Ex. 5,232 (1976); see also MNAT00742048-2048 (U.S. Ex. 21,229).

2763. Tareyton. A 1954 Tareyton advertisement explicitly stated that its cork filter

provided health protection, stating: "Tareyton's genuine cork tip protects your lips." 696000888-0916 at 0913 (U.S. Ex. 21,387).

(vii) Lorillard

2764. Kent. Lorillard introduced Kent cigarettes in the early 1950s as a health reassurance brand. Kent marketing serves as an illustrative example of Defendants' evolution from using explicit health claims – which established in consumers' minds that low tar/filtered cigarettes are less harmful – to later implicit health claims that added to and reinforced their earlier explicit claims. This approach is evident in Lorillard's advertisements for its Kent cigarettes. Explicit health claims in Lorillard's Kent advertisements from the early 1950s through the 1960s included:

- "This is the story of the birth of a new cigarette and the birth of a new idea in health protection for cigarette smokers." (1952)
- "[A] new freedom from worry about the effects of tobacco irritants." U.S. Ex. 2,751 (1955).
- "First cigarette ever to give you black and white proof of greatest health protection . . . with full smoking pleasure!" U.S. Ex. 88,703 (1953).
- "The American Medical Association voluntarily conducted in their own laboratory a series of independent tests of filters and filter cigarettes. As reported in the Journal of the American Medical Association, these tests proved that of all cigarettes tested, one type was the most effective for removing tars and nicotine. This type filter is used by Kent . . . and only Kent! . . . For the greatest protection of any filter cigarette." U.S. Ex. 88,731 (1954).
- "The difference in price is just a few pennies . . . the difference in protection is priceless! Only Kent goes to the extra expense to protect you with MICROSCOPIC FILTERING." U.S. Ex. 88,728 (1954); see also U.S. Ex. 2,749 (1955).
- "KENT gives greater protection than any other cigarette." U.S. Ex. 88,704

(1953).

696000888-0916 at 0897 (U.S. Ex. 21,387); 98250331-0354 at 0338, 0336, 0337 (U.S. Ex. 87,894).

2765. Early Kent advertisements emphasized the supposed benefits of its Micronite filter and stated that it rendered Kents less hazardous to health:

- "First cigarette ever to give you black and white proof of greatest health protection." (1953)
- "KENT – THE CIGARETTE WITH THE MICRONITE FILTER. SCIENTIFICALLY, THE MOST EFFECTIVE FILTER EVER DEVELOPED TO FREE CIGARETTE SMOKE OF IMPURITIES. . . . NO OTHER CIGARETTE APPROACHES SUCH A DEGREE OF HEALTH PROTECTION . . . ."
- "If you're the 1 in every 3 smokers who needs protection against tars and nicotine . . . Look at Kent's proof of greatest filter protection and see why you should change to Kent! . . . . the greatest filter protection in cigarette history!" (1954)
- "Your voice of wisdom says SMOKE KENT." U.S. Ex. 2,746 (1955); U.S. Ex. 2,749 (1955); U.S. Ex. 2,747 (1955).
- "Don't be Misled By Confusing Claims. Today, as before, you get LESS TARS AND NICOTINE IN KENT THAN IN ANY OTHER LEADING FILTER CIGARETTE IN AMERICA!" (1958)
- "Kent with the MICRONITE filter is smoked by MORE SCIENTISTS, MORE EDUCATORS, MORE BANKERS, MORE LAWYERS than any other cigarette." (1960)
- "It's the smoke that comes through the filter that counts! You get less tars and nicotine in the smoke of Kent than in any other leading filter cigarette." See U.S. Ex. 2,999 (1963).
- "Amazing new Kents give far greater health protection. Exclusive 'MICRONITE' FILTER removes up to 7 times more nicotine and tars than other leading filter cigarettes . . . ." See U.S. Ex. 10,104 (1962); U.S. Ex.

10,110 (1963); U.S. Ex. 10,111 (1963); U.S. Ex. 10,113 (1963); U.S. Ex. 10,114 (1963).

- "[I]f you worry about the harmful effects of smoking . . . No other cigarette approaches such a degree of health protection and taste satisfaction. Because this filter is exclusive with KENT, . . . no other cigarette offers smokers such a degree of health protection and taste satisfaction." See U.S. Ex. 10,115 (1963).

- "No medical evidence or scientific endorsement has proved any other cigarette to be superior to KENT." (1964)

98250333-0333 (U.S. Ex. 88,806); 696000888-0916 at 0897 (U.S. Ex. 21,387); 87597033-7033 (U.S. Ex. 21,095); 98250331-0354 at 0340-0345 (U.S. Ex. 21,120); accord 98250333-0333 (U.S. Ex. 88,806); 696000888-0916 at 0897 (U.S. Ex. 21,387); 87597033-7033 (U.S. Ex. 21,095); 98250331-0354 at 0340-0345 (U.S. Ex. 21,120).

2766. Kent's additional early advertisements promoting Kent's Micronite filter also included the following explicit promises of health protection:

- "Kent-the one cigarette that can show you proof of greater health protection. . . . Kent with exclusive MICRONITE Filter full smoking pleasure . . . plus proof of the greatest health protection ever." U.S. Ex. 87,481 (1953); see also U.S. Ex. 2,746 (1955); 82159127-9127 (U.S. Ex. 67,408); 82297544-7544 (U.S. Ex. 67,430); 82297872-7872 (U.S. Ex. 67,431); 92525358-5358 (U.S. Ex. 74,465); 96455438-5438 (U.S. Ex. 74,535); 96458660-8660 (U.S. Ex. 74,542).

- "If you're the 1 in every 3 smokers who needs protection against tars and nicotine . . . Look at Kent's proof of greatest filter protection and see why you should change to Kent! . . . . the greatest filter protection in cigarette history!" See U.S. Ex. 2,777 (1956); U.S. Ex. 88,700 (1954); see also 82159131-9131 (U.S. Ex. 67,412); 92437412-7412 (U.S. Ex. 74,459); 96455437-5437 (U.S. Ex. 74,534); 96458657-8657 (U.S. Ex. 74,539).

- "To 1 out of 3 smokers: Do you love a good smoke but not what smoking does to you? If you'd like to enjoy a cigarette without being bothered by the harshness of nicotine and tars . . . if you'd like the greatest health

protection in cigarette history . . . these facts can help you . . ." See U.S. Ex. 2,780 (1956); U.S. Ex. 88,705 (1953); see also 80749613B-9613C (U.S. Ex. 88,615); 89749627-9628 (U.S. Ex. 67,683); 93334164-4165 (U.S. Ex. 57,291) (*Life* magazine 1953).

- "Kent – and Kent alone – offers [smokers] the health protection they need." U.S. Ex. 87,188 (1953); U.S. Ex. 87,484 (1953); see also U.S. Ex. 2,944 (1962); 82159129-9129 (U.S. Ex. 67,410); 96458658-8658 (U.S. Ex. 74,540).

- "Kent with exclusive 'MICRONITE' filter Real smoking pleasure . . . plus the greatest health protection in cigarette history." See U.S. Ex. 3,003 (1963); see also 82159126-9126 (U.S. Ex. 67,407); 96458659-8659 (U.S. Ex. 74,541).

- "Here's proof: KENT, with MICRONITE Filter, takes out far more nicotine and tars than any other filter cigarette, old or new." See U.S. Ex. 2,746 (1955); U.S. Ex. 2,777 (1956); U.S. Ex. 2,780 (1956); U.S. Ex. 2,944 (1962); U.S. Ex. 3,003 (1963); see also 82159132-9132 (U.S. Ex. 67,413); 96458662-8662 (U.S. Ex. 74,544) (emphasis in original).

- "According to published medical reports, about 1 in every 3 smokers is sensitive to the nicotine and tars in tobacco smoke. He needs the protection of a filter cigarette . . . . If you need the protection of a filter cigarette . . . get KENT, the cigarette that takes our *far* more nicotine and tars than *any* other filter cigarette, old or new.") 96458663-8663 (U.S. Ex. 74,545) (emphasis in original).

- "The difference in **price** is just a few pennies... the difference in **protection** is **priceless!** Only **Kent** goes to the extra expense to protect you with **MICROSCOPIC FILTERING**[.]" See U.S. Ex. 2,749 (1955); see also 82159134-9134 (U.S. Ex.67,415); 96458664-8664 (U.S. Ex. 74,546) (emphasis in original).

- "To 1 out of every 3 smokers . . . get the health protection you definitely need . . . . Kent with exclusive 'MICRONITE' FILTER[.]" U.S. Ex. 87,482 (1953); see also U.S. Ex. 2,747 (1955) 82159128-9128 (U.S. Ex. 67,409); 96458665-8665 (U.S. Ex. 74,547).

- "To 1 out of every 3 smokers: **Which cigarette gives you the greatest health protection?** . . . . **Kent** with exclusive MICRONITE filter[.]" U.S. Ex. 87,187 (1953); U.S. Ex. 87,483 (1953); see also 92525359-5359

(U.S. Ex. 74,466) (emphasis in original).

- "If you're looking for pleasure, plus the greatest health protection ever developed . . . there is one which in impartial tests proved to give sensitive smokers far greater health protection than any of the others. This cigarette is KENT with the 'Micronite' Filter. . . . Millions of health-conscious smokers across the country are seeing . . . this proof of the far greater filter effectiveness of KENT's miraculous Micronite Filter over ordinary filters[.]" 89749623-9624 (U.S. Ex. 67,681); 92525360-5360 (U.S. Ex. 74,467) (emphasis in original).

- "Now! New Kent with 'Micronite' Filter First cigarette ever to give you black and white proof of greatest health protection. . . ." 89749585-9585 (U.S. Ex. 67,675) (1953 *Life* magazine); 89749586-9586 (U.S. Ex. 67,676); see also 92525361-5361 (U.S. Ex. 74,468) (identical advertisement).

- "No other cigarette approaches such a degree of health protection and taste satisfaction. Stop and think . . . and you'll start to smoke KENT[.]" 91797854-7855 (U.S. Ex. 74,413) (1952 *Daily News* advertisement).

- "You can **See** the proof of Kent's health protection! Exclusive 'MICRONITE' FILTER removes 7 times more nicotine and tars than any other leading filter cigarette . . . and you can see and taste the difference!" See U.S. Ex. 87,186 (1953); 80687153-7153 (U.S. Ex. 67,386) (1952 *N.Y. Daily News* advertisement) (emphasis in original).

- "In city after city where KENT has been introduced, it has received the most enthusiastic reception of any new cigarette in the last 20 years. Why? We feel that the only answer is that KENT gives smokers the combination they've wanted . . . *a really good smoke and real health protection*." See U.S. Ex. 87,185 (1953); 89749583-9584 (U.S. Ex. 67,674) (1953 *Life* magazine advertisement) (emphasis in original).

- "Full smoking pleasure . . . plus proof of the greatest health protection ever. Kent with exclusive MICRONITE filter[.]" 89749586-9586 (U.S. Ex. 67,676); see also 03280084-0084 (U.S. Ex. 87,896); 82159130-9130 (U.S. Ex. 67,411); 92525362-5362 (U.S. Ex. 74,469).

- "Which 1 of the country's leading 27 cigarettes should you smoke? . . . . If you're looking for pleasure, plus the greatest health protection ever developed . . . . If you think you need the kind of protection that only

KENT offers–the greatest in cigarette history–you should smoke KENTs . . . . see if KENT doesn't add to your feeling of well-being, too?" U.S. Ex. 87,189 (1953); see also 89749595-9596 (U.S. Ex. 67,679) (1953 *Life* magazine advertisement).

- "Which cigarette gives you the greatest health protection? . . . . Kent with exclusive MICRONITE filter." U.S. Ex. 87,483 (1953); see also 87830445-0445 (U.S. Ex. 67,631).

- "Here's indisputable proof that KENT's exclusive Micronite Filter gives 21 million sensitive smokers – about 1 out of every 3 smokers – greater protection against nicotine and tars than any other filter cigarette on the market today. It is the greatest health protection in cigarette history." 89749597-9598 (U.S. Ex. 67,680).

2767. Other advertisements for Kent from the 1950s and 1960s stated:

- "Your voice of wisdom says SMOKE KENT." U.S. Ex. 2,746 (1955); U.S. Ex. 2,747 (1955); U.S. Ex. 2,749 (1955).

- "If you smoke a lot…CHANGE TO KENT…CHANGE TO KENT" U.S. Ex. 2,777 (1956); U.S. Ex. 2,780 (1956).

- "If you smoke a lot, you'll relax even more with…KENT." U.S. Ex. 2,775 (1956).

- "Your taste buds will tell you why you'll feel better about smoking with the taste of Kent!" U.S. Ex. 2,919 (1962); U.S. Ex. 10,104 (1962); U.S. Ex. 2,923 (1962); U.S. Ex. 2,925 (1962); U.S. Ex. 10,105 (1962).

- "A filter that does its work." U.S. Ex. 3,147 (1966); U.S. Ex. 3,152 (1966).

2768. Kent advertisements in the 1950s also targeted doctors with scientific claims about the health protection offered by the Micronite filter:

- "Some questions about filter cigarettes that may have occurred to you, Doctor and their answers by the makers of Kent . . . . tests . . . have proved that KENT's exclusive Micronite Filter *approaches 7 times the efficiency of other filters in the removal of tars and nicotine* . . ." See U.S. Ex. 2,751 (1955); see also 92437416-7416 (U.S. Ex. 74,463); 92437417-7417 (U.S.

Ex. 74,464); 96455441-5441 (U.S. Ex. 74,538) (emphasis in original).

- "'Doctor . . . have you tried the new KENT cigarette?' . . . . [D]octors were impressed with KENT's new and completely different filter tip – the MICRONITE FILTER–that *removes up to 7 times more nicotine and tars than other leading filter cigarettes*. . . . no other cigarette will afford your patients – especially those who are sensitive to the nicotine and tars in tobacco – such a degree of filter effectiveness." See U.S. Ex. 2,749 (1955); U.S. Ex. 88,698 (1954); see also 82159135-9135 (U.S. Ex. 67,416) (JAMA 1952 advertisement) (emphasis in original); 82159137-9137 (U.S. Ex. 67,418); 92437417-7417 (U.S. Ex. 74,464) (same advertisement in other journal).

- "Why is it, Doctor, that our filter cigarette gives so much more protection than any other? . . . . KENT alone [] has the *Micronite Filter* . . . made of a . . . material that is so safe, so effective it has been selected to help filter the air in hospital operating rooms. In continuing and repeated impartial scientific tests, KENT's Micronite Filter consistently proves that it takes out *more* nicotine and tars than any other filter cigarette, old or new." 82159138-9138 (U.S. Ex. 67,419); 82315942-5942 (U.S. Ex. 88,616); 92386058-6058 (U.S. Ex. 57,187); 92437415-7415 (U.S. Ex. 74,462); 96455440-5440 (U.S. Ex. 74,537) (emphasis in original).

- "'Have you tried this experiment, doctor?' . . . . The MICRONITE FILTER – used in its original form to purify air in atomic energy plants–removes up to 7 times more nicotine and tars than other leading filter cigarettes. And the doctors were quick to recognize its significance, especially in comparison to conventional cotton and crepe paper filters." 82159136-9136 (U.S. Ex. 67,417); 92437414-7414 (U.S. Ex. 74,461); 96455439-5439 (U.S. Ex. 74,536).

2769. Lorillard also prepared form letters to doctors espousing the superior "health protection" that Kent cigarettes supposedly provided:

> Dear Doctor:
>
> You probably have heard about the new cigarette recently introduced by P. Lorillard Company. It is the KENT cigarette, with the Micronite Filter. There are two things about this new cigarette which we feel will be of particular interest to you.

> First, there is the factor of health protection. As you know, Lorillard has carefully avoided use of "medical claims" in its advertising. There will be no change in the company policy for KENTS. But there are some facts about performance of the Micronite Filter that have a direct relation to health and cigarette smoking . . . . we are attaching an abstract of analytical and experimental data concerning KENT cigarettes . . . . [W]e have taken the liberty of sending you a physicians gift box of these new cigarettes. . . . We believe you will find KENTS are a real improvement over any and every other filter cigarette – for BOTH health protection and smoking pleasure.

00420256-0256 (U.S. Ex. 74, 664).

2770. One Kent advertisement stated:

> **The American Medical Association** voluntarily conducted in their own laboratory a series of independent tests of filters and filter cigarettes. As reported in the Journal of the American Medical Association, these **tests proved** that of all the filter cigarettes tested, one type was the **most effective** for removing tars and nicotine. This type **filter is used by Kent** . . . and only Kent!

U.S. Ex. 88,731 (1954); see also 82159133-9133 (U.S. Ex. 67,414); 92437410-7410 (U.S. Ex. 57,188) (emphasis in original).

2771. A November 1956 Lorillard report entitled "The Kent Cigarette Marketing Situation With 1957 Plans and Recommendations" stated:

> As introduced . . . **KENT entered the filter field with extremely strong advertising based on health protection claims** as demonstrated with the smoke test . . . . A further reason for KENT's success, particularly in 1953, lay in the coincidental alarm which arose in the fall of that year over the possible connection between cigarette smoking and lung cancer. KENT, with its aggressive health protection story, was the leading beneficiary of the public's mounting concern, since it offered by far the best assurance of protection. . . . When Kent was originally introduced, and up until two months ago, it was a cigarette conceived as a quasi-medicinal product . . . .

00307593-7671 at 7598-7599, 7616 (U.S. Ex. 28,200) (emphasis added).

2772. The November 1956 report also summarized Kent's transition from explicit to implicit health-related advertising, stating: "Beginning in March, 1954, KENT copy, with its heavy emphasis on health protection, was forced by FTC restrictions to retire to a much weaker set of selling points . . . . Such claims as 'the protection you need against nicotine and tars' also were taken out." In 1955, Kent was "far from competitive in both respects [draw and flavor] with the new brands" and "**[i]t was decided, therefore, to make a further, perhaps final, effort to sell health protection by implication**, as represented in the 'Voice of Wisdom' campaign." 00307593-7671 at 7601, 7604 (U.S. Ex. 28,200) (emphasis added).

2773. A May 20, 1958 letter to Morgan J. Cramer, Lorillard's Director of Export & Government Operations, from the General Manager of a Venezuelan distributor of Kent cigarettes indicated that Venezuelans were less receptive than Americans to Lorillard's "main selling point" in Kent advertising, which was the "health angle" of smoking Kents: "We feel quite sure that the health angle, which has been our main selling and advertising point, does not interest Venezuelans and we should direct our advertising along other lines." The letter added: "We have succeeded in covering a good part of the American colony who are by far the majority of people who are sticking to Kent. **No doubt they are influenced by American advertising and no doubt the mildness of Kent chimes in with the 'protection' angle**." 95508397-8398 (U.S. Ex. 32,365) (emphasis added).

2774. A July 31, 1963 memorandum on Lorillard letterhead from R.F. Kieling, Lorillard Director of Market Research, to M.J. Kramer, President of Lorillard, which bore the subject

heading "1963 Gallup Attitude Survey on Smoking," reached the following conclusions concerning the public's perception of the "safest" cigarette brand based on Gallup polling: "As in the past two studies (1959 and 1962) Kent leads the field here, with 18% of all cigarette smokers saying this brand is 'safest' to smoke. Among filter smokers, Kent rates even higher (21%) . . . . Winston and Salem are second and third choice brands, although considerably below KENT. . . . Filter and mentholated cigarettes are considered most favorably, with most people voting them 'very safe' or 'moderately safe'. . . ." The "General Wrap-Up" stated: "Although the American public is considerably more antagonistic towards the cigarette industry this year, the Kent brand continues to stand alone as the one brand believed 'safest' by a significant proportion of other brand smokers, as well as among Kent smokers themselves." 89836071-6076 at 6074-6076 (U.S. Ex. 32,095) (Confidential).

2775.

89836035-6040 at 6036-6037, 6040 (U .S. Ex. 32,094) (Confidential).

2776. In the early 1970s, Lorillard returned to the Micronite filter, refocusing on the product feature it had promoted for decades as providing health benefits to smokers. With respect to Kent's "marketing strategy," the "Lorillard Brand Reviews & Projections 1970/71" report stated: "Losses sustained as a result of moves to higher filtration brands will be stemmed through revitalization of the Kent health assurance heritage provided by the 'Micronite' Filter." 04105292-5384 at 5296 (U.S. Ex. 29,394).

2777. A May 14, 1970 document entitled "'Kent Menthol' Presentation to Sales Meeting in Buffalo on May 21, 1970," prepared for Lorillard by Michael John Associates, Inc., stated: "KENT was the health brand offering the Micronite Filter, mild taste, and, above all, health reassurance. And thus the KENT image was born." 04331462-1478 at 1463 (U.S. Ex. 29,400).

2778. A May 1971 Report prepared for Lorillard entitled "A Study of the Meaning of the Micronite Filter to Smokers Today" demonstrated that Lorillard targeted "health-anxious" smokers with "health reassurance:" "The marketing strategy has been to hold on to its current Kent smokers and to attract lo-fi smokers by promising taste satisfaction plus health reassurance. With the growth of the hi-fi segment, a third target is those health-anxious hi-fi smokers who are looking for more taste satisfaction than these current hi-fi brands can deliver." 03340192-0201 at 0195 (U.S. Ex. 29,265).

2779. The report added that "Kent and micronite filter may be, after years of advertising,

strongly associated in smokers minds. . . . Prior research suggests that dropping micronite for five years had little effect on Kent's health filter image. This does not mean, however, that if Kent had not dropped micronite for those 5 years that Kent might not have been even more strongly perceived as a health brand. . . ." 03340192-0201 at 0195-0196 (U.S. Ex. 29,265).

2780. A Lorillard document circa 1972 entitled "Kent Status" stated: "Kent became a major brand after the 1957 *Reader's Digest* article had proclaimed it as the brand with the most effective filter. In the next years of gains and consolidation, the micronite filter was advertised as a unique Kent benefit, giving health reassurance to its growing franchise of older, better-educated, health concerned smokers." 03300409-0418 at 0411 (U.S. Ex. 29,263).

2781. A document entitled "Lorillard Marketing Plans 1972-73" stated that the "Creative Objective" for Kent was "[t]o reassure Kent smokers and convince smokers of competitive brands that Kent is a high quality cigarette that offers health reassurance plus smoking satisfaction." In a summary of the long term status of the Kent business, the plan noted that when Kent dropped the micronite filter in 1964, Kent "diffused its image as a health brand and never achieved identity as a taste brand." But when the micronite filter was reinstated in 1970, "the total Kent franchise arrested its long term decline." 01762045-2159 at 2062, 2125 (U.S. Ex. 26,624).

2782. A document entitled "Kent Local Newspaper Support Summary Apr/August '73," under the heading "Kent Creative Strategy," stated: "1) Consumer Benefit To convince smokers that Kent offers a combination of satisfying taste . . . . With health reassurance through superior filtration." 03078097-8110 at 8100 (U.S. Ex. 74,705).

2783. A June 26, 1974 Lorillard document entitled "New Kent Cigarette Opportunities" demonstrated Lorillard's knowledge that consumers were looking for the lowest available tar in a cigarette because they perceived lower tar as less harmful, stating "because a large segment of Kent smokers are basically health concerned, they are becoming aware of T&N numbers and come to the realization that there are cigarette brands out there that have lower T&N numbers. Under these circumstances, Kent King, with 17mg. 'tar', cannot compete with a 11mg. 'tar' True or an 11mg. 'tar' Vantage." 03081291-1295 at 1294 (U.S. Ex. 75,007); 03081297-1299 (U.S. Ex. 75,720); 03081300-1301 (U.S. Ex. 74,963); 03081302-1304 (U.S. Ex. 74,721); 03081305-1306 (U.S. Ex. 74,722); 03081307-1309 (U.S. Ex. 74,916); 03081310-1312 (U.S. Ex. 74,723).

2784. In 1976, Lorillard internally acknowledged the direct link between smokers' concerns of the adverse health effects of smoking and its use of brand descriptors to allay those concerns. A December 22, 1976 document entitled "EUROPE KENT SPECIAL MILD" involved a discussion of the introduction of Kent cigarettes in Europe. The report stated: "We are becoming more and more aware of the pressures of Smoking and Health being a major new marketing factor in the Eastern Block countries." Under the heading "Advertising Strategy," the document indicated a plan "[t]o advise all health-conscious smokers that KSM [Kent Special Mild] is one of the mildest cigarettes." 87267070-7082 at 7079-7080 (U.S. Ex. 67,615).

2785. A March 21, 1978 "Kent Advertising Brief" was prepared for the consumer research firm Foote, Cone and Belding, to provide "the background and brand information necessary to develop a global creative strategy for the Kent brand." In a section entitled "Brand Positioning," the brief suggested that "[a]dvertising and support materials should emphasize

Kent's mildness in taste and health terms. The white pack and tipping will be exploited to reinforce this positioning." Also in this section, it was noted that "Kent Deluxe will present an image consistent with the King Size styles in offering health reassurance." In a section entitled "Target Audience," the brief stated that "[a]s the Smoking and Health controversy expands, it is assumed that some smokers from all socio-economic and age groups will be prepared to switch to milder, healthier brands which provide an acceptable taste and prestige." The brief maintained that "**we wish to try and develop advertising for the Kent parent brands which clearly offers the smoker health reassurance. . . . The Come/Stay campaign goes some way to projecting a health image for Kent while retaining a taste message and communicating prestige**." 661076440-6453 at 6445, 6446 (U.S. Ex. 53,620) (emphasis added).

2786. Also on March 21, 1978, a "Kent Golden Lights Advertising Brief" was prepared for Foote, Cone and Belding, to provide advertising guidelines for Kent Golden Lights. The brief stated that "[i]n industrialized nations the target consumer is unlikely to need education on the benefits of smoking low deliver products in general terms. . . . Prospective Golden Lights' consumers will know and understand the vocabulary of mildness, low tar and nicotine." 464012420-2429 at 2424 (U.S. Ex. 47,672).

2787. Lorillard's implicit health claims in Kent advertisements from the 1970s and 1980s included the following:

- "For all the right reasons. Kent." U.S. Ex. 3,785 (1972); U.S. Ex. 3,797 (1972); U.S. Ex. 10,257 (1973); U.S. Ex. 3,932 (1973); U.S. Ex. 3,949 (1973).

- "Micronite filter. Mild, smooth taste. For all the right reasons. Kent." U.S. Ex. 87,460 (1972); U.S. Ex. 3,837 (1972); U.S. Ex. 10,229 (1972);

U.S. Ex. 3,816 (1972); U.S. Ex. 3,797 (1972); see also 03496228-6630 at 6352 (U.S. Ex. 20,057).

- "When you know what counts. Kent Golden Lights." U.S. Ex. 7,275 (1982); U.S. Ex. 7,379 (1983); U.S. Ex. 7,504 (1983); U.S. Ex. 7,702 (1984); U.S. Ex. 7,746 (1984).

2788. True. Lorillard introduced low tar True cigarettes in 1966 and marketed them as less harmful due to their low tar and nicotine.

89835688-5689 at 5688 (U.S. Ex. 32,093) (Confidential); see also 03322204-2308 at 2226 (U.S. Ex. 74,728) (1974 report prepared for Lorillard by Shoi Balaban Dickinson Research, Inc., stating: "The True image as a 'health' cigarette has been responsible for attracting its franchise and for retaining that franchise, even when smokers were initially displeased with the cigarette"); 03322309-2312 (U.S. Ex. 74,729) ; 03322313-2313 (U.S. Ex. 75,025); 03322314-2314 (U.S. Ex. 74,996); 03322315-2315 (U.S. Ex. 74,730); 03322316-2316 (U.S. Ex. 74,731); 03322317-2317 (U.S. Ex. 74,732); 03322318-2322 (U.S. Ex. 74,733); 03322323-2327 (U.S. Ex. 74,734); 03322328-2332 (U.S. Ex. 74,967); 03322333-2333 (U.S. Ex. 74,735).

2789. A report entitled "Lorillard Brand Reviews & Projections 1970/71" indicated that

one of True's "marketing objectives" was to "[s]eek out highly health-conscious smokers from all filter brands." One of True's "marketing strategies" was to "[p]roject TRUE's low tar and nicotine benefit in a way that is compelling to health oriented smokers." The report also listed the following as the "copy strategies" for True: "1. Capitalize on the basic True low tar and nicotine image and the thought that health-conscious smokers have devoted to the cigarette/health issue [and] 2. Switch to True characterized as being the logical, appropriate and popular thing to do." 04105292-5384 at 5328-5329 (U.S. Ex. 29,394); see also 03301876-1885 at 1879-1880 (U.S. Ex. 29,264).

2790. A June 27, 1972 Lorillard memorandum from Dick Smith to Lorillard marketer John J. Bresnahan, with subject heading "Tracking Study for True," noted:

> As discussed, the tracking study questionnaire is attached for your information. This study will track how well True's advertising is getting across to health-conscious smokers; over time and vs. key competition. Specifically, we will find out the level of brand awareness and the content of that awareness; on the important dimensions of healthfulness, low T&N content and believability. This will help guide us on how quickly (or slowly) we should evolve True's advertising.

01817486-7486 (U.S. Ex. 74,704).

2791. Lorillard's True advertisements in the early 1970s made the following statements:

- "Think about it. Doesn't it all add to True?" U.S. Ex. 3,436 (1971); U.S. Ex. 3,458 (1971); U.S. Ex. 3,603 (1971).
- "True. The low tar low nicotine cigarette." (1973)
- "Think About It." U.S. Ex. 4,029 (1973); U.S. Ex. 10,302 (1973); U.S. Ex. 4,148 (1973); U.S. Ex. 4,221 (1974).
- "The True System: (Patent No, 3,396,733)" U.S. Ex. 3,998 (1973); U.S.

Ex. 10,287 (1973); U.S. Ex. 4,117 (1973).

- "U.S. Government Tests Show True Lower in Both Tar and Nicotine Than 98% of All Other Cigarettes Sold. Think About It." U.S. Ex. 4,221 (1974).

- "You don't start with True. You change to True." U.S. Ex. 4,039 (1973); U.S. Ex. 4,388 (1974); U.S. Ex. 4,421 (1974); U.S. Ex. 4,436 (1974); U.S. Ex. 10,387 (1974).

- "True. Easy on your mind. Easy on your taste." U.S. Ex. 4,491 (1974); U.S. Ex. 4,516 (1974); U.S. Ex. 4,570 (1974).

see also 00001212-1212 (U.S. Ex. 34,371).

2792. A June 12, 1973 document prepared for Lorillard by de Garmo, Inc., entitled "Lorillard A New Product Overview," stated under the heading "The Future of True": "Based on current trends, there is no reason to doubt that True can and will continue to grow at a rate of around 5% annually based on its firm position in the super hi-fi category and a strong, clear image in the minds of health-conscious smokers. If the brand's communications remain well-positioned and consistent, True should be able to hold the vast majority of its current smokers and attract its share of switchers and new smokers." 03366359-6369 at 6368 (U.S. Ex. 74,749).

2793. A presentation given to Lorillard by a marketing research consultant entitled "Cigarette Advertising 1974-1975," showed that several of the respondents indicated that Lorillard's "Quit or smoke True" advertisements indicated that True cigarettes are "LESS HARMFUL/BETTER FOR YOU." 03496228-6630 at 6277, 6280 (U.S. Ex. 20,057).

2794. Lorillard's True advertisements from the mid-1970s expressly portrayed True as an acceptable alternative to quitting smoking. True advertisements included the following

statements:

- "True. Easy on your mind. Easy on your taste. . . . [B]ecause True is so low in tar and nicotine, every cigarette is as easy on your mind as it is on your taste. Think about it." U.S. Ex. 4,491 (1974); U.S. Ex. 4,516 (1974); U.S. Ex. 4,570 (1974); U.S. Ex. 87,180 (1974); see also 03496228-6630 at 6271 (U.S. Ex. 20,057) (1974-1975).

- "With all I've read about smoking . . . . things I decided to: 1. Play as hard as I work. 2. Cut out the heavy lunches. 3. And either quit smoking or smoke True. I smoke True. The low tar, low nicotine cigarette. Think about it." See U.S. Ex. 10,447 (1975); U.S. Ex. 4,749 (1975); U.S. Ex. 4,774 (1975); U.S. Ex. 4,897 (1975); U.S. Ex. 4,853 (1975); see also 00014659-4659 (U.S. Ex. 34,397) (circa 1974) (depicting athletic-looking man in a locker room).

- "After kicking around everything I'd heard about smoking, I decided to either quit or smoke True. I smoke True." U.S. Ex. 4,807 (1975); U.S. Ex. 4,927 (1975); U.S. Ex. 4,958 (1975).

- "I thought about all I'd read and said to myself, either quit or smoke True. I smoke True." U.S. Ex. 10,447 (1975); U.S. Ex. 4,749 (1975); see also U.S. Ex. 10,487 (1976).

- "All the fuss about smoking got me thinking I'd either quit or smoke True. I smoke True. The low tar, low nicotine cigarette. Think about it." U.S. Ex. 87,461 (1975); see also U.S. Ex. 4,693 (1975); U.S. Ex. 4,807 (1975); U.S. Ex. 10,476 (1976); U.S. Ex. 10,447 (1975); 00135276-5276 (1975) (U.S. Ex. 34,428).

- "Considering all I'd heard, I decided to either quit or smoke True. I smoke True." U.S. Ex. 87,206 (1975); U.S. Ex. 87,463 (1975); U.S. Ex. 10,476 (1976) U.S. Ex. 5,000 (1976); U.S. Ex. 10,502 (1976); see also U.S. Ex. 4,853 (1975); U.S. Ex. 4,939 (1975).

- "I'd heard enough to make me decide one of two things: quit or smoke True. I smoke True." U.S. Ex. 87,462 (1975); U.S. Ex. 4,693 (1975); U.S. Ex. 4,893 (1975); U.S. Ex. 4,978 (1976).

see also 92454321-4321 (U.S. Ex. 85,118); 85876220-6220 (U.S. Ex. 85,033); 87658306-8306 (U.S. Ex. 21,099); 01408237-8237 (U.S. Ex. 21,808), 03496228-6630 at 6269, 6268 (U.S. Ex.

20,057); Expert Report of Robert J. Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001) at 15; see also Deposition of Robert J. Dolan, United States v. Philip Morris, et al., May 9, 2002, 117:8-119:13 (testifying that Lorillard's True campaigns were "billing True cigarettes [as] an alternative to quitting").

2795. As noted in the 1981 FTC Report on cigarette advertising, Lorillard's True advertisements "incorrectly impl[y] that when the alternatives of quitting smoking or smoking a low 'tar' cigarette are weighed, the low 'tar' cigarette is the healthier option." 680114503-4819 at 4605-4606 (U.S. Ex. 20,988).

2796. Several other True advertisements from 1974-1975 implied a government endorsement of True cigarettes as less hazardous based on the FTC method tar and nicotine measurements:

- "U.S. Govt. tests show True is lower in both tar and nicotine than 98% of all other cigarettes sold. That means True is not only gentle on your mind, it's gentle on your taste." U.S. Ex. 4,421 (1974); U.S. Ex. 4,436 (1974); U.S. Ex. 4,452 (1974); U.S. Ex. 4,472 (1974); U.S. Ex. 10,387 (1974).

- "No other cigarette can make this statement: U.S. Government tests of all cigarettes show True is lowest in both tar and nicotine of the 20 best-selling cigarettes. In fact, True is lower than 99% of all cigarettes sold." See U.S. Ex. 6,538 (1974); U.S. Ex. 6,682 (1974); U.S. Ex. 6,711 (1974); U.S. Ex. 6,739 (1974); U.S. Ex. 6,776 (1974).

see also 03496228-6630 at 6272, 6274 (U.S. Ex. 20,057).

2797. An October 9, 1975 memorandum from Lorillard marketer Charles W. Toti to Richard Smith stated:

> TRUE previously apparently appealed to only a particular type – a health concerned consumer. . . . The new Vantage positioning apparently effectively straddles both 'milder' interest and health

> concern. Just the very existence of Hi-Fi line extensions provides legitimacy for the category and takes the onus off being seen with a Hi-Fi brand – a consumer's real reason, conscious or subconscious, can be hazy . . . is it a lighter (smoother) flavor interest or a health concern, only his analyst knows for sure. The dichotomy does not exist in the Carlton category. My concern is that we can't out-Carlton Carlton at its own game. . . . I believe that what we really need is a unique wedge to set us apart. Perhaps its in our own best interests to combine product benefits in order to provide a stronger entry than just low numbers – (I'll rule out 'taste' since I'm assuming that the consumer at this end of the scale is a health freak and 'taste' is a low priority for him.) . . . . I suspect that it would be most productive if confined to the health concerned spectrum, i.e., Carlton, TRUE, Doral and Vantage.

00140014-0015 (U.S. Ex. 74,656).

2798. A May 1987 report prepared for Lorillard by Shoi Balaban Dickinson Research, Inc. entitled "AN EXPLORATORY STUDY – AN OVERVIEW OF THE TRUE BRAND," which bears the handwritten notations "draft copy" and "This is the most exciting report I've drooled over in a long time!" discussed smokers' perceptions of Lorillard's True cigarette. The report contained the following statements:

> **Use of the True brand or consideration of it via trial is viewed as an expression of health concern**. . . . Both True smokers and those who smoke other brands expressed awareness of the way True has been advertised. It was not uncommon to attribute initial trial of the brand to being attracted by that presentation of the brand. Respondents specified having noticed the emphasis on tar count and filter. . . . Based on these findings, it would appear important to continue to stress True as a low tar brand with taste, and the "specialness" of the filter, since those are clearly important factors in motivating trial, and in conversation to the brand. . . . The respondents were also asked whether they think the image of True has changed over a period of time. Most felt unable to answer this, but it was suggested that **True stood alone originally, as the brand for the health concerned**.

93359378-9437 at 9378, 9385, 9387, 9420 (U.S. Ex. 57,295) (emphasis added).

2799. Advertisements for Lorillard's True cigarette in the 1980s and 1990s promised that True was "The Lowest With True Satisfaction True Ultra Low Tar. True Smooth Taste. TRUE DELIVERS." 970469347-9474 at 9433 (U.S. Ex. 85,104); see also U.S. Ex. 6,538 (1980); U.S. Ex. 6,682 (1981); U.S. Ex. 6,711 (1981).

2800. A January 19, 1994 report regarding "1994 Direct Marketing" prepared for Lorillard by Rapp Collins stated under the heading "True – What may be needed": "A way to subtly leverage the fact that most True smokers come to the franchise as a step down in tar or on their way out of the category." 91997648-7689 at 7669 (U.S. Ex. 85,022).

2801. Lorillard's Research On the Low Tar Cigarette Category. As demonstrated below, internal Lorillard documents reveal that Lorillard conducted research not just on individual low tar cigarette brands, but on low tar cigarettes as a category. These documents indicate that Lorillard has long known and intended that its advertisements and marketing for low tar cigarettes featuring claims of lowered tar and nicotine and "light" and "ultra light" brand descriptors contributed to, and reinforced consumers' notion that low tar cigarettes are better for their health, and caused consumers to smoke them for this reason. For instance, a March 1970 report entitled "The Attitudinal Segmentation Study" prepared for Lorillard by the Grey Marketing and Research Department, under the heading "WHAT FILTER SMOKERS LOOK FOR IN A CIGARETTE," stated: "**The most important dimension to filter smokers is that cigarettes be LESS HARMFUL TO THEIR HEALTH**." 01772941-3101 at 2978 (U.S. Ex. 26,629) (emphasis added).

2802. A 1971 report prepared for Lorillard by Appel Haley Fourezos, Inc. entitled "The Cigarette Market (February 1971)" contained research results indicating that smokers with greater health concerns were much more likely to smoke filtered and lower tar cigarettes. The report stated:

> This health concern clearly does . . . affect the type of cigarette smoked. Smokers of the high filtration brands are most likely to be health concerned. . . . Within the high filtration brands, the majority of True Blue, Doral, and Vantage smokers are classified as having high health concern, with three quarters (78%) of the True smokers being so classified. The health concern of the Kent smoker is about average for the category. . . . True, Doral and Vantage are rated by those who smoke them most often as being smoked by people who are health concerned and those who have switched to these brands give health as the reason. . . . . True Green among its users is rated higher as being for health concerned people, and higher on best filter. They do not, however, see their cigarette as having high quality tobacco [or] refreshing flavor . . . .

03370093-0362 at 0148, 0150, 0151, 0177, 0262, 0264 (U.S. Ex. 29,267).

2803. Examining subjects' recall of advertisements for Lorillard's True cigarettes (blue variety), the report indicated Lorillard's knowledge that smokers' perceived reduction in tar and nicotine equated to reduction in harm. The report listed the subjects' impressions of reduced tar and nicotine with indications of "[s]afer, less hazardous" under the heading "Safety/Health": "Safety/Health U.S. Gov't. low tar and nicotine figures Reduced tar and nicotine Safer, less hazardous." **The report added that the effect of tar and nicotine numbers in advertising was motivational, rather than informational: "Although eight in ten smokers are aware of the current tar and nicotine advertising, awareness of the actual measurements taken is virtually zero**." 03370093-0362 at 0178, 0327 (U.S. Ex. 29,267) (emphasis added).

2804. An April 21, 1971 memorandum on Lorillard letterhead from F.B. Satterthwaite of the Lorillard Marketing Research Department bearing the subject heading "Brand Profile by Market Segments" stated that "the 'health' conscious tend toward Newport, True, Doral, and Kent." 03363017-3033 at 3017 (U.S. Ex. 29,266).

2805. A February 1972 report prepared by the Lorillard Market Research Department indicated that numerous health conscious smokers switched to lower tar cigarettes for health reasons: "HEALTH About 25% to 30% [of smokers] gave health reasons for switching. As anticipated, health conscious smokers gave this reason more frequently (33%) than did taste conscious smokers (20%), and current Hi Fi [high filtration] smokers gave it more often (42%) than smokers of other types. The nature of the health reason varied by current cigarette type smoked. Hi Fi smokers and health conscious smokers emphasize the tar-nicotine-cancer reasons, while the . . . Lo Fi users, and taste oriented smokers emphasize throat irritation." 89824702-4785 at 4720 (U.S. Ex. 32,092).

2806. A November 13, 1973 Lorillard document bearing the initials of Alexander Spears, a Lorillard scientist and later Lorillard's CEO, noted, in a discussion of "health psychology," that smokers' concern about the health effects of smoking "has been used to an advantage in marketing both the KENT and TRUE brands." 80634635-4642 at 4639 (U.S. Ex. 21,063).

2807. Lorillard was well aware in 1976 that consumers perceived its low tar brands as less harmful. A December 1976 management report of marketing research prepared for Lorillard by The Nowland Organization stated: "Health concerns are the usual reason for switching to a

low T&N brand. Such cigarettes are 'better for you' . . . less likely to cause serious problems. . . . Those who smoke low tar and nicotine cigarettes generally do so because they believe such cigarettes are 'better for you.'" 84053709-3744 at 3712, 3718 (U.S. Ex. 21,073).

2808. An April 16, 1976 document prepared by the Lorillard Marketing Research Department entitled "Lorillard Domestic Cigarette Marketing 5 Year Plan 1976-1980" noted: "As stated earlier, the thrust on the two established brands having a strong health-concern heritage (Kent, True) will be to update their product/positioning relative to newer competition. . . ." The document further noted that "Lorillard's key strengths . . . are its historical ability to reap major rewards through innovation against health concerns." One part of Lorillard's strategy to achieve the 5-year plan objectives was "[t]o focus marketing and R&D effort against the growing segments of the market (brands responsive to health concerns)." 03493268-3307 at 3282, 3284, 3290 (U.S. Ex.74,974).

2809. A November 30, 1976 memorandum on Lorillard letterhead from R.E. Smith to fellow Lorillard marketing executive J.R. Ave, with the subject heading "1976 Switching Study," stated:

> I share MCA's overall conclusion that the Switching Study confirms the rightness of our 5 Year Plan; focussing [sic] Company effort against smokers' health concerns. . . . This view suggests sensible positionings for those Lorillard brands that directly address smokers' health concerns. (I believe these are totally compatible with ongoing work).

03918494-8495 at 8494 (U.S. Ex. 74,777), 03296482-6544 at 6485 (U.S. Ex. 64,511); Expert Report of Robert J. Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001) at 14.

2810. A December 1976 report prepared for Lorillard by the Nowland Organization, Inc. "to develop market information useful to Lorillard in strengthening its position in the SHF [super high filtration]/low T&N cigarette market" and entitled "SHF Cigarette Marketplace Opportunities Search and Situation Analysis Volume I" stated: "As would be expected, the advantages of low tar and nicotine cigarettes are seen as health related." Under the heading "Reasons for Prior Brand Switching The Switch to SHF":

> As discussed, most SHF smokers deliberately chose to switch to low tar and nicotine cigarettes because of health concerns – to get less tar and nicotine, for a milder/gentler smoke, and/or to relieve specific smoking-related symptoms. Often, the actual switch was precipitated by . . . .
>
> - experiencing or becoming more aware of, or more concerned about personal ill-effects from smoking (e.g., cough, throat irritation, difficulty breathing)
>
> -something (else) which worked to heighten health-consciousness and/or concern about the possible dangers of smoking (e.g., a talk with a friend, and article on tar and nicotine, "being on my own")
>
> - a failed attempt to quit, or a (perceived) inability to quit, coupled with the heightened perception that one "should" quit)
>
> The main advantages which they feel they experienced in this switch are . . . they have less (or no) smoking irritation . . . they like knowing they are getting less tar and nicotine.

84053616-3706 at 3618, 3628, 3632, 3678-3679 (U.S. Ex. 55,997). Volume II of this Report contained the following "Key Highlights":

> Health concerns are the usual reason for switching to a low T&N brand. Such cigarettes are "better for you" – milder and less irritating (now) as well as less likely to cause serious problems (later). Something usually happens to precipitate the actual switch. . . . To many SHF smokers, a low T&N cigarette represents a compromise smoke between a more satisfying smoke and not smoking at all. . . . Most "health oriented" smokers exhibit an openness to changing their cigarette brand on safety as well as

> other grounds.

84053709-3744 at 3712 (U.S. Ex. 21,073). The report also stated:

> Smoking-related health questions are now an ever-present part of the attitudinal baggage attached to cigarettes. Among current and potential SHF smokers these questions may be brought to the fore by (short-lived) "symptoms," such as a sore raspy throat, coughing, or experiencing shortness of breath. . . . Market Movement . . . . [S]ince some health-concerned smokers, in order to alleviate these concerns, now find it necessary to adapt to cigarettes which they do not experience as fully satisfying and enjoyable, there is also some market movement away from an emphasis on sensory benefits. It is possible, however, that this is a reactive movement only – at least somewhat reversible if and when appropriate new products can fill the low-risk/high-sensory-benefit gap. . . . "Tar and nicotine" have extremely bad connotations to the (health-oriented) smokers participating in this study . . . . Those who smoke low tar and nicotine cigarettes generally do so because they believe such cigarettes are "better for you[.]"

84053709-3744 at 3713, 3716-3718 (U.S. Ex. 21,073).

2811. A December 10, 1976 memorandum on Lorillard letterhead from R.E. Smith to J.R. Ave, Lorillard marketing executive, with subject heading "NEW PRODUCT STATUS: DECEMBER, 1976," under the heading "New Brands," stated: "Low irritation, low tar menthol – Reasons for interest in this project are: a) Many sources indicate that irritation and health concern are the two major (related-but-different) reasons for brand switching . . . ." 03364622-4624 at 4622 (U.S. Ex. 74,748).

2812. Lorillard's "CONFIDENTIAL" 1976 "DOMESTIC CIGARETTE MARKETING 5 YEAR PLAN 1976-1980" stated:

> Consumer preferences have shown a dramatic shift since World War II away from non-filter brands towards brands more responsive to the cigarette smoking and health controversy, and

> less harsh, filtered cigarettes, and, most recently, towards filtered brands offering low tar and nicotine. Simultaneously, there has been a parallel shift to menthol flavored cigarettes tracing . . . to consumer perception of these cigarettes as helping to address matters relating to the impact of cigarette smoke on the body (which may include concerns about the cigarette controversy) . . . .

03357128-7178 at 7137 (U.S. Ex. 85,023).

2813. A document entitled "LORILLARD NEW BRANDS 1977" stated under the "PLANS" heading: "[M]arket at least one brand that uses enriched nicotine technology to meet the growing need for good taste and health reassurance." 91792750-2766 at 2752 (U.S. Ex. 57,078).

2814. A January 26, 1977 memorandum on Lorillard letterhead from Dick Smith to J.R. Ave stated:

> CONCLUSIONS The Nowland Research strongly confirms the rightness of Lorillard's marketing concentration in the area of health concern. Smokers are extremely and increasingly health-concerned. And these smokers are actively interested in better ways to lessen/eliminate this concern – while continuing to smoke. More specifically, our going projects are on target . . . . I suggest that both the Kent and TRUE Brand Groups analyze the complete Nowland Report. Our established health concern brands should be able to develop specific strategic and executional actions from this rich, diagnostic research.

01244406-4408 (U.S. Ex. 74,669).

2815. A January 31, 1980 memorandum on Lorillard letterhead from Larry DuLude to fellow Lorillard consumer researcher Gordon Flinn stated under the heading "Consumer Attitudes toward Smoking": "Increasing interest in Low Tar . . . . Increased number of health-concerned smokers." 01782312-2322 at 2313 (U.S. Ex. 74,959).

2816. A February 13, 1980 "secret" memorandum on Lorillard letterhead from Richard E. Smith to J.R. Ave, J.G. Flinn, and Dr. A.W. Spears stated: "Levels of health concern vary, and are directly related to the T&N [tar and nicotine] level of regular brand." 01394380-4381 at 4380 (U.S. Ex. 21,543); 95539778-9779 at 9778 (U.S. Ex. 22,808).

2817. A Lorillard document circa 1984 indicates that, Laurence Tisch, who served on Lorillard's Board of Directors in 1969 and 1985, and who from 1959 was the Chairman of the Board of Loew's, which merged with Lorillard in 1968, made the following statements at a Department of Insurance hearing:

> Lorillard was the leader in the so-called health cigarettes, the low tar, the low nicotine cigarettes. They first introduced Kent with the micronite filter ten or fifteen years ago. It was a very successful entry because that was when the health scare first came into vogue. They followed that with the successful entry of True by Lorillard . . . . We feel that we make cigarettes that are healthier than other cigarettes – low in tar and nicotine.

91780361-0398 at 0362-0363, 0375, 0394 (U.S. Ex. 85,024).

2818. A June 17, 1987 memorandum from Lorillard's files bearing the letterhead of Laurence, Charles, Free & Lawson, Inc., entitled "Focus Group Overview – Carlton" stated: "For the most part, those currently smoking a low tar don't really know tar levels. For them, it's enough that they've gone to a 'lighter' and perceived lower tar brand; the exact level is unimportant." 991007335-7339 at 7338 (U.S. Ex. 85,025).

2819. Stephen Jones, a Lorillard chemist who, at the time of his April 22, 1997 deposition in Reed v. Philip Morris, had been working for Lorillard for twenty-eight years and had participated in the design of almost all the Lorillard cigarette brands, including Newport,

Kent Golden Lights, Kent III, Triumph, Maverick, Style, Old Gold, and Max, testified that he believed that it was reasonable to assume that starting in the mid to late-1950s, smokers began to prefer filtered cigarettes because they thought that filtered cigarettes reduced the risk of smoking by reducing levels of tar and nicotine, and that the switch to filtered cigarettes was due to the health perspective. Lorillard's marketing plans sought to address what the company thought consumer preferences would be. Jones believed that consumers felt that there was a health advantage to smoking reduced tar or filtered cigarettes. Deposition of Stephen Jones, Reed v. Philip Morris, April 22, 1997, 136:5-139:21.

2820. Jones testified that he believed that, by and large, smokers of all ultra low tar cigarettes, including Lorillard's True brand, perceived such cigarettes to be more healthy. Deposition of Stephen Jones, Reed v. Philip Morris, April 27, 1997, 141:7-141:18; 143:12-143:15.

(viii) Liggett

2821. Liggett's advertisements for L & M cigarettes in 1953-1954 stated:

- "L & M Filters . . . entirely pure and harmless to health." (1953)
- "L & M Filters are Just What the Doctor Ordered!" (1954)

U.S. Ex. 88,732 (1954); U.S. Ex. 88,733 (1954); see also 696000888-0916 at 0900 (U.S. Ex. 21,387).

2822. A 1953 Liggett advertisement for Chesterfields stated:

> The medical specialist, after a thorough examination of every member of the group, states: 'it is my opinion that the ears, nose, throat and accessory organs of all participating subjects examined by me were not adversely affected in the six-months period by

> smoking the cigarettes provided. And it's so satisfying to know that a doctor reports no adverse effects to the nose, throat and sinuses from smoking Chesterfield.

696000888-916 at 0905, 8894, 0908 (U.S. Ex. 21,387); see also U.S. Ex. 88,718 (1953); U.S. Ex. 88,723 (1953); U.S. Ex. 88,715 (1953); U.S. Ex. 88,729 (1954).

2823. An advertisement for Lark cigarettes stated: "The Third Cigarette." ADV015 0886-0888 (U.S. Ex. 4,777) (1975); ADV015 0983-0985 (U.S. Ex. 4,809) (1975); ADV016 0704-0706 (U.S. Ex. 5,141) (1976); ADV016 0740-0742 (U.S. Ex. 5,153) (1976); ADV016 0962-0964 (U.S. Ex. 5,228) (1976).

2824. Liggett markets low tar discount brands. However, according to the president of Liggett's Northern Sales Business Unit, the company does not do any market research to determine how its marketing of those low tar brands affects consumers. Deposition of Harold Petch, United States v. Philip Morris, et al., October 12, 2001, 128:1-7, 83:10-85:25.

(b) Defendants Made False and Misleading Statements Regarding Their Low Tar Cigarette Marketing

2825. As demonstrated in U.S. FPFF § IV.F(1)(a), supra, for decades Defendants have advertised and marketed low tar cigarettes using claims of low tar and nicotine and so-called "brand descriptors" such as "light," "medium," "mild," and "ultra light" to suggest that smokers who switch to these products will inhale lower amounts of tar and nicotine than they would from regular cigarettes and thereby receive a health benefit. In addition, Defendants have used marketing imagery, including colors, in their low tar cigarette marketing communications to convey a lighter, healthier cigarette.

2826. Consistent with their conspiracy to defraud smokers with their marketing of low

tar cigarettes, Defendants continue to disseminate false and misleading public statements regarding the true intent of their marketing of these cigarettes. In direct contrast to a wealth of evidence showing that Defendants intentionally marketed and promoted low tar cigarettes as a healthier alternative to regular cigarettes to keep smokers from quitting (see U.S. FPFF § IV.F(2)(a), infra), Defendants have stated that they developed and marketed low tar cigarettes **only** in response to consumer demand and that they do not, and will not, use health claims in cigarette advertising and marketing. Moreover, Defendants have stated that they do not intend for consumers to perceive low tar cigarettes as less harmful to their health. Rather, Defendants maintain publicly that their low tar cigarette advertisements and marketing communications are only intended to convey their supposedly "lighter" taste. See JD PFF at 143, 230-234 ¶¶ 309, 473-480 (R. 1956, filed Jan. 29, 2003). Similarly, Defendants have stated that the solitary goal of their marketing is to encourage brand switching among current smokers (see U.S. FPFF § IV.G(1), IV.G(4) (Youth Marketing)), and not to discourage quitting.

2827. Defendants' statements are directly contradicted by evidence that shows that Defendants helped drive the demand for filtered and low tar cigarettes by heavily marketing and promoting them – greatly out of proportion to their domestic market share – in an effort to provide consumers with health reassurance and prevent them from quitting smoking. See U.S. FPFF §§ IV.F(2)(a) & IV.F(4), infra.

2828. Cigarette Company Defendants adopted the Cigarette Advertising and Promotion Code ("Code") in April 1964. Cigarette Company Defendants claimed that they obeyed and continue to obey the 1964 Code, which Defendants last revised in December 1990. Key aspects

of the Code include, among other things, provisions prohibiting "advertising making health claims." Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665; filed November 15, 2001). See U.S. FPFF § IV.G(3)(a)-(c), infra (Youth Marketing) for a more thorough discussion of the history of Defendants' Advertising Code and Their Public False Statements About the Code. Each Cigarette Company Defendant continues to state to the public on its website and in other public statements that it has adopted the Code, and that it follows the Code in planning and execution of its cigarette marketing. These statements are knowingly false and misleading. For example, a December 1990 pamphlet published by the Tobacco Institute, entitled "Cigarette Advertising and Promotion Code," emphasized that Defendants continue to follow the Code. 2021183859-3862 (U.S. Ex. 36,717). Defendants have repeatedly made public their adoption of the Code. 2025345360-5362 (U.S. Ex. 20,414); 2070557699-7702 (U.S. Ex. 20,519); MNAT00608606-8614 (U.S. Ex. 78,779); TIMN0102493-2494 (U.S. Ex. 21,271); TIMN0102495-2498 (U.S. Ex. 21,273); TIMN0015615-5617 (U.S. Ex. 21,265); 2022976326-6335 (U.S. Ex. 20,370); ATX040294056-4056 (U.S. Ex. 58,599); 503686082-6096 (U.S. Ex. 20,722); 2021183940-3943 (U.S. Ex. 20,344).

2829. More recently, Defendants again agreed in the 1998 Master Settlement Agreement ("M.A.") not to make "any material misrepresentation of fact regarding the health consequences of using any tobacco product." Section III(r) of the M.A. states:

> Prohibition on Material Misrepresentations. No Participating Manufacturer may make any material misrepresentation of fact regarding the health consequences of using any Tobacco Products, including any tobacco additives, filters, paper or other ingredients. Nothing in this subsection shall limit the exercise of any First Amendment right or the assertion of any defense or position in any

judicial, legislative or regulatory forum.

Master Settlement Agreement, § III(r) (U.S. Ex. 64,359).

2830. Consistent with their public statements, Defendants' continue to make other statements (e.g. in depositions and submissions to the Federal Government) that uniformly ignore the vast amount of internal information developed by or for Defendants about consumer perceptions of low tar cigarettes and Defendants' deliberate efforts to exploit those perceptions in marketing those cigarettes.

2831. In September 1997, Philip Morris, RJ Reynolds, Brown & Williamson, and Lorillard submitted joint comments to the Federal Trade Commission ("FTC") regarding the FTC's contemplated proposal to replace the existing FTC test method with a methodology that would "provide information on the tar, nicotine, and carbon monoxide yields obtained under two different smoking conditions" to provide "a range of yields for individual cigarettes smoked under less intensive and more intensive smoking conditions" and convey to smokers that "a cigarette's yield depends on how it is smoked." FTC Cigarette Testing; Request for Public Comment, 62 Fed. Reg. 48,158, 48,159 (Sept. 12, 1997) (U.S. Ex. 88,618).

2832. As recently as 2003 and 2004, the Board of Directors of Altria (formerly known as Philip Morris Companies), publicly made false and misleading statements to its shareholders and to the U.S. Securities and Exchange Commission ("SEC") in documents it filed with the SEC. In a March 17, 2003 Proxy Statement, a group of Altria shareholders cited a study of the National Cancer Institute indicating that "most smokers believe 'Lights' and 'Ultra Lights' are less harsh and deliver less tar and nicotine," and that, "on average, smokers believe that Lights afford a 25%

reduction in risk, and Ultra Lights a 33% reduction in risk." The group also cited the Canadian Government's conclusion that the terms low tar, light and ultra light are deceptive to the consumer. These shareholders also noted that the World Health Organization recommends banning the terms light and ultralight as misleading. As a result of these scientific studies and recommendations, the group of shareholders proposed (at p. 34-35) to the Altria Board of Directors that "the Board find appropriate ways of informing our customers about the actual health risks of smoking 'light and ultralight' cigarettes to disassociate them from any belief that such products are safer and deliver less tar and nicotine." The Board of Directors of Altria recommended a vote against this shareholder proposal, stating: "for those adults who choose to smoke, PM USA and PMI believe descriptors such as 'low-tar,' 'mild,' and 'light' serve as useful points of comparison for cigarette brands regarding characteristics such as strength of taste and reported tar yield." (U.S. Ex. 87,741).

2833. Similarly, a March 15, 2004 Proxy Statement for Altria Group, Inc., includes (at pages 39-41) a shareholder proposal to remove lights descriptors from Philip Morris cigarettes, containing several studies and a prior court Judgment against Philip Morris USA for deceptive and fraudulent use of lights brand descriptors as indications that the descriptors are deceptive. Altria recommended voting against this proposal, stating that "those descriptors provide valuable information to consumers." (U.S. Ex. 86,910).

2834. A March 21, 2003 R.J. Reynolds statement to stockholders contained a proposal "to find appropriate ways of informing our customers about the actual health risks of smoking 'light and ultralight' cigarettes to disassociate them from any belief that such products are safer

and deliver less tar and nicotine." This proposal cited the conclusions of NCI Monograph 13 indicating that low tar cigarettes present no significant reduction in harmfulness relative to full-flavor cigarettes, and that "'many smokers choose these products as an alternative to cessation'" out of a mistaken belief that they are less harmful. The proposal also referenced several pending lawsuits against one or more of the Defendants alleging fraudulent marketing of low tar cigarettes as less harmful. The Board of Directors of RJ Reynolds recommended a vote **against** this proposal. One of the reasons for rejecting this proposal was that, "if implemented, this proposal could significantly interfere with RJR's defense of pending litigation." (U.S. Ex. 87,993).

2835. The overwhelming evidence cited in U.S. FPFF § IV.F(1)(a), supra, demonstrates, Defendants' actual knowledge that consumers understand these descriptors to refer to cigarettes that are less harmful. Thus, the Altria and R.J. Reynolds Board of Directors know these public statements to be false and misleading.

2836. In direct contrast to the wealth of evidence indicating that for decades Defendants intentionally marketed low tar cigarettes as less harmful – and that consumers smoked them for that reason – Defendants' joint comments to the FTC stated:

> The **manufacturers do not claim that lower-yield cigarettes are 'safe' or are 'safer' than higher yield cigarettes**. Every cigarette advertisement and every cigarette package includes one of four federally-mandated health warnings that are incompatible with the belief that any cigarette is 'safe,' or is 'safer' than any other cigarette.

Comments of Philip Morris Inc., RJ Reynolds Tobacco Co., Brown & Williamson Tobacco Corp., and Lorillard Tobacco Co. on the Proposal Entitled FTC Cigarette Testing Methodology

Request for Public Comment (62 Fed. Reg. 48,158) at 3, 94 ("Joint Comments") (U.S. Ex. 88,618) (emphasis added).

2837. Despite evidence showing that Defendants are aware that consumers are generally unaware of the FTC tar and nicotine ratings of their own brands, and rely on brand descriptors as an indication of relative safety of the cigarette (see U.S. FPFF § IV.F(1)(a), supra), Defendants stated to the FTC: "**Smokers are familiar with the ratings produced by the current test method**, and continued use of the current test method assures historical continuity of the data. For these reasons, testing under the current FTC test method should continue." Joint Comments at 4 (U.S. Ex. 88,618) (emphasis added).

2838. Despite evidence showing that Defendants have known for decades that consumers perceive brand descriptors such as "light" and "ultra light" as an indicator of a reduced harm product (see U.S. FPFF § IV.F(1)(a), supra & U.S. FPFF § IV.F(2)(b)-(c), infra), in response to the FTC's question regarding the need for official guidance on cigarette brand descriptors, Defendants stated: "**The manufacturers are not convinced that there is a need for official guidance with respect to the terms used in marketing lower rated cigarettes**." Defendants further stated that regarding terms like "light" and "ultra light," "**[t]he manufacturers believe smokers understand that these descriptors are terms of comparison rather than signifiers of absolute value**." Joint Comments at 94 (U.S. Ex. 88,618) (emphasis added).

2839. Despite considerable evidence which shows that consumers dislike the taste of low tar cigarettes and smoke them despite of the taste in exchange for perceived health benefits,

Defendants continue to maintain that consumers choose to smoke low tar cigarettes because they prefer their supposedly lighter taste. Accordingly, Defendants continue to conceal and deny their awareness that their low tar marketing has helped create and reinforce a consumer perception that low tar cigarettes are healthier. For example, in a November 29, 1994 submission to the National Cancer Institute on their behalf, Brown & Williamson, American Tobacco, Lorillard and Liggett intimated that smokers use the FTC tar and nicotine ratings primarily for information relating to taste considerations, referring to what they called "the well-established significance of the FTC's machine-determined yields for comparing the **flavor, richness and satisfaction** of different brands of cigarettes," and adding that if modifications to the FTC Method occurred, "[c]onsumers . . . would be deprived of important information about the **flavor, taste and feel** of cigarettes – information consumers consider to be highly relevant in distinguishing among" brands. 2041186475-6517 at 6478, 6504 (U.S. Ex. 22,181) (emphasis added).

2840. In their 1997 joint comments to the FTC, in response to the following FTC query:

> What data, evidence, or other relevant information on consumer interpretation and understanding of terms such as 'ultra low tar,' ultra light,' 'low tar,' 'light,' 'medium,' 'extra light,' and 'ultima,' as used in the context of cigarettes exists? Do consumers believe they will get significantly less tar from cigarettes described as 'light' or 'low tar' than from regular full flavor cigarettes, and do they believe they will get significantly less tar from cigarettes described as 'ultra low tar' or 'ultra light' than from 'light' or 'low tar' cigarettes? Do the brand descriptors convey implied health claims?

Defendants jointly stated:

> **The manufacturers believe** that consumers choose 'light' or 'ultra' products for a variety of reasons, including lighter flavor, lighter taste, less menthol (or other flavor) taste, and smoother

> smoking characteristics. Some consumers may choose such products for other reasons. **The manufacturers do not intend the descriptors to convey any level of safety with regard to their products**.

The joint comments further stated: "**The manufacturers are not aware of evidence that consumers use descriptors in lieu of the FTC numbers as their primary source of information about the 'tar' and nicotine yields of different brand styles**." Joint Comments at 95 (U.S. Ex. 88,618) (emphasis added). The mountain of evidence adduced in this case shows Defendants' statements to be misleading at best, if not outright false. See U.S. FPFF § IV.F(1)(a), supra & U.S. FPFF § IV.F(2)(c), infra.

2841. In response to the FTC's question:

> What available evidence exists concerning how consumers view cigarettes with relatively low tar and nicotine ratings and their perception of the relative risks of smoking such cigarettes rather than full flavor cigarettes?

Defendants jointly stated:

> "**The manufacturers are unaware of evidence concerning such consumer views and perceptions except to the extent that such evidence is presented in [the National Cancer Institute's Smoking and Tobacco Control Monograph No. 7]**.

Joint Comments at 89 (U.S. Ex. 88,618) (emphasis added). As shown above (see U.S. FPFF § IV.F(1)(a), supra), Defendants have conducted a staggering amount of research on **exactly** this question.

2842. As demonstrated below, Defendants' public statements on their websites, the statements of their executives in depositions, and their internal documents further evidence Defendants' scheme to conceal the truth about low tar cigarettes and defraud and mislead the

American public.

(i) Tobacco Institute

2843. In a May 3, 1967 letter on Lorillard letterhead from Manuel Yellen, Chairman of the Board, to the Board of Directors of the Tobacco Institute, Lorillard acknowledged Defendants' lack of candor and withholding of information regarding the health effects of cigarette smoking, stating: "The failure of the Institute for a number of years to conduct a reasonable dialogue with those agencies of the Federal Government most interested in the cigarette and health controversy seemed to us unwise and ultimately damaging to the industry." As an example, Lorillard cited the Institute's actions at a "meeting . . . to discuss the Federal Trade Commission's Special Report Order of March 17, 1967." 03768870-8872 at 8870-8871 (U.S. Ex. 46,515).

(ii) Philip Morris

2844. Recent testimony of Philip Morris executives underscores Defendants' scheme to maintain their false public denials and to conceal their intent to market low tar cigarettes as less harmful. For instance, following publication of the National Cancer Institute's Smoking and Tobacco Control Monograph No. 13, in November 2001, ABC News.com requested information from Philip Morris regarding low tar cigarettes and, as stated in a November 26, 2001 email from Philip Morris employee Christina Malito, "whether or not there are real health benefits to them." In an internal reply e-mail sent that same day, Ellen Merlo, then Senior Vice President of Corporate Affairs at Philip Morris United States and a decades-long Philip Morris employee, wrote that Philip Morris's response to the inquiry should be: "**[W]e make no claims. Started**

producing them in response to consumer demand for lighter tasting cigarettes." Merlo testified at her deposition in this case that:

> **[T]he communication about light or lighter cigarettes, at least from our standpoint, has always been about taste**. And so that's the information that is available to consumers, as well as the information that there is no such thing as a safe cigarette. Even lower – low or lower tar cigarettes are not safe. So I can't tell you what conclusions consumers take away from that, but that is the communication.

Asked whether she was aware of any research regarding consumers' perception of the term "light" with respect to light cigarettes, Merlo testified: "Not off the top of my head, no, I'm not." 2085802175-2176A at 2176A (U.S. Ex. 85,123) (emphasis added); Deposition of Ellen Merlo, United States v. Philip Morris, et al., June 12, 2002, 485:14-488:3.

2845. At her deposition in Price, Merlo testified that:

> [A]s far as Philip Morris's position publicly, **we would advise people not to in any way infer that light or lighter cigarettes are any safer than full flavor cigarettes** . . . my communication, both through our website and in any public statements that I make, would be that **the general public should not in any way infer that light or lighter means that that cigarette is safer than a full-flavor cigarette**.

Deposition of Ellen Merlo, Price v. Philip Morris, Inc., October 2, 2002, 96:24-101:24 (emphasis added).

2846. Jeanne Bonhomme, Director of Youth Smoking Prevention Research for Philip Morris and former Manager of Marketing Research from 1981-1985 and 1994-1996, testified at her deposition in Price that she did not recall ever hearing from consumers that Philip Morris's advertising contributed to their belief that low tar cigarettes were healthier than regular cigarettes.

Deposition of Jeanne Bonhomme, Price v. Philip Morris, Inc., August 28, 2002, 69:18-71:12; accord Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 665:16-666:6 (testifying that "Philip Morris did nothing to create a perception of low tar cigarettes having health benefits" and denying that Philip Morris had done anything to create or foster a perception among smokers that low tar cigarettes are an acceptable alternative to quitting smoking).

2847. Susan Norris, a fifteen year Philip Morris employee and former Marlboro Brand Manager from 1995-1999 who was heavily involved in creating the marketing for the national launch of Marlboro Ultra Lights, testified at her July 31, 2003 deposition in this case that virtually no consumers smoked Marlboro Ultra Lights because they believed these cigarettes delivered less tar and it was a "rarity" that consumers believed doing so was better for their health. Deposition of Susan Norris, United States v. Philip Morris, et al., July 31, 2003, 125:2-130:4, 162:6-165:8.

2848. Nancy Brennan-Lund, then Senior Vice President of Marketing at Philip Morris USA, testified at her September 20, 2002 deposition in Price v. Philip Morris, Inc., that Philip Morris's use of the word "lights" in its marketing of low tar cigarettes is intended to mean a lighter tasting cigarette. Deposition of Nancy Brennan-Lund, Price v. Philip Morris, Inc., September 20, 2002, 19:21-24.

2849. In May 2004, Philip Morris stated on its website: "**Philip Morris USA does not imply in its marketing**, and smokers should not assume, that lower-yielding brands are safe or safer than full-flavor brands." Philip Morris USA, "Low Tar Cigarettes," available at

http://www.philipmorrisusa.com/health_issues/low_tar_cigarettes.asp (last viewed May 17, 2004) (U.S. Ex. 72,408) (emphasis added); see also PM3000185282-5319 at 5289, 5291-92 (June 2003 Philip Morris website stating same) (U.S. Ex. 88,095). This statement about Philip Morris's marketing is flatly contrary to the substantial evidence presented in U.S. FPFF § IV.F(1)(a), supra and U.S. FPFF § IV.F(2)a & (b), infra.

2850. In sharp contrast to these statements by Philip Morris that they never stated or implied their lower tar cigarettes were less harmful, as late as March 1999, Philip Morris Limited (an Australian subsidiary of PMI) submitted comments to the "Draft National Tobacco Strategy" that purportedly represented Philip Morris's commitment to various principles that were "shared with Philip Morris companies worldwide." According to Philip Morris's comments, the development of low tar yield cigarettes as measured by standard smoking machines had contributed to the goal of reducing consumers' exposure to "the harmful health effects of smoking." 2073934557-4577 (U.S. Ex. 87,899).

2851. Philip Morris further stated on its web site:

> Because smokers have varying preferences, Philip Morris USA offers products with differing yields of tar and nicotine, as measured by machine methods. We believe that it is appropriate to continue to differentiate our brands on this basis and that descriptors such as "lights," "ultra-lights," "medium" and "mild" help communicate these differences to adult smokers.

Philip Morris USA, "Low Tar Cigarettes," available at http://www.philipmorrisusa.com/health_issues/low_tar_cigarettes.asp (last viewed May 17, 2004) (U.S. Ex. 88,619); see also PM3000185282-5319 at 5289 (June 2003 Philip Morris website stating same and further stating "we believe that [low tar brand] descriptors serve as

useful points of comparison for cigarette brands regarding characteristics such as strength of taste and reported tar yields . . .") (U.S. Ex. 88,095).

2852. Philip Morris contends that its "use of descriptors is not intended to be misleading and descriptors are not used in a way that is intended to be misleading." This claim is false, given the wealth of evidence that Philip Morris intentionally and knowingly continues to use brand descriptors to convey health-related messages, and continues to make claims of low tar and nicotine based upon FTC-generated tar and nicotine yields, despite the fact that the company agrees that the FTC method "tar and nicotine numbers do not generate actual [smoker] yield information." Deposition of Denise Keane, United States v. Philip Morris, et al., October 2, 2002, 440:20-441:13; 405:16-405:25.

2853. Similarly, in his deposition in this case, Steven Parrish, Senior Vice President of Corporate Affairs of Philip Morris Companies since 1995, claimed that brand descriptors are merely "something that can be a way for manufacturers to communicate . . . characteristics of taste and mouth feel, and things like that in the cigarette." Parrish testified that he has seen news reports, but not any actual research, about how smokers perceive brand descriptors. And as of August 22, 2002, Geoffrey Bible, former CEO of Philip Morris Companies, also claimed he had never been presented with any data as to how consumers actually perceive brand descriptors. Nevertheless, he testified that he believes that they simply convey taste preferences. Deposition of Stephen Parrish, United States v. Philip Morris, et al., June 26, 2002, 264:7-264:17, 266:13-266:19; Deposition of Geoffrey Bible, United States v. Philip Morris, et al., August 22, 2002, 165:3-166:7.

(iii) RJ Reynolds

2854. In direct contrast to substantial evidence showing that RJ Reynolds marketed low tar cigarettes to prevent smokers from quitting smoking (see U.S. FPFF § IV.F(2)(a), infra), RJ Reynolds's website in May 2004 stated: "Reynolds Tobacco is not interested in trying to persuade any nonsmokers to begin smoking or in persuading any smokers not to quit." RJ Reynolds, "Marketing Philosophy," at http://www.rjrt.com/IN/COHowWeThink_smokinghealth.asp (last viewed May 17, 2004) (U.S. Ex. 72,410).

2855. RJ Reynolds's website further stated:

> Our company, like other cigarette manufacturers, uses brand descriptors such as 'full flavor,' 'lights' and 'ultra lights' to differentiate cigarette brand-styles in terms of such characteristics as strength of taste, and reported 'tar' and nicotine yield. **These terms do not, and are not meant to, imply that any cigarette brand-style or any category of cigarettes is safer than any other**.

RJ Reynolds, "A History of Efforts to Reduce The Risks of Cigarettes," at http://www.rjrt.com/TI/TIrisk_reduct_history.asp (last viewed May 17, 2004) (U.S. Ex. 72,410) (emphasis added).

(iv) Brown & Williamson

2856.

127030138-0138 (U.S. Ex. 22,113) (Category 1).

2857. In March 1999, Nicholas Brookes, Chairman and CEO of Brown & Williamson from 1995 to 2000, testified at his deposition in this case that Brown & Williamson had not conducted research on consumer perception of light cigarettes and whether reduced risk was associated with these cigarettes. Deposition of Nicholas Brookes, United States v. Philip Morris, et al., March 31, 2003, 162:13-163:9.

2858. Notwithstanding the documents cited in U.S. FPFF § IV.F(1)(a), supra, that demonstrate how Brown & Williamson has tailored its marketing of low tar cigarettes to communicate their supposed health benefits, Susan Ivey, Brown & Williamson CEO, testified in her deposition in this case that Brown & Williamson has "**never advertised that lights are a safer cigarette**." Ivey further stated that brand descriptors are primarily intended to send a taste message, although she acknowledged that consumers likely perceive "light" brands descriptors as an indication of a healthier cigarette: "I think [Brown & Williamson] customers should look at lights as a descriptor in the context of lighter taste and in the context of lower deliveries than the fuller flavor alternative. . . . [D]o some people perceive them as healthier? Probably." Ivey further stated that while Brown & Williamson "[c]ertainly [has] the capacity to do the inquiry" as to whether a percentage of consumers choose lights because they perceive a health benefit, Brown & Williamson has not done any such research. Deposition of Susan Ivey, United States v. Philip Morris, et al., June 20, 2002, 24:7-22, 67:3-19, 91:25-92:18, 129:15-131:1 (emphasis added).

2859. Paul Wessel, a Brown & Williamson Marketing Vice President who has worked for Brown & Williamson since the 1970s, testified that as of March 19, 2002, he was not aware of any Brown & Williamson focus group research having ever been conducted "to determine whether consumers perceived light [cigarettes] as either a potentially safer[,] less harmful" or "potentially less hazardous cigarette." Nonetheless, Wessel testified that smokers switch to light cigarettes to "lower[] their perceived health risk." Deposition of Paul Wessel (30(b)(6)), United States v. Philip Morris, et al., March 19, 2003, 37:23-38:12, 63:25-66:10.

2860. Despite substantial evidence showing that Brown & Williamson intentionally marketed low tar cigarettes as safer (see U.S. FPFF § IV.F(1)(a), supra) and was aware that consumers interpreted its low tar brand descriptors as indicating a less harmful cigarette, in May 2004, Brown & Williamson's web site stated that brand descriptors were only intended to send a taste message:

> Cigarette brands in the U.S. are usually identified on packs, cartons and advertising as belonging to the following categories: 'Ultra Light' or 'ultra low tar' (approx. 6 mg. tar or less), 'light' or 'low tar' (approx. 7 to 15 mg. tar), and 'full flavor' (over approx. 15 mg. tar). These category descriptors, having been established by convention over time, do not reflect rigid numerical categories. They are intended to place the product within a general range of tar yields obtained by using the FTC method and **are provided to accommodate consumer preferences for taste and strength**.

Brown & Williamson, "Smoking & Health Center: Lower Tar Cigarettes," at http://www.brownandwilliamson.com/Index_sub2.cfm?ID=12 (last viewed May 17, 2004) (U.S. Ex. 86,656) (emphasis added).

2861. Despite substantial evidence showing that Brown & Williamson intentionally

marketed low tar cigarettes to potential quitters to keep them from quitting (see U.S. FPFF § IV.F(2)(a), infra), Brown & Williamson's web site stated: "**We do not believe that people who are concerned about the health risks of smoking should view lower tar products as an alternative to quitting**." Brown & Williamson, "Smoking & Health Center: Lower Tar Cigarettes," at http://www.brownandwilliamson.com/Index_sub2.cfm?ID=12 (last viewed May 17, 2004) (U.S. Ex. 88,620) (emphasis added).

(v) BATCo

2862. A February 17, 1999 BATCo memorandum entitled "EU- Labeling Directive" from Rolf Bielefeldt to Adrian Marchall and copied to Brown & Williamson President Susan Ivey discussed the European Union's proposal to prohibit the use of the terms "'low tar, light, ultra light, mild,' or any similar terms which have the aim or the direct or indirect effect of conveying the impression that a particular tobacco product is less harmful than others." The memorandum stated:

> CECCM [a European tobacco association] replied to these proposals on December 18th, 1998 that 'the use of these terms by manufacturers is not intended as an explicit nor an implicit health claim and such terms are not used for such purposes.'

321625509-5511 at 5509 (U.S. Ex. 46,875). However, an earlier BATCo public relations document indicates that they **did** intend to communicate that their low tar cigarettes were less harmful than full flavor cigarettes. A BATCo document entitled "P.R. – Questions & Answers File" from October 1974 to November 1977 stated: "[W]e have progressively modified our products to reduce those smoking constituents which are alleged to be harmful." 202006722-6736, at 6729 (U.S. Ex. 87,903).

(vi) American Tobacco

2863. Notwithstanding the extensive evidence above indicating American's knowledge that smokers chose low tar cigarettes primarily out of a belief that they are less harmful and American's design of its marketing to appeal to consumers' desire for a less harmful product, Eric Gesell, designated representative of American, when asked in 1997 what the significance was of a cigarette being lower in tar, testified: "It's lighter, lighter taste." When asked: "Isn't there also an implied health claim there," Gesell testified: "No, there isn't." Gesell also testified on behalf of American that the company "didn't have an understanding that people tended to smoke low-tar cigarettes because they were concerned about their health." Deposition of Eric Gesell, State of Minnesota v. Philip Morris Inc., et al., September 18, 1997, 5:8-6:6; 6:10-17; 97:8-13; 130:25-131:4.

2864. Gesell also testified, regarding an advertisement that, in his words, "says that [American's Pall Mall cigarette is] lower in tar than the best filter king," that he did not know if the advertisement "suggests that" smokers "would receive less tar when they smoke the cigarette," stating: "I don't know if it suggests that. I know what it tells you. It tells you that it has less tar than the leading filter king. It's lower in tar." Deposition of Eric Gesell, State of Minnesota v. Philip Morris Inc., et al., September 18, 1997, 5:8-6:6; 6:10-17; 97:22-98:9.

(vii) Lorillard

2865. Deposition testimony of Lorillard executives underscores Defendants' scheme to maintain their false public denials and conceal the intent of their low tar marketing. Despite substantial evidence showing that Lorillard intentionally marketed low tar cigarettes as less

harmful (see § U.S. FPFF § IV.F(1)(a), supra), and its knowledge that smokers switched to low tar cigarettes for a perceived health benefit despite the poor taste (see U.S. FPFF § IV.F(2)(b), infra), Andrew Tisch, then Chairman and CEO of Lorillard, testified in a 1993 deposition that he did not know why consumers wanted low tar and nicotine cigarettes. He also testified that he "would never approve advertising" indicating to consumers that smoking cigarettes "will make you healthier." Deposition of Andrew Tisch, Broin v. Philip Morris, October 15, 1993, 5:3-5:5, 5:17-5:22, 73:9-73:15, 87:1-87:6.

2866. Tisch, then former CEO of Lorillard, testified in his 1997 deposition in the Minnesota case that he did not know whether Lorillard's advertisements for ultra low tar cigarettes were attempting to reassure smokers that they were reducing their risk of disease. Deposition of Andrew Tisch, State of Minnesota v. Philip Morris Inc., et al., September 30, 1997, 234:2- 234:17.

(2) Defendants' Low Tar Cigarette Marketing Was Intended to Keep People Smoking

(a) Defendants Marketed Low Tar Cigarettes to Discourage Smokers from Quitting

2867. Numerous analyses of trends in individual cigarette consumption in the United States between 1950 and 1996, based upon a widely recognized data series from the U.S. Department of Agriculture, show measurable declines in per capita consumption during periods of increased nationwide publicity about the health risks of smoking. Expert Report of Jeffrey Harris, United States v. Philip Morris, et al. (R. 660; filed November 15, 2001).

2868. Per capita consumption of cigarettes declined during 1953 and 1954 when reports

appeared in the popular press concerning scientific studies on smoking and lung cancer, particularly the 1953 report from Sloan-Kettering Institute that cigarette tars caused cancers in laboratory animals. Two other studies also lead to this decline. In June 1954, Doll and Hill published the results of their follow-up study of smoking in relation to lung cancer deaths among 24,000 British male physicians. The results of the American Cancer Society's study of 187,000 men, in which cigarette smokers had higher death rates from coronary heart disease as well as cancer, appeared in August 1954. Expert Report of Jeffrey Harris, United States v. Philip Morris, et al. (R. 660; filed November 15, 2001).

2869. Per capita consumption of cigarettes again declined transiently after the publication in January 1964 of the first Report of the Advisory Committee to the Surgeon General. Expert Report of Jeffrey Harris, United States v. Philip Morris, et al. (R. 660; filed November 15, 2001).

2870. Aware of these trends and their potential impact on their businesses, Defendants worked to keep current smokers in the market. A key to Defendants' efforts to keep current smokers in the market was the development of "health reassurance" brands featuring claims of low tar and nicotine. Expert Report of Robert J. Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001) at 14.

2871. As the evidence in U.S. FPFF § IV.F(1)(a), supra, showed, Defendants used aggressive advertising and marketing to create and reinforce the consumer perception that filtered and low tar cigarettes were less harmful to smokers' health and that switching to a purportedly low tar cigarette was the solution to the smoking and health issue. Defendants' marketing was

intended to reduce the incentive for smokers to quit smoking. Indeed, Defendants' marketing helped deter people thinking about quitting smoking from acting on that desire and helped draw back into the market those who had stopped smoking. Expert Report of Robert J. Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001) at 9; "Report to Congress for 1997 Pursuant to the Federal Cigarette Labeling and Advertising Act," FTC (1999) (U.S. Ex. 76,080).

2872. Defendants' purposeful conduct in the design and marketing of low tar cigarettes has impacted the overall size of the cigarette market, i.e., the number of cigarettes sold in a year. Absent Defendants' conduct, the rate of smoking cessation would have been higher and the rate of smoking initiation would have been lower. Concomitantly, the total consumption of cigarettes would have declined more rapidly, and thus Defendants' sales and profitability would have declined, too. Expert Report of Robert J. Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001) at 9; Expert Report of Jeffrey Harris, United States v. Philip Morris, et al. (R. 660; filed November 15, 2001); see also Deposition of Michael P. Eriksen, United States v. Philip Morris, et al., Dec. 3, 2003, 784:18-787:10, 892:5-893:13; Expert Report of Michael P. Eriksen, United States v. Philip Morris, et al. (R. 678; filed November 15, 2001) at 2-3, 9.

2873. The availability and marketing of low tar cigarettes causes smokers who are concerned about the health effects of smoking to switch from regular cigarettes to those with lower reported tar yields rather than quitting smoking altogether. Indeed, many smokers perceive light cigarettes as an acceptable alternative to quitting smoking. As a result of Defendants' fraudulent marketing and design of low tar cigarettes, smokers of these cigarettes are less likely

to quit than smokers of regular cigarettes. Additionally, as a result of Defendants' fraudulent conduct, many smokers of light and ultra light cigarettes consume more cigarettes than do smokers of regular cigarettes. Low tar cigarettes provide a false sense of reassurance to smokers that weakens their resolve to quit smoking. Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681, filed November 15, 2001); Expert Report of Robert J. Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001) at 9; Expert Report of Michael P. Eriksen, United States v. Philip Morris, et al. (R. 678, filed November 15, 2001) at 2-3, 9; Deposition of Michael P. Eriksen, United States v. Philip Morris, et al., Dec. 3, 2003, 784:18-787:10, 892:5-893:13.

2874. The 2004 Report of the Surgeon General noted the apparent success of these attempts by Defendants to keep smokers from quitting by their widespread marketing of low tar cigarettes as less harmful. U.S. Department of Health and Human Services. *The Health Consequences of Smoking: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004 at 901 (U.S. Ex. 88,621) ("Research has demonstrated that with the expectation of reducing risk, many smokers switched to low machine-measured tar/nicotine cigarettes, and may thus have been deterred from quitting.") (citing Monograph 13); see also Monograph 13 at 5 (noting the "marketing of cigarettes with lower machine-measured tar yields as reduced-risk cigarettes," indicating that "substantial numbers of smokers switched to these brands in an effort to reduce

their disease risks" and that "[t]he switch to low machine-measured-yield cigarettes with the illusion of risk reduction was, therefore, substituted for a real risk reduction that would have occurred had the smoker quit smoking altogether") (referring to Chapters 6 and 7 of Monograph 13), TLT095001-001 (U.S. Ex. 88,847). DXA0310399-0650 (U.S. Ex. 58,700).

2875. As demonstrated below, in an effort to intercept potential quitters and keep them smoking, Defendants conducted extensive research on quitting to identify potential quitters (i.e., smokers who were "concerned" and "uncomfortable" with the fact that they smoke) and created marketing specifically targeting them, that made them feel better about the fact that they smoked and portrayed low tar cigarettes as a healthier choice and an acceptable alternative to quitting. As further demonstrated below, Defendants have long known that smokers interested in quitting smoking were switching to low tar cigarettes under the mistaken belief that doing so would either help them quit or be better for their health. See U.S. FPFF § IV.F(1)(a), supra & U.S. FPFF § IV.F(2)(b), infra.

(i) Tobacco Institute

2876. A May 1978 document by the Tobacco Institute entitled "A Study of Public Attitudes Toward Cigarette Smoking and the Tobacco Industry in 1978 Volume I" prepared for the Tobacco Institute by The Roper Organization stated that "**low tar cigarette smokers . . . are potential cigarette quitters** . . . . And more of them than the average have tried to quit smoking. Since low tar smokers are an expanding share of the market, **their greater desire to quit smoking poses a special problem for the cigarette industry**." 501565967-6019 at 6008 (U.S. Ex. 21,866) (emphasis added).

(ii) Philip Morris

2877. Studies conducted or commissioned by Philip Morris establish that the company was well aware that marketing caused smokers to believe that cigarettes bearing low tar brand descriptors such as "light" and "ultralight" were less harmful and that often smokers concerned about the health consequences of smoking switched to low tar brands instead of quitting. An August 14, 1978 consumer research report prepared for Philip Morris by Wells, Rich, Greene, Inc., regarding Benson & Hedges stated: "Those who are currently smoking 'Lights' do so because '. . . they are better for you. . .' than full flavor cigarettes. Although some experience that they actually smoke more Lights, **they perceive that they are cutting down and it is an alternative to quitting – which most cannot accomplish**." 1004888470-8484 at 8480 (U.S. Ex. 85,009) (emphasis added).

2878. A January 1979 study prepared for Philip Morris stated:

> [W]ith respect to ultra low tar brands there appear to be particular additional motivations for smoking this type of cigarette . . . [h]ealth problem forcing a change to a safer cigarette (as an alternative to not being able to quit) . . . [p]eer and family pressure to smoke a safer cigarette (as an alternative to not being able to stop smoking) . . . . Characteristics of ultra low tar smokers were: people who want to quit . . . . **In point of fact, smoking an ultra low tar cigarette seems to relieve some of the guilt of smoking and provide an excuse not to quit**. All of these smokers expressed an awareness of a health hazard from smoking, but felt that they had alleviated some of this hazard by smoking an ultra low tar brand. They described these cigarettes as 'safer'. . . . **With these justifications, there may be less of a compulsion to quit smoking** . . . .

2040066740-6766 at 6747, 6751-52, 6754, 6755 (U.S. Ex. 20,435) (emphasis added).

2879. A September 28, 1987 inter-office memorandum written by Carolyn Levy, then

Assistant Director of Consumer Research, and sent to David Dangoor, Executive Vice President at Philip Morris, outlined "smoker dynamics" and "the most important consumer-related questions which should be addressed," among them: (1) "What are the factors which influence brand choice of smokers reentering the market? Can we capitalize on these?"; (2) "Which new product options will appeal to former smokers?"; and "Can we determine the relative importance of various factors which influence quitting? Are there segments which can be characterized?" Carolyn Levy, long-time Philip Morris executive testified that the "umbrella reason" Philip Morris studied the factors that influence quitting smoking, and conducted a study on quitting smoking, was to learn the reasons why people quit that can be addressed with a new product feature. She further acknowledged that "people quit because of health concerns...." 2080009516-9522 at 9517, 9520 (U.S. Ex. 45,291); Deposition of Carolyn Levy, United States v. Philip Morris, et al., April 26, 2002, 518:25-519:13.

2880. A 1988 memorandum from Carolyn Levy to John Zoler, then Director of Market Research, further explains the research conducted by Philip Morris that was discussed in the earlier memorandum of September 28, 1987. Under "Smoker Dynamics," the document states "Conducted a major study on quitting, showing demographics of quitters, quitting by brand, reasons for quitting, methods used to quit, substitutes used for cigarettes." Carolyn Levy testified at her deposition in this case that the Philip Morris study researched as many as 300,000 to 500,000 people and revealed that "the number one reason for people quitting smoking were health concerns." 2080009523-9529 (U.S. Ex. 45,292); Deposition of Carolyn Levy, United States v. Philip Morris, et al., April 26, 2002, 519:14-526:13.

2881. A June 20, 1988 memorandum on Philip Morris USA letterhead from consumer researcher Jan Jones to Dr. Ed Gee, entitled "Statement of Position on the Social Pressures Construct," discussed Philip Morris's goal of introducing a "socially acceptable cigarette" which "could capture the trend-setters who might find such a product preferred over current cigarettes, **be a welcomed alternative to quitting**, and might attract new smokers who would not otherwise choose to become product users." The memorandum further stated:

> With the recent attrition rate of smokers, attaining 'new' smokers is no longer synonymous with capturing young smokers. **We already have Marlboro as the brand of choice for young smokers entering the market. We do not have a product that meets the needs of the growing population of ex-smokers. Many of these ex-smokers will resume smoking, and the product that they choose could cause a swing in market share**. These quitters (and those who are soon to become quitters) are dissatisfied with certain aspects of a product that previously met their needs . . . . These consumers have not yet as a group found a satisfactory replacement for their previous product – **a textbook example of a market opportunity**.

2050801835-1853 at 1845 (U.S. Ex. 38,763) (emphasis added).

2882.

2041497481-7503 at 7485 (U.S. Ex. 22,145) (Category 1).

2883. A March 1993 Philip Morris document entitled "Quitting Dynamics" showed statistics from "Smoker Tracking" that indicated that more Low Tar smokers did not try to quit (53.5%) compared to Full Flavor smokers (43.5%). 2062362453-2474 at 2473 (U.S. Ex.

39,555).

2884. In a July 1993 Philip Morris presentation entitled "Merit Franchise" prepared by Norma Suter Drew, Brand Manager and Marketing Director for Merit cigarettes from 1992-1994, Drew reported that the "Intended Audience" of Merit advertising was "self conscious low tar smokers who want to cut down on tar and nicotine but who won't sacrifice taste completely." 2070661683-1727 at 1714 (U.S. Ex. 40,337); accord 2041453659-3754 at 3678 (U.S. Ex. 23,906) ("Merit's consumers are self-described 'Uncomfortable Smokers' who tell us they are self-conscious about the fact that they smoke"); 2063690017-0018 (U.S. Ex. 85,002); Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002, 178:13-181:2.

2885.

2072622442-2451 at 2444, 2445, 2449 (U.S. Ex. 41,562) (Confidential) (emphasis added); see also 2063688212-8284 at 8226 (U.S. Ex. 39,823) (Jan. 18, 1994 document prepared for Philip Morris USA indicating that Merit is perceived as a "quitters brand").

2886. An internal July 1995 draft presentation entitled "Marlboro Women" bearing the handwritten notation "Approved as Revised, VMM [Virginia Murphy, a Philip Morris attorney]

8/9/95," includes a section entitled "The Marlboro Lights Female." The presentation stated that "[p]opularity and low tar are why they initially smoke the brand." The presentation further noted that for female Marlboro Lights smokers, 27% of 18-24 year olds, 29% of 25-29 year olds, and 34% of 30-39 year olds were "Under Pressure To Not Smoke," and that 21%, 16%, and 30% of each age group, respectively, "Intends to Quit." 2071373667-3751 at 3709, 3750 (U.S. Ex. 27,272).

2887.

2045628312-8328 at 8320, 8326 (U.S. Ex. 22,217) (Confidential).

2888.

2071535027-5090 at 5090 (U.S. Ex. 22,020) (Confidential).

2889.

2071178333-8340, 8335 (U.S. Ex. 40,396) (Category 1) (U.S. Ex. 77,754) (Category 1).

2890.

2080929561-9562 at 9561 (U.S. Ex. 27,786) (Confidential) (emphasis added).

2891.

2071182698-2720 at 2705 (U.S. Ex. 40,400) (Confidential).

2892. In the case Price et al. v. Philip Morris, Inc., the Circuit Court for Madison County, Illinois held that "Marlboro Lights and Cambridge Lights were introduced into the market by Philip Morris with the intent to provide smokers who were concerned about their health with a product that could reduce the cognitive dissonance associated with smoking and thereby allow them to continue to smoke cigarettes." The Price Court further found that "the representation of 'Lowered Tar and Nicotine' on the package of Marlboro Lights not only conveyed the message to all consumers that Marlboro Lights possessed a positive health attribute as compared to a regular Marlboro, but also explicitly communicated that the Marlboro Lights cigarette would deliver less tar and nicotine to the consumer than a regular Marlboro." Price v. Philip Morris, Inc., 2003 WL 22597608, at *5, 6 (Ill. Cir. Ct. Mar. 21, 2003).

2893. Jeanne Bonhomme, former Manager of Marketing Research from 1981-1985 and 1994-1996, testified at her May 21, 2003 deposition in this case that she was aware that some people who want to quit smoking switch from full flavor cigarettes to low tar cigarettes instead because they are unable to quit. Specifically, Bonhomme testified: "I seem to have a general take-away that many smokers try to quit and don't or can't or – and some of them switch to low tar brands because they thought it would be less hazardous for them to smoke those low tar brands, and yet the way I recall viewing this discussion was more of 'I know I should quit

smoking, but I can't' or 'I tried and I have not been able to' or 'I am not ready yet to do it, so I am going to switch to a low tar.'" Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 505:23-506:14, 524:6-24.

(iii) RJ Reynolds

2894. As early as 1969, an RJ Reynolds Survey of Cigarette Smoking Behavior and Attitudes recognized that "[a]s a group filter cigarette smokers were more conscious of a possible relationship between smoking and health." That survey recognized the "willingness of an increasing number of smokers to compromise – to smoke what they considered to be a less harmful cigarette rather than give up smoking entirely." 650340129-0193 at 0180, 0183 (U.S. Ex. 20,948).

2895. RJ Reynolds's advertisements for Vantage cigarettes employed signed testimonials by smokers who claimed to have considered the risks of smoking and decided not to quit smoking, but rather to switch to Vantage. RJ Reynolds's Vantage advertisements included the following:

- "You don't cop out. Why should your cigarette?" U.S. Ex. 3,425 (1971); U.S. Ex. 3,545 (1971); U.S. Ex. 3,566 (1971).

- "**Instead of telling us not to smoke, maybe they should tell us what to smoke**. For years, a lot of people have been telling the smoking public not to smoke cigarettes, especially cigarettes with high 'tar' and nicotine. But the simple fact is that how more Americans are smoking than ever before. Evidently many people like to smoke and will keep on . . . no matter what anyone says or how many times they say it. Since the cigarette critics are concerned about high 'tar' and nicotine, we would like to offer a constructive proposal. **Perhaps instead of telling us not to smoke cigarettes, they can tell us what to smoke. For instance, perhaps they ought to recommend that the American public smoke Vantage cigarettes**." U.S. Ex. 3,943 (1973); see also U.S. Ex. 4,403 (1974); U.S.

Ex. 3,992 (1973); U.S. Ex. 4,006 (1973); U.S. Ex. 4,018 (1973) (emphasis added).

- "**To smoke or not to smoke. That is the question**. With all the slings and arrows that have been aimed at smoking, you may well be wondering why you smoke at all." U.S. Ex. 4,383 (1974); U.S. Ex. 5,198 (1976) (emphasis added).

- "Why do you smoke? With what you've been hearing about smoking these days, you probably wonder sometimes why you smoke at all. Yet you enjoy it. Because smoking a cigarette can be one of those rare and pleasurable private moments. And the chances are you don't want to give up any of that. Which brings us to Vantage." U.S. Ex. 3,992 (1973); U.S. Ex. 4658 (1975); U.S. Ex. 5085 (1976); U.S. Ex. 5275 (1976).

- "Out of the last 6 years of smoking, I've only enjoyed the last 5 months. I started to pay attention to all the fuss about smoking about 6 years ago. That's when the uproar about 'tar' and nicotine started to get in the way of my pleasure. For me, it made the real difference between just liking smoking and really enjoying it. **I thought of quitting, but I really didn't want to. So I decided to switch to a low 'tar' and nicotine cigarette**." U.S. Ex. 4,954 (1975) (emphasis added).

- "Is there an answer to the smoking question? So perhaps a more realistic question would be: what should a smoker smoke? **If some smokers don't want to give up smoking yet find themselves concerned about 'tar' and nicotine, then the critics could well recommend that they switch to a low 'tar' and nicotine cigarette. Like Vantage**." U.S. Ex. 4,831 (1975) (emphasis added).

- "How many times have you decided to give up smoking? If you're like a lot of smokers these days, it probably isn't smoking that you want to give up. It's some of that 'tar' and nicotine that you've been hearing about." U.S. Ex. 4,006 (1973); U.S. Ex. 4,750 (1975); U.S. Ex. 4,310 (1974); U.S. Ex. 4,998 (1976).

2896.

502313230- 3308 at 3235, 3240 (U.S. Ex. 22,151) (emphasis added).

2897. In discussing RJ Reynolds's Limit, a then-new low tar cigarette, a 1976 memorandum made clear that the marketing and promotion of the product was to convey a healthy image based on its claim of being the lowest tar product on the market. The memorandum noted that "LIMIT will satisfy the needs of smokers who wish for the ultimate in low 'tar' assurance – providing the strongest health reassurances available in cigarettes today." The target audience was defined as "**[t]hat large group of smokers on the fringe of quitting who are on the verge of that final step: quitting smoking all together. This enormous group of smokers of various ages who have unsuccessfully tried to quit**." 502784092-4100 (U.S. Ex. 22,153) (emphasis added).

2898. A document circa 1977 labeled "RJR/SECRET," entitled "Mission Statement For Behavioral Aspects of Smoking," stated:

> It is imperative that we fully understand smoker satisfaction, particularly for those smoking low-tar cigarettes. **In the wrong hands this information could be used to decrease or modify the basic motivations for smoking or perhaps be used to develop other means to fulfill needs currently met by smoking**. In either case reduced cigarette consumption would result. If RJR had at least one trained behavioral scientist, it is possible that our own understanding could be increased to the point that opportunities would emerge. It might allow us to anticipate more effectively action by anti-smoking or governmental bodies and perhaps help us

> to develop means to off-set potential losses in cigarette consumption. Of course, an even greater potential opportunity exists. By being more directly involved in acquiring our own understanding we would be in a better position to capitalize upon a breakthrough that might occur.

500892080-2083 at 2082 (U.S. Ex. 85,028) (emphasis added).

2899.

518015005-5017 at 5013-5017 (U.S. Ex. 80,222) (Confidential); 501254289-4301 at 4297-4301 (U.S. Ex. 20,674).

2900. RJ Reynolds understood that smoker's guilt was a key concern in their attempts to quit. For instance, an August 5, 1980 RJ Reynolds memorandum marked "RJR SECRET" from M. D. Shannon to Dr. W. M. Henly and Dr. R. A. Lloyd, all RJ Reynolds researchers, titled "Project HR" stated:

> ULT ['Ultra Low Tar'] smokers. . . . Very health conscious – These smokers are well aware of the smoking and health controversy and have switched to ULT products in an effort to decrease 'tar' intake. Many of these smokers are victims of pressure from peers and loved ones to quit or reduce smoking. Therefore, they smoke ULT brands to 'get people off their backs' . . . . Feelings of guilt about smoking are very strong . . . . **Many would like to quit smoking but cannot**. This tends to fuel their low self-esteem . . . . These smokers do not feel good about themselves.' [S]everal concepts were developed to appeal to these smokers: 1. To convince the HR target that the new brand represents a payoff or reward for his forced decision to sacrifice by going down in 'tar' level . . . . 2. To convince the HR target that the new brand is a reflection of his rational, sensible decision to switch to a low 'tar' . . . . Again an attempt is made to make him feel better about smoking . . . . **Advertisements were developed . . . to address these concepts and present them in a manner that would be positively received by the target audience**.

500251567-1570 at 1567-1569 (U.S. Ex. 21,563) (emphasis added); Expert Report of Robert J. Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001) at 14.

2901. An August 1981 report prepared for RJ Reynolds by The Beaumont Organization

indicated that ultra low tar brands, such as Now, Carlton, Cambridge and Barclay, can cause smokers who seek to eliminate the "danger" of smoking to keep smoking, because these smokers believe the ultra low tar brands "reduce the alleged health risks" of smoking "to an acceptable – minimal – level":

> Some smokers have been strongly alarmed by the extensive publicity concerning alleged health hazards of smoking, to the extent that they seek not merely to moderate their smoking but to eliminate entirely the 'danger' that it may present. Such a smoker has two options. Firstly, he may simply cease smoking altogether. However, in some cases, the smoker does not wish totally to elimate [sic] the benefits of smoking. His second option is to seek a cigarette which he perceives to reduce the alleged health risks to an acceptable – minimal – level. Within this second option, the smoker essentially seeks a brand that will protect him from the dangers that are alleged to attend smoking. He is often prepared to sacrifice most of the benefits he previously derived from smoking to achieve this. Such a brand provides the consoling sense that the smoker has eliminated the risks of smoking by 'quitting', while continuing to engage in ritualized behaviors associated with cigarettes. An increasing number of brands addressed this benefit, including Now, Carlton, Cambridge and, perhaps, Barclay.

503972013-2063 at 2038 (U.S. Ex. 66,448).

2902. A 1983 NOW Brand Image report prepared for RJ Reynolds recognized that "[a] major motivation in brand switching has been concern over health. . . . Most people chastise themselves for continuing with what they refer to as a 'bad habit.' They are aware of mounting pressures and criticism from non-smoking groups. They speculate about planning to quit, but they are not sure if they will be able to do so. . . . **The typical solution to this dilemma is the two pronged approach of trying to cut down and/or moving to a lower tar brand**."

506671319-1418 at 1326 (U.S. Ex. 22,160) (emphasis added).

2903.

519192755-2756 at 2755 (U.S. Ex. 80,230) (Confidential); 506047899-7900 at 7899 (U.S. Ex. 85,054).

2904.

700173214-3217 at 3214, 3215, 3216-3217 (U.S. Ex. 22,121) (Confidential).

(iv) Brown & Williamson

2905.

650510607-0607 (U.S. Ex. 87,138) (emphasis added).

2906. A "confidential" March 5, 1980 report prepared for Brown & Williamson by Hawkins, McCain & Blumenthal discussed marketing strategies for a proposed new Brown & Williamson brand pursuant to its "Project Omega." The report stated: "The objective of all advertising and promotion will be to convince low 'tar' smokers that this new brand is the only one that combines the two most important qualities a contemporary cigarette should have – a satisfying taste and the lowest 'tar.'" The report further stated under the heading "Conclusions":

> 2) Low tar and ultra low tar smokers share personal 'concern.' The difference between them lies in the depth of the concern. . . 3) **Most of these smokers would quit if they could**. The pressure to quit is omnipresent from all sources. . . 5) **To reach these smokers we must acknowledge their concerns**. 6) **This acknowledgment must make them more comfortable (at ease) about smoking the Omega cigarette**.

The report further stated: "These executions are built on an expanded **strategy which includes an understanding of the target audience and the need to create a maximum ease or comfort level that addresses the concept of 'cognitive dissonance**.'" 660026713-6718 at 6714, 6717-6718 (U.S. Ex. 85,030) (emphasis added).

2907. A May 7, 1982 report prepared by a consultant for Imperial Tobacco Ltd. (the

Canadian sister company of Brown & Williamson) revealed that many smokers, young and old, view light cigarette brands as vehicles for quitting for health reasons, but that they are unsuccessful, leaving smokers frustrated and smoking more. The report stated that youth believed the "truly light brands" were "false safety brands for the older worried smoker who cannot quit . . . . Of course, they knew this because some . . . had tried to go very low for exactly the same reasons as smokers two or three times their age do so. All they found was increased consumption and frustration." Statements from young smokers included: "I think all the stuff coming out the past couple of years about how bad smoking is for you made a lot of people go down to a light cigarette to sort of ease their own conscience." 566627751-7824 at 7817-7818 (U.S. Ex. 20,938).

2908. A 1984 Brown & Williamson internal marketing research document entitled "Why People Smoke, Brand Imagery and New Product Opportunities" made clear that Brown & Williamson was aware that its Barclay cigarette (which Brown & Williamson marketed as an ultra-low tar cigarette) appealed mainly to those who would otherwise quit smoking. The document stated that both smokers of Brown & Williamson's Barclay cigarettes and smokers of other brands "perceive BARCLAY to be for one who wishes not to smoke." 670132512-2597 at 2566 (U.S. Ex. 20,964); 000001331-1406 at 1385 (U.S. Ex. 87,904).

2909. A 1986 Brown & Williamson document stated: "**Quitters may be discouraged from quitting, or a least kept in the market longer**. . . . A less irritating cigarette is one route (indeed, the practice of switching to lower tar cigarettes and sometimes menthol in the quitting process tacitly recognizes this). The safe cigarette would have wide appeal . . . ." 566628004-

8083 at 8015 (U.S. Ex. 20,940) (emphasis added).

2910.

190200047-0116 at 0061, 0071, 0106 (U.S. Ex. 22,162) (Category 1) (emphasis added).

2911.

250255336-5347 at 5339, 5343-47 (U.S. Ex. 22,031) (Category 1). These statements were repeated in an August 8, 2000 document prepared for Brown & Williamson by Kay Harwood, Marketing Analysts, Inc., entitled "Carlton Advertising Research: Report of Key Findings." 250255060-5075 (U.S. Ex. 22,170).

(v) BATCo

2912. A circa 1976 BATCo document from S.J. Green to P.L. Short and P. Sheehy indicated that the true motive of BATCo's cigarette marketing was to increase the number of smokers, stating: "We should aim to maintain or increase the smoking habit." 110076428-6432

at 6428 (U.S. Ex. 34,957).

2913. A February 15, 1978 memorandum entitled "An Outline for Research in the Psychology Group" presented "a brief description of the research area believed to be the most appropriate to the psychology group." The memorandum stated that the psychology group "should be interested in those aspects of the individual which predispose him to change his behaviour: to quit smoking, modify his consumption, alter his brand choice." The memorandum recommended that the group conduct "careful research" into quitting and switching behavior and stated that "[w]e believe that this new emphasis will have greater relevance and utility in defining the market and is a necessary co-ordinate" with BATCo's study of smoker dependence and brand preference. 105399785-9791 at 9786 (U.S. Ex. 85,031).

2914. A June 27, 1978 BATCo document authored by D.E. Creighton, a BATCo R&D Research Scientist, entitled "The Product in the Early 1980s" indicated Defendants' concern that making cigarettes that could not deliver enough nicotine to sustain addiction might facilitate quitting:

> Taking a long-term view, **there is a danger in the current trend of lower and lower cigarette deliveries – i.e. the smoker will be weaned away from the habit**. . . . Nicotine is an important aspect of satisfaction and if the nicotine delivery is reduced below a threshold satisfaction level, then surely smokers will question more readily why they are indulging in an expensive habit.

105553905-3914 at 3905, 3913 (U.S. Ex. 34,799) (emphasis added).

2915. An April 28, 1981 memorandum by Dr. Martin Oldman entitled "Low Delivery Cigarettes and Quitting" delivered to Dr. L.C.F. Blackman, Director of Millbank, stated:

> **With the emergence of lower delivery cigarettes there was**

> **understandable concern that the provision of cigarettes containing less nicotine and yielding less taste would facilitate an individual's quitting the smoking habit**. It was feared that, by using such products, the smoker could more easily wean himself from smoking by progressively moving from one product to another of lower delivery. Eventually, it was posited, he would be smoking cigarettes of such low 'satisfaction' that he would question the utility, and the cost, of his continued smoking.

The memorandum further stated:

> **The role of low delivery cigarettes in a health-conscious market, and for the health concerned individual**, can probably be best explained in terms of a simple balance model. This would suggest that the individual smoker seeks to reduce the tension arising from the perceived incompatibility between his health concern and continuing to smoke by making various psychological and behavioural adjustments. For some the tension will only be sufficiently reduced by quitting. For others, an adequate discharge will be achieved by reducing the number of cigarettes smoked and, for yet others, a switch to lower delivery cigarettes is the appropriate modification. In all cases, the model would suggest, the individual makes only that change in his smoking behaviour which is sufficient to offset to a tolerable level the tension arising from the perceived conflict between smoking and his health concern.

105399687-9689 at 9688, 9689 (U.S. Ex. 85,032) (emphasis added).

2916. Notes of a July 12, 1983 meeting of BATCo's newly established "Sidestream Working Party" recognized that the company was aware that individual smokers view switching to low tar brands as an alternative to quitting. It stated: "Smokers who are concerned about the smoking and health aspect but who have not given up, have done all they can (by moving to lower tar brands) to avoid the pressure to quit." The notes continue, recognizing that "[m]arket research undertaken in the US and the UK indicates that smokers would welcome a reduction in the visible smoke they are creating as it would ease the social pressures being increasingly placed

upon them and provide a degree of solace, in that they themselves can do no more – short of quitting – having already moved down the tar scale." 109881462-1467 at 1462, 1463 (U.S. Ex. 26,230).

2917. A circa 1984 BATCo "R&D/Marketing Conference" report stated: "**It is useful to consider lights more as a third alternative to quitting and cutting down** – a branded hybrid of smokers' unsuccessful attempts to modify their habit on their own." This document also stated that lights "offered one solution to the smokers dilemma" regarding the adverse health effects of smoking. 100501581-1657 at 1593 (U.S. Ex. 20,187) (emphasis added – bold type).

2918. An internal document from Imperial Tobacco Ltd., the Canadian sister company of Brown & Williamson, subsidiary of BATCo, revealed that the company viewed the promotion of light cigarettes as the "**ability to reassure smokers, to keep them in the franchise for as long as possible**." 689466032-6789 at 6351 (U.S. Ex. 31,053) (emphasis added); accord Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

2919. A BATCo document bearing the heading "Barclay Business Review 1996" indicated that ultralight cigarettes are particularly attractive to people who may start smoking again after quitting. The document stated that, due to its packaging, the Barclay cigarette (in the Netherlands) was "not clearly perceived as an ultra light and consequently lost attractiveness particularly amongst **re-starters who look for an ultra light offer**." This was indicated under the heading "The core positioning of the brand needs to be clarified in the minds of the consumer." 700767443-7457 at 7446 (U.S. Ex. 22,123) (emphasis added – bold type).

2920. A January 2001 BATCo file entitled "Consumer Concept Trial Notes Jan 2001 Project Baltec II" contained a section dated January 10-12, 2001 and entitled "Philadelphia – General Impressions and Summary," which detailed the results of consumer research on low tar cigarette smokers. The document reveals BATCo's exploitation of low tar smokers' mistaken belief that low tar cigarettes are less harmful in order to keep them from quitting, stating: "General feeling that lights are healthier. . . . **Who the consumers of the product might be – . . . Smokers who don't want to quit but are concerned about their health[;] Step toward quitting**[;] Trading down to lights." 325238922-8994 at 8992-8993 (U.S. Ex. 22,079) (emphasis added).

2921. A January 15, 2001 BATCo document written by Steven Coburn entitled "Project Balcony," which referenced Santa Monica, California marketing studies related to proposed campaigns, acknowledged that low tar cigarettes are smoked by people who want to quit: "3rd board highlights low nic/tar aspect – quitters cig." 325239014-9022 at 9015 (U.S. Ex. 22,082). A document with the same author, title and date that also referenced Santa Monica smokers stated "less tar less nic – less harmful . . . . 2nd board implies **a cigarette to be used as a substitute for quitting**." 325239014-9027 at 9017 (U.S. Ex. 22,082) (emphasis added). A January 24, 2001 BATCo document with the same author and title that referenced Tokyo, Japan marketing studies related to proposed campaigns, stated: "[L]ights are supposed to be healthier. . . . What is the difference between lights and full flavour? . . . . Some had tried lights as a step down to quitting." 325239001-9013 at 9008-9009 (U.S. Ex. 22,081).

(vi) American Tobacco

2922. A November 11, 1976 report prepared by Fay Ennis Creative Research Services for F. William Free & Company, an advertising agency used by American Company, summarized focus group sessions relating to low tar cigarettes. The report stated: "By changing to a lower tar cigarette, [the panelists] felt less guilty about continuing to smoke and eventually hoped to stop smoking completely." The report stated that "[s]ome of the panelists actually tried smoking brands of low tar in a downward progression of milligrams in order to quit smoking entirely." ATC037310-7324 at 7318, 7320 (U.S. Ex. 87,905).

2923. A May 25, 1977 report entitled "Tareyton Lights Field Trip Report," prepared for American Tobacco Company by SSC&B Advertising reported results of focus group research conducted on Tareyton Lights in order to "insure success of this very important product entry." The report stated:

> In general, most people who smoke would like to quit. Primary reasons for smoking low tars are: It is a means of cutting down on the amount of tar ingested. It is a first step in quitting; people step down in stages to a lower tar cigarette until finally they are smoking the lowest tar. Even among those who enjoy smoking low tars help alleviate their concern.

ATC0136995-7017 at 7005, 7006 (U.S. Ex. 87,906).

2924. A January 20, 1987 "Lucky Strike Brand Review" noted that "**[d]ecreasing category consumption has required innovative approaches to gain consumer awareness, trial repeat and cigarette purchase . . . Importantly, the style featured in the advertising is Lucky Lights, the mildest product within the franchise**. This product portrayal is important to signify the change in Lucky from the strong taste of Lucky Straights to the lower tar cigarettes

of today." ATC274 5221-5267 at 5228 (U.S. Ex. 87,907) (emphasis added).

2925. A November 12, 1990 memorandum from C.J. Brown, Product Manager, to R.E. Smith, Vice President-Brand Management, recommended "next steps toward halting TAREYTON's volume decline, while bringing vitality to an important franchise." The memorandum concluded that: "TAREYTON's position in the Low Tar and Ultra Low Tar Category has never been fully exploited." ATC1095215-5217 at 5216 (U.S. Ex. 87,908).

(vii) Lorillard

2926. As stated in U.S. FPFF § IV.F(1)(a), supra, Lorillard's marketing for its True brand explicitly stated that True cigarettes were an acceptable alternative to quitting. Lorillard's internal marketing documents demonstrate that Lorillard commissioned extensive consumer research to make sure that its intended message – that True was an acceptable alternative to quitting – was getting through to consumers. For instance, a Lorillard document circa 1975 entitled "Content of Letter To Field Personnel" stated: "TRUE's new '. . . either quit or smoke TRUE.' campaign has successfully been launched via a heavy national magazine and local newspaper schedule. Favorable reactions to the new campaign continue to come into the home office. TRUE 100's is indeed another Lorillard success." 00136597-6598 at 6597 (U.S. Ex. 34,432).

2927. A December 1976 report prepared for Lorillard by the Nowland Organization, Inc., stated:

> On the more positive side, many SHF [super-high filtration] smokers note that the existence of low tar and nicotine cigarettes, and their switch to such cigarettes, has alleviated some of their health concerns . . . . A number of SHF smokers note that they

> turned to this "compromise" smoke because, while they felt they should quit smoking (a few on doctors' advice), they were unwilling or unable to do so...yet. They see smoking low tar and nicotine cigarettes both as a way to cut back on the intake of harmful substances without cutting back on the number of cigarettes habitually smoked; and (in some cases) . . . so that they will be able to quit more easily at some future time. The fact that many SHF smokers (women especially) now find themselves smoking more than when they smoked regular cigarettes works to defeat their purpose in switching, and is a source of considerable annoyance to them.

84053616-3706 at 3628, 3637 (U.S. Ex. 55,997).

2928. A February 13, 1980 "secret" memorandum on Lorillard letterhead from Richard E. Smith to J.R. Ave, Lorillard Senior Vice President of Marketing, J.G. Flinn, and Dr. A.W. Spears shows that Lorillard's marketing efforts were influenced by the company's desire to keep smokers from quitting:

> Information on reduced tar, ULT [indicating ultralight] and Carlton 85 smoking, **as well as quitting, will give generally valuable perspectives to Lorillard marketing**. Next Steps – There is a good deal of information available on the general physiology and psychology of smoking, **especially with regard to quitting motivation**. It was agreed that the general literature and existing Lorillard marketing research will be reviewed; within the focus of our task force goal.

01394380-4381 at 4381 (U.S. Ex. 21,543); 95539778-9779 at 9779 (U.S. Ex. 22,808) (emphasis added).

(viii) Liggett

2929. In a December 2, 1968 letter from Max Samfield, Senior Assistant Director of the Liggett Research Department to Copeland Robinson, New Products Manager at Liggett, Samfield

discussed the importance of releasing Dorset brand cigarettes, citing: "The obvious void in the 4-6 mgm range for a low tar cigarette with acceptable taste. I firmly believe that those who switch to Marvels, Carltons, or Life cigarettes are in the last stages of quitting smoking. **The Dorset, however, is a low tar cigarette one can 'live' with**." LWDOJ8006760-6760 (U.S. Ex. 87,909) (emphasis added).

2930.

LWDOJ7009542-9610 at 9550, 9551 (U.S. Ex. 79,935) (Confidential) (emphasis added – bold type).

(b) Defendants Knew that Instead of Quitting, Smokers Switched to Low Tar Cigarettes for a Perceived Health Benefit *Despite* their Poor Taste

2931. As demonstrated in U.S. FPFF § IV.F(1)(a), supra, for decades Defendants have marketed and promoted low tar cigarettes using claims of low tar and nicotine and so-called

"brand descriptors" such as "light," "medium," "mild," and "ultra light" to suggest that smokers who switch to these products will inhale lower amounts of tar and nicotine than they would from regular cigarettes and thereby receive a health benefit. In addition, Defendants have used imagery in their low tar cigarette marketing to convey a lighter, healthier cigarette. Despite a wealth of evidence detailing Defendants' fraudulent marketing and promotion of low tar cigarettes, Defendants have stated publicly that they do not intend their use of brand descriptors or their marketing of low tar cigarettes to imply a less harmful product and that smokers choose to smoke low tar cigarettes because they prefer a "milder," "lighter," or "less harsh" taste. See U.S. FPFF § IV.F(1)(b), supra.

2932. As demonstrated below, and contrary to Defendants' public statements, Defendants' internal marketing documents indicate that Defendants have known for decades that consumers prefer the taste of regular cigarettes to low tar cigarettes but are willing to forgo the preferable taste of regular cigarettes and smoke the much poorer tasting and less enjoyable low tar cigarettes because they believe that low tar cigarettes are better for their health. Indeed, for decades, Defendants have treated the concept of cigarette taste as distinct from that of low tar, claiming that their lights products tasted good **despite**, not **because of**, the lowered FTC tar and nicotine levels. Defendants' conduct reflects both that they intended to downplay, not promote, the "lighter" taste of their low tar cigarettes; and that, in numerous instances, Defendants attempted to convince consumers that their low tar cigarettes had the same taste as regular "full-flavor" cigarettes, but with the benefit of less tar and nicotine.

2933. Moreover, as the FTC noted in 1968, Defendants' use of the phrase "mild taste" in

advertising is just another way to say "less harmful":

> Advertising in 1966 featured the phrase "mild taste" to describe the satisfactions obtained from smoking and also as a **euphemism to cloak the dangers of cigarette smoking. The euphemistic effect derives from the possibility that the public assumes "mild" tasting cigarettes to be less strong, i.e. lower in tar and nicotine than many cigarettes, and hence less hazardous**.

FTC, "Report to Congress Pursuant to the Federal Cigarette Labeling and Advertising Act, June 30, 1968," 1000241874-1957 at 1890 (U.S. Ex. 35,186).

(i) Philip Morris

2934. In the recent Price decision, the trial court found "the testimony and argument presented by Philip Morris that these Lights cigarettes were at least in part marketed based upon taste characteristics as not credible and unconvincing. Evidence, including testimony from Philip Morris' own personnel, was introduced at trial that at the time of the launch of Marlboro Lights, Philip Morris and the advertising agency responsible for marketing Marlboro Lights understood the taste of Marlboro Lights to be a negative product attribute that needed to be overcome by the implicit health representation." Price v. Philip Morris, Inc., 2003 WL 22597608, at *7 (Ill. Cir. Ct. Mar. 21, 2003).

2935. An undated Philip Morris document entitled "Background Information on Philip Morris Brands" included "Benefit Statements" for Philip Morris's various "light" brands that indicated Philip Morris's intent was not to market these cigarettes as "lighter" tasting, but rather as cigarettes that taste like full-flavor cigarettes but with the purported benefit of low tar and nicotine:

- Marlboro Medium: "gives you a flavorful smoke in a low tar cigarette" and

"bridges the flavor gap between low tar and full flavor cigarettes."

- Benson & Hedges 100's Lights: "premium tobacco flavor in a satisfying low tar smoke."
- Benson & Hedges 100's Deluxe Ultralights: "only 5 mg tar, yet is rich enough to be called Deluxe . . . is an ultra low tar cigarette that gives you satisfying taste. . . . delivers cool, rich taste with only 5 mg tar."
- Merit: "You'll enjoy low tar and good flavor . . . . At only 7 mg tar, Merit delivers the rich flavor of leading cigarettes with twice the tar . . . get rich menthol flavor at only 8 mg tar."
- Merit 100's: "flavor that makes low tar and good taste a reality for 100's smokers."
- Merit Ultra Lights: "cool, flavorful smoke with only 5mg tar."
- Merit Ultra Lights 100's: "an ultra light with flavor."
- Virginia Slims Ultra Lights: "gives flavor and taste – and is an ultra low tar smoke."
- Parliament Lights: "enjoyable taste in a low tar cigarette."

2070143183-4433 at 3209, 3211, 3212, 3214, 3215, 3219, 3222 (U.S. Ex. 40,253).

2936. A November 15, 1971 document to Morgan from the Philip Morris USA Marketing Research Department bearing the letterhead "Philip Morris U.S.A. Inter-Office Correspondence" set forth results of a Philip Morris consumer research study on Marlboro Lights. Under the heading "Likes and Dislikes," the report stated: "Complaints continued to center around taste mentions (23%) and too mild (22%)." 1000292744-2762, 2745 (U.S. Ex. 35,205).

2937. James Morgan, former President and CEO of Philip Morris, held the title of Director of Brand Management at Philip Morris at the time of his October 15, 1974 deposition in

the Philip Morris Inc. v. R.J. Reynolds Industries, Inc. et al. case. Morgan, who was also Brand Manager of Marlboro from 1969 to 1972, and held the titles of Acting Brand Manager of Marlboro and Assistant Brand Manager concurrently from 1972 to 1973, testified that in the marketing materials and brand name of Marlboro Lights, Philip Morris **did not** intend to communicate that Marlboro Lights had light or lighter taste:

> I have trouble in describing what light taste really means. I think it is in the eye of the beholder . . . . Light taste, first of all, is not a positive attribute if it does mean anything . . . in my judgment, light taste is really a meaningless and nebulous claim . . . . the bigger proposition [than lighter taste] is the lower tar and nicotine . . . . We are not talking, in my judgment, talking about light . . . as a taste. It's not a term that means anything in terms of taste, and the name Marlboro Lights as I said before, a word which we feel has appeal in a different sense than suggesting what the cigarette even tastes like.

Deposition of James Morgan, Philip Morris Inc. v. R.J. Reynolds Industries, Inc. et al., October 15, 1974, 82:25-83:13; 85:9-15; 85:17-86:4.

2938. Morgan testified in his deposition in the Price case that around the time of the launch of Marlboro Lights in 197[4], a marketing dilemma existed: on one hand, the fact that a cigarette had a "lighter taste" was a **negative limitation in the minds of consumers** that made the cigarettes more difficult to sell, but on the other hand, the term "light" also conveyed the beneficial message of low tar. Deposition of James Morgan, Price v. Philip Morris, Inc., June 5, 2002, 39:19-41:2.

2939. Morgan further testified that Philip Morris's Marketing and Research and Development departments held regularly scheduled meetings, where they discussed, among other things, how to increase the market of low tar cigarettes through research and development.

Morgan testified that many discussions focused on the poor taste of low tar cigarettes: "marketing, represented by me, kept saying people don't like the taste of a low tar cigarette. They are finding it unsatisfactory . . . What can we do to develop a low tar cigarette that really tastes good. That to me looks like the great market opportunity. I remember lots of discussions about that." Deposition of James Morgan, Price v. Philip Morris, Inc., June 5, 2002, 95:13-97:5-99:5.

2940. Ellen Merlo, then Senior Vice President of Corporate Affairs at Philip Morris USA, testified at her deposition in Price that she "think[s] there was a general perception that low tar cigarettes did not taste as good as full flavor cigarettes." Merlo added that Philip Morris's Merit cigarette "was the first free standing cigarette entry in the light category that was positioned as tasting good." Deposition of Ellen Merlo, Price v. Philip Morris, Inc., September 2, 2002, 152:12-153:10.

2941. A Philip Morris study concluded in 1975 and distributed widely throughout the Research Center, confirmed that the "optimum nicotine to tar (N/T) ratio for a 10 mg tar cigarette is somewhat higher than that occurring in smoke from the natural state of tobacco. . . ." As a result, as detailed in a Special Report entitled "Low Delivery Cigarettes and Increased Nicotine/Tar Ratios, A Replication," the study added additional nicotine in the form of nicotine citrate. The document urged development of a "low delivery cigarette that will both look and taste like a regular filter cigarette and thus will appeal to current regular filter smokers. . . . If a low delivery cigarette with impact and flavor were developed, it may cause the segment of current regular filter smokers who are concerned about their health but demand a flavorful

cigarette to voluntarily switch to the low delivery cigarettes. This may seem at first to be a senseless venture since it might result in Marlboro smokers switching to this low delivery cigarette. However, we must recognize the possibility that if we do not develop such a cigarette, it may be developed by another tobacco company." 1003288950-8967 at 8951, 8954, 8952 (U.S. Ex. 20,166).

2942. Draft remarks dated January 7, 1976 prepared by Philip Morris relating to Merit cigarettes acknowledge explicitly that low tar cigarettes appealed to smokers because of their purported reduced harmfulness, but that smokers disliked the taste of low tar cigarettes:

> Undoubtedly because of the health allegations against cigarettes, many smokers have clearly wanted cigarettes that deliver less and less tar. . . . [D]espite the intense promotion efforts and the strong interest among smokers, ... [t]hey have been tried and rejected by the overwhelming majority of smokers. Obviously, there has been a conflict between the desire for low tar and the desire for the rich, satisfying taste that until now has been associated with higher tar delivery.

PM3000136418-6422 at 6420-6421 (U.S. Ex. 61,504).

2943. A 1979 Philip Morris Merit advertisement entitled "Merit Taste Eases Low Tar Decision" appeared in national magazines, stating: "'Enriched Flavor' tobacco proving real alternative to high tar smoking. . . . Confirmed: Majority of high tar smokers rate MERIT taste **equal to – or better than – leading high tar cigarettes tested**! <u>Cigarettes having up to twice the tar</u>. [Merit's] ability to satisfy over long periods of time could be the most important evidence to date that MERIT science has produced what it claims: The first real alternative for high tar smokers." 1002325022-5022 (U.S. Ex. 21,510) (emphasis added – bold type).

2944. A January 1979 study prepared for Philip Morris by Goldstein/Krall Marketing

Resources, Inc., shows that consumers perceived light cigarettes as a compromise on taste in order to smoke cigarettes that they believed delivered reduced tar and nicotine, stating: "There appears to be a concept involved that might be called 'limiting.' They have moved to limit their tar and nicotine intake. At the same time they have accepted a limit on taste." 2040066740-6766 at 6755 (U.S. Ex. 20,435).

2945. A March 1979 report entitled "A Study of Smokers' Habits and Attitudes With Special Emphasis on Low Tar and Menthol Cigarettes" prepared for Philip Morris by The Roper Organization stated:

> Merit's growth has been phenomenal – from 1% in the 1976 survey to a 4.2% share of smokers in this survey . . . . A major reason for Merit's success is low tar with reasonable taste. While smokers of most brands claim to like the taste of their brand better than higher tar brands, nearly all of them came to like them better over time – not initially.

2049455309-5318 at 5316 (U.S. Ex. 22,218) (emphasis in original); see also Deposition of Jeanne Bonhomme, Price v. Philip Morris, Inc., August 28, 2002, 78:3-81:24.

2946. A September 1991 Philip Morris document entitled "Background Information on PM Brands" stated that, notwithstanding the introduction of Marlboro Lights in 1972 and the introduction of several variations on Marlboro Lights in 1978, 1980 and 1984, when Marlboro Medium was introduced in 1991, "consumers [were] still looking for a satisfying low tar cigarette with flavor." Marlboro Medium apparently "was successful in bridging the flavor gap between full flavor Marlboro and Marlboro Lights." 2070143183-4433 at 3206 (U.S. Ex. 40,253). The document listed as separate features for Marlboro Lights "Lighter in taste" and "Lower in tar." 2070143183-4433 at 3207 (U.S. Ex. 40,253).

2947. Philip Morris USA's 1992-1996 Strategic Plan described Philip Morris's "low tar/high flavor project," stating that "[f]urther research needs to be done to develop low tar products (4-6 mg tar) which are perceived as being equivalent to flavor low products." 2021529528-9638 at 9608 (U.S. Ex. 85,084).

2948. A June 30, 1993 document from a Philip Morris USA New Products Meeting entitled "Marlboro New Product Development," revealed Philip Morris's plan to produce a low tar Merit cigarette that tasted like a cigarette with higher tar. The "Project" was to "**[b]uild the Merit business by introducing a 3 mg product that tastes like a 5 mg**." Philip Morris also planned to "**[d]evelop a 6 mg Tar Cigarette with the Sensory Attributes of an 8-9 mg Tar Cigarette**." 2041453659-3754 at 3681, 3743 (U.S. Ex. 23,906) (emphasis added); see also 2021323470-3540 at 3478 (U.S. Ex. 85,034) (Philip Morris's 1992 R&D Operational Plans for the Product Development Department issued to Cliff Lilly of Philip Morris USA included the following objectives: "Design and develop an 3mg [Merit] product with the subjective attributes of a 6mg cigarette. . . . Design and develop a 6mg [Merit] product with the subjective attributes of a [sic] 8mg cigarette. . . . Develop 6 mg [Marlboro Ultra Lights] line extension . . . providing enhanced subjective quality and Marlboro character. . . . **LOW TAR HIGH FLAVOR Objective: Develop new technologies which will allow us, within the next two to four years, to produce**. '**Ultra Low**' **tar, 2 to 4 mg, cigarettes with the sensorial experience of** '**Lights**' **or** '**Full Flavored**' **cigarettes**") (emphasis added).

2949.

2072251926-1980 at 1932 (U.S. Ex. 22,022) (Confidential) (emphasis added).

2950.

2048248129-8131 at 8130 (U.S. Ex. 38,670) (Confidential) (emphasis added).

2951. Nancy Lund, Senior Vice President of Marketing for Philip Morris, testified in a 2002 deposition that when light cigarettes were first introduced, their largest drawback was that consumers disliked their taste. Lund further testified that **nine out of ten consumers did not like the taste of light/low tar cigarettes**. Smokers were buying them, nonetheless, because they were perceived to be less harmful. An April 20, 1987 memorandum on Leo Burnett letterhead from Elinor Bowen of Leo Burnett and Carolyn Levy of Philip Morris addressed to Nancy

Brennan (later Nancy Brennan-Lund) of Philip Morris, among others, stated of light cigarettes generally: "Thus far in the cigarette category, lightness has been associated with low tar or ultra low tar products which represent, for many smokers, an absence of taste and an avoidance of problems associated with smoking." Deposition of Nancy Lund, Price v. Philip Morris, Inc., September 20, 2002, 140:14-144:11, 186:12-189:19, 290:1-299:1; 2040904809-4811 at 4809 (U.S. Ex. 85,035).

2952. A Philip Morris document circa 1979 prepared by Judy John and Helmut Wakeham entitled "Breakthrough of the High Taste, Low Tar Cigarette: A Case History of Innovation," stated that consumer demand for low tar cigarettes was spurred by indications that cigarette smoking caused disease in humans, but that "market research analysis ha[d] shown that nine out of ten smokers had tried low-tar brands, but had failed to accept them as their choice of cigarette." The document went on to state: "Apparently not enough smokers could adapt to the diminished 'flavor' of the highly filtered low-tar cigarettes available at that time." 1000208603-8625 at 8605 (U.S. Ex. 85,010) (internal citation omitted).

2953. A June 1, 1994 document prepared for Philip Morris USA by Kane, Bortree & Associates, Inc., in its "Conclusions Product/Positionings" section, indicated that Merit's "We Lowered The Tar...But Kept The Taste" slogan "generated interest among male Low Tar Seekers because of the fact that they are committed to lowering their tar consumption." The concept of lowering the tar, but keeping the taste, was referred to as a"product improvement." 2045629674-9712 at 9696 (U.S. Ex. 88,630).

2954. Jeanne Bonhomme, Director of Youth Smoking Prevention Research for Philip

Morris and former Manager of Marketing Research from 1981-1985 and 1994-1996, testified at her deposition in this case that she was aware that some smokers prefer the taste of full flavor cigarettes but smoke low tar cigarettes nonetheless because they believe they are healthier for them. Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., May 21, 2003, 476:17-23.

2955. A February 9, 1998 draft research report prepared for Philip Morris by the research firm Kane, Bortree & Associates entitled "Merit Strategic Revitalization Plan, Stage I Learnings" analyzed ways to "build Merit's share of the low tar segment." The report labeled low tar smokers who find the taste of light cigarettes unsatisfying but feel comfortable smoking

2063687348-7527 at 7362, 7357 (U.S. Ex. 39,820) (Confidential) (emphasis added); see also 2063686921-6942 at 6924 (U.S. Ex. 88,629) (indicating that a goal of Kane Bortree was to "[i]dentify marketable positioning opportunity(ies) for revitalizing Merit via low tar technology (3 mg tar cigarette that smokes like a 5 mg tar or possibly higher levels)"). .

2956.

2063687348-7527 at 7352, 7354, 7376 (U.S. Ex. 39,820) (Confidential).

2957.

2063690668-0687 at 0675-76 (U.S. Ex. 39,825) (Confidential).

(ii) RJ Reynolds

2958. In July 1970, William W. Smith, RJ Reynolds's President and CEO, told the *United States Tobacco Journal* that Reynolds's Vantage cigarette "'gives the smoker the best of two worlds . . . . Before Vantage, anyone who wanted to smoke a low-tar and nicotine cigarette had to be willing to sacrifice flavor. Now he won't have to.'" RJ Reynolds's Product Manager, William F. Karnback, commented that: "the so-called low-tar and-nicotine brands have had limited success in the market, because they compromise on taste. Vantage gives the consumer

full flavor and low tar and nicotine – a combination not previously available." 990392283-2283 (U.S. Ex. 85,119).

2959. An April 1974 Qualitative Consumer Evaluation for four Winston Lights Positionings noted that those who liked Winston Lights believed that a low tar cigarette was a "'safe' cigarette." **Consumers were excited by the possibility of having full flavor and low tar simultaneously** because it offered "a 'safe' cigarette with a taste if not exactly the same at least similar to their current brand." Some of the panelists admitted to switching to a lower tar and nicotine cigarette for health reasons. A reservation about the cigarette was noted as "believability." The reported indicated that "[t]hey were generally skeptical that a less harmful cigarette could give them what they want in a cigarette – taste – or would the taste be sacrificed in some way." Communications with smokers indicated that the target audience was "concerned about the harmful effects of smoking and would be glad to switch to a brand which could deliver good taste with low tar and nicotine." 502041366-1415 at 1373, 1383, 1385-1386 (U.S. Ex. 22,147).

2960. A 1975 report entitled "An Evaluation of the 120MM Market and Its Potential for RJR" recognized that "smokers of High Filtration brands . . . feel the low tar and nicotine brands are much safer and much less of a health hazard. **They are readily willing to sacrifice taste for a 'longer life**.'" 500671364-1454 at 1436-1437 (U.S. Ex. 22,158) (emphasis added).

2961. A circa 1976 Doral Brand Performance report noted in a section entitled 'Other Brand Measurements Psychographics' that with respect to lifestyle, Doral smokers (relative to total smokers) were "more conscious and anxious about health" and, with respect to attitudes and

needs, would "sacrifice taste to get lowest ‘tar’ and nicotine." 501229581-9590 at 9589 (U.S. Ex. 22,118).

2962. A 1976 memorandum discussing "Limit," a new RJ Reynolds low tar introduction, identified the target consumer group as including "smokers whose concern with the health implications of smoking surpass their needs for full flavor in a cigarette." 502784092-4100 at 4097 (U.S. Ex. 22,153).

2963. A document written by Murray Senkus, RJ Reynolds scientist and eventually Director of Scientific Affairs at RJ Reynolds, reflecting talks Senkus delivered at RJ Reynolds in late 1976 and early 1977 entitled "Some Effects of Smoking," indicated RJ Reynolds’s belief that nicotine was "the key" to cigarette taste: "[T]his is the key to taste – the transfer of nicotine to taste buds and body fluids in the mouth during the short time you hold the smoke in your mouth before inhalation. For any tar level – there is the right pH for maximum taste. For any tar level – if the pH is too high – the smoke is intolerable – if pH is too low – the smoke will produce very little so-called cigarette flavor in the mouth. . . . Nicotine and nicotine-like compounds are the major factors in the taste one discerns while the smoke is held in the mouth before inhalation." 500251711-1722 at 1717, 1719 (U.S. Ex. 48,076).

2964. A 1979 study related to Camel Lights indicates that the marketing campaign stressed that Camel Lights provided a product to individuals who wanted to smoke a low tar cigarette, but did not want to compromise on "rich taste and smoking satisfaction." The message itself was "a specific low tar message." 500731672-1707 (U.S. Ex. 22,168).

2965. An August 1981 Image Study entitled "Vantage Personalities" noted that the

target market "abandoned [ ] harsher brands in search of milder brands with lowered tar and nicotine. This movement was almost always prompted by health concerns." 503148009-8077 at 8070 (U.S. Ex. 22,159).

2966. A June 21, 1982 Product Research Report on Non-Menthol Ultra Low Tar Consumer Probes, published by the RJ Reynolds Marketing Development Department, classified ultra low tar non-menthol smokers into two groups: (1) smokers who are extremely concerned about tar levels and (2) smokers who are moderately concerned about tar levels. The report went on to explain that "extremely concerned" smokers "primarily seek products that are lowest in tar. **These smokers are willing to trade-off such smoking benefits as strength, taste/flavor and ease of draw for brands which may not deliver these benefits but which are lowest in tar**." The report also explained that as compared to smokers of higher tar brands, "respondents generally characterized ULT cigarettes as having a harder draw, reduced smoke density - which they expressed as 'smoking air,' less taste/strength/flavor, and less smoking sensation." 503394459-4485 at 4460-4461, 4463, 4467 (U.S. Ex. 85,036) (emphasis added).

2967. A 1984 Vantage Family "Moderation" Situation Analysis explained that "relative to other segments, 'Moderator' smokers realize there are both positive and negative aspects of smoking, resulting in a desire to resolve the conflict by compromising/moderating on their brand choice." This process was depicted as adding the positives of smoking (personal ritual, anxiety reduction, social confidence) to the negatives of smoking (alleged health hazards and smoker image), compromising on the idea of taste and satisfaction with low tar products, and the image that they are "doing something positive." 502118237-8267 at 8241 (U.S. Ex. 22,119).

2968. A December 16, 1988 RJ Reynolds marketing presentation stated that: "For a

successful product the **perceived health benefit must balance any sacrifice that must be made in terms of taste**, satisfaction and traditional smoking pleasures." 650900829-0849 at 0831 (U.S. Ex. 20,951) (emphasis added).

2969. In 1990, RJ Reynolds undertook a marketing campaign promoting the fact that Now cigarettes had the lowest tar and nicotine levels of any product in the industry. The campaign focused solely on the fact of Now's "lowest" tar and nicotine levels, indicating that a low tar and nicotine rating made the product better. The campaign did not focus on taste. In fact, some of the advertisements implicitly admitted that good "flavor" or "taste" was intuitively less likely in a low tar cigarette. For example, one advertisement asked, "Merit Ultra Lights Smokers: Is there a way to get 60% less tar and nicotine **and still get flavor in a cigarette**? NOW is the way." Similarly, another advertisement asked, "Benson & Hedges Deluxe Ultra Lights Smokers: Can you get 50% less tar and nicotine **and still get taste in a cigarette**? NOW you can." Still another advertisement asked, "True Smokers: How can you get 67% less tar and nicotine **and still get real cigarette taste**? NOW is how." Finally, an advertisement in this campaign asked, "Carlton Smokers: Can a cigarette have just 2 mgs. of tar **and still be satisfying to smoke**? NOW can." Along those same lines, one of the advertisements indicated, "THE LOWEST IN TAR & NICOTINE. Try Now. **Surprisingly** good taste." 2070717114-7436 at 7334, 7336, 7408, 7410, 7432 (U.S. Ex. 22,172) (emphasis added).

2970. A May 1991 consumer research report prepared for RJ Reynolds by Gene Shore Associates entitled "RJ Reynolds Project XB" stated: "Most respondents are interested in a new cigarette that could deliver the great taste and easy draw of current brands, with low tar

equivalent to Carlton or NOW. They recognize Carlton and NOW are very low tar, but they perceive the taste and draw to be disappointing." The document further stated that "[r]espondents suspect there is a correlation between reducing the amount of tar and weakening the taste." As a "positive" of a proposed marketing concept, the document stated: "There is interest in an extra low tar cigarette that tastes great and has an easy draw. There is a consensus a lower tar product would be better for them." The document noted that the claim of "[e]asy draw is compelling" because it "addresses a major complaint that lower tar cigarettes are hard to draw, and less satisfying." As a "positive" of a different proposed marketing concept, the document stated: "Respondents, especially women, feel this cigarette could alleviate their concerns about tar levels. They expect the cigarette to be better for them." 514343517-3566 at 3559 (U.S. Ex. 51,848).

(iii) Brown & Williamson

2971. A January 1977 report prepared for Brown & Williamson by Post Keyes Gardner, Inc., stated that "health" was the most important driver of consumer trends, compared to mildness, which would not, of itself, cause smokers to switch brands:

> "Health": In our opinion, this is by far the most important factor and trend in the market. All major shifts in smoking habits seem to be a function of 'health' concerns, as they pose a deep psychological question that every smoker must somehow answer. The manifestation of 'health' concerns can be seen in the filter revolution of the 1950's, the emergence of menthol, as well as new hifi's in the 1960's and today . . . . Mildness: This is more or less a taste experience. It is best characterized by the acceptance of filter cigarettes – not the reason for them. In our view, mildness is not a dominant trend, and thus does not cause major shifts in smoking habits . . . . It, therefore, is unlikely that smokers would switch to milder cigarettes primarily because they are milder. **We**

> **suspect that the deeper concern of 'health' is the dominant motivator to mildness** . . . . Some smokers will seek justification (rationalization) for staying with a full taste brand, others will move on to the continuing compromise of less satisfaction while continuing to smoke [by switching to low tar cigarettes]. . . . the latest compromise between taste and tar.

776158413-8426 at 8418, 8419, 8425 (U.S. Ex. 22,339) (emphasis added).

2972. A July 25, 1977 Brown & Williamson internal marketing study stated: "It must be assumed that Full Taste smokers come down to 'low tar' expecting less taste . . . [t]hey are willing to compromise taste expectations for health reassurance." 775036039-6067 at 6052 (U.S. Ex. 21,053).

2973. An October 1979 "History and Key Trends in the U.S. Cigarette Market" bearing the insignia of Brown & Williamson, and compiled by E.T. Parrack, Brown & Williamson Vice President of Brand Management, stated that some of the then "new products" such as Merit and Real "seem to be capable of attracting some smokers from the Full Taste segment, thus drastically changing the terms of the basic tradeoff between taste and low tar in effect for 25 years." It added:

> Viceroy [is] perceived as smooth and perhaps mellow, but it is not significantly weak, mild, bland or light as are the Hi-Fi brands. . . . STRATEGIC ALTERNATIVE Increase Viceroy share of market by positioning Viceroy between full-filter flavor and Hi-Fi as the ideal compromise between the need for full taste and the need for low tar." The document added that some smokers "have **struck a compromise between taste/satisfaction and personal concerns**. They smoke low 'tar' line extensions hoping for the full taste of high 'tar' brands and the relative benefits of lower 'tar.'

670624932-5364 at 4942, 5102, 5157, 5240 (U.S. Ex. 53,869) (emphasis added).

2974. A March 12, 1981 Brown & Williamson memorandum from Sue Finley to B.L.

McCafferty entitled "Apollo Strategy Recommendation" discussed a proposed male-oriented ultra low tar cigarette brand called Apollo. The memorandum stated:

> In 1980 the number of ultra low 'tar' (1-6 mg 'tar') cigarette brand styles on the market went from 24 to 38 and the segment's share grew from 6.28% in 1979 to 8.73% in the 4th Quarter of 1980 . . . **The segment's growth has been generated primarily by smokers' 'tar' concerns, as most of the ULT products have no other perceivable consumer benefits**. The products are considered extremely hard to draw and weak tasting. In qualitative research, smokers have said that drawing on ultra low products could 'cause hernias' and that they taste like 'sucking straws' and 'there's nothing to them' . . . . While cigarette marketing has historically been image oriented, initial ultra low 'tar' cigarette advertising was very clinical. All ULT brands advertised extremely low 'tar' with little, if any, taste support or smoker imagery.

Discussing the proposed marketing for APOLLO, the document stated:

> Smokers are subjected to relentless pressures to quit smoking or reduce 'tar'. They continue to smoke because they derive pleasure for the experience and, while they may trade down in 'tar', **they view 'tar' reductions as pleasure reductions**. To make the switch to low 'tar' a more satisfying experience, APOLLO should be presented in a positive, warm and enjoyable manner.

670635571-5593 at 5571, 5576 (U.S. Ex. 85,037) (emphasis added).

2975. An April 1985 consumer research report conducted for Brown & Williamson by ADI Research, Inc., entitled "Brown & Williamson Tobacco Corporation Light and Ultra Light Smokers Concept Reaction Study," attempted to "determine perceived taste and other problems with ultra products and assess the Barclay Brand Ad Copy communication of problem solution to light and ultra consumers." The report stated: "The light and ultra light categories are problematic to consumers because of problems with taste and inhaling and drawing. There is

overwhelming agreement by all groups." The report discussed how Barclay's position was succeeding at getting consumers to believe that Barclay provided a solution to taste and draw problems. The report also noted, however, that "[t]hose in the minority that did not perceive a solution thought there would be drawbacks. If Barclay is better tasting and drawing, then it would have to be higher in tar and nicotine, hence, less safe and more harmful." 465626645-6722 at 6647, 6656-6657 (U.S. Ex. 87,911).

2976. A Brown & Williamson document circa 1996-1997 entitled "Carlton Creative Plans" stated that "CARLTON is the trademark of choice for smokers who have made an intellectual decision to seek the 'lowest' in tar and nicotine without unduly compromising taste." Carlton's "TARGET AUDIENCE" was described as: "Smokers who want to cut down in tar and nicotine as much as possible and are willing to sacrifice some product performance." The first "Primary" trait of the target audience was "Health conscious." The then-current brand positioning of Carlton as "The Lowest" was said to "satisf[y] the brand positioning." 176020783-0800 at 0783-0786 (U.S. Ex. 23,351).

2977.

462224560-4766 at 4706, 4709-4711 (U.S. Ex. 22,085) (Category 1) (emphasis in original).

2978.

430403186-3194 at 3193-3194 (U.S. Ex. 22,084) (Category 1) (emphasis added).

(iv) BATCo

2979. A September 1992 BATCo Business Review prepared by Norma Simamane, BATCo Lights Project Manager, stated that consumers felt, regarding low tar cigarettes, that "'**[t]he lower the [tar and nicotine] numbers, the higher the sacrifice on smoking pleasure**.'" Lights represented "a total compromise," and negative aspects included: "'It's like smoking hot air'" and "'Deprive you of a true smoking experience.'" Lights were perceived as "for people who . . . want to quit but can not." The aspects of the "Inadequate product performance" of low tar cigarettes were: "lack of satisfaction/not satisfying"; "lack of smoking quality"; "poor quality of flavor"; "not strong enough"; and "need to smoke more." 321683062-3099 at 3087, 3090 (U.S. Ex. 28,586) (emphasis added).

2980. A BATCo document circa 1996 entitled "Lights Segment Project Consumer Insight Into Smoking Lights" stated under the heading "Benefits of Smoking," that "[l]ight smokers criticized Ultra's as bad tasting 'air' = less taste intensity and no positive flavor development. Ultra smokers agree but accept this lost taste characteristic." The document further stated "light cigarettes (especially ultra) = pleasure sacrifice." The document further stated that "Ultra smokers find it necessary to explain to others and themselves why they consume a product that provides hardly any pleasure (taste)" which led to the "negative cliche" of a 'weak willed addict.'" The document stated that to counter this, "**we need to reassure light/ultra smokers that it is okay to smoke lights through communication**." 321546706-6724 at 6707, 6708, 6709 (U.S. Ex. 22,052) (emphasis added); see also 700373788-3789 at 3789 (internal BATCo newsletter) (U.S. Ex. 78,244).

2981. A BATCo document bearing the heading "Barclay Business Review 1996" demonstrates that the main motivators for smoking light and ultralight cigarettes are health-related, and the lighter taste of light and ultralight cigarettes is appealing insofar as it is an indication of lower tar: "The results of the 1MG smokers motivations study in Belgium show that the key drivers to the [ultralight] segment are health concern and peer/family pressure. Consumers expect a reduction of negative aspects . . . . As amount of taste is the main consumer indicator for strength, 1mg. products are expected to have the least taste among all cigarettes." 700767443-7457 at 7448 (U.S. Ex. 22,123).

2982.

321626872-6906 at 6901 (U.S. Ex. 22,059) (Category 1) (emphasis added).

2983. A January 15, 2001 BATCo document written by Steven Coburn and entitled "Project Balcony," which referenced Santa Monica, California marketing studies related to proposed campaigns, indicated that smokers prefer the taste of higher tar cigarettes, but smoke lower tar cigarettes because they believe lower tar cigarettes are less harmful: "[L]ights don't satisfy as much as a heavier cig when trading down . . . . less tar less nic – less harmful." 325239017-9018 at 9017 (U.S. Ex. 22,082). A January 17, 2001 document with the same author and title that also referenced Santa Monica smokers stated under the heading "Benefit": "Has carcinogens of a lights but taste of full flavor[.] May be not as harmful – which is why some people smoke lights." 325239023-9024 at 9023 (U.S. Ex. 22,082). An additional document with the same date, title, and author, referencing Santa Monica smokers stated: "**Benefit** . . . Lights that smoke like a full flavor – not sacrificing anything[.] Lights with a full flavour – important – lights better for you but still taste like a cig." 325239025-9026 at 9026 (U.S. Ex. 22,082).

(v) American Tobacco

2984. A 1967 Annual Report prepared by American, describing American's Carlton cigarettes, defined a "light cigarette" as "one that is low in 'tar' and nicotine yield." **The report did not mention any particular taste characteristics**. MNAT00029170-9201 at 9176 (U.S.

Ex. 21,222).

2985. A March 2, 1976 American document entitled "Background and Product Positioning Recommendation Project LOTC," predicted that:

> [T]he most significant growth will take place in the 'middle ground' where taste claims prevail, yet where the perception of a 'health benefit' is still strong. In other words a compromise between low-tar and taste (which is unmistakable to consumers) may not represent as traumatic a change for full flavor smokers as a change to 'super low tar.'

ATC0494235-4235 (U.S. Ex. 87,912).

2986. A January 1984 document from American Tobacco's files prepared by Andrew Thurm Associates entitled "'NO ADDITIVES' CONCEPT TEST" indicates that low tar cigarettes are associated with weak taste and that Carlton cigarettes have a weak, negative taste perception with consumers: "Carlton . . . shows traces of an additional impediment – weak taste perceptions . . . . Carlton's weak taste image acts as a secondary impediment . . . . In a certain sense, being low in tar peripherally suggests a flavor identity because of its connotations to mildness at the expense of taste strength." 970384072-4111 at 4076-4078 (U.S. Ex. 85,121).

2987. A 1987 advertisement for American's Carlton cigarette stated: "**Carlton cuts tar by 40%! . . . . Carlton is lowest**. Reduced to 3 mg. tar." Eric Gesell, designated representative of American, testified in 1997 that this advertisement only indicated that Carlton's taste was lighter and didn't "imply that [Carlton] is a safer cigarette." Gesell also testified that "taste is the primary motive" for smokers switching to light cigarettes. Deposition of Eric Gesell, State of Minnesota v. Philip Morris Inc., et al., September 18, 1997, 5:8-6:6; 6:10-17; 128:4-17; 131:6-21; MNAT00746233 (U.S. Ex. 87,403) (emphasis in original).

2988. A February 29, 1988 memorandum on American Tobacco letterhead from Richard E. Smith, Director of Brand Management, to K.P. Noone, Product Manager, stated:

> If the switching motivation is better taste, [smokers] . . . . will certainly not switch to Carlton, a brand which their experience has often taught them is lower taste. . . . [M]ost smokers will continue to seek lower tar. . . . **They have demonstrated a disciplined willingness to sacrifice taste. . . . Carlton brings less than nothing to the better/stronger tasting party**.

991216857-6858 (U.S. Ex. 85,115) (emphasis added).

2989. A February 29, 1988 memorandum on American Tobacco letterhead from J.M. Murray, Assistant Product Manager, to T.M. Keane, Senior Product Manager, stated:

> The Carlton and Now Groups almost unanimously cited "Lowest in Tar" as the single most important motivating factor in brand selection. . . . Importantly, the 0-3 mg. groups identify "Lowest" as the driving force – they seem to have been prepared to make a taste compromise. There is nothing to indicate that [ultralight smokers] won't become available to Carlton. At present, they aren't ready to make a taste compromise . . . . As these people become prepared to step down, they will be ready to give up some level of taste and seek the "Lowest in Tar" (e.g. Carlton or Now). . . . present Carlton smokers . . . have already made the taste compromise and focus primarily on "Lowest." . . . In conclusion, I believe we should focus our efforts on developing suitable advertisements which single mindedly communicate our "Lowest" positioning.

980355176-5177 (U.S. Ex. 85,122).

(vi) Lorillard

2990. A November 1956 Lorillard report entitled "The Kent Cigarette Marketing Situation With 1957 Plans and Recommendations" stated: "Many people look upon KENT as not being a particularly good-tasting cigarette. This is a holdover from the years when KENT lacked easy draw and good flavor, and when its advertising emphasis was placed largely on the

filter-health protection story." 00307593-7671 at 7617 (U.S. Ex. 28,200).

2991. An August 31, 1964 document by R.F. Kieling, Director of Marketing Research for Lorillard, set out the target for Kent marketing as follows:

> Segment B, the social conformists, represents the prime potential market for development of Kent's share. . . . Segment B is less concerned about smoking enjoyment and more concerned about the health aspect of cigarettes. He cares particularly about a cigarette's filter . . . and its association with health. . . . **Type B is . . . most likely to sacrifice some of the enjoyment of smoking in the interest of health, about which he is highly concerned. These requirements appear to be compatible with Kent's current image**.

01140936-0953 at 0938-0940 (U.S. Ex. 20,038).

2992. A 1971 report prepared for Lorillard by Appel Haley Fourezos, Inc. entitled "The Cigarette Market (February 1971)" contained research results indicating that a substantial component of cigarette smokers preferred cigarettes with "Very little tar + nicotine even if taste isn't just right." The same report indicated that smokers of Lorillard's True brand cigarette (green variety) viewed their brand as providing the best filtration for health concerned smokers, but not having good flavor or quality tobacco: "True Green among its users is rated higher as being for health concerned people, and higher on best filter. **They do not, however, see their cigarette as having high quality tobacco [or] refreshing flavor** . . . ." 03370093-0362 at 0142, 0264 (U.S. Ex. 29,267) (emphasis added – bold type).

2993. Several 1974-1975 Lorillard advertisements for Kent distinguished between great taste and filtration, showing that filter cigarettes were marketed as providing health benefits, not improved taste. For example, Kent advertisements stated: "Come for the filter. You'll stay for the taste" and "C'mon. Come for the filter. You'll stay for the taste." U.S. Ex. 4,764 (1975);

U.S. Ex. 4,662 (1975); U.S. Ex. 4,679 (1975); U.S. Ex. 4,699 (1975); U.S. Ex. 4,730 (1975); U.S. Ex. 4,741 (1975); see also 03496228-6630 at 6346-6348 (U.S. Ex. 20,057).

2994. A June 1978 Report prepared for Lorillard by Foote, Cone & Belding Advertising, Inc., "to assist Lorillard in understanding the . . . attitudes of reduced-tar smokers and their motivations in selecting brands" relayed smokers' beliefs that lower tar cigarettes had an unsatisfying lack of taste, and indicated that a low tar cigarette "with good taste" had not yet been developed, stating:

> The major problem with [ultra low tar] brands was decided lack of taste/smoking impact. "Sucking on a straw in an empty glass–nothing" was a typical reference to such brands. In point of fact, this was probably very close to the truth. . . . There is every reason to believe that ultimate technological breakthroughs will yield a tobacco product that is low in tar, with good taste. In that event, ultra low-tar products will serve as a viable net for **all** smokers who desire reduced tar plus the satisfaction of good taste.

03297227-7249 at 7229, 7233, 7246 (U.S. Ex.88,631).

2995. This document, discussing one of Lorillard's competitors' brands, added: "Carlton's success was all the more surprising in light of the fact that it was totally unable to offer any taste benefits to the consumers. Apparently, there existed a strong need among a sub-section of reduced-tar smokers for a cigarette that was 'as low as you can go' in its tar and nicotine levels." 03297227-7249 at 7240 (U.S. Ex.88,631).

2996. A June 17, 1987 memorandum from Lorillard's files bearing the letterhead of Laurence, Charles, Free & Lawson, Inc. entitled "Focus Group Overview – Carlton" recited the following descriptions of the taste "compromises" smokers make for lower tar delivery:

> For most, the search for a lighter cigarette is a series of

> For most, the search for a lighter cigarette is a series of compromises. . . . They understand that no low tar cigarette will provide the satisfaction of their old Marlboro or Winston, but **they are willing to make some trade-off of low tar for taste** . . . . they . . . were doing something good for themselves . . . **most smokers [] are satisfied with the compromise they've made (lower tar/less taste)** . . . . There is another small, but dedicated, segment of smokers who diligently studied the numbers when considering a brand to switch to. . . . they were willing to compromise more on taste than other smokers . . . . These are the Carlton 100's, Now 100's and Merit Ultra smokers.

991007335-7339 at 7336, 7338 (U.S. Ex. 85,025) (emphasis added).

2997. A December 1976 report prepared for Lorillard by the Nowland Organization, Inc., stated: "Those who do not now smoke SHF [super-high filtration] cigarettes perceive low tar and nicotine cigarettes in very much the same way as do current smokers – i.e., as 'better for you' but not as enjoyable." 84053616-3706 at 3638 (U.S. Ex. 55,997).

(vii) Liggett

2998.

7009633-9634 at 9633 (U.S. Ex. 59,595) (Confidential).

2999.

LWDOJ6135692-5692 (U.S. Ex. 21,215) (Confidential).

(3) Defendants Knew What They Told the Public About Low Tar Cigarettes Was False and Misleading

(a) Defendants Knew That Low Tar Cigarettes Were Not Less Harmful than Regular Cigarettes

3000. As demonstrated in U.S. FPFF § IV.F(1)(a), supra, for decades Defendants have disseminated marketing communications expressly and impliedly promising health benefits from smoking cigarettes with low reported tar and nicotine yields. However, Defendants' own internal documents amply demonstrate that they have long known that low tar and filtered cigarettes are no less hazardous than regular cigarettes. For example, on May 24, 1968, the heads of research of Philip Morris (Helmut Wakeham, Philip Morris Vice President of Corporate Research and Development), RJ Reynolds (Murray Senkus, RJ Reynolds Director of Research), Brown & Williamson, and Liggett (William W. Bates, Liggett Research Director), as well as Allan Topol of the law firm of Covington & Burling, attended a meeting at a Liggett facility to discuss the FTC Method. The minutes of the meeting demonstrate that these Defendants knew that any claim that lower FTC tar and nicotine yields resulted in lowered exposure to smokers was unsubstantiated: "We expect to be able to show that FTC Tar and Nicotine are of limited or questionable value as a measure of potential exposure to the smoker. . . . [T]he principal determinate of exposure is the individual smoker's smoking behavior pattern." 1003287730-7731 at 7730 (U.S. Ex. 20,162).

3001. Defendants deliberately did not perform animal or cell testing on cigarette brands **actually sold to consumers**, so the public could not reasonably determine whether "low tar" products marketed as less harmful (for example, Carlton, Now and Cambridge) were in fact likely to be less hazardous than high tar products such as Marlboro and Winston. Expert Report of William A. Farone, United States v. Philip Morris, et al. (R. 663; filed November 15, 2001).

3002. To the extent Defendants conducted research on this issue, for example by studying low tar "reference cigarettes" (as opposed to cigarettes actually manufactured and sold to consumers), Defendants' research produced evidence that low tar cigarettes as Defendants designed and marketed them were unlikely to be any less hazardous than regular cigarettes. Indeed, the research showed that the very cigarette design feature – ventilation – that Defendants promoted as one successful method to reduce FTC tar deliveries not only failed to reduce the carcinogenicity of smoke, but actually increased it. Thus, **even if certain smokers do receive less tar from low tar cigarettes, the tar they receive is likely more mutagenic – potentially offsetting any potential benefit to such smokers from a reduced tar intake**. 2001243600-3673 at 3610-11 (U.S. Ex. 20,298); 2022180219-0219 (U.S. Ex. 21,479); 1000135419-5439 (U.S. Ex. 20,078); 514903578-3610 at 3579, 3585-87 (U.S. Ex. 20,863); Deposition of A. Clifton Lilly, United States v. Philip Morris, et al., May 14, 2002, 228:7-231:21.

3003. Indeed, in the 1998 Minnesota litigation, representatives of Philip Morris (James Morgan, then President and CEO of Philip Morris USA) and RJ Reynolds (Andrew Schindler, then President and CEO of RJ Reynolds) testified that there was no reason to believe low tar cigarettes were any less harmful than full-flavor cigarettes. Expert Report of Robert J. Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001) at 15; Deposition of James J. Morgan, State of Minnesota v. Philip Morris Inc., et al., September 4, 1997, 6:24-7:2; September 5, 1997, 271:19-273:13 (testifying that, in his 30 years at Philip Morris USA, the company never advertised any cigarette as safer or less harmful, because "on a smoking and

health basis I don't know that there's any documented evidence that any cigarette can make that claim. . . . I just don't think it can be done because I don't think you can document it."); Deposition of Andrew J. Schindler, State of Minnesota v. Philip Morris Inc., et al., September 22, 1997, 5:15-5:17; 28:18-29:9; 253:22-254:1 ("I cannot tell you of any cigarette we have, with any degree of certainty, that it's safer than other cigarettes. . . . I can't tell you of any product we make [that is safer] because I don't have that knowledge that says one cigarette is safer than another. . . . The reason we don't claim any of our products are safer is because we have no data to confirm that they are safer; therefore, without that supporting data, if we were to make that claim . . . it would be wrong to make it to the consumers").

3004. Recent studies have confirmed what Defendants have secretly known for decades to be true, that low tar and filtered cigarettes are no less harmful than regular delivery and unfiltered cigarettes. Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine. Smoking and Tobacco Control Monograph No. 13 at 9-10. Bethesda, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health (October 2001) ("Monograph 13") (U.S. Ex. 58,700) (concluding that "[e]pidemiological and other scientific evidence" does not indicate a health benefit to low tar cigarettes). The NCI's Monograph 13 was based on the **totality of the scientific evidence**; more specifically, the considered evidence was "derived from research on human behavior and exposures, cigarette design and yields, smoke chemistry, epidemiological [and other] population-based data on human disease risk". Id. The 2004 Report of the Surgeon General also reached this conclusion, again based on the totality of the evidence. U.S. Department of Health

and Human Services. *The Health Consequences of Smoking: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004 at 25, 324, 901 (U.S. Ex. 88,621) ("In this report, one major conclusion finds that cigarettes with lower machine-measured yields of tar and nicotine (i.e., low-tar/nicotine cigarettes) have not produced a lower risk of smoking-related diseases." In addition, the Report concludes that "[s]moking cigarettes with lower machine-measured yields of tar and nicotine provides no clear benefit to health" and that, "[a]lthough characteristics of cigarettes have changed during the last 50 years and yields of tar and nicotine have declined substantially, as assessed by the Federal Trade Commission's test protocol, the risk of lung cancer in smokers has not declined."); Deposition of David Burns, United States v. Philip Morris Inc., et al., July 22, 2002, 101:5-12; 104:24-108:9;118:20-119:8 (testifying that the knowledge Defendants have possessed and concealed relating to low tar cigarettes was "much more detailed and expansive and complete" than the understanding reflected in the published literature available to the scientific community at the same points in time and that, had the information been available to the scientific community, "that information, also, with certainty, would have changed public health opinion . . . in its application to the question of whether low tar cigarettes actually delivered less risk").

3005. Three additional publications in 2001 and 2002 (by the World Health Organization, a Canadian Expert Panel, and the Institute of Medicine), as well as the 2004 Surgeon General Report, echoed Monograph 13's conclusion that low tar cigarettes are not any

less harmful than regular cigarettes. Scientific Advisory Committee on Tobacco Product Regulation (SACTob), Recommendation on Health Claims Derived from ISO/FTC Method to Measure Cigarette Smoke. World Health Organization. Geneva, Switzerland (2002) (U.S. Ex. 86,658); Canadian Expert Panel, Putting an End to Deception: Proceedings of the International Expert Panel on Cigarette Descriptors. A report to the Canadian Minister of Health form the Ministerial Advisory Council on Tobacco Control 9 (2001) (U.S. Ex. 86,657) ("There is no convincing evidence of a meaningful health benefit to either individuals nor to the whole population resulting from cigarettes marketed as 'light' or mild'"); Stratton, Shetty, Wallace & Bondurant, Clearing the Smoke: Assessing the Science Base for Tobacco Harm Reduction. National Academy Press at 67. Washington, D.C. (2001) (U.S. Ex. 20,919) (U.S. Ex. 20,920) (U.S. Ex. 32,485); U.S. Department of Health and Human Services. *The Health Consequences of Smoking: A Report of the Surgeon General.* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004 at 25, 324, 901 (U.S. Ex. 88,621).

3006. A January 2004 article in the *British Medical Journal* reported on a study intended "to assess the risk of lung cancer in smokers of medium tar filter cigarettes compared with smokers of low tar and very low tar cigarettes," and noted the following results:

> There was no difference in risk among men who smoked brands rated as very low tar . . . or low tar . . . compared with those who smoked medium tar brands. The same was seen for women . . . . Men and women who smoked very low tar . . . and low tar . . . brands had risks of lung cancer indistinguishable from those who smoked medium tar . . . brands. . . . Our finding that there was no

> difference in the risk of lung cancer between people who smoked medium tar filter, low tar filter, and very low tar filter cigarettes is consistent with evidence of compensatory smoking.

Harris, Jeffrey E., Thun, Michael J., Mondul, Alison M., Calle, Eugenia E., Cigarette Tar Yields in Relation to Mortality From Lung Cancer in the Cancer Prevention Study II Prospective Cohort, 1982-8, 328 (7431) Brit. Med. J. 72, (p.1, p.5, p.7) (Jan. 10, 2004) (U.S. Ex. 88,622); see also Palmer, J.R. et al., "'Low Yield' Cigarettes and the Risk of Nonfatal Myocardial Infarction in Women," 320 N. Engl. J. Med. 1569-1573, 1569 (1989) (U.S. Ex. 88,623) (the risk of nonfatal heart attacks in women "did not vary according to the nicotine or carbon monoxide yield of the cigarette.").

3007. As demonstrated below, Defendants' internal documents show that Defendants made health claims regarding low tar cigarettes when they either lacked evidence to support those claims or knew those claims were false.

(i) Philip Morris

3008. An October 28, 1964 internal presentation to Philip Morris's Board of Directors explained that Philip Morris's primary goal was not to develop less harmful products, but to develop products that would be perceived by consumers as less harmful: "Please recall that our number one objective is to develop products having maximum consumer appeal in the current and future health conscious marketplace." 1000307159-7164 at 7159 (U.S. Ex. 20,092).

3009. To promote this stated goal of creating the perception of reduced harm, Helmut Wakeham, Philip Morris's Director of Research, stated in a 1964 memorandum: "The health value of filters is undersold in the [Surgeon General's] report and is the industry's best extant

answer to its problem. The Tobacco Institute obviously should foster the communication of the filter message by all effective means." Wakeham also acknowledged in his memorandum that Defendants did not have evidence to support their contemporaneous marketing claims that filtered cigarettes were safer than unfiltered cigarettes, and proposed such research. However, **at no time prior to 2001 did any Defendant undertake any such study relating to the cigarettes sold by Defendants**. 1000335612-5625 at 5622-5623 (U.S. Ex. 22,986).

3010. An April 1974 Philip Morris review of smoking and health literature indicated that no low tar cigarette in existence was less harmful than regular cigarettes, and that the low tar cigarettes it had designed may in fact be **more** harmful:

> **Safer though it may be to take in less nicotine, tar and CO**, to what extend [sic] is this achieved by changing to a low nicotine cigarette? The information available is scanty and conflicting . . . . [A] cigarette with a high nicotine yield would enable heavy smokers to curb their tobacco consumption, and **harmfulness would be further reduced if, at the same time, the tar and CO yields were low**. At present a cigarette combining a high nicotine yield with a low tar and CO yield does not, so far as we know, exist. . . . **If nicotine is the addictive compound in the tobacco smoke, cigarettes with low content of nicotine may even be more dangerous than the usual cigarette, due to their supposed higher degree inhalation** . . . .

2015041685-1739 at 1721 (U.S. Ex. 20,324) (emphasis in original) (internal footnote omitted).

3011. A March 1, 1977 memorandum by Stanley Schachter of Philip Morris to Thomas Osdene, Philip Morris Director of Research, indicated his view that low tar/low nicotine cigarettes are not less harmful: "[I]t would certainly seem that **the campaign for low nicotine cigarettes is misguided and rests on a set of fallacious premises. . . . It is . . . clear . . . that the major body of data that has been used to justify the campaign for low nicotine**

cigarettes does nothing of the sort." 1000046626-6661 at 6655, 6660 (U.S. Ex. 20,074) (emphasis added).

3012. By 1978, Philip Morris had substantial evidence that "filter dilution [which Philip Morris used to reduce FTC tar and nicotine yields] was somehow acting to increase" the "activity" of the whole smoke condensate ("WSC") collected from its cigarettes. Further experiments confirmed that the tar from ventilated low tar reference cigarettes measured higher on mutagenicity tests than non-ventilated products. Additional research conducted in 1979 yielded the same result. 2001243600-3673 at 3610-11 (U.S. Ex. 20,298); accord 2022180219 (U.S. Ex. 21,479).

3013. A May 11, 1982 Philip Morris document from INBIFO (Philip Morris's overseas research facility) indicated that Philip Morris learned from its testing of low tar reference laboratory cigarettes (i.e., cigarettes used for research purposes and not actually sold in stores) in Europe that these cigarettes registered higher in standard biological tests than the regular-delivery reference cigarettes – i.e., were "more active" – and thus were more likely to cause cancer: stating: "Low tar reference cigarette . . . [m]ay be slightly more active than [the regular delivery reference cigarette] as a complete carcinogen." 1003121638-1643 at 1638 (U.S. Ex. 20,153).

3014. Philip Morris's 1993-1997 Research and Development Strategic Plan acknowledged that Philip Morris had not reduced the amount of harmful components of cigarette smoke in its conventional cigarettes, including its low tar cigarettes, by either by removing specific harmful components or reducing the total quantity of harmful components. Philip

Morris's Plan indicated an effort to "[e]volve programs to address known product benefits **which cannot be currently implemented on conventional cigarettes**." The first product benefit was: "Perceived health and social – specific or total mainstream and sidestream smoke component reduction." 2021323192-3347 at 3201 (U.S. Ex. 85,099) (emphasis added).

3015. A January 28, 1994 report from INBIFO to Philip Morris in Richmond, Virginia stated that increased cigarette filtration, porosity, and ventilation (primary methods used by Philip Morris to reduce the FTC Method tar and nicotine yields in its cigarettes) would result in an increase in the degree to which cigarette smoke was toxic to living cells (i.e., cytotoxicity), the irritation it caused to smokers, and the likelihood of the smoke to generate mutations such as tumors and/or cancer (i.e., mutagenicity). The document stated: "Increased filtration will result in a relative enrichment of gas phase constituents, leading to increased cytotoxicity and irritancy . . . . Increased porosity and ventilation will . . . increase the specific mutagenicity." 2024005509-5512 at 5509-5510 (U.S. Ex. 20,399).

3016. Testimony and documents produced in this case confirm that the tar in Philip Morris's products which are marketed as light or low tar can register higher mutagenicity than the tar in the full flavor version of that brand. For example, A. Clifton Lilly, Senior Vice President of Technology at Philip Morris, confirmed at his deposition in this case that data from tests run at Philip Morris's INBIFO facility showed that the Ames test for mutagenicity (to measure the degree to which a substance causes mutations such as tumors and/or cancer) from Marlboro Lights is significantly higher than the tar from Marlboro full flavor products. 2001243600-3673 at 3610-11 (U.S. Ex. 20,298); 2022180219-0219 (U.S. Ex. 21,479);

1000135419-5439 (U.S. Ex. 20,078); Deposition of A. Clifton Lilly, United States v. Philip Morris, et al., May 14, 2002, 228:7-231:21.

3017. Lilly testified at his 1998 deposition in Engle v. RJ Reynolds Tobacco Co., et al., that he did not know whether or not ultra low tar cigarettes are any less hazardous than any other cigarette. Deposition of A. Clifton Lilly, Engle v. RJ Reynolds Tobacco Co., et al., May 7, 1998, 25:6-27:4, 522893332-3483 at 3356-3358 (U.S. Ex. 80,293) (Confidential).

3018. A May 1, 2000 Philip Morris e-mail from David Ring to Vic Han attached a speech to be given by Louis Camilleri, Senior Vice President and Chief Financial Officer of Philip Morris Companies, Inc., on May 10, 2000. This speech reveals Philip Morris's underlying belief that low tar cigarettes are not less harmful than full-flavor cigarettes. After indicating that Philip Morris International would "continue to benefit from" its prominent low tar brands such as Marlboro Lights, Philip Morris, Merit and Parliament, the speech indicated that Philip Morris was **also** attempting to develop cigarettes that **may actually be less harmful**: "We are also committed to the development of a commercial cigarette that may reduce the health risk of cigarette smoking." 2071040801-0801 (U.S. Ex. 40,375); 2071040802-0812 at 0807-0808 (U.S. Ex. 40,376).

3019. James Morgan, former President and CEO of Philip Morris, testified at his 2002 deposition in Price that in his opinion, lower tar cigarettes are not any safer than higher tar cigarettes. Deposition of James Morgan, Price v. Philip Morris, Inc., June 5, 2002, 75:3-15.

3020. Nancy Brennan-Lund, Senior Vice President of Marketing at Philip Morris, testified at her 2002 deposition in Price that she agrees with Philip Morris USA's website

statement that there is **no such thing as a safer cigarette**. Lund testified that "what we say on our web site we believe to be true." Philip Morris USA's position is that low tar cigarettes are no less harmful than full-flavor cigarettes, "based on what the Monograph 13 came out with." Lund later qualified this statement by testifying that it has "not been proven" that light cigarettes are less harmful, so one cannot assume they are less harmful. Deposition of Nancy Brennan-Lund, Price v. Philip Morris, Inc., September 20, 2002, 107:22-108:14; 109:16-110:22; 114:9-114:10.

3021. Ellen Merlo, then Senior Vice President of Corporate Affairs at Philip Morris USA, testified at her 2002 deposition in Price that Philip Morris's policy at the time was that lights or low tar cigarettes are not safe or safer than any other cigarettes, and that she agreed with the statement. Deposition of Ellen Merlo, Price v. Philip Morris, Inc., October 2, 2002, 80:3-80:15.

3022. In Price, the court found:

> **The evidence at trial indicates not only that Marlboro Lights and Cambridge Lights are just as harmful as their regular cigarette counterparts, but that these products are actually more harmful and hazardous than their regular counterparts**. The Court finds that Philip Morris was aware of the increased harm from these Light cigarettes based upon their own scientific testing. Philip Morris' knowledge and understanding of increased harm from Lights cigarettes is also demonstrated by Philip Morris' refusal to conduct any additional testing to reconfirm this scientific conclusion of increased harm.

2003 WL 22597608, at *12 (Ill. Cir. Ct. Mar. 21, 2003) (emphasis added).

3023. In addition, the Price court found: " . . . Philip Morris has known for over twenty-five years that Lights cigarettes like Marlboro Lights and Cambridge Lights – with increased ventilation – are more mutagenic than cigarettes with less ventilation." 2003 WL 22597608, at

*12 (Ill. Cir. Ct. Mar. 21, 2003).

3024. The Price court further found: "Marlboro Lights has higher specific toxicity levels for almost all of the toxic substances measured in cigarette smoke in the [Massachusetts Benchmark Study ("MBS")] . . . . These toxicity levels measured in the MBS study demonstrate that even if a smoker does not compensate completely (a fact itself which is contrary to the evidence presented), a smoker of Marlboro Lights will receive higher levels of most of the toxic substances found in cigarette smoke from a Marlboro Lights than they will from a regular Marlboro." Price v. Philip Morris, Inc., 2003 WL 22597608, at *13 (Ill. Cir. Ct. Mar. 21, 2003).

3025. The Price court also found that "with respect to the two toxic substances Philip Morris itself has targeted for reduction as a means of demonstrating harm reduction (Acrolein and 1,3-Butadiene), a smoker of Marlboro Lights need only compensate 14% to receive higher levels of these two specific substances. Therefore, the Court finds that Marlboro Lights and Cambridge Lights, based upon the similar design distinction of increased ventilation, are more harmful for every Class member than a regular Marlboro or a regular Cambridge cigarette." Price v. Philip Morris, Inc., 2003 WL 22597608, at *13 (Ill. Cir. Ct. Mar. 21, 2003).

3026. On its website, Philip Morris seemingly adopts the findings of the National Cancer Institute's Monograph 13, which found that low tar and filtered cigarettes are no less harmful than regular delivery and unfiltered cigarettes. In May 2004, Philip Morris's website provided a link to the Monograph 13 Press Release, and stated: "It is important to remember that, as of today, there is no cigarette on the market which the public health community endorses as offering 'reduced risk.'" Philip Morris, "Low Tar Cigarettes," at

http://www.philipmorrisusa.com/health_issues/low_tar_cigarettes.asp (last viewed May 17, 2004) (U.S. Ex. 88,624).

(ii) RJ Reynolds

3027. RJ Reynolds's internal documents show that, like the other Defendants, RJ Reynolds has long known that low tar cigarettes are no safer than regular cigarettes, and thus, that RJ Reynolds made health claims regarding low tar cigarettes when it either lacked evidence to support them or knew they were false. For instance, a September 1968 RJ Reynolds memorandum on "health-image" versus "health-oriented" cigarettes illustrates that the company specifically distinguished "health reassurance" cigarettes such as low tar cigarettes, which Defendants market to the public as less harmful, from "health orientated" cigarettes, which are actually less harmful: "[T]wo types of product should be clearly distinguished, viz: a) A Health-image (health-reassurance) cigarette b) A Health-orientated (minimal biological activity) cigarette, to be kept on the market for those consumers choosing it." 109880405-0410 at 0406 (U.S. Ex. 20,262).

3028. In May 1980, RJ Reynolds scientist C.T. Mansfield performed the Ames test for mutagenicity (to measure the degree to which a substance causes mutations such as tumors and/or cancer) "on the tars from twenty-four domestic brands of cigarettes with various [FTC] 'tar' deliveries," and found "a trend for low 'tar' cigarettes to show higher revertent numbers per mg 'tar,'" indicating that the low 'tar' cigarettes caused more mutations. 514903578-3610 at 3579 (U.S. Ex. 20,863).

3029. A September 29, 1992 RJ Reynolds internal presentation indicated that lower tar

cigarettes were more likely to cause mutations such as tumors and cancer than higher tar cigarettes. The presentation stated: "Higher tar cigarettes tend to have lower Ames activity [a measure of the degree to which the tar caused mutations such as tumors and/or cancer] . . . than lower tar cigarettes." 509643825-3832 at 3825 (U.S. Ex. 20,830).

3030. Gary Burger, then Senior President of Research & Development for RJ Reynolds testified in a 1997 deposition that he was uncertain whether or not low tar cigarettes are in fact better for smokers' health, testifying that "we can't prove that it causes less onset of disease," and as a result, "that's the main reason we shouldn't tout them as lower risk products because we can't prove it." Specifically, Burger testified that whether or not low tar cigarettes provide less risk for cancer is "not provable," and that "I don't know if [low tar cigarettes] helped at all with cardiovascular disease." Burger further testified that RJ Reynolds had not done any long term studies to determine if smokers of low tar cigarettes are truly inhaling less tar. Deposition of Gary Burger, Arch v. American Tobacco Co., Inc., et al., August 21, 1997, 226:9-243:18; 519192158-2420 at 2383-2400 (U.S. Ex. 85,017).

3031. Andrew J. Schindler, then President and CEO of RJ Reynolds, testified in a 1997 deposition that RJ Reynolds does not claim any of its cigarettes are safer, because RJ Reynolds has no data to confirm any such claim. Therefore, claiming that low tar cigarettes are safer would be "wrong": "[W]e have no data to confirm that they are safer; therefore, without that supporting data, if we were to make that claim . . . it would be wrong to make it to the consumers." Deposition of Andrew J. Schindler, State of Minnesota v. Philip Morris Inc., et al., September 22, 1997, 5:15-5:17; 253:22-254:1.

3032. On July 24, 2002, David Townsend, RJ Reynolds's cigarette design expert witness and head of its Research & Development department, acknowledged what research directors at Philip Morris, RJ Reynolds, Brown & Williamson, and Liggett had acknowledged as early as 1968: that any purported health benefit of low tar cigarettes is uncertain at best, due to smoker compensation. 1003287730-7731 at 7730 (U.S. Ex. 20,162); Deposition of David E. Townsend, United States v. Philip Morris, et al., July 24, 2002, 286:21- 287:11.

3033. Arnold Mosberg, RJ Reynolds scientist, testified in a 2003 deposition that in 2003 he and other RJ Reynolds scientists (Doolittle and Morgan) reviewed "data [they] have had for decades" (some for more than two decades) to conduct a comparison of the relative harmfulness of lights and full flavor cigarettes using various tests, including animal skin painting tumorgenicity, rodent inhalation, and Ames mutagenicity studies. Mosberg testified that these studies produced results indicating that low tar cigarettes do not reduce risk relative to full-flavor cigarettes. Deposition of Arnold Mosberg, Turner v. RJ Reynolds, August 9, 2003, 6:7-7:14, 8:22-11:24, 14:21-14:23, 15:24-16:1, 16:13-16:24; Deposition of Arnold Mosberg, Turner v. RJ Reynolds, August 12, 2003, 2:12-16, 6:7-12:4, 14:24-15:19, 16:13-24, 19:3-5, 21:20-22:10; 22:19-26:8; 55:1-11, 57:15-58:16; 97:15-100:12; 103:23-104:1 (discussing in part Deposition Exhibit 2).

3034. According to Reynolds's genotoxicity scientist, David Doolittle, when comparing full flavor and low tar cigarettes by the FTC method, Ames and other studies show differences, but these differences disappear when measured in terms of actual yield. Deposition of David Doolittle, Turner v. RJ Reynolds, June 20, 2003, 36:12-46:7; 63:20-64:17. Accordingly, these

tests indicate that lights are no less harmful than full flavor cigarettes. Id. at 66:24-69:7; 71:4-12.

(iii) Brown & Williamson

3035. By 1968, senior scientists at Brown & Williamson and BATCo already viewed the low tar cigarette as a sham. Minutes from a BATCo research conference held September 24-30, 1968 in Hilton Head Island, South Carolina and attended by BATCo scientists including Dr. S.J. Green, Scientist, Manager, and Director of R&D from 1961-1979, stated: "Research staff should lay down guide lines against which alternative products can be chosen in everyday operations. Although there may, on occasions, be conflict between saleability and minimal biological activity, two types of product should be clearly distinguished, viz: a) A Health-image (health reassurance) cigarette. b) A Health-oriented (minimal biological activity) cigarette, to be kept on the market for those consumers choosing it." 110075139-5144 at 5140 (U.S. Ex. 85,044).

3036. In a December 4, 1968 letter from R.A. Sanford, Brown & Williamson Director of Research and Development, to Dr. S. J. Green, BATCo scientist, regarding "conclusions from the Hilton Head Meeting," the researchers made a distinction between what they called "health-image" and "health-oriented" cigarettes, with the former providing merely the appearance, and the latter the substance, of reduced health hazard. The letter acknowledged that low tar cigarettes are not less harmful, but merely perceived by the public as such, stating: "It was also recognized that there are two types of health products possible and that they should be distinguished: (a) Health image (health reassurance cigarette) such as a low tar – low nicotine cigarette which the public accepts as a healthier cigarette and (b) Health-oriented cigarette which has minimal biological activity; for example, one which would yield a near zero reading in a mouse skin

painting test." 689033123-3126 at 3124 (U.S. Ex. 22,186); 689033184-3185 at 3184 (U.S. Ex. 21,036); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

3037. A February 4, 1976 memorandum from Ernest Pepples, Senior Vice President of Brown & Williamson, entitled "Industry Response to Cigarette/Health Controversy" illustrated Defendants' understanding that the low tar and filter cigarettes they were marketing as less harmful were not likely to actually be less harmful:

> The industry has moved strongly toward filtered cigarettes, which have increased from 0.6% in 1950 to 87% in 1975. . . . This became known as the 'tar derby' of the late 1950's. It was characterized by sharply intensified advertising competition. . . . The new filter brands vying for a piece of the growing filter market made extraordinary claims. . . . It was important to have the most filter traps. Some claimed to possess the least tars. **In most cases, however, the smoker of a filter cigarette was getting as much or more nicotine and tar as he would have gotten from a regular cigarette**. **He had abandoned the regular cigarette, however, on the ground of reduced risk to health**. . . . The manufacturers' marketing strategy has been to overcome and even to make marketing use of the smoking/health connection . . . . Thus the 'tar derby' in the United States resulted from industry efforts to cater to the public's concern and to attract consumers to the new filtered brands. . . . The current duel between True and Vantage and between Carlton and Now are other examples of competitive efforts to capitalize on the smoking/health controversy.

170042567-2574 at 2568, 2574 (U.S. Ex. 20,292) (emphasis added).

3038. An August 5, 1980 Brown & Williamson document signed by J. Kendrick Wells III, Brown & Williamson Assistant General Counsel, acknowledged that "[t]here was question about the degree of support . . . at the present time" for the "scientific opinion that certain low

levels of ‘tar’ consumption are relatively safe to the smoker," and that "for the longer term the support may be quickly eroding." 680050983-1001 at 0990 (U.S. Ex. 20,981).

3039. A December 28, 1981 memorandum by J. Kendrick Wells, III, Brown & Williamson Assistant General Counsel, summarized notes of a December 9, 1981 meeting with L.C.F. Blackman (Director of Research for BATCo), Clausen Ely (Covington & Burling attorney), Timothy Finnegan (another industry attorney), Donald Hoel (Shook, Hardy & Bacon attorney), and others within the tobacco industry. At the meeting, Brown & Williamson employees and counsel discussed the legal risk of statements regarding "low tar" or modified products. Discussing the "controversy" over whether "tar" causes cancer and whether lowering "tar" has health consequences, Blackman stated: "One answer is by making both types of products (high and low ‘tar’), so that the consumer can take his own informed risk. We can then override the warning notice on low ‘tar’ cigarettes, but leave the warning notice on high ‘tar’ cigarettes." Finnegan responded that "[t]he problem is that as the questions work out, it may turn out that the lower ‘tar’ cigarettes have higher risk." To that, Hoel responded: "Reliance on low yield/low risk science could also produce a duty to change the warning notice to specifically mention low ‘tar’ cigarettes." Blackman then stated: "We could say that there is not causation, that we are funding research pertaining to low ‘tar’ cigarettes; we don’t know the health consequences of low ‘tar’ cigarettes . . . we don’t believe they are harmful." Blackman then stated: "The main thing going for the industry is that it is prepared to attack the [cancer] problem by reducing the ‘tar’ content of cigarettes; there is no mileage in talking about the other side of the coin because our adversaries then criticize the tobacco industry for failing to admit the

balance of the evidence." 680584928-4934 at 4929-30, 4933 (U.S. Ex. 21,005).

3040. An October 31, 1989 Brown & Williamson internal memorandum entitled "Objections to Product Innovation Strategy" from Kendrick Wells to RJ Pritchard, Brown & Williamson executive and member of the Tobacco Institute's Executive Committee, conceded that "**it is not established that the reduction or removal of specific smoke constituents or of smoke constituents across the board, such as in low tar cigarettes, is significant for smoking and health**." 680701034-1038 at 1035 (U.S. Ex. 21,010) (emphasis added).

3041. Sharon Boyse, Director of Scientific Communications at the time of a 1998 deposition, was a spokesperson for Brown & Williamson on scientific issues. Boyse testified that "it would not surprise me in the least" that consumers believe that low tar cigarettes are less hazardous to their health and that by switching to low tar cigarettes they will achieve a health benefit. Boyse further testified that Brown & Williamson's position was that the company did not know whether low tar cigarettes were, in fact, safer, and because the company was "not confident of what the science is," it "would prefer it if [its] advertising did not imply such health claims for the very reason that we don't believe that we can make any." Deposition of Sharon Boyse, Oklahoma v. RJ Reynolds et al., October 15, 1998, 10:2-11:4, 56:7-59:22, BWC5320001-4287 at 0057-0060 (U.S. Ex. 87,045).

3042. According to Brown & Williamson's website, low tar cigarettes are not safer than regular cigarettes. It states that "**despite a dramatic lessening of tar yields, the hoped-for reduction of smoking-related illnesses has not been conclusively demonstrated**." Furthermore, the website apparently adopts the conclusions reached by the National Cancer

Institute in its 2001 Monograph 13, citing its conclusions that "[e]pidemiological and other scientific evidence, including patterns of mortality from smoking-caused diseases, does not indicate a benefit to public health from changes in cigarette design and manufacturing over the last fifty years," and that "[w]idespread adoption of lower-yield cigarettes in the United States has not prevented the sustained increase in lung cancer among older smokers." The website further states: "[W]e continue to believe that smokers should rely on the public health authorities' views on low tar cigarettes and other smoking issues." Brown & Williamson, "Low Tar Cigarettes," at http://www.brownandwilliamson.com/Index_sub2.cfm?ID=12 (last viewed May 17, 2004) (U.S. Ex. 86,656) (emphasis added).

(iv) BATCo

3043. A circa 1976 BATCo document from S.J. Green to P.L. Short and P. Sheehy indicated both that BATCo intended to market low tar cigarettes as safer and that BATCo did not have a sufficient basis to believe that low tar cigarettes were safer, stating: "Before we do work aimed to sell low delivery cigarettes, unless we are already satisfied, we should do some work to establish that in fact they are safer." 110076428-6432 at 6430 (U.S. Ex. 34,957).

3044. A June 9, 1982 BATCo document entitled "Technical Exchange Meeting" noted that Ames testing had revealed that "[t]he specific activity [a measure of mutagenicity] of a plain cigarette was found to be lower than that of a ventilated filter cigarette." 109883189-3192 at 3191 (U.S. Ex. 20,265).

3045. A February 18, 1988 BATCo study of cigarette mutagenicity from the Brown & Williamson Research & Development Library's E.D. Massey demonstrated BATCo's awareness

that the cigarettes Defendants had designed to deliver low levels of FTC tar and nicotine were **more** biologically active than regular cigarettes, according to BATCo's own research. The report found that the "lighter" the purported delivery of the cigarette, the higher the mutagenicity. Using Philip Morris cigarettes as an example, Merit cigarettes had higher mutagenicity than Marlboro Lights, which in turn had more mutagenicity than regular Marlboro cigarettes. 620000021-0032 at 0027, 0030 (U.S. Ex. 20,944).

3046. When asked on March 16, 1999 at the trial of Engle v. RJ Reynolds Tobacco Co., et al. whether or not low tar cigarettes offer a health benefit, Dr. Michael Dixon, Principal Research Scientist for BATCo, testified that: "I think the situation where a tobacco company could have information and they could say categorically this product is safer, I don't think we've ever been in that situation. I can't see us for the foreseeable future being in that situation. So I don't think we should make health claims. . ." Trial Testimony of Michael Dixon, Engle v. RJ Reynolds Tobacco Co., et al., 94-08273 CA22, 27886:15-27897:25 (Fla. Cir. Ct. Mar. 16, 1999), 525522876-3025 at 2900-2911 (U.S. Ex. 85,047).

(v) American

3047. Notwithstanding that the internal American documents, discussed above, evidence American's intent that its marketing communicate to consumers that its low tar brands were less harmful than full flavor cigarettes, Eric Gesell, designated representative of American, testified in a 1997 deposition that American never conducted "any studies to determine whether or not low-tar cigarettes are safer than high-tar cigarettes." Deposition of Eric Gesell, State of Minnesota v. Philip Morris Inc., et al., September 18, 1997, 5:8-6:6; 6:10-17; 127:6-10.

(vi) Lorillard

3048. Martin Orlowsky, CEO of Lorillard, testified at his deposition in this case that he does not know whether Lorillard ever had any reason to believe low tar/low nicotine cigarettes were less hazardous. Deposition of Martin Orlowsky, United States v. Philip Morris, et al., June 4, 2002, 190:24-191:16.

3049. Asked whether low tar/low nicotine cigarettes are any safer than conventional, full-flavor cigarettes, Christopher Coggins, Senior Vice President of Science and Technology at Lorillard, stated: "[O]ur policy is that cigarettes can cause cancer and that goes for all cigarettes." Deposition of Christopher Coggins, United States v. Philip Morris, et al., August 16, 2001; 115:22-116:4.

(vii) Liggett

3050.

LWDOJ00068944-8949 at 8944-45 (U.S. Ex. 21,214) (Confidential) (emphasis in original).

(b) Defendants Had Extensive Knowledge of Smoker Compensation

3051. Since 1967, the FTC Cigarette Test Method ("FTC Method") has been used to test all cigarettes sold in the United States for tar and nicotine yields. Expert Report of William A. Farone, United States v. Philip Morris, et al. (R. 663; filed November 15, 2001); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

3052. A consumer research report prepared for Brown & Williamson explained how Defendants' deceptive marketing practices led the FTC to initially prohibit, and then later permit, the use of tar and nicotine figures in cigarette advertising once a standardized testing method had been implemented (i.e., the FTC Method):

> In 1955, **the FTC, reacting to conflicting claims as to tar and filtration** . . . imposed 'Cigarette Advertising Guides' banning all mention of tar, nicotine and filtration 'when **not established by competent scientific proof**'. This put a stop to such claims in advertising. In July and August of 1957, the *Reader's Digest* published two articles with figures on tar and nicotine mentioning Kent by name. The August article, written with Kent's assistance was practically an ad for Kent. In 90 days, Kent's sales leaped from 300 million to 3 billion per month. This article broke the dike and set off the famous Tar Derby. Over the next 4 years, tar levels were drastically cut. Marlboro dropped from 34 mg. tar in 1957 to 25 mg. in 1958 and 19 mg. in 1961 . . . . In mid 1960, the FTC called off the Tar Derby, rigidly prohibiting tar and nicotine claims. Some of the new low tar brands disappeared. Soon thereafter, **the brands stopped reducing tar levels and, indeed, began to raise them**. Kent, for example, went from 14 mg. in 1961 to 16 mg. in 1963 and 19 mg. in 1966. The FTC prohibition ended March 25, 1966 initiating a new phase in Hi-Fi development.

670917650-7741 at 7664-7665 (U.S. Ex. 87,913) (emphasis added).

3053. As the Brown & Williamson report indicates, the FTC Method was intended to

put a stop to Defendants' various conflicting and unsubstantiated claims and provide a standardized and representative approximation of the amount of tar and nicotine generated by Defendants' cigarettes when smoked under identical conditions. The FTC Method is conducted by having a machine "smoke" the cigarettes for a designated puff volume at a designated interval. As the smoke is drawn into the machine, it passes over a filter known as a Cambridge pad, on which the particulate tar matter is collected. That accumulated matter is measured to calculate the tar and nicotine yields for the cigarette. The FTC Method was developed to provide consumers with a relative ranking of nicotine, tar, and carbon monoxide yields from various cigarettes. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

3054. As discussed in detail in U.S. FPFF § IV.E(1), supra (Addiction), Defendants in this case have had an understanding since at least as early as the 1950s that the central component that drives the smoking habit is nicotine, an addictive substance. Accordingly, Defendants also have long been aware that the reason people smoke cigarettes is to attain a sufficient "dose" of nicotine to sustain their addiction. 500011111-1116 at 1112 (U.S. Ex. 20,610); 1003287880-7890 at 7884 (U.S. Ex. 20,163); Expert Report of William A. Farone, United States v. Philip Morris, et al. (R. 663; filed November 15, 2001); accord 500380562-0564 (U.S. Ex. 20,630); 100515899-5910 (U.S. Ex. 20,230); 1003285403-5416 (U.S. Ex. 20,159); 500917468-7476 at 7474-76 (U.S. Ex. 20,660); 105553905-3914 (U.S. Ex. 34,799); 105553915-3915 (U.S. Ex. 34,800).

3055. For example, James Morgan, then President and CEO of Philip Morris USA,

testified at his deposition in the Minnesota case that he was aware that nicotine is the major component of cigarette satisfaction, and stated that his knowledge of nicotine being a main component of smoking satisfaction was based on discussions with Philip Morris Research and Development scientists. Deposition of James Morgan, State of Minnesota v. Philip Morris Inc., et al., September 5, 1997, 6:24-7:2; 286:22-288:9.

3056. Defendants also have known since the 1960s and 1970s that because smokers smoke to obtain the desired effects of nicotine, smokers of lower-yield cigarettes tend to adjust their smoking behavior to titrate (i.e., control) their intake of nicotine to achieve desired levels. This behavioral adaptation is referred to as smoker "compensation." By puffing lower yield cigarettes more frequently and/or more intensively, blocking ventilation holes in the cigarette filter, and/or smoking more cigarettes, smokers are able to "compensate" (i.e., make up for) for the lower nicotine deliveries of low tar cigarettes. Expert Report of Neil Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001); Deposition of David M. Burns, United States v. Philip Morris, et al., July 22, 2002, 109-119.

3057. A November 7, 1997 article in the Centers for Disease Control and Prevention's Morbidity and Mortality Weekly Report ("MMWR") entitled "Filter Ventilation Levels in Selected U.S. Cigarettes, 1997," detailed how many smokers may block ventilation holes in cigarettes, thereby (often unwittingly) increasing their yield of tar and nicotine far beyond that reported by the FTC Method. The report discussed "the potential for smokers to knowingly or inadvertently block filter ventilation holes with their lips or fingers" and stated:

> Blocking even a portion of the filter vents can markedly increase a smoker's exposure to the harmful components of cigarette smoke .

> . . . [F]ilter vents often are invisible to the unaided eye and the filters do not include a marking . . . to indicate the presence of vents . . . . Many smokers who block filter vents probably are exposed to substantially higher levels of hazardous smoke than the FTC-rated levels for those brands . . . . An estimated two thirds of U.S. smokers either are unaware of the presence of vents on cigarettes or do not know that tar yields increase when vents are blocked.

The report concluded that more than half of persons who smoke cigarettes with an FTC rating of less than 4 mg of tar block vent holes, thereby increasing tar, nicotine and carbon monoxide yields by well over 50%. Centers for Disease Control and Prevention, Filter Ventilation Levels in Selected U.S. Cigarettes, Morbidity and Mortality Weekly Report, Vol.46, No. 44 (November 7, 1997), State of Minnesota v. Philip Morris Inc., et al., Trial Exhibit No. 26,132 (U.S. Ex. 76,212).

3058. Due to compensation behavior, smokers actually inhale essentially the same amount of tar and nicotine from "reduced-delivery" cigarettes that they would inhale from regular, full flavor cigarettes. This is referred to as "complete" compensation. Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine. Smoking and Tobacco Control Monograph No. 13. Bethesda, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, at 10 (October 2001) (U.S. Ex. 58,700) ("For spontaneous brand switchers, there appears to be complete compensation for nicotine delivery, reflecting more intensive smoking of lower yield cigarettes."); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001); Trial Testimony of Neal Benowitz, Price v. Philip Morris, Inc., Jan. 27, 2003, 112:10-114:4; 116:24-117:4; 118:10-118:24 (testifying, generally and in context of several Philip Morris low

tar brands, that compensation is complete, and stating that compensation is neither partial nor temporary).

3059. Because the amount of nicotine that smokers need to sustain their nicotine addiction does not change over time, compensation for reduced deliveries is permanent, and occurs for as long as the smoker smokes a low tar product. Trial Testimony of Neal Benowitz, Price v. Philip Morris, Inc., Jan. 27, 2003, 109:20-111:24; 112:4-112:9; 118:10-118:24 (testifying generally about compensation and specifically in reference to several Philip Morris low tar brands); Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine. Smoking and Tobacco Control Monograph No. 13 at 199. Bethesda, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health (October 2001) ("Monograph 13"), Ch. 3 (U.S. Ex. 58,700) (indicating lack of evidence to warrant conclusion that there is reduction in compensation over time).

3060. Smoker compensation reveals the falsity of the central message communicated by Defendants in their marketing of low tar cigarettes – that they are safer because they deliver less tar to smokers – because in the course of compensating to ensure adequate nicotine intake, smokers inhale more tar and nicotine and, in the process, more toxins than the levels used in marketing communications. As a result of compensation behavior, low tar cigarette smokers unwittingly inhale amounts of tar and nicotine in comparison to those delivered by regular, full flavor cigarettes. In fact, there is no meaningful reduction in disease risk in smoking low tar cigarettes as opposed to smoking regular cigarettes. Expert Report of David Burns, United States v. Philip Morris, et al. (R. 664; filed November 15, 2001); Risks Associated with Smoking

Cigarettes with Low Machine-Measured Yields of Tar and Nicotine. Smoking and Tobacco Control Monograph No. 13. Bethesda, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, NIH Pub. No.02-5074, October 2001 (U.S. Ex. 58,700); Institute of Medicine, Clearing the Smoke: The Science Base for Tobacco Harm Reduction, National Academy of Sciences (K. Stratton, et al. eds., National Academy Press 2001) (U.S. Ex. 20,919) (U.S. Ex. 20,920) (U.S. Ex. 32,485); Changes in Cigarette Related Disease Risks and Their Implication for Prevention and Control. Smoking and Tobacco Control Monograph No. 8. Bethesda, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health. NIH Pub. No. 97-4213, February 1997 (U.S. Ex. 77,217); Expert Report of Jonathan M. Samet, United States v. Philip Morris, et al. (R. 666; filed November 15, 2001); The Health Consequences of Smoking: Chronic Obstructive Lung Disease: A Report of the Surgeon General (1984) (U.S. Ex. 64,059); Samet J.M., Lange P., Longitudinal Studies of Active and Passive Smoking, 154 Am. J. Resp. Crit. Care Med. S257-S265 (1996) (U.S. Ex. 77,222); U.S. Department of Health and Human Services, Pub. No. (CDC) 90-8418, Out of the Ashes; Choosing a Method to Quit Smoking (1990) (U.S. Ex. 21,182); Centers for Disease Control & Prevention, Vol. 46, Filter Ventilation Levels in Selected U.S. Cigarettes, Morbidity and Mortality Weekly Report, No. 44 (November 7, 1997) (U.S. Ex. 76,212); State of Minnesota v. Philip Morris Inc., et al., Trial Exhibit No. 26, #132 (U.S. Ex. 76,212).

3061. Indeed, despite the fact that tar deliveries as measured by the FTC Method decreased to less than one-third of their initial delivery between 1954 and 1994, lung cancer in smokers actually **increased**. Centers for Disease Control and Prevention, Filter Ventilation

Levels in Selected U.S. Cigarettes, Morbidity and Mortality Weekly Report, Vol.46, No. 44 (November 7, 1997), State of Minnesota v. Philip Morris Inc., et al., Trial Exhibit No. 26,132 (U.S. Ex. 76,212); see also Thun, M.J. et al., "Excess Mortality among Cigarette Smokers: Changes in a Twenty Year Interval," 85 Am. J. P.H. 1223-1230 (Sept. 1995) (U.S. Ex. 88,626).

3062. **Compensation behavior is entirely distinct and separate from "individual smoker variation."** Individual smoker variation refers to the fact that one smoker may smoke cigarettes – either regular or low tar – differently than another smoker, and that the same person may smoke the same cigarette differently on different occasions. No standardized testing procedure can account for individual variations, and accordingly, the FTC has been aware of individual smoker variation since the implementation of the FTC Method. For example, a 1967 FTC document defined individual smoker variation as follows:

> No two human smokers smoke in the same way. No individual smoker always smokes in the same fashion. The speed at which one smokes varies both among smokers, and usually also varies with the same individual under different circumstances even within the same day. Some take long puffs (or draws); some take short puffs. That variation affects the tar and nicotine quantity in the smoke generated.
>
> Even with the same type of cigarette, individual smokers take a different number of puffs per cigarette depending upon the circumstances. When concentrating, or talking, the number of puffs is usually less. When listening, or required to listen to another person talking, the number of puffs per cigarette, as well as duration of each puff, usually increases. Smoking rates while reading a book may differ from smoking rates while viewing a television program. The number of puffs and puff duration (as well as butt length) will vary according to emotional state. Some smokers customarily put their cigarettes down in an ashtray where they burn between puffs; other smokers constantly hold cigarettes in their mouths; others hold them between their fingers.

1000309929-9932 at 9930-9931 (U.S. Ex. 22,242).

3063. Individual variation in smoking is **not** the same as smoker compensation. As noted above, smoker compensation is driven by nicotine addiction, and is the process of smoking so-called low tar cigarettes more intensely to receive a sufficient dose of nicotine. While historical documents from the FTC and other Federal Government agencies reflect an understanding of the possibility of individual smoker variation (i.e., that cigarettes can be smoked differently), these documents do **not** reflect an understanding of smoker compensation (i.e., that nicotine addiction would drive smokers to smoke low tar cigarettes more intensely). 1000309929-9939 at 9930-9931 (U.S. Ex. 22,242); 03573029-3030 at 3029 (U.S. Ex. 22,244); Expert Report of Jack Henningfield, United States v. Philip Morris, et al. (R. 681, filed November 15, 2001); JD PFF at 162-165 ¶¶ 343, 344, 346 (referring to what is actually individual smoker variation); JD Rebuttal PFF at 786 ¶ 2058 (same).

3064. As demonstrated below, Defendants' internal documents demonstrate that Defendants have studied and been aware of compensation for decades. Defendants' internal understanding of smoker compensation was decades ahead of the understanding of employees and scientists of the U.S. Government and the scientific community. See, e.g., Deposition of David M. Burns, United States v. Philip Morris, et al., July 22, 2002, 109-119 (testimony by a primary author of the 1981 Surgeon General's Report that Defendants' understanding of "low tar" cigarette design and smoker compensation – and the role of nicotine addiction as the impetus for smoker compensation – was far more sophisticated by the 1960s and 1970s than that reflected in the published scientific literature, which formed the basis of the 1981 Report).

3065. As discussed more fully in U.S. FPFF § IV.F(3)(c), infra (Deceptive Design), instead of making public their superior understanding of smoker compensation and its foundation in nicotine addiction, Defendants withheld this knowledge and utilized it to exploit smoker compensation by designing low tar cigarettes to register low tar and nicotine yield values under the FTC Method testing protocol, while at the same time enabling smokers to compensate, to inhale an adequate dose of nicotine to create and sustain addiction. Expert Report of David Burns, United States v. Philip Morris, et al. (R. 664; filed November 15, 2001); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001); 2021544486-4496 (U.S. Ex. 20,348).

3066. Because the phenomenon of smoker compensation is driven by nicotine addiction, the fact that Defendants kept secret their extensive knowledge of smoker compensation is consistent with the fact that the Cigarette Company Defendants (except for Liggett) refuse to publicly acknowledge that nicotine is addictive.

(i) Tobacco Institute

3067. While the Tobacco Institute communicated several criticisms of the FTC Method at the time of its adoption through an August 1, 1967 press release, none of the criticisms had to do with smoker compensation. Instead the Tobacco Institute criticized the number of cigarettes tested, the length of the cigarette smoked, and the lack of dissemination of tar yields per cigarette puff. The Tobacco Institute stated that "there is no valid scientific evidence to show that . . . ‘tar’ and nicotine [] are responsible for any human illness" and then went on to propose several changes to the FTC Method, most of which were based on claims that FTC tar and nicotine

yields were **inaccurately high**. The Tobacco Institute indicated that twice as many sample cigarettes should be tested to arrive at FTC yields, that the FTC Method should use a longer butt-length (which would have lowered FTC tar and nicotine yields by smoking less of the cigarette), and that tar and nicotine yields should be disclosed on a per-puff, as well as a per-cigarette basis. In this context, the Tobacco Institute indicated that the FTC Method "may be deceptive because a smoker may assume his cigarette is delivering the amount of 'tar' and nicotine reported by the FTC **when in fact it will be delivering much less**, the way he smokes." TIMN0120846-0849 at 0847-0848 (U.S. Ex. 87,967) (emphasis added).

3068. A January 8, 1981 Tobacco Institute document entitled "Health Effects of Smoking Low Tar, Low Nicotine Filter Tipped Cigarettes" summarized several meetings, most notably a June 1980 scientific meeting convened by "the Office of Smoking and Health of the Department of Health and Human Services" that was anticipated to "most likely be the backbone and meat of the Surgeon General's 1981 Report to Congress." Despite the report's indications that the meeting's participants' understanding of the potential for smoker compensation was incomplete and limited compared to that of Defendants (evidenced by Defendants' extensive documentation of compensation predating this meeting, described infra), the report's "Opinion and Recommendations" stated: "From the industry's point of view, there would appear to be no need for any particular statement to be made, because the evidence is still coming in and it would be premature to make such a statement." With regard to discussion of compensation at the scientific meeting, the report stated merely that "there have been claims that smokers alter their smoking technique depending on the type of cigarette they choose to smoke" and that, "[w]hile

much of the information on this issue is anecdotal and limited, questions and claims are likely to continue." TIMN 0133721-3734 at 3723, 3724, 3730, 3732 (U.S. Ex. 85,125).

(ii) Philip Morris

3069. A July 28, 1967 memorandum from W.L. Dunn, Jr., then Associate Principal Scientist at Philip Morris USA to R.B. Seligman, Director of Development at Philip Morris USA, indicated that cigarette ventilation holes (which are supposed to lower tar yields) were placed where they would be covered up by smokers (thus increasing tar delivery), but not by machine smoking methods such as the FTC Method:

> An earlier study (Memo of June 27, 1967) established that lip contact with the tipping paper extended to 9.96 mm from the outer end of the tipping paper for the average smokers. Since the air dilution holes are located in a band from 8.0 to 9.7 mm from the outer end of the tipping paper, it follows that some of these holes are likely to be occluded under normal smoking conditions, whereas no occlusion is likely to occur when the cigarettes are machine smoked for analysis.

The document also indicated Philip Morris USA's awareness of compensation for nicotine delivery, postulating that "[s]mokers adjust puff intake in order to maintain TPM and/or nicotine constancy." 1003295500-5502 at 5500, 5502 (U.S. Ex. 88,627).

3070. An August 11, 1967 Philip Morris USA document from Helmut Wakeham, then Director of Research and Development at Philip Morris USA, to Paul D. Smith, then Vice President and General Counsel of Philip Morris USA, stated that human smokers increased their smoke intake when switching from non-filter to filter cigarettes, in the process receiving the same amount of tar and nicotine from filter cigarettes as from non-filter cigarettes and rendering machine-smoking tar and nicotine yields for low tar cigarettes "erroneous and misleading":

> Two tests conducted at Product Opinion Laboratories demonstrate that in smoking a dilution filter cigaret [sic.], the smoker adjusts his puff to receive about the same amount of 'undiluted' smoke in each case. . . . In the smoking machine the puff volume is constant so that with dilution the quantity of 'equivalent undiluted smoke' delivered to the Cambridge filter is reduced. Not so with the human smoker who appears to adjust to the diluted smoke by taking a **larger puff** so that he still gets about the same amount of equivalent undiluted smoke. . . . The smoker is, thus, apparently defeating the purpose of dilution to give him less 'smoke' per puff. He is certainly not performing like the standard smoking machine; and to this extent the smoking machine data appear to be erroneous and misleading. It has probably always been so for diluted smoke cigarettes, whether dilution is obtained by porous paper or holes in the filter.

1000322554-2555 (U.S. Ex. 35,224) (emphasis in original).

3071. In a report on Project 1600, dated August 25, 1967, William L. Dunn, Senior Scientist at Philip Morris, outlined an additional study performed by Philip Morris on puffing, with findings that "as dilution air puff volume is decreased by lip coverage, gross puff volume is correspondingly decreased." Dunn stated that the study added "further support to the postulate that **smokers adjust puff intake in order to maintain constant smoke intake**." 1003288337-8338 at 8337 (U.S. Ex. 85,049) (emphasis added).

3072. A speech delivered in Fall of 1969 to the Board of Philip Morris reported: "It would appear that **smokers do modify their smoking habits in order to obtain a preferred [nicotine] intake level**." 1003287880-7890 at 7884 (U.S. Ex. 20,163) (emphasis added).

3073. A November 26, 1969 internal industry paper by Helmut Wakeham, then Philip Morris Vice President of Corporate Research and Development, entitled "Smoker Psychology Research" and presented to the Philip Morris Board of Directors stated: "This great variability

among smokers results from the fact that a smoker tends to seek his own level of intake. Even while smoking a single cigaret[te], he adjusts the volume of his puff as he goes down to the rod, compensating for the change in the density of the available smoke. . . . A smoker's intake level is determined by the smoker himself, not by the manufacturers of the cigarettes." 1000273741-3771 at 3748 (U.S. Ex. 26,080); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

3074. A May 14, 1975 memorandum on Philip Morris USA letterhead from Willaim Dunn to Robert S. Seligman, Vice President for Tobacco Science and Research at Philip Morris, stated:

> Underlying all of our work in this area is the conviction **what the smoker gets in the way of smoke is independent of smoke concentration levels as delivered within the range of commercially available cigarettes. He has a variety of regulatory maneuvers at his disposal for accommodating supply to a fairly constant need [for nicotine]**. To monitor all of these maneuvers simultaneously is a major objective of our behavioral research program.

1000024914-4920 at 4915 (U.S. Ex. 26,072) (emphasis added); 1003391322-1328 at 1328 (U.S. Ex. 87,073) (emphasis added); 1003285490-5496 at 5496 (U.S. Ex. 85,050); see also Deposition of James Morgan, State of Minnesota v. Philip Morris Inc., et al., September 5, 1997, 283:14-284:15.

3075. A September 17, 1975 document on Philip Morris letterhead from Philip Morris scientist Barbro Goodman to Leo F. Meyer, Philip Morris Director of Research, indicated that, due to compensation, smokers got as much tar and nicotine from Marlboro Lights as from full-flavor Marlboros:

> **Marlboro Lights cigarettes were not smoked like regular Marlboros**. There were differences in the size and frequency of the puffs, with larger volumes taken on Marlboro Lights by both regular Marlboro Smokers and Marlboro Lights smokers. . . . The panelists smoked the cigarettes according to physical properties; i.e., the dilution and the lower RTD of Marlboro Lights caused the smokers to take larger puffs on that cigarette than on Marlboro 85's. The larger puffs, in turn, increased the delivery of Marlboro lights proportionally. **In effect, the Marlboro 85 smokers in this study did not achieve any reduction in smoke intake by smoking a cigarette (Marlboro Lights) normally considered lower in delivery**.

The report indicated in its "Conclusions" section that "**[t]he smoker data collected in this study are in agreement with results found in other project studies**." 2021544486-4496 at 4486-4488 (U.S. Ex. 20,348) (emphasis added).

3076. A May 1976 study prepared for Philip Morris by The Roper Organization, Inc., stated: "There is some evidence that two criticisms of low tar brands – fast burning and hard to draw on – translate into more smoking once someone has switched to a low tar brand. . . . Low tar smokers were much more inclined than smokers of other types to say they are smoking more." 2024921314-1612 at 1349 (U.S. Ex. 20,403).

3077. A March 1, 1977 memorandum by Stanley Schachter of Philip Morris to Thomas Osdene, Philip Morris Director of Research, indicates that Philip Morris had a clear understanding of compensation. Among the conclusions were: "Serious smokers smoke to prevent withdrawal. **Smokers regulate nicotine intake** . . . . The smoker who fails to regulate suffers withdrawal." 1000046626-6661 at 6654-6655 (U.S. Ex. 35,105) (emphasis added).

3078. Philip Morris research in 1977 and 1979, using smoking machines puffing with parameters that simulate how humans puff their cigarettes, showed that the actual yield of tar and

other tobacco constituents was substantially higher than that predicted by the FTC standard smoking machine method. The discrepancies were greater for cigarettes with low FTC tar values, consistent with the concept of compensation. 1003728025-8039 (U.S. Ex. 20,179).

3079. A January 1979 study prepared for Philip Morris by Goldstein/Krall Marketing Resources, Inc., stated:

> [R]espondents tended to say that they thought they were smoking a greater number of cigarettes. **This might be attributed to the presumed need to compensate for less taste and tar and nicotine** . . . . It should be pointed out that respondents also verbalized that they were 'smoking less', but from the standpoint of less tar and nicotine, not frequency . . . [F]urthermore, many respondents feel they are smoking less in the sense that they are taking in less tar and nicotine as a result of smoking ultra low tar cigarettes. Also, there seemed to be some feeling that more cigarettes could be smoked with less harm because of significantly lower tar levels . . . the likelihood of ultra low tar smokers taking another step and stopping does not seem great. There appears to be a concept involved that might be called 'limiting' . . . It could be hypothesized that a potential next step, if taken at all, would be to limit the number of cigarettes they smoke. But since they seem to feel somewhat safer and freer about smoking and in some respects, may be compensating for a lack of taste, they could actually be smoking a larger number of cigarettes per day.

2040066740-6766 at 6750-6751, 6754-6755 (U.S. Ex. 20,435).

3080. An October 16, 1981 memorandum from Jan Jones to William Dunn entitled "Nicotine Retention Research Proposal" stated:

> Research on smoke-laden inhalation patterns, using the ambulatory monitoring instrumentation, has provided preliminary evidence that **inhalation behavior is modifiable, and is altered as a function of changes in the nicotine delivery of the cigarette**. We are observing changes in inhalation parameters in the direction which **would suggest compensation for increases or decreases in nicotine relative to the subject's usual brand**.

1000136372-6373 at 6372 (U.S. Ex. 35,162) (emphasis added).

3081. In an internal Philip Morris memorandum dated March 2, 1992 entitled "Menthol Full Flavor Vs. Low Tar Qualitative Study," Shari Teitelbaum reported to a distribution list of Philip Morris employees on the results of a study conducted to "understand the awareness, attitudes and perceptions that African-American full flavor menthol smokers have toward low tar menthol cigarettes." Teitelbaum reported that "[t]hose who had tried a light menthol cigarette were dissatisfied with the taste. Many felt they would have to smoke more cigarettes to get similar satisfaction. Here, it is possible that economic concerns partially influence their choice of full flavor cigarettes (i.e., 'more bang for the buck')." Teitelbaum further reported that among these consumers, "low tar menthol cigarettes were considered to be for women and people who want to quit." 2071376833-6834 at 6833 (U.S. Ex. 27,273); 2071376835-6874B (U.S. Ex. 27,274).

3082. In a November 29, 1982 report entitled "The Effect of Cigarette Nicotine Content on Smoker Puff Parameters and Deliveries," Philip Morris's scientists reported on the results of their study of "puff number, puff volumes, puff durations, flow rates and puff intervals." The results showed that smokers "generally tended to decrease puff duration, puff number and puff volume and increase puff interval as the nicotine level of the cigarette increased." 1000408760-8809 at 8762, 8764, 8771 (U.S. Ex. 35,272).

3083. When asked about the November 29, 1982 document at a deposition in 1997, Carolyn Levy, former Research Scientist in Research and Development and Facility Leader of the Subjective Evaluation Facility at Philip Morris USA, and Senior Vice President of Marketing and

Sales Information at the time of the deposition, testified that she "did conduct research [at that time] that looked at how smokers smoked high-tar cigarettes versus lowered tar cigarettes." And, that "in at least one of those studies I believe we found that some smokers. . . did obtain as much nicotine from the lower tar cigarette as they did the higher delivery cigarette." She further testified: "I believe it's possible that a smoker can smoke a cigarette to achieve a different delivery, be it higher or lower, than a smoking machine." 1000408760-8809 at 8762, 8764, 8771 (U.S. Ex. 35,272); Deposition of Carolyn Levy, Texas v. American Tobacco Co., et al., No. 5:96CV91, May 8, 1997, Tr. 15:10-16:3, 38:23-39:15, 221:12-224:16.

3084. A July 29, 1987 Philip Morris document bearing the September 2, 1987 transmittal note with the legend of INBIFO, Philip Morris's research facility in Germany, from Wolf Reininghaus, General Manager of Contract Research at INBIFO, to Walter Fink, Philip Morris researcher, indicated that reduction in tar levels would, at a certain point, deprive smokers of the necessary quantum of nicotine to satisfy an addicted smoker: "Any future reduction of tar levels will come into conflict with a twofold limit, as 1) a minimum amount of nicotine is needed for the smoker's satisfaction (ca. 0,8 mg/cig) and (2) there exists a maximum concentration of nicotine in smoke to let the taste of the latter unaffected [sic] (less than 10%)." 2023186690-6690A (U.S. Ex. 20,379).

3085.

2063726692-6694 at 6692 (U.S. Ex. 27,142) (Confidential) (emphasis added).

3086. Discussion points in a January 13, 1997 document prepared for Denise Keane, Philip Morris General Counsel, to use in describing Philip Morris's opposition to changing the FTC test methodology stated, under the heading "Weakness in PM argument: Original methodology was an attempt to match then-current market – non-filter smokers. Puff volume has probably increased as [FTC tar and nicotine yields of] products on market decreased." 2074759497-9499 at 9497 (U.S. Ex. 43,525); Deposition of Denise Keane, United States v. Philip Morris, et al., October 2, 2002, 397:8-397:24.

3087. A Philip Morris "Discussion Points" memorandum bearing Keane's handwriting showed Philip Morris's recognition that the FTC test yields inaccurate results compared to other, modified test methods, and that smokers compensate. The document indicated that: (1) the FTC method was established at a time when non-filter products dominated the market; and (2) "internal research . . . reflects at least limited evidence of compensatory smoking." 2074759155-9155 (U.S. Ex. 43,524); Deposition of Denise Keane, United States v. Philip Morris, et al., October 2, 2002, 419:17-420:9.

3088. When asked at a 1997 deposition whether a low nicotine cigarette could be smoked in a way that delivers more tar than one would expect from the FTC Method, Carolyn Levy, former Research Scientist in Research and Development, and Senior V.P. of Marketing

and Sales Information at the time of the deposition, testified: "I believe it's possible that a smoker can smoke a cigarette to achieve a different delivery, be it higher or lower, than a smoking machine." Deposition of Carolyn Levy, Texas v. American Tobacco Co., et al., No. 5:96CV91, May 8, 1997, Tr. 15:10-16:3, 38:23-39:15, 221:12-224:16.

3089. In a November 1999 presentation entitled "PM USA Discount Brands," given to Geoffrey Bible, then Chairman of the Board and CEO of Philip Morris Companies, it was noted in a Product Comparison chart that Ultra Light products have a higher puff count than Full Flavor products. 2070662118-2483 at 2176 (U.S. Ex. 87,914).

3090. In Price, the court found that

> Philip Morris, prior to the launch of Marlboro Lights and Cambridge Lights, knew that smokers adjusted their smoking behavior through largely unconscious means so as to receive the same dose of nicotine and tar from a Light cigarette as from a regular cigarette. In fact . . . Marlboro Lights and Cambridge Lights were specifically designed in such a way as to reduce the machine-measured tar and nicotine delivery while at the same time allowing consumers to extract the same levels of tar and nicotine from these products as they would extract from their regular Marlboro and Cambridge counterparts.

The Price court further found: "Based in part upon the fact that smokers of Marlboro Lights and Cambridge Lights engage in complete compensatory smoking behaviors, the Court finds that Marlboro Lights and Cambridge Lights are just as harmful as regular Marlboro and regular Cambridge . . ." Price v. Philip Morris, Inc., 2003 WL 22597608, at *10, 11 (Ill. Cir. Ct. Mar. 21, 2003).

(iii) RJ Reynolds

3091. A March 28, 1972 memorandum marked "RJR SECRET" from Claude Teague,

Jr., to E.A. Vassallo and Murray Senkus entitled "A Gap in Present Cigarette Product Lines and an Opportunity to Market a New Type of Product," stated that "I believe that for the typical smoker nicotine satisfaction is the dominant desire, as opposed to flavor and other satisfactions." The document went on to state: "**Given a cigarette that delivers less nicotine than he desires, the smoker will subconsciously adjust his puff volume and frequency, and smoking frequency, so as to obtain and maintain his per hour and per day requirement for nicotine (or more likely will change to be a brand delivering his desired per cigarette level of nicotine)**." The document further stated:

> **[R]egardless of which cigarette the smoker chooses, in obtaining his daily nicotine requirement he will receive about the same daily amount of tar**. If, as claimed by some anti-tobacco critics, the alleged health hazard of smoking is directly related to the amount of tar to which the smoker is exposed per day, and the smoker bases his consumption on nicotine, then **a present 'low tar, low nicotine' cigarette offers zero advantage to the smoker over a regular filter cigarette**, but simply costs him more money **and exposes him to substantially increased amounts of allegedly harmful gas phase components in obtaining his desired daily amount of nicotine**.

The document ends with the statement that "[t]he thoughts and philosophies expressed above come from many sources and certainly are not solely those of the writer." 500790776-0784 at 0778, 0782-0783, 0784 (U.S. Ex. 29,473) (emphasis added).

3092. A document entitled "Smoking Satisfaction" and labeled as a "[t]alk delivered to RJR Tobacco Company management, June 23, 1974 and RJR Tobacco International management, August 4, 1976" by Murray Senkus, Director of Scientific Affairs for RJ Reynolds until 1979, stated

> [T]he amount of nicotine that one can get in the lungs from low tar cigarettes is much less. So **the smoker then resorts to other means to get the nicotine he needs in the blood** from low tar cigarettes by longer puffs, by bigger puffs, by more frequent puffs, and also by smoking more cigarettes each day. It has been observed that as one switches from a non-filter to a filter, one smokes more cigarettes per day. But eventually **one can change his style of smoking so one can get enough nicotine in the blood during the inhaling step** by changing the smoking style; i.e. longer puffs, bigger puffs, and more frequent puffs. Surveys have shown that in switching to lower tar cigarettes, smokers have not necessarily increased the number of cigarettes per day.

501525355-5366 at 5360-5361 (U.S. Ex. 29,531) (emphasis added).

3093. A document written by Senkus comprising a talk he delivered at RJ Reynolds in late 1976 and early 1977 entitled "Some Effects of Smoking," demonstrated RJ Reynolds's awareness that smokers compensated for lower delivery products to obtain their requisite level of nicotine, and indicated that the other Defendants possessed similar knowledge:

> **[T]here are ways to increase or decrease the amount of nicotine one can obtain by smoking a single cigarette**: One can take a deeper puff or shallower puff. . . . One can puff more frequently or less frequently. . . . One can take a deeper puff and hold the smoke in the lungs longer before exhaling to assure complete transfer of nicotine into the body fluids. **Without any question, the desire to smoke is based on the effect of nicotine on the body** . . . . [T]he amount of nicotine that one can get in the lungs from low tar cigarettes is much less. So the smoker then resorts to other means to get the nicotine he needs in the blood from low tar cigarettes, by longer puffs, by larger puffs, by more frequent puffs, and also by smoking more cigarettes each day. One can get enough nicotine into the blood during the inhaling step by changing the smoking style; i.e., longer puffs, bigger puffs, and more frequent puffs . . . . **It is worth noting that our competitors are aware of the significance of the quality and quantity attributes of nicotine**. Moreover, they are fully aware of the advisability of maintaining a low tar value and also maintaining the nicotine as high as possible [referring to Philip Morris's Marlboro and Merit, and Lorillard's

True brand].

500251711-1722 at 1714,1718, 1720 (U.S. Ex. 48,076) (emphasis added).

3094. In an April 5, 1982 RJ Reynolds report from J.H. Robinson and J.H. Reynolds to Dr. D. Werner, the authors admitted that the nicotine delivered under human smoking conditions was "more than 200% higher" than advertised, stating that "**the smoker can adjust his puffing characteristics to obtain the same level of nicotine from different cigarettes. This represents the first concrete evidence that smokers compensate to obtain a consistent amount of nicotine**. Relevant to this, it should be noted that all cigarettes experienced a marked reduction in nicotine filter efficiency under human smoking conditions compared to the nicotine filter efficiencies obtained under standard FTC conditions." 508028982-8984 at 8983 (U.S. Ex. 85,053) (emphasis added).

3095.

519192755-2756 at 2755 (U.S. Ex. 80,230) (Confidential); 506047899-7900 at 7899 (U.S. Ex. 85,054).

3096. A July 25, 1983 memorandum entitled "Critique of Smokers of Low-Yield

Cigarettes do not Consume Less Nicotine" to Alan Rodgman from John Robinson, RJ Reynolds's Principal Scientist in psychopharmacology, stated:

> **The paper itself expresses what we, in behavioral, have 'felt' for quite some time. That is, smokers smoke differently than the FTC machine and may very well smoke to obtain a certain level of nicotine in their bloodstream**. If a given level of nicotine in the blood is the final goal of a smoker, one would predict that he would smoke an FFT and ULT cigarette differently. If the smoker could obtain the same nicotine in his bloodstream from an FFT and ULT cigarette by modifying his puffing/inhaling pattern, it would be expected that the blood cotinine level would be the same after smoking either cigarette on a regular basis . . . the data reported in this paper remind us of the HMSM experiment done with the German Camel and Marlboro cigarettes. While there were certain imperfections in this experiment, you may recall that the smokers apparently obtained almost exactly the same amount of nicotine no matter which of the four cigarettes they smoked. This was one of the first indications that smokers may, in fact, smoke to obtain a certain level of nicotine in their bloodstream. **Data like these made me feel that the data reported in this current publication are probably correct**.

502680871-0871 (U.S. Ex. 49,198) (emphasis added); see also 508978013-8025 at 8014 (U.S. Ex. 20,819) (acknowledging that smokers who switched to low-tar products typically "compensated," and indicating that a smoker "has his or her own nicotine requirement from each cigarette" and "adjusts their [sic] smoking maneuver" to obtain the desired level of nicotine"); Expert Report of Robert J. Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001) at 15.

3097. Although RJ Reynolds's internal documents reveal that the company had extensive knowledge of smoker compensation, consumers did not have similar knowledge. For instance, a December 16, 1988 RJ Reynolds marketing presentation noted that inquiry of a focus

group of Canadian smokers found that they had "no understanding of compensation." 650900829-0849 at 0840 (U.S. Ex. 20,951).

3098. David Townsend, head of RJ Reynolds's Research and Development and RJ Reynolds's cigarette design expert in this case, testified at his 2002 deposition in this case that RJ Reynolds accepts the proposition that compensation occurs and that it is possible to smoke a low tar cigarette in a manner that will give the person the same amount of tar and nicotine that he would receive from a higher tar cigarette. Deposition of David E. Townsend, United States v. Philip Morris, et al., August 1, 2002, 597:21-617:1.

(iv) Brown & Williamson

3099. Minutes from a January 12-18, 1974 Brown & Williamson/BATCo conference stated: "[W]hatever the characteristics of cigarettes as determined by smoking machines, **the smoker adjusts his pattern to deliver his own nicotine requirements**." 109882674-2679 at 2675 (U.S. Ex. 21,507) (emphasis added); see also Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November, 15 2001).

3100. A February 4, 1976 internal memorandum from Brown & Williamson Vice President and General Counsel Ernest Pepples stated: "In most cases . . . **the smoker of a filtered cigarette was getting as much or more nicotine as he would have gotten from a regular cigarette**. He had abandoned the regular cigarette, however, on the ground of reduced risk to health." 025242-025249 at 5243 (U.S. Ex. 85,126) (emphasis added); 170042567-2574 at 2568 (U.S. Ex. 20,292); Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November, 15 2001).

3101. Brown & Williamson's scientific research on compensation was confirmed by Brown & Williamson's consumer research on low tar cigarettes, in which smokers reported engaging in compensation for the reduced deliveries. For instance, a February 23, 1977 consumer research report entitled "Consumer Discussions of Low Delivery Cigarettes" authored by R.F. Brotzge and W.H. Deines demonstrates Brown & Williamson's awareness that low tar smokers were compensating by smoking more cigarettes, stating: "Findings, in order of importance, to participants in the five focus groups were: 1. Health - Participants expressed general fears about cancer, emphysema, other lung diseases, etc. Despite these fears, they stated their determination to continue smoking . . . 5. **Compensation - Participants noted they smoked more low tar cigarettes and received less satisfaction**." 679009843-9867 at 9843 (U.S. Ex. 85,055) (emphasis added).

3102. Similarly, a July 25, 1977 Brown & Williamson Internal Marketing Study entitled "Low 'Tar' Satisfaction, Step 1 Identification of Perceived and Underperceived Consumer Needs," in analyzing smokers' satisfaction with low tar cigarettes with regard to switching behavior, stated: "It was noted earlier that **new arrivals to the Hi-Fi category realize that they are smoking more cigarettes** [quoting a study participant]: 'You can also go down to the lower tar, but increase your smoking. So you're right back where you were.'" The study further noted that "Cigarette **consumption, as reported in a 1976 Consumption Study, increases as nicotine (satisfaction per cigarette) decreases**." 775036039-6067 at 6050 (U.S. Ex. 21,053) (emphasis added).

3103. A report bearing the stamp "Brown & Williamson June 24, 1980 R&D Library"

prepared by BATCo entitled "Compensation: A Review [of] the Relationship Between Compensation and Changes in Cigarette Design," prepared April 23, 1980, stated that studies indicated that compensation was a permanent phenomenon: "On the basis of the German studies, compensation would therefore be seen as a long-term tendency to permanently adjust towards some preferred (or minimum) level [of nicotine]." 650032329-2385 at 2356 (U.S. Ex. 53,429).

3104. A July 1983 Brown & Williamson report by W. Wiethaup and W. Schneider entitled "Filter effects on smoke and smoke effects" stated:

> One factor, which may be responsible for a relatively intensive 'strength' impression within a given tar segment, is the 'smoke elasticity.' **The smoke elasticity describes the potential of a cigarette, to provide the smoker with more smoke, if he draws harder. This becomes relevant at least for the first few puffs of a low tar cigarette, as all recent investigations show**.

512107109-7120 at 7110 (U.S. Ex. 85,056) (emphasis added).

3105. Certain high-ranking officials expressly advised **against** informing consumers about the likelihood that they would inhale tar and nicotine levels much higher than reported FTC deliveries. An internal Brown & Williamson memorandum dated June 28, 1985 from Dr. R. A. Sanford, Brown & Williamson Director of Research & Development, to E. E. Kohnhorst, Vice President for the Research Department, discussing research programs for the development of new products, stated:

> **Compensation: It exists; most smokers practice it, but we need to understand it better before advantage can be taken in the marketplace**. Here, I believe designing to the subconscious is preferred to requiring the smoker to make a conscious act.

The memorandum also acknowledged that low tar cigarettes were no less harmful, stating that

"[b]iological assurance has not been realized despite the years and money spent." 512000002-0005 at 0002-0003 (U.S. Ex. 20,915) (emphasis added).

3106. Despite acknowledging that an insert for Brown & Williamson "lights" informing smokers specifically about compensation "certainly could be done," Brown & Williamson has not produced such an insert. Deposition of Susan Ivey, United States v. Philip Morris, et al., June 20, 2002, 33:23-35:14.

3107. A March 26, 1999 e-mail from Hugh Honeycutt to Mike Dixon and numerous other BATCo employees referenced Brown & Williamson's "Atlanta Study," which was conducted by Kelly St. Charles, a Brown & Williamson scientist, to examine the smoking behavior of low tar cigarettes and puffing profiles. The study suggested that people who smoke very low yield cigarettes may inhale more tar and nicotine than the FTC yields indicated. It indicated that smokers of Brown & Williamson's supposedly 1 mg Carlton cigarettes were actually inhaling 3 mg of tar. Honeycutt's email expressed concern that "B&W had just made a big splash in the US touting Carlton as the '1' for you [indicating one milligram of tar delivered]" in light of research finding that "smokers of ultra low tar brands like our Carlton 1 mg appeared to actually get 3 mg. [tar]." 321155579-5580 at 5579 (U.S. Ex. 46,683); 2073168412-8414 (U.S. Ex. 22,024); 324040098-0099 (U.S. Ex. 22,078) (Carlton "1mg, 'Isn't It Time You Started Thinking About Number One?'" magazine advertisements appearing in 1999); 531100014-0015 (U.S. Ex. 53,125).

3108. Indeed, Brown & Williamson now admits that smoker compensation causes Carlton 1 mg smokers, on average, to inhale 5 to 6 times the amount of tar that Brown &

Williamson has advertised. Brown & Williamson, "Low Tar Cigarettes - Appendix D," at http://www.brownandwilliamson.com/Index_sub2.cfm?ID=1 (last viewed May 17, 2004) (U.S. Ex. 88,628) (stating "a Carlton 1 mg. smoker will, on average, get 5 to 6 milligrams of tar").

(v) BATCo

3109. A BATCo document from the late 1970s bearing "BAT" insignia on several pages, entitled "Why do People Smoke?" reflected BATCo's understanding that designing a compensable cigarette to perpetuate smokers' nicotine addiction was a "key determinant of" smokers' choice of cigarette. The document stated: "Nicotine sustains smoking behaviour," that "**smoking behaviour is highly responsive to cigarette design**," and that "[a] key determinant of product preference will be the design 'Effort-Reward Gradient,'" i.e., elasticity of delivery. The document added: "Increase in Cigarette Consumption [is] Related to Change in Nicotine Yields," noting that "[m]ost compensation must occur at the individual cigarette level." 403626692-6802 at 6729, 6731, 6734, 6762, 6768 (U.S. Ex. 85,057) (emphasis added).

3110. An undated BATCo document by Dr. S.J. Green, a Senior Scientist for BATCo Research and Development, entitled "Ranking Cigarette Brands on Smoke Deliveries," discussed compensation to equalize nicotine intake in several contexts, including smokers "increas[ing] puff volume to receive the same nicotine" when smoking a lower tar cigarette and smokers "adjust[ing] their smoking behaviour on the basis of nicotine intake." 110077247-7268, at 7247-7250 (U.S. Ex. 88,643).

3111. A March 11, 1971 report authored by D. Creighton, BATCo R&D Research Scientist, and L.M. McGillivray entitled "The Effect of Changed Deliveries at Constant Pressure

Drop on Human Smoking Pattern" stated:

> It was found that there is indeed a degree of compensation for the reduced delivery. **The panel as a whole took larger puffs from the lower delivery cigarette, inhaled the smoke more deeply and held the smoke in the lungs for a longer time**. The six individual panel members compensated for changed delivery in different ways, some by increased volumes, and others by increased number of puffs on the lower delivery cigarette.

The report also stated: "An increase in puff volume, but not puff duration, means that subjects must have drawn harder on the lower delivery cigarettes, and that the flow rate was greater during puffing. This implies that smokers are willing to work harder to achieve an optimum delivery from a lower delivery cigarette." The report further stated: "The fact that the panel compensated for the lower delivery by increasing the depth of inhalation, the depth of exhalation and the total time for which the smoke was held within the body is of particular interest in the light of the finding that more is retained from a puff of smoke that is inhaled deeper, and held within the lungs longer." 757001173-1185 at 1174, 1180 (U.S. Ex. 85,058) (emphasis added).

3112. A November 3, 1971 BATCo research and development report summarized:

> A test has been devised using existing techniques to show whether a panel of smokers would compensate by their puffing and inhaling behaviour for reduced deliveries of TPM and nicotine. The test took the form of a comparison between two cigarettes of similar pressure drop but differing deliveries of TPM and nicotine. **It was found that there is indeed a degree of compensation for the reduced delivery**. The panel as a whole took larger puffs from the lower delivery cigarette, inhaled the smoke more deeply and held the smoke in the lungs for a longer time.

102793967-3980 at 3969 (U.S. Ex. 34,698) (emphasis added).

3113. A March 3, 1975 compensation study conducted by Imperial Tobacco Company, a

BATCo affiliate, authored by E.R. Freiesleben and P.J. Dunn stated under the heading "Summary": "Evidence is presented demonstrating the differences between human and standard [machine] smoking . . . . In each case, **the smoker adjusted his smoking habits** [when smoking cigarettes with low nicotine and TPM (total particulate matter)] in order to **duplicate his normal cigarette nicotine intake**." 650023966-3999 at 3969 (U.S. Ex. 53,425) (emphasis added); see also Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001).

3114. A March 3, 1975 compensation study conducted by Imperial Tobacco Company, a BATCo affiliate, entitled "The Use of the Freiri Slave Smoker to Investigate Changes in Smoking Behaviour," examined smoking behavior by use of a machine that mimicked smoking by actual smokers. The study stated: "Evidence is presented demonstrating the difference between human and standard machine smoking." This "difference" referred to the fact that the "Freiri Slave Smoker" revealed that smokers engaged in compensation to maintain nicotine intake. One of the main "Conclusions" of the study was that: "**The data obtained in the duplication of human smoking flexibility with the use of the Freiri slave smoker demonstrates a distinct advantage over standard machine smoking data**." 650023966-3999 at 3969, 3983 (U.S. Ex. 53,425) (emphasis added).

3115. A June 17, 1975 BATCo document entitled "Compensation for Changed Delivery" sent to several BATCo employees, including David Geoff Felton, then Senior Scientist for BATCo Ltd.'s Research and Development Department, acknowledged that smokers compensate to achieve a stable dose of nicotine:

> A number of experiments . . . have been interpreted as showing that compensation for changed delivery does occur. . . . Our own results showed that **when the [tar] to nicotine ratio was changed more smoke was taken from the lower delivery cigarette. . . . My own view is that compensation for changed delivery of nicotine does occur. . . . The weight of evidence at present available is for nicotine compensation** [referring to several studies].

105658168-8179, 8168, 8178 (U.S. Ex. 85,418) (emphasis added).

3116. A June 1, 1976 BATCo report entitled "Compensation for Changed Delivery" authored by D. Creighton, BATCo R&D Research Scientist, concluded that "**the evidence is strongly in support of the hypothesis that many smokers do change the way they smoke in response to cigarette design changes that affect nicotine delivery . . . . The tendency amongst the majority of established smokers is to attempt to equalise nicotine delivery if the cigarette design allows them to do so**." The study further concluded that "[d]ue to the differences in the delivery of individual cigarettes from the same brand . . . and the differences between subjects and within a subject" "[e]qualisation [of nicotine levels] within the range + 20%" was expected. The report stated that "there are eight suggested methods by which a subject may regulate his nicotine intake; any number of which may be used simultaneously or at different times," namely by varying puff volume, puff number, puff distribution, cigarette butt length, puff interval, puff profile, inhalation pattern, and number of cigarettes smoked. 650008449-8480 at 8470, 8460-8462, 8469, 8464 (U.S. Ex. 76,192) (emphasis added).

3117. The report also included a section entitled "Why Should a Smoker Compensate for Changed Delivery" which stated that "the majority of smokers who actually buy cigarettes

and smoke them regularly are directly or indirectly seeking the effect of the nicotine content of the smoke." This section further stated: "A subject who does not suffer the mild withdrawal symptoms, when unable to smoke and only seeks occasional stimulation of nicotine, or some other attribute of smoking, is less likely to compensate for changed nicotine delivery than a subject who is more nicotine dependent." 650008449-8480 at 8470, 8460-8462, 8469, 8464 (U.S. Ex. 76,192).

3118. A June 27, 1978 BATCo memorandum entitled "Compensation for Changed Delivery," authored by BATCo scientist Creighton, indicated BATCo's knowledge that compensation is not temporary, occurred as a result of a need for nicotine, and contradicted "the advice of Health Authorities" that smokers who would not or could not quit should switch to a lower delivery cigarette:

> It is difficult to ignore the advice of Health Authorities who advise smokers to give up smoking or change to a lower delivery brand but there is now sufficient evidence to challenge the advice to change to a lower delivery brand, at least in the short-term. Numerous experiments have been carried out in Hamburg, Montreal, and Southampton within the company as well as many other experiments by research workers in independent organizations, that show that generally smokers do change their smoking patterns in response to changes in the machine smoked deliveries of cigarettes. . . . Further findings from these results were that the modified smoking patterns used to smoke the changed delivery brands were maintained for the month during which they were smoked. This shows that there was no adaptation during that time . . . . **In general, a majority of habitual smokers compensate for changed delivery, if they change to a lower delivery brand than their usual brand** . . . . **If they choose lower delivery brand which has a higher tar to nicotine ratio than their usual brand (which is often the case with lower delivery products) the smokers will in fact increase the amounts of tar and gas phase that they take in, in order to take**

the same amount of nicotine.

105553905-3914 at 3905, 3907, 3913 (U.S. Ex. 34,799) (emphasis added); Deposition of Susan Ivey, United States v. Philip Morris, et al., June 20, 2002, 56:3-56:25; Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

3119. A June 29, 1979 study authored by Creighton entitled "A Comparison of Smoking Surveys Separated by Four Years" compared the smoking behavior of a group of smokers in 1974 of a cigarette with 1.7 mg nicotine and 27 mg TPM to their behavior in 1978 when smoking a cigarette with a slight reduction in nicotine (by 17% to 1.4 mg) and virtually identical TPM delivery (26 mg). The study found that the group smoked the reduced nicotine cigarette "more intensely" (i.e., increased their puff volume), which likely "equalised" the nicotine delivery of the two cigarettes. The study concluded that "it is probable that as a result of the changes in smoking behaviour observed in this study, subjects took about the same amount of nicotine from the two different cigarettes but, because of changes in TPM to nicotine ratios, received more TPM from the [reduced nicotine cigarette]." The study further found that "**[t]he fact that smokers have changed their smoking patterns to take more smoke from a cigarette with lower nicotine delivery but similar TPM delivery adds support to the contention that nicotine is a major determinant of smoking behavior**, and that TPM, as long as it is delivered in sufficient quantity, plays a lesser role." 650008946-8960 at 8948, 8953-8955 (U.S. Ex. 85,059) (emphasis added).

3120. An April 27, 1981 memorandum by Martin Oldman to L.C.F. Blackman, Director of Millbank, stated that "[s]ome people appear to smoke for nicotine, others don't . . . nicotine

dependent smokers. . . are more likely to compensate for nicotine than others." 105399692-9693 at 9693 (U.S. Ex. 85,060).

3121. A July 9, 1984 document by Imperial Tobacco Limited, sister company to Brown & Williamson, was distributed to various Brown & Williamson and BATCo employees, including: Blackman; A.M. Heath, BATCo Executive Director of Marketing; Erhard Koehn, BATCo Manager of Product Development; Rainier Wernitz, BATCo Manager, Market Research; Tilford Riehl, Brown & Williamson Division Head of Product Development; A. Mellman, Brown & Williamson Director of Marketing Research; T. Wilson; Brennan; C.I. Ayers; and G.O. Brooks, BATCo scientist. It acknowledged that smokers who switch to low tar brands increase the number and intensity of puffs taken and number of cigarettes smoked to achieve a higher dose of nicotine: "BRANDS SWITCHING DOWN DELIVERY: increase in puffing parameters – increase in numbers of cigs. smoked – more puffs taken means to achieve a higher dose." 536000000-0090 at 0050 (U.S. Ex. 22,338).

3122. A January 24, 1985 BATCo letter from Charles H. Keith to Lance Reynolds stated:

> [H]uman smokers, even though they ingest much more Nicotine and Tar than is indicated by the FTC values, get about the same amount of Tar and one and a half times the Nicotine from Barclay, Carlton and Cambridge. . . . [I]t is clearly apparent that the **human smokers are ingesting much more nicotine and tar than the nominal values obtained by FTC tests. The human levels are six to eight times higher than the normal values**.

621096298-6300 at 6298, 6300 (U.S. Ex. 76,191) (emphasis added).

3123. A February 25, 1985 document authored by G.O. Brooks, Marketing Department,

Millbank, entitled "The Burning Cigarette" confirmed that "we can be seriously misled by assuming that the machine deliveries are those obtained by the smoker. The human smoker is a very variable, whimsical machine who most probably smokes different cigarettes in different ways, even varying his puffing process down the cigarette in order to satisfy his/her requirements." 100575013-100575029 at 5021-5022 (U.S. Ex. 85,061).

3124. A document dated October 12, 1987 sent from M.L. Reynolds of BATCo to H.F. Dymond (BATCo researcher) and H. Ibig, BATCo employee, under the heading "Easily Achieved Tar Deliveries from Low Tar Cigarettes," displays a chart depicting the increased tar deliveries of RJ Reynolds's Now cigarette, and Philip Morris's Merit Ultra and Merit cigarettes, caused by the compensatory behaviors of vent hole blocking, taking more puffs and taking bigger puffs. This chart shows that these behaviors in combination caused an increase of tar inhaled by thirteen-fold for Now cigarettes, by four-fold for Merit Ultima, and by nearly three-fold for Merit cigarettes. 400015695-5696 at 5696 (U.S. Ex. 85,063).

3125. A December 21, 1987 BATCo document with subject heading "Notes on Meeting With Dr. Eicher" authored by "HFD" (H.F. Dymond, BATCo researcher), and sent to Nick Cannar and several Brown & Williamson and BATCo personnel, stated: "BAT acknowledged the discussion on compensation and described how channel ventilation was an alternative form of ventilation, both systems could be manipulated by a consumer. Other companies were also beginning to acknowledge compensation, but they were reluctant to debate the issue in public." 400015634-5635 at 5634 (U.S. Ex. 85,064).

3126. A May 6, 1992 BATCo report entitled "Topics In Smoking and Health 'Bible'"

stated:

> [T]he expression of product smoke deliveries in the form of a league table, while understandable, can be misleading. **There can be no guarantee that a smoker who switches from one product to another delivering a lower 'tar' value will thereby reduce his intake of 'tar.'** He may well alter the way he smokes the second product in some subtle fashion and so adjust his intake of smoke to fit his needs. In this way, he may inadvertently increase his intake of other substances in the smoke. League tables and delivery data on products may, therefore, be misleading to the consumer, who will be unaware of the sub-conscious ways in which he manipulates his own behaviour . . . smokers of higher delivery cigarettes may find that they need to smoke more low delivery cigarettes to achieve the same satisfaction . . . . Increasingly smokers will accept the alleged harmfulness of smoking, and while wishing to continue will look for health reassurance brands . . . Smoking behaviour is also of importance. For example research into the effects of low tar and nicotine cigarettes on ease of quitting smoking will be undertaken.

500887584-7709 at 7606-7607, 7614, 7679, 7704 (U.S. Ex. 20,656) (emphasis added).

3127. A BATCo document from 1998 or thereafter entitled "Perception of Lights" and based on BAT research in Hungary indicates that smokers who switch from higher tar cigarettes to lower tar cigarettes compensate for the reduced delivery by smoking more: "The biggest disadvantage people saw to 'Lights' was that 'you need to smoke more of it.'" 321541609-1679 at 1645 (U.S. Ex. 22,052).

3128. A March 4, 1998 internal BATCo draft report entitled "Lights Information Kit," which provided "a summary of British American Tobacco's understanding of Lights cigarettes" to assist BATCo in its attempt to "take an increasing share of this segment," noted that "[c]learly, the tar yield that a consumer actually gets will be highly dependent on the individual's smoking behaviour - how many puffs, how big each puff is, what butt length is left. Moreover, an

individual smoker's behaviour will vary significantly from one cigarette to another." 321478980-8985 at 8983 (U.S. Ex. 22,049).

3129. A May 19, 1998 BATCo draft document regarding talking points in response to "Allegations concerning nicotine control and manipulation," tellingly omitted any reference to BATCo's internal evidence that the smoker's need to get a sufficient delivery of nicotine is the cause for such variation. The document stated, under the heading "Compensation by smokers":

> It is well known that all cigarettes can yield different amounts of smoke depending on how people smoke. All cigarettes are inherently compensable relative to machine smoking yields determined according to standardised conditions. More frequent puffs and/or larger (*previously: more intense*) puffs, (*previously: or even more cigarettes)* can obviously increase the amount of smoke constituents that the smoker receives from each cigarette. Research has suggested that some smokers do tend to take larger puffs when they switch from a higher to a lower tar and nicotine yield cigarette during short-term experimental brand switching studies.

321087921-7932 at 7925 (U.S. Ex. 22,043) (italics in original).

3130.

760008596-8803 at 8760 (U.S. Ex. 54,588) (Category 1).

(vi) <u>American</u>

3131. A November 11, 1976 report prepared by Fay Ennis Creative Research Services for F. William Free & Company, an advertising agency used by American, demonstrates American's awareness that smokers of low tar cigarettes employed several different methods of smoker compensation. The report summarized focus group sessions relating to low tar cigarettes. When asked about Now and Carlton cigarettes, the panelists "concluded that **you would smoke twice as much of this type of cigarette in order to get any satisfaction**. One man said that he didn't like the draw on these cigarettes because he had to puff so hard, his throat tickled." When asked to define a low tar cigarette, some panelists stated: "You have to drag on the cigarette 'real' hard to get any satisfaction out of it." ATC0137310-7324 at 7319-7320 (U.S. Ex. 87,916) (emphasis added).

(vii) Lorillard

3132.

00044522-4523 at 4522 (U.S. Ex. 22,012) (Confidential); 94937037-7038 at 7037 (U.S. Ex.

56,775) (emphasis added).

3133. A December 10, 1976 document by H.S. Tong of Lorillard that included a review of the scientific literature reached several conclusions indicating Lorillard's awareness that smokers compensate to receive their desired level of nicotine – conclusions that Lorillard publicly denies to this day: "It seems that, within limits, **smokers can and do control their nicotine intake from smoke by varying their smoking techniques**. . . . Smokers were known to smoke more when offered low nicotine cigarettes. . . . It would seem desirable to have a low tar cigarette with a nicotine content between the threshold and optimum doses level." 00045061-5071 at 5061-5063, 5068 (U.S. Ex. 34,210) (emphasis added).

3134. A July 30, 1980 memorandum on Lorillard letterhead entitled "A Review of Behavioral and Psychopharmacological Factors in Smoking" from S.T. Jones, Lorillard Product Design, to other Lorillard personnel, included several conclusions by Lorillard personnel based on review of scientific articles in the literature. A notable conclusion – and one that Lorillard continues to deny more than 24 years later – was that smokers compensate to maintain their required nicotine intake, in the process rendering machine-generated tar and nicotine yields such as those generated under the FTC Method inaccurately low: "The evidence to date clearly indicates that smokers titrate or regulate their intake of nicotine, e.g. smokers of cigarettes which deliver large amounts of nicotine will adjust – when given low nicotine cigarettes – their smoking to get a larger nicotine dose than the machine determined values indicate." Lorillard also independently acknowledged that, in the 1980s, it knew that smokers of low tar/low nicotine cigarettes would compensate by altering their smoking habits in order to obtain a higher level of

nicotine. 01105000-5021 at 5010 (U.S. Ex. 20,030); Deposition of Alexander Spears, State of Minnesota v. Philip Morris Inc., et al., September 23, 1997, 62:29-65:55.

3135. An August 21, 1984 memorandum on Lorillard letterhead from E-Chung Wu to W.R. Deaton stated that a "puff profile study of 15 brand of cigarettes was carried out with 5 smoking panel members." The memorandum acknowledged the occurrence of smoker compensation, stating that "[t]he general trend shows that puff volume increases with the decrease of both CPM or nicotine. . . . Obviously, the higher dilution of smoke needs larger volume to compensate for the decrease of the flavor or nicotine." 89213491-3501 at 3491 (U.S. Ex. 56,466).

3136.

96997728-7729 (U.S. Ex. 74,552) (Category 1).

3137. A July 25, 2000 e-mail bearing a Lorillard heading from Jack Reid to Deborah Mereand (both Lorillard employees) indicates that Lorillard in-house scientific testing confirmed that smokers compensate to receive their desired level of nicotine, and that this results in smokers of low tar and filtered cigarettes receiving much more tar and nicotine than predicted. Lorillard employees considered these results "as expected:"

> The premise seems to be that everyone will titrate themselves to get their ideal level of nicotine. While it may be slightly different for individuals, **the bottom line is that this is a given constant for any one person**. Given that this is true . . . the table [prepared by Lorillard scientists] will reflect what the individual will get when he/she titrates to their nicotine level. I did a couple of the tables this way and it is interesting to note that as expected the low and ultra low products do not fair well at all.

97013693-3694 at 3693 (U.S. Ex. 22,125) (emphasis added).

(viii) Liggett

3138.

e

Deposition of Robert D. Bereman, United States v. Philip Morris, et al., April 23, 2002, 52:24-54:12 (Category 1); Deposition of Ron Bernstein, United States v. Philip Morris, et al., June 25, 2002, 36:24-37:24

(Confidential).

3139.

Deposition of Bennett LeBow, United States v. Philip Morris, et al., June 21, 2002, 55:21-61:21 (Category 1).

(c) Defendants Have Deceptively Designed Their Low Tar Cigarettes to Facilitate Compensation

3140. As discussed in U.S. FPFF § IV.F(3)(b), supra, Defendants have been aware for decades that smokers who switch to low tar cigarettes compensate for the reduced deliveries in order to obtain an amount of nicotine sufficient to sustain their addiction. Rather than informing smokers of compensation behavior and actual tar and nicotine deliveries, Defendants instead have used their knowledge of compensation to engineer their low tar cigarettes to **facilitate** smoker compensation through a variety of methods and innovations, such as use of ventilation holes, burn accelerants in cigarette paper (so that the cigarette will burn faster), and expansion of tobacco. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681, filed November 15, 2001); see also Deposition of David Burns, United States v. Philip Morris, et al., July 22, 2002, 107:18-108:9 (testifying that Defendants did not inform the public that they were placing ventilation holes in cigarette filters and, therefore, the scientific community only became aware of the presence of vent holes by discovering the vent holes after Defendants placed cigarettes with vent holes on the market).

3141. Defendants' modifications have created cigarettes that yield low levels of tar and nicotine when smoked by the FTC Method machine, but much higher levels when smoked by human smokers. Defendants have used the low FTC tar and nicotine yields as the basis for their marketing campaigns portraying low tar cigarettes as less harmful. In so doing, Defendants have been able to keep nicotine-addicted smokers smoking while falsely reassuring them that smoking filtered and low tar cigarettes were safe, or at least safer than unfiltered or high tar cigarettes. Expert Report of David Burns, United States v. Philip Morris, et al. (R. 664; filed November 15, 2001); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681, filed November 15, 2001); 2021544486-4496 (U.S. Ex. 20,348).

3142. Because Defendants' cigarette design modifications to low tar cigarettes allow smokers to compensate for the lower delivery of nicotine and tar, smokers who switch to low tar cigarettes are not in fact reducing their health risk as Defendants have led them to believe. Expert Report of David Burns, United States v. Philip Morris, et al. (R. 664; filed November 15, 2001).

(i) Defendants' Deception Regarding Barclay

3143. The episode involving BATCo's Barclay cigarette illustrates Defendants' conspiracy to deceptively design low tar cigarettes and to keep their activities secret from the public. In the early 1980s, BATCo advertised Barclay cigarettes as being "99% tar free." For instance, Barclay advertisements from 1981 to 1984 stated: "The pleasure is back. Barclay. 99% tar free." ADV020 0040-0042 (U.S. Ex. 6,671) (1981); ADV020 1234-1236 (U.S. Ex. 7,018) (1982); ADV021 0856-0858 (U.S. Ex. 7,357) (1983); ADV022 0623-0625 (U.S. Ex. 7,722)

(1984).

3144. In September 1983, Philip Morris Holland ran an advertisement pointing out that BATCo's Barclay cigarettes generated FTC tar and nicotine yields that were drastically lower than the tar and nicotine delivered to smokers of Barclay cigarettes. The Philip Morris advertisement actually mirrored the statements of an anti-smoking group on the issue. BATCo Chairman Patrick Sheehy responded by sending a telex to George Wiseman of Philip Morris, stating: "I find it incomprehensible that Philip Morris would weigh so heavily the short-term commercial advantage from deprecating a competitor's brand while weighing so lightly the long-term adverse impact from an ongoing anti-smoking programme. . . . **In doing so, Philip Morris . . . makes a mockery of Industry co-operation on smoking and health issues**." 104576617-6620 (U.S. Ex. 20,235); 201080394-0395 at 0394 (U.S. Ex. 78,984) (emphasis added).

3145. In an October 26, 1983 telephone conversation between Hugh Cullman, head of Philip Morris International operations, and E.A.A. Bruell, BATCo Chairman, Cullman agreed not to do anything further to inform the public that the Barclay cigarette produced tar and nicotine measurements by the FTC Method that were deceptively low when compared to what smokers actually inhale from Barclay cigarettes. The notes of the telephone conversation stated, "**Essential Industry hang together**. Holland activity was not PM company policy. They must try to prevent this happening in the future." Cullman agreed, stating "PM to instruct its No 1's they must not use anti-smoking activities, statements or programmes for competitive gain." 301030943-0944 (U.S. Ex. 46,577) (emphasis added).

3146. On September 1, 1986, Harry F. Dymond, BATCo researcher, sent a letter on BAT (U.K. and Export) Limited letterhead to D. Allman of Filtrona Instruments and Automation Limited, setting out Dymond's "opinions" regarding the potential changes to the ISO machine smoking method – a machine smoking test system nearly identical to the FTC Method – relating to Barclay cigarettes. Dymond defended the ISO method, and indicated that this method be utilized for testing Brown & Williamson's Barclay cigarettes, despite the fact that Barclay's channeled filter produced tar and nicotine yields that could not possibly be achieved by human smoking: "Given the present 'state of the art' in the cigarette industry and our present knowledge I believe the Draft International Standards . . . represent the best possible methods available for the testing of all cigarettes. . . . Channel ventilated cigarettes [such as Barclay] should not be treated differently from other ventilated products." 400015923-5924 at 5923 (U.S. Ex. 85,079).

3147. Philip Morris's internal research also proved that Barclay cigarettes deliver to smokers significantly larger amounts of tar and nicotine than its advertised FTC tar and nicotine yields indicate. An October 1986 Philip Morris report by H.W. Gaisch of the Science & Technology Department in Neuchatel, Switzerland summarized product characteristics:

> **Due to the vulnerability of the periferic ventilation channels of the ACRON filter, the product performs differently in the field than when being tested under laboratory conditions** . . . . The results obtained by Fresenius, the US Testing Company, the University of Neuchatel, Dr. Neurath and Dr. Aubort complement each other, and as they are based on different principles of measurement, validate each other. All these studies together prove that BARCLAY yields more tar and nicotine when smoked by the smoker than can be expected from standard machine measurements . . . . For example, Barclay, as marketed in Switzerland, has a tar rating of 1 mg on the smoking machine when the channels are operational and 11 mg when the channels are closed.

506811986-2001 at 1988, 1990, 1992 (U.S. Ex. 20,766) (emphasis in original).

3148. A facsimile with BATCo Ltd. cover-sheet sent June 23, 1987 by Nick Cannar of BATCo to Harry Dymond, BATCo researcher, stated:

> Essentially, Philip Morris's attack on BARCLAY involves the allegation that BARCLAY delivers more in human smoking than it does in machine smoking. **In our defense, we say that, in this respect, BARCLAY is no different from other low delivery ventilated cigarettes and that because of 'human compensation' all smokers tend to take in more tar and nicotine from low delivery products. It is this argument which concerns the rest of the Industry which is anxious to preserve the status quo of machine testing**.

400015840-5843 at 5841 (U.S. Ex. 85,080) (emphasis added).

3149. Under the heading "Conciliation," the document described an attempt "to see whether the rest of the Industry would support some change to the method of reporting tar and nicotine deliveries which would have the effect of resolving the dispute over BARCLAY deliveries," stating: **"The basis of the approach could be that we are very concerned about the continuing dispute over BARCLAY which we believe will inevitably lead to a public debate about compensation and the misleading nature of machine figures for all ventilated cigarettes to the detriment of the Tobacco Industry as a whole**." Under the heading "Widening the Debate about Compensation," the document stated: "[A] 'fall-back' position . . . would be for us to bring the whole issue of compensation into the public arena . . . . As a first step, **we could highlight with national regulators our concern that consumers are being misled by literal reporting of machine figures**. Subsequently, we could seek to interest the popular scientific and consumer press in the whole issue of human and machine smoking."

400015840-5843 at 5842 (U.S. Ex. 85,080) (emphasis added).

3150. A June 26, 1987 document on BAT (U.K. and Export) Limited letterhead from Michael Leach (BAT (U.K. and Export) Public Affairs Manager) to Nick Cannar (BATCo attorney), H.F. Dymond (BATCo researcher), A.L. Heard and M.L. Reynolds (Brown & Williamson Director of Research/Product Development) described "a suggested approach for the Armageddon option" for responding to Philip Morris's attacks on the Barclay cigarette. The plan involved revealing to the public that ventilated cigarettes generated misleading tar and nicotine yield information under the ISO machine smoking method. The document stated:

> Promoting a new standard involves drawing international scientific scientific [sic] and public attention to the facts of smoker compensation . . . . The initiative is based on good science. It moves in the new direction of scientific opinion which recognises the gap between smoking machine data and true human uptake . . . . **Faced by [Philip Morris's public complaints regarding the inaccurately low machine yields generated by Barclay cigarettes], BAT is considering an option designed to: a) Bring about the adoption by ISO of cigarette test criteria which more honestly reflect human smoke uptake . . . . Rationale . . . . It appears inevitable that existing test methodology will be questioned because it is unrealistic**. More accurate methods will be demanded of ISO ["ISO" changed to "the industry" by marginalia on document] . . . . It is in BAT's interest to accelerate the trend towards new test methodologies based upon the realities of human uptake. A BAT initiative would be moving with the flow of scientific opinion. Testing based on realities is likely to be more acceptable to the consumer than current methods . . . . **The initiative foresees BAT going over the head of the rest of the industry and recommending directly to the community [modified to "regulators" by marginalia] that cigarette testing be seen in a completely new way and that outdated tests be replaced. The industry status quo would be broken . . . . 1. BAT seen as a rogue elephant by the industry. Isolation**. 2. BAT seen by the community ["community" changed to "regulators" by marginalia] as realistic and working to present the

> consumer with honest information . . . . 4. **The public perception of low, medium, high tar cigarettes is turned on its head . . . . 5. Smoking and health issues are seen in a changed light as it becomes clear that smokers have greater control over tar/nic uptake than previously recognised** . . . . Launch First half 1988 . . . . **If ISO . . . is not prepared to accept [BATCo's proposed] labelling [sic] solution, BAT may be obliged to draw public attention to the unrealistic nature of league table figures provided for smokers** . . . . The debate should be concerned with the importance of consumers having accurate scientific dat[a] . . . . CONCLUSION 1. Channel ventilated cigarettes are important for the future of BAT's international business. 2. The company cannot sit on its hands if the rest of the industry, through ISO, insists on maintaining outmoded test criteria in order to shut out channel ventilated products. 3. . . . [T]he proposed programme would aim to bring about the adoption by ISO of more realistic, and non-discriminatory test standards. 4. BAT's views on compensation reflect a growing body of scientific opinion. There is an opportunity for the company to accelerate this movement. . . . 7. In pursuing this alternative, the company moves with the tide of scientific thinking.

400015831-5839 at 5831-5835, 5837-5839 (U.S. Ex. 85,081) (emphasis added).

3151. Similarly, a BAT facsimile dated July 31, 1987 from Nick Cannar to several BAT employees discussed several options for combating Philip Morris's attempts to have Brown & Williamson's Barclay cigarette excluded from the ISO measuring protocol. One such option was "to include a paragraph in the ISO standards saying that, at very low delivery levels, the figures may not be particularly relevant or meaningful to consumers." BATCo also described:

> [A] much more aggressive approach which would involve publically challenging the machine figures for our competitors' ventilated products. **As we know, human compensation occurs with all ventilated cigarettes, particularly low delivery ones**. One way of preventing 'Barclay' from being dealt with in isolation is to generate a wide public discussion and interest in the higher deliveries obtained by humans from all ventilated cigarettes during human smoking. **This would be a very proactive approach**

> **which would involve, for example, drawing to the attention of national regulatory authorities and to other interested organisations and publications the discrepancies between actual human uptake and machine figures for a wide range of our competitors' products**.

400015806-5808 at 5807 (U.S. Ex. 85,082) (emphasis added).

3152. An August 19, 1987 BATCo document authored by H.F. Dymond, BATCo researcher, and "CLA" on BAT (UK and Export) Limited letterhead stated: "ALL laboratory based data shows that BARCLAY delivers a comparatively higher quantity of smoke to the consumer than other 1mg cigarettes." The document went on to state that "the other members of the Industry claim that there is no evidence to show that conventional products distort the ranking derived from machine data when smoked by humans." Under the heading "Industry Reaction," the document stated: "PM do not openly concede that compensation occurs . . . . On balance the other Companies dislike the present situation intensely . . . . They are angry with BAT for raising an issue which they believe will bring the entire industry into disrepute. **They acknowledge the compensation argument, recognise the forces presently trying to debate it, believe that the industry should oppose any attempt by those outside the industry to raise the issue**." 400015791-5797 at 5793, 5796 (U.S. Ex. 85,083) (emphasis added).

3153. A BATCo document entitled "Summary of a meeting on Barclay held in New York on 24th August 1987" (attended by E.A.A. Bruell, W.J. Dickson, R. Pritchard, Tom Sandefur, A.L. Heard, M.L. Reynolds, Nick B. Cannar, Ernest Pepples and H. Dymond (listed as "Testing Manager R&DC/BATCo representative on ISO/Coresta Committees)) dealt with the issue of Barclay and the deceptiveness of machine smoking yields for all ventilated cigarettes.

The document revealed that BATCo and the other Defendants were aware that all ventilated low delivery cigarettes generated misleadingly low tar and nicotine yields by machine testing, and indicated that BATCo's only consideration of informing consumers of "the true scientific position" that ventilated cigarettes generated misleadingly low machine-measured tar and nicotine yields was to use the "threat[]" of informing consumers of the truth to prevent the other cigarette companies from exposing the misleadingly low nature of Barclay's tar and nicotine deliveries in relation to human smoking:

> Our scientific evidence is that smokers 'compensate' with all low delivery products and obtain from these products significantly higher deliveries of tar and nicotine than is suggested by the machine figures. This phenomenum [sic] of 'compensation' for low delivery cigarettes is becoming increasingly recognised by reputable independent scientists. . . . **We should say that unless attacks on Barclay cease or the Industry is prepared to support a modification of the ISO standard to show the average figure for all ventilated products, including Barclay, then we will take whatever action is appropriate to make known to consumers the fact that machine figures do not provide an accurate guide to human uptake from all ventilated products**. . . . **If the Industry permits the attack upon Barclay to continue or is not prepared to accept a revision of the ISO standard for all ventilated products, then we would propose to put these threats into operation and to publicise to consumers, consumer organisations and national regulators the true scientific position concerning the measurement of tar and nicotine deliveries of all ventilated products**.

Under the heading "Scientific Evidence" and the subheading "On the Negative Side," the document stated: "It is easy to demonstrate compensation with BARCLAY. Lay people find these demonstrations convincing." 400015688-5690 at 5688-5690 (U.S. Ex. 85,062) (emphasis added).

3154. A December 1, 1987 document written by Thomas Sandefur, then President and CEO of Brown & Williamson, to a scientist in Kuwait regarding tar and nicotine testing of Brown & Williamson's Barclay cigarette via the ISO method (a machine test virtually identical to the FTC Method) stated: "We have also carefully considered your question about providing better consumer information concerning the deliveries from low tar cigarettes. In keeping with your interest [in] this matter, Brown & Williamson suggests placing an insert in Arabic and English with each packet of cigarettes stating that 'Blocking ventilation may result in higher deliveries of tar and nicotine.'" The document also stated: "**[W]hen they block the ventilation holes the smokers of all low tar cigarette brands can get many times the amount of tar and nicotine predicted by the ISO method**." 2500046198-6199 (U.S. Ex. 45,836) (emphasis added); 506811986-2001 at 1988, 1990, 1992 (U.S. Ex. 20,766); 2500046199-6199 (U.S. Ex. 27,899) (emphasis added); see also Deposition of Christopher Proctor, United States v. Philip Morris, et al., March 26, 2003, 46:11-47:15 (testimony of BATCo employee that there are only "minor" differences between the FTC and ISO methods that "have little impact on" the "yields of constituents such as tar and nicotine," which "are very similar" when FTC and ISO methods are compared).

3155. Philip Morris received a copy of the December 1, 1987 Sandefur letter and, aware of its possible implications for itself and other Defendants, responded aggressively, eventually getting BATCo to agree not to refer publicly to human smoking behavior or compensation. In the agreed upon minutes from a BATCo-Philip Morris meeting, "**BAT agreed to cease any reference to compensation or human smoking behavior**." 2500046147-6150 (U.S. Ex.

20,545) (emphasis added). On January 23, 1989, a memorandum with agreed-upon "official minutes" from the meeting with BATCo and Brown & Williamson regarding the Barclay filter cigarette was sent to Geoffrey Bible, then CEO of Philip Morris International. 2500046198-6199 (U.S. Ex. 45,836); Deposition of Geoffrey Bible, United States v. Philip Morris, et al., August 22, 2002, 123:13-126:9; 138:10-143:13.

3156. A September 8, 1988 memorandum to Geoffrey Bible, then CEO of Philip Morris International, urged that, as part of any resolution of the dispute over the Barclay cigarette, "BAT will cease all references and discussions relative to human smoking habits (compensation) regarding ventilated products. In other words, discussing who 'cheats' is a non-productive exercise for our business." Deposition of Geoffrey Bible, United States v. Philip Morris, et al., August 22, 2002, 131:3-135:9; 2500046174-6175 at 6175 (U.S. Ex. 20,547).

3157. On September 8, 1988, Geoffrey Bible, CEO of Philip Morris International, denied under oath that Philip Morris took steps in 1988 to prevent Brown & Williamson from discussing the phenomenon of compensation publicly in connection with Barclay cigarette. This testimony is directly contradicted by the correspondence between Philip Morris employees and Brown & Williamson/BATCo employees discussed above, **some of which Bible himself received**, which detailed Philip Morris's actions to prevent Brown & Williamson/BATCo from engaging in any further public discussion of compensation. Deposition of Geoffrey Bible, United States v. Philip Morris, et al., August 22, 2002, 130:19-130:24; 250046174-6175 (U.S. Ex. 20,547); 2500046145-6146 (U.S. Ex. 20,544); 2500046147-6150 (U.S. Ex. 20,545).

3158. On January 12, 1989, Steve Darrah, head of Philip Morris International

Operations, wrote to Philip Morris International attorney Lee Pollak and then Philip Morris International CEO Geoffrey Bible regarding an upcoming meeting with BATCo/Brown & Williamson to resolve the dispute over the tar and nicotine rating of Barclay. The meeting included Martin Lance Reynolds from BATCo, a fact witness and formerly an expert for Defendants in this case. The memorandum stated: "Philip Morris' position will be the following . . . BAT will not raise the issue of compensation and human smoking behavior in the future . . . . As we have made a major 'concession' regarding retroactive litigation, **we will ask that BAT stop immediately all current efforts on their part to raise the issue of human smoking behavior** . . . ." 2500046174-6175 at 6175 (U.S. Ex. 20,547) (emphasis added); Deposition of Geoffrey Bible, United States v. Philip Morris, et al., August 22, 2002, 133:15-134:25, 136:25-137:14; 2500046145-6146 at 6146 (U.S. Ex. 20,544).

3159. On January 19 and 20, 1989, Philip Morris and BAT representatives met to resolve their disagreement. The memorandum describing the meeting, which was sent to and reviewed by Geoffrey Bible and other Philip Morris executives, reported that "BAT had planned to help SASO to make a human smoking behavior study in Saudi Arabia to show the difference in tar delivery between human and machine smoking for low tar products. These kinds of tests are extremely dangerous for the entire industry and BAT accept to cancel it." 2500046147-6150 at 6149 (U.S. Ex. 20,545) (emphasis in original); 2023266337-6337 (U.S. Ex. 85,052) (telex cover note with Bible's handwriting); 2023266338-6340 (U.S. Ex. 26,783) (copy of 2500046147-6150); Deposition of Geoffrey Bible, United States v. Philip Morris, et al., August 22, 2002, 138:16-144:3.

3160. Evidence shows that the Barclay saga was not an isolated event. Rather, as demonstrated below, all of the Cigarette Manufacturers were deceptively designing their cigarettes to facilitate compensation.

3161. Several of Defendants' documents reference a 1969 "Smoker Intake Study" that was jointly "performed by Philip Morris for Brown & Williamson, Reynolds, Philip Morris and Lorillard." The results of this study of "smoke intake patterns among filter smokers" were presented by W.L. Dunn, Senior Scientist at Philip Morris, to the lawyers and scientists from the Tobacco Institute, including employees and representatives from Philip Morris, RJ Reynolds, Brown & Williamson, Lorillard and Covington & Burling on February 5, 1969. One of the study's objectives was to determine "the validity of FTC tar values as an index to smoke exposure." The study noted that "[h]ow much smoke a smoker gets is a crucial variable in studying the relationship of smoking to health." The report stated: "There is some relationship between the amount of smoke taken into the mouth daily and the FTC tar value for the brand smoked; **the relationship [is] of such low order [or] magnitude among filter smokers, that, taken alone, ha[s] no practical value for predicting smoke intake**." The report also discussed the "independence of daily intake relative to FTC tar values for brands smoked," and observed that "about 20% of those smokers of the high delivery cigarettes had a lower daily intake than the average smoker of the lowest delivery cigarettes." 504208317-8360 at 8319, 8323, 8327, 8328 (U.S. Ex. 85,068) (Philip Morris Smoking Behavior Study) (emphasis added); 1001818034-8034 (U.S. Ex. 85,069) (February 7, 1969 letter from Helmut Wakeham, Philip Morris Vice President of Corporate Research and Development, to P.A. Eichorn, Manager in Philip Morris's

Technology Planning and Information Development Department, & W.L. Dunn); 04227839-7844 at 7842 (U.S. Ex. 20,066) (February 24, 1969 letter from P.R. Grant, Lorillard attorney, to Lester Pollack, Lorillard attorney and executive, noting the study was "supported by all but American Tobacco" and illustrative of when "the Industry from time to time has joined together to support studies"); 00498812-8814 (U.S. Ex. 29,414) (June 6, 1969 letter from Arthur Stevens, Lorillard attorney, to H. Thomas Austern, Tobacco Institute attorney (with law firm Covington & Burling) referencing "the smoker intake study performed by Philip Morris for Brown & Williamson, Reynolds, Philip Morris and Lorillard"); 1000869989-9989 (U.S. Ex. 85,071) (September 5, 1968 letter from P.A. Eichorn to R.B. Seligman, Philip Morris executive); 1001880771-0773 (U.S. Ex. 85,072) (September 10, 1968 letter from P.A. Eichorn to Helmut Wakeham).

(ii) Philip Morris

3162. A February 18, 1964 Philip Morris Research Center report to Philip Morris management prepared by Helmut Wakeham, then Philip Morris Director of Research, proposed that Philip Morris influence the testing procedure to be used by the government and the FTC, specifically to measure the harmfulness of cigarettes, and exploit the governmental testing methodology as a vehicle for marketing:

> [T]he following recommendations are offered to Philip Morris management: . . . . Move promptly and effectively toward establishment of suitable biological approval specifications for all new smoking products. It may be expected that in time the Government will force the adoption of such specifications, in which case Philip Morris would be able to influence the setting of the 'uniform and reliable testing procedure' (proposed FTC Rule 3) consistent with our own methodology. Apart from possible legal

> requirements, **such a policy would enhance advertising opportunities**.

1003884292-4302 at 4298-99 (U.S. Ex. 20,180) (emphasis added).

3163. A June 1966 Philip Morris report prepared by Philip Morris marketing researcher Myron E. Johnston, Jr., for Helmut Wakeham and others illustrates that as of 1966, Philip Morris was continuing with this plan by developing cigarettes that would generate low tar and nicotine numbers on the FTC machines, but deliver much higher levels when smoked by humans:

> In the event of . . . the passage of legislation requiring a statement of 'tar' and nicotine content on the pack, the delayed dilution cigarette could be a formidable entry as a full tobacco flavored cigarette. It could compare favorably with any health cigarette currently on the market yet deliver full flavor throughout the crucial first 40mm of the rod. I am of the opinion that we should press development of this concept.

The document further stated: "**The illusion of filtration is as important as the fact of filtration**. Therefore any entry should be by a radically different method of filtration but need not be any more effective . . . . Several studies have shown that a large proportion of smokers believe that any filter reduces the health hazard . . . ." 1001913853-3878 at 3857-3858, 3862, 3870 (U.S. Ex. 20,123); 1000338644-8671 at 8649, 8654, 8662 (U.S. Ex. 21,487) (emphasis added).

3164. A 1969 Philip Morris report of the findings of a Philip Morris study of filter smokers' intake patterns stated that the FTC Method has "**no practical value for predicting smoke intake**." 1003287490-7557 at 7494 (U.S. Ex. 20,161) (emphasis added).

3165. A Philip Morris document dated March 1, 1974 stated under the heading "SUMMARY": "People do not smoke like the machine [referring to the FTC Method] . . .

Generally people smoke in such a way that they get much more than predicted by machine. This is especially true for dilution cigarettes." After acknowledging that people get much more tar than indicated by the FTC testing methodology, the document stated in the "CONCLUSION" section: "**The FTC standardized test should be retained: 1) It gives low numbers**." 1003293476-3493 at 3492-3493 (U.S. Ex. 85,073) (emphasis added).

3166. A March 7, 1974 Philip Morris interoffice memorandum on Philip Morris USA letterhead from Raymond Fagan to Helmut Wakeham, Philip Morris Principal Scientist, entitled "Moral issue on FTC Tar" stated:

> Some concern has been expressed concerning the moral obligation of Philip Morris (and perhaps the tobacco industry) to **reveal to the FTC the fact that some cigarette smokers may be getting more tar than the FTC rating of that cigarette**. You mentioned in your presentation at the Center on Tuesday, March 5, that such concern was voiced in N.Y. at your talk there. And it was expressed again by some individuals who heard you in Richmond. **I believe that there need be no such concern, at least from a position of morality**.

1000211075-1076 at 1075 (U.S. Ex. 35,179) (internal numbering omitted); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

3167. Victor DeNoble, a former Philip Morris research scientist, stated on a January 3, 1995 PBS television program entitled "Frontline" that Philip Morris was aware that smokers were blocking cigarette ventilation holes and that "[i]n fact, there was a project in which a psychology group at Philip Morris actually filmed people smoking to determine where filter[] and dilution holes should be placed, so that the fingers would cover them up." 2046562514-2533 at 2531 (U.S. Ex. 85,085).

3168. Although Philip Morris uses descriptors – including "light" and "ultralight"– on its brand packages that it claims are based on FTC practice, Philip Morris has not informed consumers that the descriptors are based on certain measurements from the FTC test, which Philip Morris agrees bear little correlation to tar and nicotine yields inhaled by human smokers. Deposition of Denise Keane, United States v. Philip Morris, et al., October 2, 2002, 406:12-408:6.

3169. Although in August 2002, Denise Keane, Philip Morris's General Counsel, testified in her deposition in this case that it was her judgment that Philip Morris was "precluded" from voluntarily providing information to consumers about the significant disparity between FTC yields and low tar smokers' intake, and of Philip Morris's reliance on FTC yields as the basis for its brand descriptors, the FTC has neither instructed Philip Morris not to provide additional information about tar and nicotine yields and brand descriptors to consumers nor done anything to preclude the company from voluntarily providing that information. In fact, just three months after Keane's deposition, in November 2002, in direct contradiction of Keane's testimony, Philip Morris attached "onserts" to two weeks' worth of packages of its "low tar" cigarettes and inserted glossy information booklets in certain daily newspapers. Deposition of Denise Keane, United States v. Philip Morris, et al., October 2, 2002, 305:23-306:11, 409:15-411:17.

3170. A facsimile sent from Philip Morris's Richmond legal office on January 21, 2000, to familiarize new employees with Philip Morris's cigarettes indicated that the ventilation holes in cigarettes are not readily apparent, instructing new employees to "[o]bserve the ventilation holes in the tipping paper by holding up to the light or by using the magnifying glass."

2074112963-2968 at 2965 (U.S. Ex. 85,085).

(iii) RJ Reynolds

3171.

521184948-4965 at 4950 (U.S. Ex. 22,134) (Confidential) (emphasis added); 501013225-3239 at 3227 (U.S. Ex. 22,227); 2025002829-2846 at 2831 (U.S. Ex. 22,166); Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

3172. A document circa 1971, apparently written by Anders H. Laurene, then Manager of the Chemical Division of RJ Reynolds (and Director for RJ Reynolds from 1977 to 1980) shows that, as early as 1971, RJ Reynolds had internal data in a "Puff Profile Paper" that was "well-organized, professionally written, and describe[d] highly competent work" indicating that FTC tar and nicotine yields for low tar cigarettes were inaccurately low due to smoker compensation:

> It is indicated by these data that smokers compensate for low "tar" deliveries by taking larger puffs. This could be interpreted by adversary forces to mean that the industry is failing in actuality in its present approach toward reduced 'tar' delivery to smokers. Our own approach – higher filtration and/or air dilution – is made to seem self-defeating by these data. . . . Puffs taken by humans

> smokers are depicted as being much larger in volume than the generally recognized "FTC puff volume." . . . [T]he results of this study may be interpreted by adversary forces to mean that smokers receive much more "tar" than FTC numbers indicate. Such interpretation would be damaging to our already besieged industry . . . . As it now stands, we do not have any means of disproving or challenging such interpretation.

The document further stated that "[t]here is nothing wrong with this paper as concerns work quality, scientific merit, or written preparation." This same document evidences RJ Reynolds's commitment, on behalf of the entire industry, to prevent publication – in 1971 – of accurate scientific data showing compensation for low FTC tar delivery cigarettes. RJ Reynolds deferred publication of the paper solely because its "contents can be interpreted to be contrary to Corporation interests" and "might raise further controversy on the issue of 'tar' delivery to smokers." 500286135-6136 (U.S. Ex. 85,074).

3173. A September 18, 1975 handwritten report by John H. Reynolds, an RJ Reynolds scientist, indicated that RJ Reynolds was designing cigarettes to test low by FTC puff volumes (35 ml), but achieve much higher tar/nicotine deliveries when bigger puffs were taken by actual human smokers. It stated:

> Several LTC cigarette prototypes were tested in an **attempt to improve the tar delivery capability at high puff volumes, while retaining a nominal 2mg tar delivery at the 35ml puff volume**. The effects of the location and number of tipping perforations, tow item, cigarette wrapper and mouthend configuration ('TC' or plain) were examined to a limited extent. The results of these tests were passed on to TPD [tobacco product development] for their use. An interesting finding was that when other factors were equal, the plain tip versions always gave a greater increase in tar delivery on increasing from 35cc to 64cc puffs then did the 'TC' tip versions.

502833940-3940 (U.S. Ex. 85,075) (emphasis added).

(iv) Brown & Williamson

3174. A March 4, 1982 interoffice memorandum discussing the highly deceptive nature of the design of Brown & Williamson's Barclay cigarette and others like it, sent from J.H. Reynolds, A.B. Norman, and J.H. Robinson to R.E. Morse (all RJ Reynolds employees) stated:

> The next generation of "Barclay competitors" will be spawned (indeed has already been spawned) in the minds of R & D and marketing people throughout the industry and its suppliers. **This generation of products, or the next, could easily be products which will deliver NO "tar" or nicotine when smoked by the FTC method, and yet when smoked by humans essentially be unfiltered cigarettes**. Such products could (and would) be advertized as 'tar-free,' 'zero milligrams FTC tar', or 'the ultimate low-tar cigarette', while actually delivering 20-, 30-, 40-mg or more "tar" when used by a human smoker! **They will be extremely easy to design and produce**. If there is any doubt that such products could be made, we will be happy to provide design sketches or prototypes of new or existing designs which will substantially accomplish the feat. Such cigarettes, while deceptive in the extreme, would be very difficult for the consumer to resist, since they would provide everything that we presently believe makes for desirable products; taste, "punch", ease of draw and "low FTC tar."

503670658-0659 at 0658 (U.S. Ex. 20,721) (emphasis added – bold type).

3175. A June 9, 1982 memorandum authored by Ernest Pepples, Brown & Williamson Vice President and General Counsel, entitled "Low-'Tar' Cigarette Advertising and the FTC Cigarette Testing Program: A Time for Re-Examination" stated:

> It has been theorized by some that smokers of low-'tar' cigarettes may automatically compensate for the reduced delivery of 'tar' and nicotine by oversmoking, e.g., by puffing more often or more deeply, by smoking each cigarette closer to the filter, or by smoking more cigarettes . . . . **FTC's present system further contributes to consumer deception because it allows some cigarette companies to promote heavily a "box" brand,**

> **without adequately distinguishing it from the soft pack of the same brand name, which delivers considerably more "tar". In fact, however, the companies produce such a small volume of the box brand as to make it a phantom brand that is rarely found in the marketplace**. On the other hand, the soft-pack version bearing the identical brand name and package design but testing at a considerably higher "tar" level, is the version readily available to the consumer . . . an EPA-type disclaimer might be adopted to warn that the FTC figures are standardized measurements derived by laboratory tests; any smoker may get more or less depending on the way he or she smokes the brand in question.

Despite this understanding, Brown & Williamson took no step toward informing consumers of the true meaning of the FTC yield numbers. 690025487-5491 at 5488-5491 (U.S. Ex. 21,042) (emphasis added).

3176. In a March 19, 1984 letter, Pepples told Howard Liebengood of the Tobacco Institute that "the industry opposes and will resist any 'compromise' [with FTC] that includes requirement relating to 'tar' and nicotine ratings" because such ratings "may be misleading to consumers" and FTC tests bear no relation to actual consumer intake. 521060910-0912 at 0912, 0910 (U.S. Ex. 20,892) (emphasis in original).

3177. A Brown & Williamson document dated February 14, 2002 and entitled "Low Delivery Products and 'Lights' Descriptors" made the following acknowledgment: "Product design may influence smoker behavior." 324534461-4481 at 4463 (U.S. Ex. 20,594).

3178. At his deposition in this case, Hugh Honeycutt, Director of Research Services and Analytical Research for Brown & Williamson and former Director of Product Development and Leaf, testified that ultra-low tar smokers actually inhale more tar than is indicated by the FTC Method. Deposition of Hugh Honeycutt, United States v. Philip Morris, et al., April 23, 2002,

130:23-131:14.

(v) BATCo

3179. In an internal document, BATCo acknowledged that, unless lower tar cigarettes were specifically designed to allow compensation, thus offering deceptively low machine measured tar and nicotine yields and much higher actual yields to human smokers, they often were not popular with smokers: "Nearly every BAT company has products in the low tar segment of its markets, but they do not generally command a major position in sales . . . . In the extremely low delivery range, **unless they are specifically designed, they offer poor 'reward for effort'** . . ." 100515899-5910 at 5909 (U.S. Ex. 20,230) (emphasis added).

3180. A memorandum from BATCo's research and development group recommended that BATCo design cigarettes that would make it easier for smokers to compensate: "**Irrespective of the ethics involved, we should develop alternative designs (that do not invite obvious criticism) which allow the smoker to obtain significant enhanced deliveries should he so wish**." 109869437-9440 at 9437 (U.S. Ex. 21,707) (emphasis added).

3181. A January 10, 1977 BATCo report by D.E. Creighton reported nearly-identical conclusions to those of a January 17, 1977 memorandum. The report added:

> There were some observed abuses of the cigarette design . . . . It was observed that at least one subject learned that by placing the cigarette further into the mouth, the ventilation holes could be covered up and smoke deliveries increased. It was also noted that the fingers used to hold the cigarette could be conveniently placed to cover up some of the ventilation holes. One subject was seen to cover the ventilation holes with clear adhesive tape . . . . The puff durations were longer from both the low delivery cigarettes and the volumes of the individual puffs were, on average, higher when compared with the usual brand or with machine smoking . . . . The

> pressures used to draw the puffs were, however, less than those recorded when usual brands were smoked. This reduction in the draw resistance is due to the ventilation and higher paper porosity of the low delivery brands. In general it may be summarised that the subjects smoked the low delivery brands more intensely than the usual brands, presumably in an attempt to draw more smoke and nicotine . . . . Since the data from the two tests are comparable it may be interpreted that cigarettes with nicotine deliveries of less than 1.0 mg and highly ventilated filters were smoked at maximum intensity by these smokers . . . . these findings may be relevant to the design of low delivery cigarettes.

105456335-6363, at 6335, 6337-6339, 6341, 6343-6347, 6357, 6359, 6363 (U.S. Ex. 85,087).

3182. A January 19, 1977 internal BATCo memorandum sent to C. Ian Ayres, BATCo Research Manager, D.J. Wood, BATCo Researcher, and others explained how compensation makes published smoke deliveries misleading:

> Two cigarette brands, 'Now' (U.S.A.) and "Reemtsma No. 1', with very low deliveries of TPM and nicotine, have been smoked by subjects whose manner of smoking was monitored. The subjects smoked these two brands with greater intensity than they smoked cigarettes of more normal delivery, taking larger puffs at more frequent intervals. From each brand, the subjects on average took more than twice the volume of smoke that was taken by a standard smoking machine. **This emphasises the misleading nature of published smoke deliveries when dealing with cigarettes of this type**.

109869437-9440 at 9437 (U.S. Ex. 21,707) (emphasis added).

3183. An internal April 14, 1977 BATCo memorandum by P.L. Short, Manager of BATCo's Marketing Department, shows that BATCo intended to design light brand extensions to provide as much tar and nicotine as their full flavor parent brands through the mechanism of smoker compensation. It discussed BATCo's plan to "**ensure that smoking satisfaction is achieved by franchise smokers within the range of smoker 'compensation' of the original**

product" and provided for "lowered-delivery spin-offs" of existing brands with deliveries "within the range of smoking satisfaction of the parent brand, via the mechanism of smoker compensation. This 'mechanism' involves involuntary modifications in the method of smoking a cigarette." 100427792-7800 at 7794 (U.S. Ex. 20,181) (emphasis added).

3184. A June 28, 1977 memorandum from D.J. Wood, a researcher for BATCo, delivered to a distribution list a paper entitled "The Design of Low Delivery Cigarettes (With Regard to Smoker Compensation)" which recommended producing a cigarette that would deliver up to twice the expected amount of nicotine. The paper warned that "[a]lthough marketing considerations will influence the lower limits towards which deliveries will be reduced," a "minimum nicotine intake must be achieved" before "some of the effects of smoking . . . [which] appear to be due to nicotine itself" occur. The paper noted that although the "minimum effective nicotine level" would vary from individual to individual, BATCo "should aim at a cigarette delivering at least 0.5 mg of nicotine. **With appropriate design, including moderately low drag resistance, smokers will be able to obtain up to 1 mg nicotine from such a cigarette**." 110074887-4890 at 4890 (U.S. Ex. 21,829) (emphasis added).

3185. Minutes from a July 1, 1977 meeting of BATCo employees under the heading "Compensation" state: "Mr. Wood's note on low delivery cigarettes was considered by the meeting. Mr. Sheehy, BATCo's Chairman, asked whether, from our knowledge of the compensatory responses of smokers, cigarette designs could be postulated which took advantage of this information. For example, could a 9 mg. cigarette be designed which would make the desired adjustment of smoking pattern easy to the smoker." 110074875-4883 at 4881 (U.S. Ex.

85,094).

3186. In a memorandum dated August 26, 1977, S. J. Green, Scientist, Manager, and Director of BATCo Research & Development from 1961-1979, posed the following questions to be discussed at a Chairman's Advisory Conference with Mr. Sheehy, then Chairman of BATCo:

> Should we market cigarettes intended to reassure the smoker that they are safer without assuring ourselves that indeed they are so, or are not less safe? For example should we 'cheat' smokers by 'cheating' League Tables? If we are prepared to accept that government has created league tables to encourage lower delivery cigarette smoking and further if we make league table claims as implied health claims – or allow health claims to be so implied – **should we use our superior knowledge of our products to design them so that they give low league table positions but higher deliveries on human smoking? Are smokers entitled to expect that cigarettes shown as lower delivery in league tables will in fact deliver less to their lungs than cigarettes shown higher**?

110069804-9804 (U.S. Ex. 26,360) (emphasis added); Trial Testimony of Michael Dixon, State of Minnesota v. Philip Morris Inc., et al., April 8, 1998, 11197:1-11198:9, 11205:14-11214:23, 525470373-0614 at 0547-0548, 0555-0564 (U.S. Ex. 85,019) (June 8, 2004).

3187. A September 21, 1977 letter from F. Haslam to P.L. Short, Manager of BATCo's Marketing Department, stated:

> I have been concerned that the discussions on compensation and cigarette design should be taken a step further . . . . **[i]t should now be possible to design a number of cigarettes which would have the same smoking machine delivery but different deliveries to the compensating smoker**. Broadly speaking, this could be achieved by developing cigarettes with a knowledge of the smoker's response to such factors as pressure drop, ventilation, irritation, impact, nicotine delivery, etc.

100236543-6543 (U.S. Ex. 21,412) (emphasis added).

3188. A May 19, 1981 BATCo document entitled "Products/Consumer Interaction" by M. Oldman referencing a discussion about "machine v/s human smoking" stated: "It was agreed that **effort should not be spent on designing a cigarette which, through its construction, denied the smoker the opportunity to compensate or oversmoke to any significant degree**." 109883262-3265 at 3263 (U.S. Ex. 21,579) (emphasis added).

3189. A December 1981 BATCo memorandum to BATCo counsel providing a critical analysis of legal and scientific problems raised by a presentation of L.C.F. Blackman, BATCo Research Director, on the safety of low yield cigarettes warned against misrepresenting the opinions of the Surgeon General in statements to the public:

> **B. Assurances of Safety**. **If Dr. Blackman quotes or refers to the Surgeon General in support of an argument that low tar cigarettes are safer, he must be very careful to include the Surgeon General's provision that this may be true only if smoking patterns do not change**. **Otherwise, the industry might be accused of misleading the consumer regarding the Surgeon General's opinions**. In effect, Dr. Blackman might be creating a duty to instruct the consumer regarding use of the product. Negligent failure to instruct is a basis for liability, as is negligent failure to warn . . . . 3. Compensation. Dr. Blackman mentions that consumers should be made aware of the scientific opinion supportive of a less hazardous cigarette. If the industry points this out, it follows logically that it must also point out the great concern that switchers to lower yield cigarettes compensate by inhaling more or smoking more cigarettes. The question arises of whether this concern should be brought to the attention of the consumer by the industry in the form of a warning.

2501022952-2969 (U.S. Ex. 27,925) (emphasis added). Notwithstanding this admonition, in Price v. Philip Morris, Inc., Philip Morris did exactly that which the memorandum advised against, asserting that the Surgeon General and "public health authorities" recommended, without

any caveat regarding smoking behavior, that smokers switch to low tar cigarettes to obtain a health benefit. The Price court squarely rejected Philip Morris's contention. See Price v. Philip Morris, Inc., 2003 WL 22597608, at *9 (Ill. Cir. Ct. Mar. 21, 2003) ("the fact that the public health community recommended to those smokers who could not quit that a lower delivery cigarette would reduce risk is not misleading. There is apparently no dispute that actual lower delivery of toxic substances may reduce harm. The fact that Marlboro Lights and Cambridge Lights did not reduce the actual delivery of harmful toxins does not convert the message from the public health community into a defense to Philip Morris' intentional fraudulent conduct"). Defendants have made these same misrepresentations in this case. JD PFF at 200-206, 208-210 ¶¶ 415-424, 426, 429.

3190. A report from a BATCo research conference held August 22-26, 1983 in Rio de Janeiro, Brazil and attended by top BATCo scientists discussed BATCo's planned response to any proposed changes to the FTC Method. The document stated that "[c]ompensation is now attracting the interest of Government and medical authorities in many parts of the world" and that "[a] direct consequence of this growing interest in compensation is the possibility that the FTC, and other authorities, may call for a change in the standard smoking machine test procedure" by either "a modification to the existing standard procedure (increased puff volume, duration or interval)" or "a more extreme possibility. . . an entirely new test. . . e.g. a biological index or a Herzfeld-type multiple delivery index." The report then stated:

> Either move would weaken the concept of low tar and would both confuse and concern the smoker. **Operating companies around the Group should, therefore, do everything possible to defend and maintain the present standard test procedure. If, however,**

> **the FTC or any other authority takes action to change the procedure the strategy should then be to stretch out any discussions** (both with the authorities and later with the ISO) until exhaustive studies have established that an alternative procedure is in fact more relevant.

110074746-4769 at 4754 (U.S. Ex. 85,076) (emphasis added).

3191. A BATCo document entitled "Proceedings of the Smoking Behaviour-Marketing Conference July 9th-12th, 1984" indicated not only that BATCo designed its cigarettes with planned FTC tar and nicotine yields and separate, higher yields intended to be achieved by human smokers through compensation, but that BATCo concealed its design of cigarettes to facilitate compensation by utilizing degrees of "elasticity" that were "less obvious":

> From a research and product development viewpoint the proposition of designing a cigarette, of high taste to tar ratio, which responds positively to human smoking behaviour [referring to compensation] has been agreed to be acceptable. . . . The marketing policy concerning this type of product . . . will depend largely on the degree of elasticity in the design and how overtly this elasticity is achieved. The **consensus is that small improvements in elasticity which are less obvious, visually or otherwise is likely to be an acceptable route**. . . . Large changes in delivery are not credible (i.e. 1 mg machine delivery giving 10 mg through the consumer compensation). Better to have a 9 mg product giving 15 mg.

B12910303-0501, 0305-0307 (U.S. Ex. 85,449) (emphasis added). In stark contrast to BATCo's internal plans, a January 21, 1983 document entitled "Notes for BAT Co Conference," appended to "Minutes of the BATCo Chairman's Advisory Conference" (held in March 1983), explains that BATCo's plan was to counter arguments that smoker compensation reduced or eliminated any health benefit to low tar cigarettes by claiming that BATCo designed cigarettes to **prevent** compensation:

> One line of attack [on the claimed health benefits low tar cigarettes] will be that smokers compensate for the reduced delivery by alternating their smoking habits. We should admit that this can occur but **emphasise that our superior knowledge of smoker behaviour has permitted the development of products giving smoking experiences . . . mitigating against compensation.**

109877063-7120, 7118 (U.S. Ex. 87,917) (emphasis added).

3192. An April 8, 1987 memorandum on Brown & Williamson letterhead from M.L. Reynolds, Director of Research at Brown & Williamson, to Claude Joigny of SEITA in France demonstrates RJ Reynolds's awareness that FTC tar numbers were misleading, and that a banding system, in which low tar cigarettes are identified as delivering a range of mg of tar, as opposed to a single tar number, would be more accurate, stating: "I myself explained that Brown & Williamson would support a tar banding system of the type used in the U.K. as a more relevant consumer message." 400015868-5868 (U.S. Ex. 85,078).

3193. BATCo also understood "elasticity," i.e., making cigarettes (such as "Barclay") that would deliver low yields of tar and nicotine when smoked by the FTC Method machine, but would easily allow smokers to compensate and greatly increase their actual intake of tar and nicotine. Two documents from Colin C. Greig, BATCo Research & Development, identified means to design cigarettes with "elasticity" – namely, ' Structured creativity group' – Thoughts by C.C. Greig – R&D, Southhampton – Marketing Scenario" and "Specific Proposal." "Specific Proposal;" stated: "**What would seem very much more sensible[] is to produce a cigarette which can be machine smoked at a certain tar band, but which, in human hands, can exceed this tar banding. Such is the case with Barclay. . . . Barclay is an extreme example**

of this 'elasticity' of delivery . . . . There are . . . ways to obtain moderate 'elasticity through non-obvious cigarette design features. One particular way is to use a recent R&D development . . . rather obvious to the expert but not, necessarily, the customer." The document proposed several cigarette designs that enable compensation, including "a nicely 'elastic' product which has good smoking mechanics" and "'[a] medium delivery compensable product.'" 100515899-5910 (U.S. Ex. 20,230) (emphasis added – bold type); Expert Report of Neil Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001).

3194. The document entitled "'Structured creativity group'" further stated:

> If one looks, cursorily, at the human behaviour records in GR&DC over the last fifteen years, the immediate conclusion is that puff volumes have risen as inexorably as machine deliveries have declined. Given **the design parameters of the cigarettes, it is possible to speculate that human compensation has, for a significant part of the smoking population, negated attempts to reduce tar deliveries**.

In that document, Greig dismissed the argument that low tar smokers do not compensate as "rubbish." Greig further wrote under the heading "What satisfies his requirement," that smokers:

> may smoke a low delivery cigarette - but in times of tension or altered mood we want a stronger one. What happens? Either we smoke one more intensely (remember there is no single dose for a cigarette) - or we smoke two in rapid succession. A dilemma appears - do we design a compensatable cigarette and sell one - or the non (or minimally) compensatable cigarette - to sell two? Given the unit cost, it is very probable that the second option is not viable - so we have, perhaps, to do the first.

Grieg concluded the memorandum by stating: "**Let us provide the exquisiteness, and hope that they, our customers, continue to remain unsatisfied**. **All we would want then is a larger bag to carry the money to the bank**." 321536220-6230 at 6224, 6229-6230 (U.S. Ex. 85,095)

(emphasis added).

3195. A 1999 BATCo document entitled "Lightning – Extreme Smoking Regimes Testing Results and Implications for IT and The Light-Mild Issue" shows that, using smoking machine parameters different than the FTC that more closely approximate human smoking (parameters that block ventilation holes, for example) with BATCo's du Maurier brand of light cigarettes, "[d]eliveries (tar and nicotine) [were] considerably higher than competitor brands under high smoking regime. . . . Deliveries for our major trademarks (Player's and du Maurier) appear higher than the competitor brands[.] Could this become a consumer issue? How can we best adjust the lineups of families (if required) while minimizing perception of change by current smokers." 321989110-9124 at 9116 (U.S. Ex. 85,077).

3196.

322280070-0109 at 0106 (U.S. Ex. 87,918) (Category 2) (emphasis added).

(vi) American Tobacco

3197. A circa 1994 American Tobacco document stated:

> The American Tobacco Company utilizes ventilation holes in the filter tip of cigarettes to provide a means for ingress of air to dilute the smoke and regulate 'tar' delivery. The size and/or number of ventilation holes are factors in the design of air-diluted filter

> cigarettes. Generally, lower 'tar' deliveries are achieved by increasing the size and/or number of ventilation holes. The American Tobacco Company positions the ventilation holes in a relatively narrow band about mid-way of the filter tip length for all air-diluted brands, i.e., full flavor, low 'tar,' and ultra low 'tar.'

The document further stated that American does not utilize the position of vent holes to obtain low FTC tar deliveries: "Hole position is therefore not utilized as a criteria in obtaining low FTC smoke deliveries in cigarettes. Ventilation holes for all brands are positioned a minimum of 12 mm from the mouth end of the cigarette." 980215835-5838 at 5835 (U.S. Ex. 85,096).

(vii) Lorillard

3198. A memorandum recounting Lorillard scientist Vello Norman's visit to the American Health Foundation on November 18, 1980, demonstrates that Lorillard was aware that its cigarette designs brought about deceptive tar and nicotine yields when tested by the FTC Method. In a parenthetical note in the memo, Norman wrote:

> Note: actually what he needs is a pressure drop sensitive smoking machine which could take large puffs from cigarettes that are easy to draw through and would have a hard time puffing on very tight cigarettes. This would simulate human behaviour but, I did not dare to mention anything like that because it would be detrimental to our types of brands.

00265808-5810 at 5809 (U.S. Ex. 20,023).

3199. A February 6, 1985 memorandum sent from M.A. Sudholt to M.S. Ireland (two Lorillard scientists), indicated Lorillard's desire to design low tar cigarettes that actually delivered enough nicotine (referred to as "impact") to sustain smokers' addiction. The document stated: "The major impact of the nicotine project has been to **increase the physiological impact** . . . in ultra low tar cigarettes. Ultra low tar cigarettes generally have little taste or **impact** and

high pressure drop." The memorandum proposed "Future Work" intended to "**produce an increased impact in ultra low tar cigarettes**." 80642659-2661 at 2659-2660 (U.S. Ex. 21,996) (emphasis added).

3200. Stephen Jones, a Lorillard chemist who had participated in the design of nearly all Lorillard cigarette brands, including Newport, Kent Golden Lights, Kent III, Triumph, Maverick, Style, Old Gold, and Max testified that the Lorillard marketing department, and not the product development department, determined tar and nicotine parameters for new cigarette brands. Deposition of Stephen Jones, Reed v. Philip Morris, April 27, 1997, 5:17-5:21, 7:18-7:21, 43:14-44:12, 45:3-45:9.

(viii) Liggett

3201.

LWDOJ9165648-5650 at 5649-5650 (U.S. Ex. 21,216) (Confidential) (emphasis added).

(d) Defendants Continue to Make Misleading Statements Regarding Compensation and the FTC Method

3202. Despite the evidence illustrated above showing Defendants' extensive knowledge of compensation that spans multiple decades, Defendants concealed their knowledge of

compensation and disseminated false and misleading statements to downplay the existence and prevalence of compensation. At the same time, Defendants publicly championed the validity of the FTC Method and its usefulness to consumers well into the 1990s, in order to effectuate their scheme to portray low tar cigarettes as less harmful. See U.S. FPFF § IV.F(3)(b) & (c), supra; Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001); 2041186475-6517 at 6475, 6486-95, 6498-04 (U.S. Ex. 22,181) (1994 – Brown & Williamson, American Tobacco, Lorillard and Liggett defending the validity and usefulness of the FTC Method to consumers); 2048381972-2310 at 1975 (U.S. Ex. 22,190); 521321297-1301 at 1297 (U.S. Ex. 22,137); 520011445-1480 at 1445, 1457-58 (U.S. Ex. 22,101) (1994 – various public statements by RJ Reynolds employees defending the validity of the FTC Method); 2505597781-7998B at 7968-87 (U.S. Ex. 23,028) (1996 – Defendants' statements defending the utility of the FTC Method to consumers).

3203. As Defendants were aware, the smoking regimen used in what became the FTC Method was designed to approximate smoking behavior during the 1930s, when cigarettes were relatively simple devices, few employed filters, and perforated filter ventilation cigarettes were not in production. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

3204. In establishing the FTC Method, it was understood that while the FTC Method was intended to provide a useful measure of the amount of tar and nicotine that particular brands generate when smoked in a uniform fashion, the standardized FTC Method – or any standardized testing procedure for that matter – would not exactly represent the amount of tar and nicotine that

any particular smoker would ingest. 1000309929-9932 (U.S. Ex. 22,242); 03531981-1986 (U.S. Ex. 22,243).

3205. Thus, as noted in U.S. FPFF § IV.F(3)(b), supra, while the FTC contemplated that numerous potential variations among individuals in everyday smoking behavior could have some effect on tar and nicotine yields, **the FTC did not have an understanding of smoker compensation, which is the fact that smokers' addiction to nicotine would cause them to smoke low tar cigarettes more aggressively to satisfy their nicotine addiction – and thereby inhale more tar and nicotine in the process**. Defendants withheld their knowledge that the reason that the Method could yield misleading data was that nicotine addiction would drive smokers to achieve relatively stable nicotine intakes through the mechanism of smoker compensation. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

3206. While it was understood that the FTC Method (and any standardized method) would be an imperfect measure of the amount of tar and nicotine that a particular smoker would inhale from any particular cigarette, it was nonetheless intended to reflect a representative approximation of the amount of tar and nicotine generated by cigarettes when smoked under identical conditions, thereby providing a useful comparison of the quantum of tar and nicotine that smokers would receive. For example, as stated by the FTC in 1983, it was believed that "**[i]f consumers avoid[ed] blocking ventilation holes, cigarettes smoked in the same fashion will yield 'tar', nicotine, and carbon monoxide in general accordance with their relative FTC rankings**." 03573029-3030 at 3029 (U.S. Ex. 22,244); 48 F.R. 15,953 at 15,954 (Commission

Determination Re Barclay Cigarettes; Amendment of Report of "Tar," Nicotine, and Carbon Monoxide Content of 208 Varieties of Cigarettes; Request for Comment on Possible Testing Modifications) (emphasis added).

3207. In a November 29, 1994 written statement on their behalf submitted for the December 5-6, 1994 NCI Conference on the FTC Cigarette Test Method, Brown & Williamson, American Tobacco, Lorillard, and Liggett defended the FTC Method, stating that the FTC Method "Provides Useful and Reliable Information About the Relative 'Tar' and Nicotine Yields of Cigarettes," and indicating that FTC yields are a "useful predictor" of the amount of tar and nicotine smokers will inhale. 2041186475-6517 at 6475, 6486-95, 6498-6504 (U.S. Ex. 22,181).

3208. Similarly, at the NCI Conference on the FTC Cigarette Test Method on December 5, 1994, David Townsend and Donald de Bethizy, appearing in their capacity as RJ Reynolds employees, maintained in both their written and oral statements that the FTC Method was a valid and accurate test method that approximates human smoking. 2048381972-2310 at 1975 (U.S. Ex. 22,190); see also Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

3209. In his written statement, Townsend indicated that the FTC Method "provides accurate and reliable information" that "is a key factor for consumers to make objective choices in the marketplace" and stated that "implementation of the FTC testing for 'tar' and nicotine . . . was an important step in providing data for the consumer to use to make an informed decision in the marketplace." 521321297-1301 at 1297 (U.S. Ex. 22,137). The transcript of the conference reveals Townsend's statement that "it is clear from the information, I believe, that the FTC test

method does provide accurate and reliable information for the consumer to use in the marketplace; that is, to compare yields of various brands and make objective choices. The consumer makes choices based on the FTC information, or the rankings derived from that information . . . . The FTC method was established to provide accurate and reliable comparative smoke yield information, and has been very successful in doing that." 2048381972-2310 at 2252, 2256 (U.S. Ex. 22,190).

3210. De Bethizy's written statement indicated: "The FTC method provides an accurate and meaningful ranking of cigarettes. . . . On average, smokers absorb approximately the yield of nicotine predicted by the FTC method, and smokers of lower yielding products absorb less nicotine . . . . [S]mokers, on average, absorb approximately the yield of nicotine predicted by the FTC method." 520011445-1480 at 1445, 1457-58 (U.S. Ex. 22,101). DeBethizy's oral testimony included the following statement: "The FTC method provides an accurate and meaningful ranking of cigarettes. . . . [T]he compensation phenomenon does not undermine the FTC method." 2048381972-2310 at 2264, 2267 (U.S. Ex. 22,190).

3211. In their 1996 comments on the FDA's proposed tobacco rule, Defendants continued to maintain that there is a meaningful relationship between the FTC ratings and tar and nicotine exposure. 2505597781-7998B at 7968-87 (U.S. Ex. 23,028).

3212. While defending the FTC Method and resisting proposed changes, Defendants have made repeated public assertions that they have substantially reduced the tar and nicotine deliveries of cigarettes, and they cite the FTC ratings as their primary basis of support for this assertion. 2505597781-7998B at 7987-88 (U.S. Ex. 23,028) (1996 Comments of Brown &

Williamson, Liggett, Lorillard, Philip Morris, Inc., RJ Reynolds & Tobacco Institute before the U.S. FDA, Vol. III, indicating that "over the years, the average yield of cigarettes generally has declined markedly . . . . The fact is that from 1950 to the present, U.S. cigarette manufacturers have reduced 'tar' and nicotine yields by more than 60 percent"); 2046932308-2363 at 2314-2315 (U.S. Ex. 85,067) (Philip Morris 1994 submission to NCI regarding the FTC Method, indicating "an overall decrease in the 'tar' and nicotine intake of smokers" as a result of reduced FTC yields); 521321297-1301 at 1299 (U.S. Ex. 22,137) (1994 statement of RJ Reynolds employee that "all cigarettes are substantially lower in 'tar' yields than they were in past years" and indicating that "[c]igarette design changes have resulted in an overall major reduction in smoke yields."); see also Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

3213. A February 7, 1996 memorandum on Covington & Burling letterhead from Tobacco Institute attorney David H. Remes to several of Defendants' attorneys and high ranking employees, including Denise Keane, Philip Morris General Counsel, Ernest Pepples, Brown & Williamson Senior Vice President and General Counsel, Kendrick Wells, Brown & Williamson Assistant General Counsel, and attorneys from the law firms of Arnold & Porter and Collier Shannon, recounted a meeting earlier that day between Remes and C. Lee Peeler of the FTC. In keeping with Defendants' scheme to promote low tar cigarettes as safer while keeping secret their knowledge of smoker compensation and that low tar cigarettes are in fact no safer than regular cigarettes, Remes relayed to Peeler at this meeting the industry's claim that low tar cigarettes actually do deliver less tar and nicotine to smokers, and that consumers need not be

informed about changes in smoking behavior related to smoker compensation. Remes communicated his "observation that in many cases low-yield brands contain so much less tobacco than higher-yield brands that **any compensation could not begin to erase the difference**." Remes also stated his "suggestion that smokers do not need to have it explained to them that smoking a lot of low-yield cigarettes will result in greater T&N deliveries, just as people do not need to be told that eating a lot of low-fat cookies can make them fact," and noted that Peeler "responded that the analogy does not hold because we know how much fat is 'delivered' in each cookie but not how much T&N is delivered by each cigarette." 92613896-3899 (U.S. Ex. 87,919) (emphasis added).

3214. There have been discussions in the scientific community about revising the FTC Method to make it a more accurate measure of the tar and nicotine that human smokers actually ingest. Defendants have opposed changing the FTC Method, arguing that it provides a way for consumers to choose cigarettes and order them from light to strong that is meaningful in terms of the tar and nicotine exposure that results from smoking. Although Defendants were aware that puff frequency, puff volume, and puff duration for smokers of filtered cigarettes varies greatly, they opposed any change to the regimen that would yield higher tar and nicotine results for their "light" cigarettes. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001).

3215. For instance, in September 1997, the FTC solicited public comment on a proposal to replace the existing FTC test method with a methodology that would "provide information on the tar, nicotine, and carbon monoxide yields obtained under two different smoking conditions"

to provide "a range of yields for individual cigarettes smoked under less intensive and more intensive smoking conditions" and convey to smokers that "a cigarette's yield depends on how it is smoked." FTC Cigarette Testing; Request for Public Comment, 62 Fed. Reg. 48,158, 48,159 (Sept. 12, 1997) (U.S. Ex. 88,618). In response, Philip Morris, RJ Reynolds, Brown & Williamson, and Lorillard submitted joint comments to the FTC defending the current FTC Method and opposing the proposed change, stating: "The manufacturers believe that the current test method should continue to be used. They are not convinced that it should be supplemented with a second test method." Comments of Philip Morris Inc., RJ Reynolds Tobacco Co., Brown & Williamson Tobacco Corp., and Lorillard Tobacco Co. on the Proposal Entitled FTC Cigarette Testing Methodology Request for Public Comment (62 Fed. Reg. 48,158) at 2-3 ("Joint Comments") (U.S. Ex. 88,618).

3216. The comments further stated: "**Smokers are familiar with the ratings produced by the current test method**, and continued use of the current test method assures historical continuity of the data. For these reasons, testing under the current FTC test method should continue." Joint Comments at 4 (U.S. Ex. 88,618) (emphasis added). The comments referred to compensation as a "hypothesized" and "weakly documented phenomenon" and stated: "The testing protocol should not be modified to reflect 'compensatory' smoking." The comments stated that this allegedly was in part because "current knowledge about these behaviors is too sparse to be usable for modeling purposes." Joint Comments at 43 (U.S. Ex. 88,618).

3217. Defendants' comments argued that "[t]he protocol should not be modified to incorporate a vent-blocking condition." In response to the FTC's question: "What kinds of

consumer education messages should be created to inform smokers of the presence of filter vents and the importance of not blocking them with their fingers or lips?" the comments stated: "The manufacturers are not convinced that vent-blocking is a sufficiently common or documented phenomenon that smokers should be alerted to the presence of filter vents and instructed not to block the vents." Joint Comments at 60, 82 (U.S. Ex. 88,618).

3218. In response to the FTC's question: "If the effect of compensatory smoking behavior is not incorporated in the tar and nicotine ratings, should a disclosure warning smokers about compensatory smoking behavior be required in all advertisements?" the comments stated: "The manufacturers are not convinced that compensatory smoking behavior is a sufficiently common or documented phenomenon that consumers should be alerted to its existence. . ." Joint Comments at 89 (U.S. Ex. 88,618).

3219. As illustrated below, additional individual internal company documents and statements further illustrate Defendants' concerted campaign to provide health reassurance in the form of reduced tar and nicotine claims based on the FTC Method, while deceiving the public regarding the existence and prevalence of smoker compensation, which allows smokers to ingest much higher levels of tar than registered on the FTC Method.

(i) Tobacco Institute

3220. In anticipation of the 1981 Surgeon General's Report, the Scientific Affairs Division of the Tobacco Institute drafted a memorandum to Horace Kornegay, then President of the Tobacco Institute, dated December 15, 1980, indicating that, among other issues, the Report was expected to include a discussion of smoker compensation. Rather than recommending

provision of full and complete information on the subject to the public, the "Response" section of the memorandum stated:

> [I]t is suggested that the TI take the following position on the report and that on receipt of any queries from the press, staff be instructed to respond as follows: 'The results of research in the past are so mixed that it is impossible to reach and support a firm conclusion at the present time. All one has to do is be aware of and appreciate the call for more research to realize that the Surgeon General's Office cannot objectively have a strong position supported by research. The office is looking for more money in order to support the current campaign against the tobacco industry.'

TIMN0073798-3799 at 3799 (U.S. Ex. 85,127).

(ii) Philip Morris

3221. In a June 29, 1988 "Statement of Philip Morris, U.S.A." to a Committee of the United States Congress, Philip Morris made several statements equating machine measured tar and nicotine deliveries without any reference to nicotine-driven compensation that substantially increases the amount of tar and nicotine inhaled by smokers above those recorded by the FTC Method:

> From the 1940s to today, Philip Morris has similarly spent millions on its own research program to modify its cigarettes. As a result, the 'tar' and nicotine yields of today's cigarettes – the principal concern of the scientists who believe cigarettes pose health risks – have been reduced as much as 95% from the 1957 averages. . . . [I]t was Philip Morris scientists who perfected the instrument that was used for many years by the Federal Trade Commission and other groups around the world for the measurement of 'tar' and nicotine yielded by cigarettes. . . . [filter] ventilation techniques also contributed to an overall reduction in 'tar' and nicotine levels. . . . As a result of these advances in filtration and ventilation, Philip Morris and the other cigarette companies were able to

> reduce 'tar' and nicotine levels substantially in the late 1950s. . . . As a result of these dramatic reductions in the 'tar' and nicotine levels of the leading brands, as well as the introduction of entirely new low-delivery cigarettes, the overall intake of 'tar' and nicotine by American smokers decreased dramatically even before the Surgeon General's Report against smoking in 1964. . . . As a result of all this research, **Philip Morris succeeded in reducing 'tar' and nicotine levels even more in the years following the 1964 Surgeon General's Report**.

TI0170431-0458 at 0433, 0439, 0441-0443, 0451 (U.S. Ex. 85,065) (emphasis added).

3222. In his April 14, 1994 written Statement before the U.S. Congress' Subcommittee on Health and the Environment, William Campbell, then President and CEO of Philip Morris USA, stated, contrary to extensive information developed by and known to Philip Morris USA, that "consumers are not misled by the published nicotine deliveries as measured by the FTC method." Campbell also claimed, without qualification or reference to the FTC Method, that "tar **and nicotine** levels have decreased dramatically over the past 40 years. Today, the market is populated with a number of 'ultra low' brands which deliver less than 5% of the tar **and nicotine** of popular brands 20 years ago." Campbell also denied that smoker compensation rendered the FTC tar and nicotine yields misleading, in a statement carefully worded to refer only to the number of cigarettes smoked, ignoring all other methods of smoker compensation:

> Commissioner [David] Kessler suggested that the FTC figures were misleading because smokers might "compensate" for lower tar and lower nicotine brands by smoking those cigarettes differently. In fact, the data indicates that, despite the dramatic reductions in tar and nicotine levels over the past decades, the **number of cigarettes smoked** by an individual has remained constant, and even declined slightly. More importantly, the data shows no difference in the **number of cigarettes smoked** by those who favor higher and lower yield brands.

ATC2746877-6887 at 6877, 6878, 6887 (U.S. Ex. 59,009) (emphasis added).

3223. A circa October 1994 document that Philip Morris submitted to the United States National Cancer Institute entitled "Submission of Philip Morris Incorporated to the National Cancer Institute Consensus Conference on the FTC Cigarette Testing Methodology and Rating System" continued to deny and/or minimize the effects of smoker compensation and advocate for the continued use of the FTC Method, which Defendants know gives deceptively low tar numbers:

> A number of the FTC's questions . . . relate to 'compensation,' a term used to suggest that some smokers of lower yield cigarettes may sometimes alter their smoking behavior in ways that may tend to reduce the differences in yields among brands and styles implied by their relative FTC method ratings. While there is a fair amount of recent literature on compensation, few studies have been performed that provide reliable data to establish the occurrence of this suggested phenomenon. We appreciate the interest people have in possible compensation. But there can be no real dispute that, to date, the scientific literature on compensation is limited and inconclusive. . . . [W]hatever conclusions may be reached about compensation, **the FTC method remains an appropriate standard for measuring cigarette properties. The reporting of FTC method yields . . . remains a useful source of information to consumers choosing among cigarette brands and styles**.

2046932308-2363 at 2312, 2362-2363 (U.S. Ex. 85,067) (emphasis added).

3224.

2046266224-6268 at 6234 (U.S. Ex. 23,936) (Confidential) (emphasis added). In 1997 comments to the FTC, Philip Morris asserted that descriptors such as "light" and "low tar" "provided a very legitimate service and enabled adult smokers to distinguish among the brands they choose to smoke; and that issues relating to descriptors could be addressed through communication." Nonetheless, prior to November 2002, Philip Morris had not conducted any such communication campaign about descriptors except on its website, starting in 1999, which is seen by vastly fewer consumers than see Philip Morris advertising or packaging. Deposition of Denise Keane, United States v. Philip Morris, et al., October 2, 2002, 382:18 - 384:1.

3225. In 1997, Philip Morris opposed RJ Reynolds's proposal to ban tar and nicotine numbers on packs and advertising because, as Denise Keane, Philip Morris's General Counsel and Senior Vice President, stated, Philip Morris wanted to continue to provide them in advertising. Philip Morris also opposed changes in the FTC test parameters – according to January 13, 1997 talking points, Philip Morris felt "more effective communication would inform smokers of presence of ventilation holes and instruct them not to block." Philip Morris also, in 1997, argued that proposals for communication to the public should be limited to referrals to an "1-800 number," rather than to make brochures available at points of sale or otherwise. Deposition of Denise Keane, United States v. Philip Morris, et al., October 2, 2002, 398:3-399:6, 393:3-395:12; 2074759497-9499 at 9497-99 (U.S. Ex. 43,525).

(iii) RJ Reynolds

3226. In a July 2, 1984 letter to the FTC from Samuel B. Witt III, Vice President, General Counsel and Secretary of RJ Reynolds, Witt stated:

> [T]he Commission has also asked for comment on broad questions concerning 'smoker compensation.' . . . In their submissions [in response,] health organizations take the position (which is not correct) that the average smoker will get the same amount of 'tar' and nicotine from higher and lower 'tar' cigarettes, therefore making the Commission's numbers irrelevant to the consumer. **RJRT, on the other hand, maintains that the average smoker will get less 'tar' from smoking a low 'tar' cigarette than he or she will receive from smoking a higher 'tar' product, and that the average smoker of low 'tar' cigarettes does not smoke more cigarettes than the average smoker of higher 'tar' cigarettes.**

2025045756-5761 at 5760 (U.S. Ex. 22,247) (emphasis added).

3227.

516962199-2227 at 2203-2204 (U.S. Ex. 85,128) (Confidential) (emphasis added).

3228. Despite substantial evidence showing RJ Reynolds's extensive knowledge of smoker compensation – and consistent with Defendants' conspiracy to keep its knowledge of compensation secret – F. Ross Johnson, CEO and President of RJR Nabisco from 1985 to 1989, claimed in a 1997 deposition to have never heard of smoker compensation. Deposition of F. Ross Johnson, State of Minnesota v. Philip Morris Inc., et al., September 11, 1997, 78-79.

3229. A September 8, 1999 draft public statement by RJ Reynolds reveals the company's intent to deceive the public regarding smoker compensation and the FTC Method. Sharply contradicting Defendants' claims that they informed the FTC from the genesis of the FTC Method that FTC tar and nicotine yields did not provide meaningful information to consumers, the document stated that FTC tar and nicotine "numbers are a meaningful way for smokers to compare cigarettes." It also stated that smoker "compensation is generally only partial and temporary. Over time, smokers who have switched brands tend to resume their normal smoking behaviors." The document went on to state: "Even though the FTC method cannot, and was never meant to, predict actual smoker intake, **the numbers generated by the method are remarkably close to the average intakes by actual smokers**." This statement bears the notation "[Seth, what is your substantiation of this statement?]." 700792086-2132 at 2098 (U.S. Ex. 22,236) (emphasis added).

(iv) Brown & Williamson

3230. In the mid-1990s, Tommy Sandefur, CEO of Brown & Williamson, submitted a written statement to Congress

Sandefur's statement is telling in light of the fact that more than ten years earlier, on March 19, 1984, Ernest Pepples, Senior Vice President and General Counsel of Brown & Williamson, wrote a letter to Howard Liebengood of the Tobacco Institute acknowledging that FTC tar and nicotine ratings "may be misleading to consumers" and bear no relation to actual consumer intake. Compare 682637627-7629 at 7629 (U.S. Ex. 22,946) (Confidential); with 521060910-0912 (U.S. Ex. 20,892).

3231. Brown & Williamson's conduct regarding its cigarette called Advance demonstrates the lengths to which it has gone to prevent smokers from discovering that the FTC tar and nicotine yields for low tar cigarettes are very likely unrealistically low. In 1996, Brown & Williamson entered into an agreement with a small independent tobacco company, Star Tobacco, Inc. ("Star"), to develop Advance. Star began test-marketing Advance in October 2000 in Lexington, Kentucky, and Richmond, Virginia. Star USvPM 001440-1459 at 1442 (U.S. Ex. 85,923). In addition to the federally mandated warnings, Star added additional information about compensation and nicotine addiction on the package and in an "onsert" attached to the package.

3232. In contrast to Star, when Brown & Williamson began a new test market for Advance in Indianapolis, Indiana in November 2001, Brown & Williamson used its own, redesigned packaging and onsert which demonstrated Brown & Williamson's unwillingness to voluntarily communicate clear, direct statements regarding compensation in the text section of its onsert. Brown & Williamson:

- deleted Star's onsert statement that "ALL SMOKED TOBACCO PRODUCTS ARE ADDICTIVE AND POSE SERIOUS HEALTH HAZARDS";
- deleted Star's statement: "Because many smokers smoke to get nicotine, they tend

to smoke more intensely when smoking "lights" or "ultra lights," and that because of such nicotine-driven compensation "lights" and "ultra-lights" are NOT NOW viewed by health scientists as reliably less hazardous." Instead, B&W stated in minuscule type only that smokers "can increase or decrease the amount of smoke that they take in depending on how they smoke their cigarettes" and thus actual delivery may differ from the FTC test measurements; and

- deleted statements on the package that "Smoking related diseases can KILL you," "Smoking can take YEARS off your life," and "It is much safer for you to QUIT than to switch or smoke."

Compare Star Packaging, 524942388-2389 (U.S. Ex. 52,963) & 524942390-2391 (U.S. Ex. 88,038) to Onsert to Brown & Williamson's Advance Packaging (U.S. Ex. 87,216); 30(b)(6) Deposition of Sharon Boyse, Ph.D., United States v. Philip Morris, et al., October 11, 2001, 119:3-24; 120:22-121:2; 30(b)(6) Deposition of Paul Wessel, United States v. Philip Morris, et al., March 19, 2003, 19:3-23:9.

3233. A draft Q&A on Brown &Williamson's Advance cigarettes created in late 2000 or thereafter indicated Brown & Williamson's plan to continue disseminating information indicating that low tar cigarettes are less hazardous. The proposed Brown & Williamson response to the hypothetical question: "Couldn't these [Advance] cigarettes have the same effect on consumers as the 'light' cigarettes, leading them to a false sense of safety?" suggested that low tar cigarettes are or may be less harmful: "[*S*]*cientific evidence* suggests that smokers of 'lights' products on average take in less tar than smokers of full flavor products . . . . [W]e believe that the move to low tar represented a valid step in the attempt to reduce the health risks associated with smoking. Further reducing specific toxins, as we have done with Advance, represents a further step in the right direction." On the next line is the statement, "What evidence? Can you tell me the names [sic] these studies?" No such evidence is ever identified.

271099136-9142 at 9139 (U.S. Ex. 22,114) (Category 1) (emphasis in original).

3234. At her deposition in this case, Brown & Williamson CEO Susan Ivey depicted compensation as a minimal force, providing only "slightly more or less" tar and nicotine. Ivey's testimony contradicts substantial evidence of Brown & Williamson's internal recognition the importance of compensation. See U.S. FPFF § IV.F(3)(b), supra. Ivey testified that compensation "is looking at the way that the smoker smokes the cigarette, and they smoke a lower delivery cigarette. And depending on the way they smoke that, they may get slightly more or less than another smoker who smokes the same cigarette . . . people compensate to try to get more out of something that's lower delivery." Deposition of Susan Ivey, United States v. Philip Morris, et al., June 20, 2002, 56:3-56:25.

3235. Ivey further testified that Brown & Williamson's public position on low tar cigarettes, conveyed on its website, "is that less [referring to FTC tar and nicotine] is better than more." This statement continues to reflect Brown & Williamson's refusal to acknowledge the profound role its own cigarette design and promotional efforts have had both in reinforcing and perpetuating the false perception of the public, particularly smokers, that low tar cigarettes are safer than regular delivery cigarettes. Deposition of Susan Ivey, United States v. Philip Morris, et al., June 20, 2002, 57:21-58:24.

3236. Also on its website, Brown & Williamson misrepresents that there is an open controversy regarding smoker compensation, stating that "[t]he question of why compensation occurs is still the subject of scientific research, and the relative importance of tar versus nicotine in determining compensation is unclear" and that "how much smokers alter their behavior when

they switch to lower tar products, and for how long, is still unclear." The website further states that "many researchers agree that, in general, smokers will derive less tar and nicotine from a cigarette that has a low FTC rating than from a cigarette with a high FTC rating." See Brown & Williamson Smoking & Health Center, "Low Tar Cigarettes," at http://www.brownandwilliamson.com (last viewed May 17, 2004) (U.S. Ex. 86,666).

(v) BATCo

3237. Despite the substantial amount of evidence showing BATCo's extensive knowledge of smoker compensation demonstrated in U.S. FPFF § IV.F(3)(b), supra – and consistent with Defendants' conspiracy to keep their knowledge of smoker compensation secret – in an October 1999 Memorandum by British American Tobacco to the U.K. House of Commons Health Committee entitled "The Tobacco Industry and the Health Risks of Smoking," BATCo attempted to downplay its significance:

> It is clear that compensation does occur, but that . . . **despite compensation, smokers receive less tar on average when switching to a lower tar cigarette**. . . . The evidence suggests that increasing the number of cigarettes consumed, blocking of ventilation holes and increasing inhalation depth, **are not common compensation mechanisms** . . . . The limited evidence of which we are aware, suggests that switched smokers either revert gradually to their former, non-compensatory behaviour (which results in lower overall intake of smoke), or change again to a brand which they prefer and which does not require the extra 'effort' of taking larger puffs (which may or may not result in lower intake).

322017057-7142 at 7108-09 (U.S. Ex. 22,068) (emphasis added).

(vi) American

3238. Eric Gesell, designated representative of American, testified at a deposition in

1997 that throughout the entire time he worked for American, he did not know about smoker compensation. Gesell also testified on behalf of American that the company did not believe that: smokers smoke for a certain level of nicotine and that they adjust their level of smoking when switching between different types of cigarettes to ensure that they get the same amount of nicotine. Deposition of Eric Gesell, State of Minnesota v. Philip Morris, Inc., et al., September 18, 1997, 5:8-6:6; 6:10-17; 98:21-100:6.

3239. Gesell also testified on behalf of American that the FTC Method tar and nicotine yield data "is meaningful, and it was meaningful, and probably still is today." Deposition of Eric Gesell, State of Minnesota v. Philip Morris Inc., et al., September 18, 1997, 5:8-6:6; 6:10-17; 107:7-108:6.

(vii) Lorillard

3240. Consistent with Defendants' conspiracy to keep their knowledge of smoker compensation secret, Alexander Spears, CEO of Lorillard, testified in a 1997 deposition that he believed that the FTC tar and nicotine numbers did not need to be explained to smokers because it was obvious that they were meaningless due to smoker compensation. Deposition of Alexander Spears, State of Minnesota v. Philip Morris Inc., et al., September 23, 1997, 71:6-72:2.

(4) Defendants' Fraudulent Marketing of Low Tar Cigarettes Increased Their Profits

3241. As demonstrated above, Defendants' public statements, advertisements, and other marketing activities for low tar and filtered cigarettes over the last several decades were intended to provide smokers with health reassurance message (see U.S. FPFF § IV.F(1)(a), supra) in order

to keep them from quitting smoking (see U.S. FPFF § IV.F(2)(a), supra). To achieve this goal, Defendants spent disproportionately on advertising and marketing filtered and low tar cigarettes over decades in an attempt to increase consumer awareness and purchase. Starting in 1967, the FTC began submitting annual reports to Congress pursuant to the Federal Cigarette Labeling and Advertising Act ("FCLAA"), 15 U.S.C. § 1331, which discussed cigarette advertising and promotion practices. The FTC's 1967 report indicates that for every year from 1963 to 1966, Defendants' total expenditures on advertising and promotion of filtered cigarettes greatly exceeded their domestic market share. For example, in 1963, Defendants devoted 75% of their total advertising and promotional expenditures to filtered cigarettes, even though these cigarettes comprised only 58% of the market. The FTC concluded that "[t]he figures indicate that the cigarette companies were even more quick to promote filter cigarettes than was the American public to purchase them." The 1967 report found that then current cigarette advertising contained "two principal elements – a portrayal of the desirability of cigarette smoking and assurances of the relative safety of smoking." FTC, Report to Congress Pursuant to the Public Health Cigarette Smoking Act (June 30, 1967) at 11, 14-15 (U.S. Ex. 57,179).

3242. A document entitled "Sales and Advertising Expenditures Tends of Domestic Cigarette Brands 1953-1964, prepared for Philip Morris USA by C.V. Mace, Jr., Principal Scientist at the Philip Morris USA Research Center, indicated that from 1953 to 1964, the Defendants' "substantial advertising expenditures" for filter cigarettes had consistently exceeded the market share of filter cigarettes. PM3000136423-6458 at 6428 (U.S. Ex. 61,503).

3243. The FTC reported similar results with respect to so-called low tar cigarettes. The

FTC's report for 1994 revealed that for every single year from 1967 to 1992, Defendants' advertising and promotional spending for cigarettes yielding 15 mg. or less tar far exceeded their domestic market share. For example, in 1976, cigarettes yielding 15 mg. or less tar comprised only 15.9% of the market; however, Defendants devoted 39.6% of their total advertising and promotional expenditures to them. It wasn't until the early 1990s that the market share of these cigarettes finally caught up to Defendants' spending levels. Report to Congress Pursuant to the Public Health Cigarette Smoking Act for the year 1994 at Table 6, Table 6A, Table 8 (U.S. Ex. 64,320).

3244. Consistent with Defendants' advertisements and other public statements portraying low tar cigarettes as safer and as Defendants' consumer research proved, many smokers and potential smokers perceive low tar cigarettes to be less hazardous than regular cigarettes. Independent public health research has reached the same conclusion. As stated by the Institute of Medicine in a 2001 publication:

> When filtered and low-yield cigarettes were introduced into U.S. markets, they were heavily promoted and marketed with both explicit and implicit claims of reducing the risk of smoking. Even as data accumulated, albeit slowly, that these products did not result in much – if any – decrease in risk, consumers have continued to believe otherwise. . . . Consumer misunderstanding is explained in part by the ways in which these products are marketed . . . . [T]he tobacco companies have appealed to health concerns of smokers at least since 1927. Claims about tar and nicotine levels appeared as early as 1942.

99053048-3558 at 3112 (U.S. Ex. 57,494).

3245. Surveys have consistently shown that a perception of reduced risk is one of the major reasons smokers choose low tar cigarettes. In a typical example, a 1998 national telephone

survey revealed that 58% of ultralight cigarette smokers and 39% of light cigarette smokers said that reducing risk was one of their reasons for their choice of cigarette. Twenty-three percent of individuals (smokers and non-smokers) in a recent survey believed that smoking low tar cigarettes lowers the risk of health problems. Expert Report of Neil Weinstein, United States v. Philip Morris, et al. (R. 675; filed November 15, 2001) at 15; Addendum to Expert Report of Neil Weinstein, United States v. Philip Morris et al. (R. 1150; filed May 10, 2002) at 2 ¶ 9.

3246. In its 1975 report, the FTC found that "[t]he lower tar and nicotine cigarettes have in recent months been the subject of an intensive promotional effort by cigarette manufacturers." The FTC's 1971 report noted that "[r]elieving anxieties about the risks to health posed by cigarette smoking" was among Defendants' three main advertising themes and that "[c]laims of low tar and nicotine content present yet another appeal to relieve concern about the dangers to health associated with cigarette smoking." In the 1975 report, the FTC reported that this theme, used separately or with themes regarding taste or desirable personality characteristics, "continued to predominate in 1975." The FTC's 1976 report noted that these same themes "continued to dominate in 1976, with little variation in format and copy except in the greatly increased promotional emphasis given to the lower and lowered 'tar' varieties." FTC, Report to Congress Pursuant to the Public Health Cigarette Smoking Act for the year 1979 at 2, Table 11. (U.S. Ex. 86,654); FTC, Report to Congress Pursuant to the Public Health Cigarette Smoking Act (Dec. 31, 1975) at 4 (U.S. Ex. 87,921); FTC, Report to Congress Pursuant to the Public Health Cigarette Smoking Act (Dec. 31, 1971) at 9, 12 (U.S. Ex. 87,922); FTC, Report to Congress Pursuant to the Public Health Cigarette Smoking Act for the year 1976, 521200052-0185 at 0058-0059 (U.S.

Ex. 64,820).

3247. Defendants have profited enormously from consumers' mistaken perception that filtered and low tar cigarettes are less hazardous. **The market share of filtered cigarettes has increased from 58% in 1963 to 97% in 1994**. In 1964, "when cigarette sales declined by about 10.7 billion, the sales of regular cigarettes dropped 20 billion while filter cigarettes sales increased almost 10 billion." Similarly, **the percentage of low tar cigarettes (i.e., cigarettes with an FTC-reported tar yield of 15mg. or less) has increased from 2% in 1967 to 71.2% in 1994**. By 1998, low tar cigarettes accounted for 81.9% of total cigarette sales. Expert Report of Jeffrey Harris, United States v. Philip Morris, et al. (R. 660; filed November 15, 2001); "Report to Congress for 1998 Pursuant to the Federal Cigarette Labeling and Advertising Act," FTC 22-26 (2000) (U.S. Ex. 60,434); FTC, Report to Congress Pursuant to the Public Health Cigarette Smoking Act (June 30, 1967) at 19 (U.S. Ex. 57,179); FTC, Report to Congress Pursuant to the Public Health Cigarette Smoking Act for the Year 1979 at 8 (U.S. Ex. 87,925); FTC, Report to Congress Pursuant to the Public Health Cigarette Smoking Act for the Year 1994 at Table 6A, Table 7 (U.S. Ex. 86,655).

3248. An October 1979 "History and Key Trends in the U.S. Cigarette Market" bearing Brown & Williamson insignia, compiled by E.T. Parrack, Brown & Williamson Vice President of Brand Management, noted the enormous effect that Defendants' heavy and sustained advertising of filtered and low tar cigarettes as less harmful had on the growth of the low tar segment:

> [F]iltered products took off, rocketing from 3% of the market in 1950 to 53% in 1960. The most important reason for this growth

> would have to be growing health concern . . . . Hi-Fi was catapulted into existence . . . 1957 . . . . There was no doubt as to the underlying interest at the time in protection from the dangers of cigarettes . . . . [Between 1957 and 1960] the consumer was bombarded with messages regarding high filtration . . . . **The success of hi-fi brands is due in part to the large sums being spent to advertise them**.

670624932-5364 at 4935, 5036, 5277, 5279, 5342 (U.S. Ex. 53,869) (emphasis added).

3249. By continuing to promise smokers less tar, Defendants contributed to the rise in prevalence of low tar cigarettes. Defendants' advertising and promotion of low tar cigarettes are directed the concerns of health conscious smokers and influence their behavior by affecting their perceptions of the pervasiveness, image, and function of smoking. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al. (R. 681; filed November 15, 2001); accord "Report to Congress for 1997 Pursuant to the Federal Cigarette Labeling and Advertising Act," FTC at 3 (1999) (U.S. Ex. 76,080); Deposition of Susan Ivey, United States v. Philip Morris, et al., June 20, 2002 at 39:4-39:8; Deposition of Michael P. Eriksen, United States v. Philip Morris, et al., Dec. 3, 2003, 861:8-862:25, 892:5-893:13; Expert Report of Michael P. Eriksen, United States v. Philip Morris, et al. (R. 678; filed November 15, 2001) at 2-3, 9.

3250. Notwithstanding Defendants' tremendous, sustained spending over many decades to advertise and promote filtered and low tar cigarettes as less harmful, Defendants contend that their extensive advertising and marketing of these brands were not responsible for driving the growth in demand for low tar and filtered cigarettes. These arguments have been rejected by other courts. For example, in the case Price v. Philip Morris, Inc., Philip Morris "specifically argued that the public health community as a whole, and specific components of the public health

community (including the authors of the Reports of the Surgeon General and statements issued by the American Cancer Society) were the reasons some consumers believed these products to be safer." The court soundly rejected Philip Morris's argument, holding:

> The Court finds this testimony and evidence neither credible nor persuasive as a defense to liability in this Action. As a threshold matter, the fact that the public health community recommended to those smokers who could not quit that a lower delivery cigarette would reduce risk is not misleading. There is apparently no dispute that actual lower delivery of toxic substances may reduce harm. The fact that Marlboro Lights and Cambridge Lights did not reduce the actual delivery of harmful toxins does not convert the message from the public health community into a defense to Philip Morris' intentional fraudulent conduct.

2003 WL 22597608, at *9 (Ill. Cir. Ct. Mar. 21, 2003).

3251. The Price court further found:

> Philip Morris had specific scientific and cigarette design knowledge that the public health community did not possess related to Lights cigarettes generally as well as Marlboro Lights and Cambridge Lights cigarettes specifically. This demonstrates that although Philip Morris knew their Lights cigarettes were not safer, the public health community did not know this fact. The Court finds that Philip Morris took advantage of the message of the public health community in selling their cigarettes which delivered neither lower tar and nicotine, nor less harm to the [plaintiffs] in this case. . . Philip Morris' contention that the public health community should somehow be blamed for the fraud associated with Lights cigarettes is both morally and factually incorrect. At all times since the inception of their Lights products, Philip Morris was aware of their deception and was aware that the public health community was among those deceived by the fact that their products did not deliver the promised lower tar and nicotine and were not 'light' as represented.

Id. at *9, 14.

3252. While Defendants falsely claim that the Reports of the Surgeon General endorsed

low tar cigarettes as less harmful, in fact, neither the Surgeon General nor the Surgeon General Reports have ever stated unconditionally that low tar cigarettes are less harmful to those who smoke them, but rather merely acknowledged that, given the consistent finding of a dose-response relationship between the amount of smoking and adverse health effects, cigarette smoke with less tar and nicotine in it may be less likely to cause lung cancer than smoke with more tar and nicotine. Indeed, what Defendants characterize as an endorsement of low tar cigarettes was, in fact, a carefully articulated summary of scientific evidence available to the Surgeon General at the time – evidence which excluded Defendants' internal, unpublished research demonstrating that low tar cigarettes were unlikely to offer any health-related advantage over regular cigarettes.

3253. For instance, in 1966 the United States Public Health Service stated that "[t]he preponderance of scientific evidence strongly suggests that the lower the tar and nicotine content of cigarette smoke, the less harmful would be the effect." The Health Consequences of Smoking: The Changing Cigarette, Surgeon General's Report, Preface, 99054900-5150 at 4902 (U.S. Ex. 74,603) (1981) (referring to 1966 USPHS statement). The Surgeon General also has qualified his statements in that they apply only where there is no change in the manner of smoking, such as occurs with smoker compensation (see U.S. FPFF § IV.F(3)(b), supra). The Health Consequences of Smoking: The Changing Cigarette, Surgeon General's Report, Preface, 99054900-5150 at 4902 (U.S. Ex. 74,603) (1981) (stating that "smokers who are unwilling or as yet unable to quit are well advised to switch to cigarettes yielding less 'tar' and nicotine, **provided they do not increase their smoking or change their smoking in other ways**") (emphasis added).

3254. The Surgeon General also cautioned that the health benefits of switching to low-yield brands were undetermined and, at best, minimal compared with giving up cigarettes entirely – an admonition that was noticeably absent from Defendants' extensive advertisements for these brands during the same time period. Reducing the Health Consequences of Smoking: 25 Years of Progress: A Report of the Surgeon General 666 (1989), VXA2270001-0014 (U.S. Ex. 63,621) ("[t]o date, the net health effects of the introduction and consumer acceptance of filtered and low yield cigarettes have not been determined"); The Health Consequences of Smoking: The Changing Cigarette, Surgeon General's Report (1981), 99054900-5150 (U.S. Ex. 74,603), Ltr. of Surgeon General Patricia Roberts Harris to Hon. Thomas P. O'Neill, Jr., Speaker, House of Representatives (U.S. Ex. 88,644) ("[t]he person who changes to a cigarette with lower measured yields may reduce certain hazards of smoking, but the benefits will be small compared to the benefits of quitting entirely"); The Health Consequences of Smoking: Nicotine Addiction: A Report of the Surgeon General 567 (1988), VXA0300208-0848 (U.S. Ex. 64,591) ("even the lowest yield of cigarettes presents health hazards very much higher than would be encountered if they smoked no cigarettes at all, and that the single most effective way to reduce the hazards associated with smoking is to quit").

3255. As demonstrated below, Defendants' internal documents show that their concerted campaign of deception regarding low tar cigarettes has been a calculated – and extremely successful – scheme to increase their profits.

(a) Philip Morris

3256. A March 1979 report entitled "A Study of Smokers' Habits and Attitudes With

Special Emphasis on Low Tar and Menthol Cigarettes," prepared for Philip Morris by The Roper Organization stated:

> The percentage of adults who smoke has stabilized for the first time since 1965 – at 34%. This could well be due to the greater perceived safety of low tar cigarettes and their resultant neutralization of the health threat . . . The number of cigarettes smoked per day per smoker continues to climb, in part at least because **low tar cigarettes seem to cause people to increase the number of cigarettes they smoke**.

2049455309-5318 at 5313 (U.S. Ex. 22,218) (emphasis added); Deposition of Jeanne Bonhomme, Price v. Philip Morris, Inc., August 28, 2002, 78:3-81:24.

3257. A circa 1990 Philip Morris transcript of a conversation between Richard Carchman and John Tindall reiterated Philip Morris's understanding that, despite its heavy promotion of low tar cigarettes, it had no actual evidence to support its claims that such products actually were less hazardous. Tindall stated:

> [T]he things that happened in the market in the past I put under basically three groups. One has to do with people's health concerns which we addressed first through filters and then through low tar and ultra low tar and somewhere in between there menthol. . . . The main thing that has happened in the market over which we have some control is that we have addressed peoples' health concerns through the number of steps I have mentioned. . . . the[re] are opportunities in the market now in the area of smoking and health. People's perceptions of cigarettes with regard to their effects on them. . . . [I]f **we are going to do something significant enough to possibly even reverse the declining sales in the market, we're going to have to make advances in the area of people's health** . . . .

2023148544-8550 at 8545-8546 (U.S. Ex. 85,098) (emphasis added).

3258. On April 23, 1992, David Dangoor, Senior Vice President of Marketing for Philip

Morris, gave a marketing presentation to the Board of Directors. In the presentation, Dangoor stated that "[b]y the mid 70's, when health concerns increased dramatically, we again charged out ahead with Merit becoming the leading low tar brand." Dangoor also noted that "[b]y line extending these four industry-leading trademarks [Marlboro, Benson & Hedges, Virginia Slims, Merit] into lower tar segments, we sustained volume and share growth into the late 80's." 2073446660-6670 at 6660-6661 (U.S. Ex. 43,341).

3259. Philip Morris's 1993-1997 Research and Development Strategic Plan stated: "Historically, in the US market, there have been only two causes of major, technically related, share-change influences – cost (per puff) and perceived health concerns." For 1955-1965 in the category of "Perceived health," the "Specific Influence" listed was "Filters, menthol." For 1975-1985 in the category of "Perceived health," the "Specific Influence" listed was "Low tar." 2021323192-3347 at 3247 (U.S. Ex. 85,099).

3260. Philip Morris's 1994-1998 Plan Overview stated: "If ultra low tar segment growth accelerates, we will launch Marlboro Ultra Lights **to prevent Marlboro from losing smokers**. Marlboro Ultra Lights will reinforce Marlboro's appeal among tar 'conscious' Lights smokers and **improve Marlboro's ability to retain smokers as they age**." 2071032180-2206 at 2188 (U.S. Ex. 21,964) (emphasis added); Deposition of Geoffrey Bible, United States v. Philip Morris, et al., August 22, 2002, 163:8-165:2.

3261. As to whether Philip Morris took advantage of the situation (that smokers switched to low tar cigarettes under the mistaken perception that they are healthier and whether Philip Morris profited from the misperception), Nancy Brennan-Lund gave the following

testimony in a 2002 deposition: "[D]id we take advantage of the fact that people wanted low tar cigarettes, the only answer I can give is yes, we did . . . ." Deposition of Nancy Brennan-Lund, Price v. Philip Morris, Inc., September 20, 2002, 160:18-161:15.

(b) RJ Reynolds

3262. A 1974 RJ Reynolds document entitled "Winston National Introduction Project WG," prepared in contemplation of the introduction of Winston Lights, theorized that "[e]ntry of a new Winston brand in a category in which the Brand does not have representation creates a new opportunity for gaining additional Winston volume, thereby establishing a potential for increasing market share as well as total volume." 500496713-6740 at 6716 (U.S. Ex. 22,122).

3263. A 1975 Marketing Plan Presentation by RJ Reynolds boldly stated that: "The fastest growing category is low 'tar'/nicotine cigarettes. We have almost a third of that category and we want more." 501421310-1335 at 1326 (U.S. Ex. 23,052).

3264. An August 19, 1976 RJ Reynolds document entitled "New Product/Merchandising Directions" indicated that "'Numbers' Products," i.e., those with low FTC tar and nicotine numbers, serve to "assuage" smokers' worries about the harmfulness of smoking. It stated that the "'worrier' segment of the market (17% of smokers are so classified) . . . seek products with tangible/visible features to assuage their 'concern' about smoking. 'Numbers' products have a growing appeal to these smokers. Products in the 1-6 mg. 'tar' range will continue to build successful long-term franchises (e.g., Carlton's growth rate, NOW's immediate acceptance . . .)." 500672011-2172 at 2069 (U.S. Ex. 20,645).

3265. According to the Salem Ultra 1980 National Business Plan Overview, "[t]he

growth rate of the ultra low tar category has increased sharply from 11% in 1978 to about 45% in 1979. This translates to a share of market increase from 4.9% in 1978 to 6.9% in 1979." 503026586-6628 at 6594 (U. S. Ex. 22,124). A 1982 report showed that "the low tar category has quadrupled since 1970 and now accounts for over 40% of the volume." 502179595-9629 at 9597 (U.S. Ex. 22,127).

(c) Brown & Williamson

3266. An internal Brown & Williamson document explained that "[t]he January 1950 issue of *Reader's Digest* featured an article, "How Harmful Are Cigarettes," that mentioned the value of filters. Within a week [of that article], VICEROY advertising headlined *Reader's Digest* tells why filtered cigarette smoke is better for your health. Sales increased from 700 million in 1949 to 1.2 billion in 1950." 524000897-0917 at 0898 (U.S. Ex. 20,916).

3267. An October 1979 "History and Key Trends in the U.S. Cigarette Market" compiled by E.T. Parrack, Brown & Williamson Vice President of Brand Management, indicated that Brown & Williamson knew that filters, in consumer's minds were linked with reduced harm, and were therefore perceived as an alternative to quitting, because filter cigarette sales rose whenever smoking declined due to anti-smoking publicity:

> In 1953 and 1954, the market reacted to the impact of anti-smoking publicity in two ways: . . . Total consumption of cigarettes declined . . . filtered cigarettes share rose . . . . Surgeon General's report in 1964. Cigarette consumption again declined . . . and again filters entered another cycle of growth . . . in 1969 . . . TV campaigns against cigarettes . . . total consumption declined again . . . surge in filter growth followed the consumption drop . . .

670624932-5364 at 5323 (U.S. Ex. 53,869).

3268. A January 1977 report prepared for Brown & Williamson by Post Keyes Gardner, Inc., indicated that the most successful cigarette marketing has promised "'real' or 'perceived to be real'" health benefits by indicating that the cigarette is "the most reasonably 'safe'":

> The fundamental long term trends in the business are for smokers to move gradually to products that represent benefits of 'health' and modernity . . . . Successful brands have offered 'real' or 'perceived to be real' products benefits that are founded on smokers' needs for 'health' and modernity . . . . Successful advertising in the cigarette business is achieved by establishing a brand image based on a product benefit that fulfills consumers' needs for taste, 'health' and modernity . . . . Historically, brands that have achieved the most success are those that offer taste within the confines of 'health.' . . . . **[T]he real 'action' is in products that deliver, or are perceived to deliver, taste while representing the most reasonably 'safe' product available** . . . products have evolved along the long term continuum toward 'health' and modernity. Those that have **capitalized on these trends with a point-of-difference are the ones that have been the most successful** . . . . Viceroy was the first brand to directly capitalize on [the perceived health benefits of filters] by featuring its filter benefit, and sales were dramatic for the brand . . . . [In 1965,] Carlton was introduced – the first real response to the 'health' issue as we see it today . . . . **Three hifi [high filtration] brands, True, Doral and Vantage (with new, more modern filters_ were successfully introduced [in the late 1960's], capitalizing on the 'health' atmosphere that the anti-smoking forces were creating** . . . . FORECAST FOR THE FUTURE . . . . In sum, the dynamics of 'health' and modernity trends will be dominant. The smoker appears to be ready to make another major shift, losing gratification and obtaining a 'safer' product, to a new generation of products with single digit tar numbers . . . . The smoker will be inundated with 'health' oriented advertising.

776158413-8426 at 8416, 8419, 8422-8423, 8425 (U.S. Ex. 22,339) (emphasis added – bold type).

3269. A June 21, 1977 letter from D.A. Litwin, Brown & Williamson Assistant Brand Manager in marketing, to Andy Millar, attorney for the tobacco industry, included a chart

illustrating Brown & Williamson's recognition of a market share for "Taste with implicit health benefit," "Taste with contemporary health benefit," and "Explicit health benefit" cigarettes. It was anticipated that these market segments with health claims would increase market share. 660041050-1051 at 1050 (U.S. Ex. 20,952).

3270. As explained in a June 11, 1985 internal Brown & Williamson document, in 1946 "[a] comprehensive sampling plan [for Viceroy cigarettes] among dentists to secure their recommendation was started. Sales responded immediately even though the media budget was not increased until 1948." The document further explained that in 1953, several things "combined to push the demand for VICEROY far beyond production capacity," most notably "the new filter" and "greatly increased public attention to the 'Health aspect' of smoking. VICEROY advertising exploited this to the fullest extent as 'double-barreled health protection' copy, which . . . was backed up with factual evidence of the nicotine and tar reduction offered by VICEROY . . . . Sales went to 6.0 billion in 1953 even though the brand . . . could not begin to supply the demand." 524000897-0917 at 0898 (U.S. Ex. 20,916).

3271.

430403186-3194 at 3193-94 (U.S. Ex. 22,084) (Category 1) (emphasis added).

(d) <u>BATCo</u>

3272. BATCo's Viceroy marketing campaign from 1955-1956 was "promising superior health protection." Similarly, Brown & Williamson's objectives for the 1957-1961 Viceroy advertisements were to "[a]ttract smokers . . . promising . . . implied health benefits because of filter" and "with substantial health benefit implications, because of blend and filter." Nearly each of these promises of health benefits resulted in a substantial increase in sales of Viceroy cigarettes. 670001750-1766 at 1754-1755 (U.S. Ex. 20,962).

3273. A 1972 BATCo memorandum explained that health reassurances usually result in increased sales: "Over the years manufacturers have provided the public with a variety of platforms to . . . 'enhance the association in smokers minds between the benefits of smoking and our cigarette products'. Increasingly, by implication, these claims have turned to a health orientation and **very often the closer these have come to relating the smoking benefit to being one of "health" the more successful has been the brand**." 100006864-6868 at 6864 (U.S. Ex. 20,076) (emphasis added).

3274. A March 22, 1979 internal BATCo document written by Terry Hanby, who researched "Smoking & Health reassurance" for BATCo, provided that the sale of low tar cigarettes as "health reassurance" products would stem the decline in cigarette sales:

> It is quite clear that the emergence of Hi-Fi products has been welcomed by much of the smoking community and their use is emerging as an important health reassurance mechanism for many smokers . . . . [T]he growth of Hi-Fi brands will increasingly ensure that up-market smokers will turn to them as a health reassurance mechanism . . . . [W]e feel that in the markets of "developed nations" the incidence of smoking may continue to decline but that the various reassurance mechanisms listed above will ensure that this decline levels.

109883112-3117 at 3115, 3117 (U.S. Ex. 20,264); 105657908-7909 (U.S. Ex. 20,248).

3275. A BATCo memorandum dated April 4, 1979 entitled "Year 2000" contained predictions for the future of the tobacco industry:

> Low tar products will eventually and substantially define the tobacco business. This will serve as an important mechanism for reassuring smokers . . . . Quitting rates will also not increase as existing smokers become increasingly reassured by the growth of Low Tar brands and increasingly reassuring health reports . . . . Although S [smoking] and H [health] concern will diffuse down through [consumers] the ready availability of Low Tar brands will supply high reassurance . . . smokers who refrain or give up in response to pressures from family or friends who say that smoking will harm the health of the smoker. The strength of this argument will diminish as markets become dominated by lower risk products . . .

109883101-3103 (U.S. Ex. 21,518).

3276. A February 28, 1985 internal memorandum by W.D.E. Irwin, scientist at BATCo's Group Research & Development Centre, to Dr. R. Binns, Manager, BATCo's Group Research & Development Centre, titled "New Initiatives – Less Contentious Products" acknowledged that lower deliveries likely resulted in increased sales:

> In many markets, stagnation or contraction in total market size is due primarily to the health issue. If that issue were removed or substantially reduced in importance then total market size would either increase dramatically or, at worst, contract more slowly. . . . [T]he strategy . . . has been to reduce all smoke components whilst trying to minimize effects on product acceptability . . . this approach has probably led to a less rapid contraction in some markets than would have been the case if deliveries had not been reduced.

103020940-0943 at 0940-0941 (U.S. Ex. 34,704).

3277. A September 1992 BATCo Business Review prepared by Norma Simamane,

BATCo Lights Project Manager, stated: "The importance of the Lights segment is demonstrated by the growth trend that is 5 times faster than total world cigarettes volume . . . . In addition to being profitable, future projections indicate an even faster growth of lights." 321683062-3099 at 3065 (U.S. Ex. 28,586).

3278.

760008596-8803 at 8770, 8800 (U.S. Ex. 54,588) (Category 1).

(e) American Tobacco

3279. A 1967 Annual Report of American Tobacco shows that American's Carlton cigarette, which "was developed to appeal to those smokers preferring a light cigarette – one that is low in 'tar' – and nicotine yield," achieved "sizeable sales increases in 1967" resulting from "favorable publicity" as a low tar, low nicotine cigarette. MNAT00029170-9201 at 9176 (U.S.

Ex. 21,222).

(f) Lorillard

3280. A September 15, 1964 memorandum from M. Yellen of Lorillard to Morgan J. Cramer, Lorillard President and Chief Executive Officer, concerning Lorillard's marketing and sales policies, stated that, for several months before the release of the first Surgeon General's Report in January 1964, "LARK [a Liggett cigarette brand] was setting a base for future sales activities through the use of hospitals via rumors or otherwise . . . that medical scientists endorse LARK as the safest cigarette. This marketing technique on the part of LARK proved successful." This memorandum also acknowledged that Lorillard's marketing of Kent cigarettes as a less harmful brand contributed to its increased sales:

> As all of us are aware, KENT was marketed as a "safer" cigarette for the smoker who was concerned about smoking and health. In 1956 when an innocent third party (*Reader's Digest*) created an awareness to the consumer that KENT was the "safest" of all popular cigarettes, Lorillard exploited this advantage so that within a short period of two years the KENT volume grew from less than four billion cigarettes to thirty-eight billion annually. . . . I feel we were successful in accomplishing our objective and maintaining the safety image of KENT among consumers sensitive to health . . .

01124257-4265 at 4259, 4257-4258 (U.S. Ex. 20,033).

3281. A November 1956 Lorillard report entitled "The Kent Cigarette Marketing Situation With 1957 Plans and Recommendations," after noting that "KENT entered the filter field with extremely strong advertising based on health protection," indicated that Lorillard would profit from the marketing position it achieved through its "advertising based on health protection," concomitant with the growth of the filter cigarette market: "If total filter volume in

1957 grows at only one-quarter the rate it did during the first nine months of 1956, filter sales should increase 14% during 1957. This means that KENT, selling at a current rate of 95 million cigarettes a week, should sell a total of 5.6 billion cigarettes if it holds only its present share of market." 00307593-7671 at 7598, 7621 (U.S. Ex. 28,200).

3282. A May 14, 1970 document entitled "'Kent Menthol' Presentation to Sales Meeting in Buffalo on May 21, 1970," prepared for Lorillard by Michael John Associates, Inc., indicated how Lorillard's marketing made Kent cigarettes "a very big brand in a very big industry" by using health reassurance as a vehicle to position Kent as "the health brand" of cigarettes: "In 1952, Lorillard introduced successfully a unique concept in cigarette smoking – a high filtration cigarette. . . . In less than a year, KENT was a very big brand in a very big industry. At this time, KENT was the health brand offering the Micronite Filter, mild taste, and, above all, health reassurance. And thus the KENT image was born." 04331462-1478 at 1463 (U.S. Ex. 29,400).

3283. A February 28, 1972 memorandum from D. Smith to Irving A. Guberman of Lorillard's True Brand Management Group, with subject heading "TRUE TARGET AUDIENCE," demonstrates both that Lorillard: knew that True's target audience was "the really health-oriented brand smoker[ ]" who believed True cigarettes provided a health benefit; and predicted that this smoker category would expand, increasing the sales of Lorillard's True brand by continuing to trade on and perpetuate the perception of True cigarettes as healthier. "TRUE's target audience is the health anxious smoker. I recommend that our target audience be further – demographically – defined as: 'Men and women over 30, living in non-rural areas with special emphasis against those who have attended college.' This target audience should guide all

marketing actions." Smith went on to state:

> I believe that TRUE's real competitive category should be defined as 'Super Hi-Fi'. This category (composed of the really health-oriented brand smokers) has grown substantially over the last three years. . . . The Super Hi-Fi category should continue to build over the indefinite future. More people will become more health-anxious – backing up concern with action. As this growth occurs, the Super Hi-Fi franchise will (I believe) grow in the following ways: It will become more male, younger, more urban and better educated. Therefore, any TRUE target audience must consider the potential of these groups of the future.

93155114-5114 (U.S. Ex. 32,285).

3284. A November 13, 1973 presentation by Alexander Spears, a Lorillard scientist and later Lorillard's CEO, stated: "Clearly the consumer is concerned about smoking and health, and is convinced in varying degrees that smoking is a possible detriment to his health. Presently, this factor is of active interest to R&D, since it has been used to an advantage in marketing both the KENT and TRUE brands." 80634635-4642 at 4639 (U.S. Ex. 21,063).

3285. A June 14, 1978 Lorillard document stated:

> <u>There is a major opportunity for a brand which can simultaneously satisfy smokers and address the concerns arising from the cigarette controversy</u>. 1. Very low tar products – line extensions and independent brands – have been the fastest growing cigarette segment during the last two years which indicates that an ever increasing number of 'concerned' smokers are striving to go as low in tar as possible while still getting acceptable taste. There is no reason to believe that these smokers have found their ultimate reduced tar brand. More likely, they are prime candidates to move even lower over time. Comparing 1976 with 1977 sales, the ultra low tar segment grew 14% and is now accounting for a total of 24 billion units. We project that by 1981, the category will increase to 47 billion units, a growth of 96%."

00138232-8233 at 8232 (U.S. Ex. 74,655) (emphasis in original).

3286. A June 23, 1978 memorandum from George R. Telford to R.E. Smith stated under the heading "Lorillard Needs," that "[t]here is an excellent opportunity to become entrenched in one of the fastest growing segments of the industry responsive to the cigarette controversy and thereby compete more effectively with Lights/Milds extensions . . . ." 91792851-2853 at 2853 (U.S. Ex. 57,091).

3287. A July 13, 1978 memorandum on Lorillard letterhead from G.R. Telford to R.E. Smith stated that "EFII", a proposed new Lorillard low tar cigarette, was "designed to strengthen Lorillard's position in the rapidly growing Very Low Tar market by providing non-menthol smokers responsive to the cigarette controversy with a superior tasting, reduced tar cigarette." 91792854-2855 at 2854 (U.S. Ex. 57,092).

3288. A Lorillard document discussing Lorillard's three-year plan for the 1985-1987 period, stated below the "Influence of Low Tar" heading: "More smokers will continue to see low tar brands as a way of dealing with the smoking controversy. Reduced Tar volume now represents 48% of the total industry, up from 37% in 1979." 80403362-3376 at 3362 (U.S. Ex. 55,377).

(g) Liggett

3289. A March 25, 1970 Liggett research document prepared by Max Samfield, Liggett scientist, recounted the fact that, following the Surgeon General's Report linking smoking with several adverse health consequences, the average tar levels of cigarettes had decreased, and added that "it is obvious that the trend cannot be ignored."

LATH00312742-2784 at 2746-2747 (U.S. Ex. 21,181); LWDOJ6135692-5692 (U.S. Ex. 21,215) (Confidential).

G. Defendants Intentionally Market to Youth

(1) Introduction

3290. From 1954 to the present day, Defendants have intentionally marketed cigarettes to youth, including to children, to teenagers, and to young people under age 21.

3291. Defendants falsely claim that all of their cigarette marketing serves the primary purpose of retaining loyal customers ("brand retention"), and the secondary purpose of encouraging smokers to switch brands. They deny that any of their marketing efforts are aimed at encouraging young people to initiate smoking or to continue smoking. Defendants further claim that cigarettes are a "mature product category" for which advertising and marketing expenditures "cannot and do not affect primary demand." JD. PFF ¶¶ 779-780, 825-830.

3292. In fact, Defendants' internal documents discussed below show that, historically and currently, Cigarette Company Defendants market to young people, including those under 21 and those under 18. Cigarette Company Defendants' marketing activities are intended to bring new smokers into the market. Cigarette Company Defendants conducted research into young people's vulnerabilities to cigarette marketing, as set forth below, and knew that youths were highly susceptible to marketing including image advertising, would underestimate the health risks of smoking, and were price sensitive. Cigarette Company Defendants used their knowledge of young people's vulnerabilities gained in their research in order to create marketing campaigns that would and did appeal to youth, in order to induce youth smoking initiation and ensure that young smokers would choose their brands.

3293. Cigarette Company Defendants have spent substantial resources to encourage trial

and continuing purchase of their cigarette products by young people, using the full range of marketing tools available to them, including: advertising on television, radio, and billboards, and in magazines and newspapers; sponsoring events, such as sporting events, bar promotions, festivals, concerts, and contests; coupons, price reductions, and free packs with purchase; gifts with purchase (known as "continuity items") such as t-shirts, mugs, and sporting goods; direct-mail marketing through which they sent magazines, "birthday cards," and other materials directly to individuals' homes; distribution of free cigarette samples at retail stores, public events, bars, or other locations; and retail store (known as "point of sale") advertising and promotions. Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665; filed November 15, 2001); Expert Report of Robert Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001).

3294. Cigarette Company Defendants' historical and current expenditures on cigarette advertising and promotion remain high both on an absolute basis and relative to other industries. In the nine-year period from 1991-1999, domestic cigarette advertising and promotional expenditures totaled $51.4 billion dollars (unadjusted for inflation). In 1999 alone, domestic cigarette advertising and promotion totaled $8.2 billion, an increase of 22% over 1998, and a six-fold increase over 1963, after adjusting for inflation.

Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665; filed November 15, 2001); Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002,

47:23-78:19 (Confidential); 2085298135-8136 (U.S. Ex. 25,253) (Confidential).

3295. Defendants' marketing efforts have been a success: 88% of youth smokers buy the three most heavily advertised brands – Marlboro, Camel, and Newport. Fewer than half of smokers over the age of 25 purchase these brands. Marlboro, the most heavily marketed brand, currently holds 55% of the youth market but only 36% of smokers over age 25. Defendants are well aware of this phenomenon; in many internal documents cited below, Philip Morris refers to Marlboro, Camel, and Newport as the "herd brands" because teenagers flock to these brands in "herds." Expert Report of Michael Eriksen, United States v. Philip Morris, et al. (R. 678; filed November 15, 2001); Substance Abuse and Mental Health Services Administration 2001 National Household Survey on Drug Abuse, at http://www.samhsa.gov/oas/nhsda/2k1nhsda/vol1/toc.htm (U.S. Ex. 87,734).

3296. Independent scientific studies performed by reputable independent scientists, and published in reputable scientific journals and in official government reports, have confirmed Defendants' knowledge, as set out in their internal documents, that their marketing contributes to the primary demand for and continuing use of cigarettes. Over the past ten years, there have been a number of comprehensive reviews of the scientific evidence concerning the effects of cigarette marketing, including advertising and promotion, on smoking decisions by young people. From these reviews it is clear that the weight of all available evidence, including survey data, scientific studies and experiments, behavioral studies and econometric studies, supports the conclusion that cigarette marketing is a substantial contributing factor in the smoking behavior of young people, including the decision to begin smoking and the decision to continue smoking. Expert Report of

Michael Eriksen, United States v. Philip Morris, et al. (R. 678; filed November 15, 2001).

3297. Most children and adolescents select a regular brand of cigarettes to smoke before the age of 18. Nearly three-fourths of all children and adolescents who smoke in the United States try to quit before high school graduation, and most fail to do so. Expert Report of Michael Eriksen, United States v. Philip Morris, et al. (R. 678; filed November 15, 2001); Expert Report of Jonathan Gruber, United States v. Philip Morris, et al. (R. 672; filed November 15, 2001).

3298. Defendants' internal documents show that they knew that they could not survive absent acquiring youth smokers to replace smokers who have quit or have died. In these documents, Cigarette Company Defendants expressed the view that stimulating youth smoking initiation and retaining and increasing their share of the youth market was crucial to the success of their businesses. These documents show that, for many years, Cigarette Company Defendants conducted market research on youth smokers under age 21 and knew that the majority of smokers began smoking as youths, developed brand loyalty as youths, and that persons who began smoking when they were teenagers were very likely to remain lifetime smokers.

3299. Youth smoking initiation continues to be vitally important to Cigarette Company Defendants. In the year 2000, 80% of the consumption of Cigarette Company Defendants' cigarettes in the United States was by persons who had started smoking daily before the age 21 since the issuance of the 1954 Frank Statement, and nearly 60% of the consumption of Cigarette Company Defendants' cigarettes was by persons who started smoking daily before the age 18. Expert Report of Jonathan Gruber, United States v. Philip Morris, et al. (R. 672; filed November 15, 2001); Preventing Tobacco Use Among Young People: A Report of the Surgeon General

(1994) at 29-33, 65 (Table 7) (U.S. Ex. 64,693).

3300. Contrary to Defendants' assertions that cigarettes are a "mature product," cigarette marketing both enables demand and grows demand. Defendants' claims that they market only to loyal customers or to attract brand switchers are false. As Defendants are well aware, and as their internal documents plainly show, smokers are highly loyal, and the number of smokers who switch brands is very small. Since only about 9% of adult smokers switch among Cigarette Company Defendants' brands, brand switching alone could not possibly justify $8.2 billion in annual advertising and promotion expenditures. Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665; filed November 15, 2001).

3301. This independent expenditure analysis is confirmed by Cigarette Company Defendants' internal documents. A November 28, 1994 email from Josh Slavitt, Senior Issues Manager, Corporate Affairs Department, recognized that Philip Morris's frequently repeated public argument that its marketing was directed purely at attracting brand switchers and not new smokers was based upon faulty research. Slavitt wrote: "Our counter argument was – until this morning – that we advertise to maintain brand loyalty and promote brand switching because each market share point of the tobacco industry is worth $400 million. We defended this position by showing that a specific number – 15-20% – of smokers 'switch' brands every year." However, according to the email written by Ed Gee, Philip Morris Consumer Research Director, to which Slavitt was responding, "the industry switching rate is more like 10%." 2045165002-5014 (U.S. Ex. 38,402).

3302. As Defendants know, the decision to begin smoking or continue smoking is

motivated by "affect" (a conglomeration of positive and negative emotions) rather than the analysis of quantitative statistical logic (fact/rationality). Individuals respond to ubiquitous and appealing cigarette advertising imagery and seek quick satisfaction, bypassing logical analysis. The prospective consumer of cigarettes does not go through several hierarchical stages of information processing (awareness, knowledge, liking, conviction and purchase) that are associated with the purchase of some other products. Cigarette marketing, including advertising and promotion, is designed to play a key role in this impulsive process by exposing young people to massive amounts of imagery associating positive qualities with cigarette smoking. Research in psychology and cognitive neuroscience demonstrates how powerful such imagery can be in suppressing perception of risk and manipulating behavior. Cigarette Company Defendants' internal marketing research and public marketing practices reveal that they were well aware of this power and exploited it in their marketing campaigns. Expert Report of Paul Slovic, United States v. Philip Morris, et al. (R. 661; filed November 15, 2001).

3303. Young people are particularly vulnerable to the types of affective advertising and promotion that associate positive imagery with smoking. Young people overestimate smoking prevalence and underestimate smoking risk, in part as a result of these types of marketing campaigns. Expert Report of Paul Slovic, United States v. Philip Morris, et al. (R. 661; filed November 15, 2001).

3304. Many people, and particularly young people, do not adequately understand and appreciate the cumulative risk that smoking entails. Most smokers only begin to think of risk after they have started to smoke regularly and become addicted. At that point, more than 80% of

smokers wish they had never begun to smoke. Expert Report of Paul Slovic, United States v. Philip Morris, et al. (R. 661; filed November 15, 2001).

3305. Many young smokers tend to believe that smoking the "very next cigarette" poses little or no risk to their health. Because the most serious harmful consequences of smoking are cumulative, occurring in the distant future, and because teenagers lack an understanding of the addictive properties of cigarettes, it is unlikely that concerns about harmful consequences influence the decisions by teenagers to initiate smoking. Expert Report of Paul Slovic, United States v. Philip Morris, et al. (R. 661; filed November 15, 2001).

3306. Initiation of smoking as a youth is particularly harmful because, the earlier one begins smoking, the more likely one will develop a smoking-related disease. Preventing Tobacco Use Among Young People: A Report of the Surgeon General (1994) at 29-33 (U.S. Ex. 64,693).

3307. Cigarette smoking, particularly that begun by young people, continues to be the leading cause of preventable disease and premature mortality in the United States. Of children and adolescents who are regular smokers, one out of three will die of smoking-related disease. Expert Report of Michael Eriksen, United States v. Philip Morris, et al. (R. 678; filed November 15, 2001).

3308. In fact, the proportionate impeding effects of childhood smoking on lung growth exceeds the loss of lung function associated with smoking during adulthood. Lung cancer risk rises exponentially as a function of the duration of smoking, so that the risk at age 50 for a person who began smoking regularly at age 13 is 35% greater than that for a 50-year-old who started

smoking at age 23. Preventing Tobacco Use Among Young People: A Report of the Surgeon General (1994) at 29-30 (U.S. Ex. 64,693).

3309. Initiation of smoking as a youth is also harmful because, the earlier one begins smoking, the more likely one will become addicted. Preventing Tobacco Use Among Young People: A Report of the Surgeon General (1994) at 29-33 (U.S. Ex. 64,693).

3310. Recent studies indicate that the earlier onset of cigarette smoking is associated with heavier smoking. Heavier smokers are not only more likely to experience tobacco-related health problems, but they also are the least likely to quit smoking. The level of dependence on nicotine in adults has been found to be inversely related to the age of initiation of smoking. Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001); Preventing Tobacco Use Among Young People: A Report of the Surgeon General (1994) at 85-86, Tables 20 and 22 (U.S. Ex. 64,693); N.L. Benowitz & J.E. Henningfield, "Establishing a nicotine threshold for addiction," 331 *New England Journal of Medicine* 123-125 (1994) (U.S. Ex. 77,115); D.B. Kandel, et al., "Extent of Smoking and Nicotine Dependence in the United States 1991-1993," 2 *Nicotine & Tobacco Research* 263, 270-71 (2000) (U.S. Ex. 79,319).

3311. The smoking of as few as one to five cigarettes a day is also a predictor of continued smoking and dependence. The risk of dependence (addiction) increases sharply and significantly when the quantity of cigarettes smoked increases from less than one cigarette per day to one to five cigarettes per day, or from one to five cigarettes to half a pack per day. Adolescents, who smoke significantly fewer cigarettes per day than adults, experience

significantly higher rates of dependence than adults at the same level of use. Expert Report of Neal Benowitz, United States v. Philip Morris, et al. (R. 682; filed November 15, 2001); Preventing Tobacco Use Among Young People: A Report of the Surgeon General (1994) at 85-86, Tables 20 and 22 (U.S. Ex. 64,693); N.L. Benowitz & J.E. Henningfield, "Establishing a nicotine threshold for addiction," 331 *New England Journal of Medicine* 123-125 (1994) (U.S. Ex. 77,115); D.B. Kandel, et al., "Extent of Smoking and Nicotine Dependence in the United States 1991-1993" 2 *Nicotine & Tobacco Research* 263, 270-71 (2000) (U.S. Ex. 79,319).

(2) Defendants Make False and Misleading Public Statements Denying That They Market To Youth and Asserting That Their Marketing Has No Effect On Youth Smoking Behavior

3312. As set forth below, Defendants falsely denied that Cigarette Company Defendants intentionally designed their marketing efforts to entice young people to begin smoking and to continue smoking. Defendants falsely claim that all of their marketing is aimed only at encouraging the brand loyalty of adult smokers. Defendants also falsely state that marketing has no effect on youth initiation and smoking behavior. The following are representative examples of numerous such false and misleading statements.

(a) False and Misleading Statements of The Tobacco Institute

3313. The Tobacco Institute was created in 1958 by American Tobacco Co., Liggett, Lorillard, Philip Morris, R.J. Reynolds, The American Snuff Company, Larus & Brother Co. and Stephano Brothers. Although membership fluctuated during the existence of the Tobacco Institute, all Defendants (except BATCo and the Council for Tobacco Research) created, agreed to fund, and/or over the years did jointly fund and direct the activities of the Tobacco Institute.

See U.S. FPFF § I, supra.

3314. On November 20, 1962, Hill & Knowlton, on behalf of Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, Lorillard, and American, through the Tobacco Institute, in response to a comment made by LeRoy Collins, President of the National Association of Broadcasters, that "cigarette advertising is designed primarily to influence high school children," issued a press release entitled "Tobacco Institute Head Calls N.A.B. President's Charges Incorrect." In the press release, George V. Allen, President of the Tobacco Institute, stated "the president of the National Association of Broadcasters, in a statement focused on high school age children, is incorrect when he suggests that cigarette advertising is designed primarily to influence them." The press release also stated that "the tobacco industry regards smoking as an adult custom, and the decision to smoke or not to smoke should be made at the age of mature judgment." MNAT00280070-0070 (U.S. Ex. 21,724); 513334576 (U.S. Ex. 85,133); 04408141-8141 (U.S. Ex. 47,378).

3315. According to a Hill & Knowlton memorandum dated June 19, 1963, Allen responded to a question from Peter Bart of the *New York Times* by stating that "the tobacco industry's position has always been that smoking is an adult custom." 1005040618-0618 (U.S. Ex. 21,826) (U.S. Ex. 78,776).

3316. On or about July 9, 1963, Hill & Knowlton, on behalf of Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, Lorillard, and American, through the Tobacco Institute, issued a press release. This press release stated that it was: "the tobacco industry's position that smoking is a custom for adults and that it is not the intent of the industry to promote or

encourage smoking among youth." It further stated: "[t]he industry wants to make it demonstrably clear that it does not wish to promote or encourage smoking among youth." TIMN0098597-8598 at 8597 (U.S. Ex. 21,270); TIFL0522044-2045 at 2044 (U.S. Ex. 21,313).

3317. On July 22, 1969, Joseph F. Cullman III, Chairman of the Executive Committee of the Tobacco Institute and Chairman of the Board of Philip Morris, testified to the Consumer Subcommittee of the Senate Committee on Commerce that "it is the intention of the cigarette manufacturers to continue to avoid advertising directed at young persons." Cullman further testified that the cigarette industry would submit to a broadcast ban that banned all cigarette advertising from television and radio because:

> [y]oung people are exposed to broadcast advertising differently than they are to print advertising. It is well-known that young people spend a great deal of time viewing television and listening to radio; it takes an affirmative act on the part of the viewer or listener to avoid broadcast advertising. By contrast, much less time is spent by young people in reading newspapers and magazines and an affirmative act is required by the reader to see and comprehend such advertising. Objections to cigarette advertising on the broadcast media based on appeal to youth do not apply to cigarette advertising in newspapers and magazines.

680263421-3422 (U.S. Ex. 22,345) (U.S. Ex. 78,780).

3318. In or about September 1975, Hill & Knowlton, on behalf of Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, Lorillard, and American, through the Tobacco Institute, issued a press release entitled "Cigarette Industry Advertising Standards." The release stated that the Tobacco Institute had issued statements as early as 1963 denying that the cigarette industry marketed to youth smokers. The press release also repeated Cullman's July 22, 1969 testimony that "it is the intention of the cigarette manufacturers to continue to avoid advertising directed at

young persons." 680263421-3422 (U.S. Ex. 22,345) (U.S. Ex. 78,780).

3319. On February 15, 1978, Horace Kornegay, President of the Tobacco Institute, testified before the House of Representatives Subcommittee on Health and the Environment of the House Energy and Commerce Committee: "I do not believe, as some have suggested, that cigarette advertising induces young people to smoke, and I am supported on that statement by several studies that have been done. I do believe that it is peer influence . . . " 03745450-5826 at 5644, 5645 (U.S. Ex. 87,307). In a letter dated March 6, 1978, in response to a request during his February 15, 1978 testimony from Paul G. Rogers, Chairman, Subcommittee on Health and the Environment, to provide documentation of any recent studies targeting young women by the Tobacco Institute's constituent companies, Kornegay stated the following: "I am writing to confirm that I am unaware of any consumer study conducted by any of our member companies with regard to children nor any cigarette advertising campaigns directed at children, whether male or female. I have communicated with each of our cigarette manufacturing members and advised them of the Subcommittee's request for such material, should any exist." 03745646-5646 (U.S. Ex. 85,135).

3320. A 1979 Tobacco Institute brochure entitled "Fact or Fancy?" declared that cigarette advertisements create new smokers "[n]o more than advertising a specific brand of toothpaste causes more people to use toothpaste. Cigarette advertising is brand advertising, aimed at interesting smokers in switching brands and creating brand loyalty. . . . The tobacco industry does not try to persuade anyone to smoke. Nor does it discourage anyone who makes up his or her mind to quit." TIMN0133740-3798 at 3759-3761 (U.S. Ex. 21,280).

3321. A May 24, 1979 letter from Kornegay to Joseph A. Califano, Jr., Secretary of the Department of Health, Education and Welfare, was written in response to Califano's statements to the Interagency Council on Smoking and Health on April 26, 1979. Kornegay's letter stated that Califano's "statements reflect the erroneous view that brand advertising has an effect on the decision to begin smoking," and asserted that the 1978 Surgeon General's Report "suggested that the primary motivating factors in smoking by young people were the influence of peers, smoking parents, and older siblings." TI05031337-1339 (U.S. Ex. 21,245) (U.S. Ex. 78,792).

3322. An August 1, 1979 document created by the Tobacco Institute stated that smoking is an "adult custom, one to be decided on by mature, informed persons" and that laws prohibiting sale of cigarettes to "youngsters . . . should be vigorously enforced." The document further stated that "the great majority of youngsters have not rushed to judgment about smoking. The majority is the best example for the minority – a lesson the latter need from people who make and sell cigarettes." TIMN0032424-2424 (U.S. Ex. 62,805) (U.S. Ex. 63,994).

3323. On August 31, 1979, the Tobacco Institute issued a press release articulating Defendants' "policy" on youth smoking: "Kids shouldn't smoke! Smoking is an adult custom. Until a person is mature enough to make the decision in light of all the available information and on the basis of individual freedom of choice, the decision should be deferred." TIMN0157538-7538 (U.S. Ex. 85,136).

3324. On or about May 13, 1981, Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, Lorillard, and American, through the Tobacco Institute, issued a press release announcing the adoption of a "Code of Cigarette Sampling Practices" promising to cease their

prior distribution of cigarette samples to persons under 21, and limiting the distribution of cigarette samples to "persons 21 years of age of older." The press release included a statement that members of the Tobacco Institute had a "long-standing policy of discouraging smoking by children." In addition, the press released stated that "the thrust of the new code is further to discourage smoking by children." The code also established that sample distribution would not occur within two blocks of any, "center of youth activities, such as playgrounds, schools, college campuses, or fraternity or sorority houses." TIOK0000817-0818 (U.S. Ex. 22,346); TIOK0000438-0439 at 0438 (U.S. Ex. 85,137); TIMN0123794-3795 at 3794 (U.S. Ex. 85,138); TIMN0123589-3590 at 3589 (U.S. Ex. 21,279); TIMN0102493-2494 at 2493 (U.S. Ex. 21,271).

3325. In a 1983 document entitled "Voluntary Initiatives of a Responsible Industry In Advertising," the Tobacco Institute stated that "smoking is an adult custom to be considered only by those mature enough to make an informed decision." 2024940049-0049 (U.S. Ex. 21,728); TIMN333363-3363 (U.S. Ex. 62,907) (U.S. Ex. 62,908).

3326. An August 30, 1983 memorandum from a representative of Philip Morris to representatives from the Tobacco Institute, R.J. Reynolds, and Lorillard enclosed an anti-smoking campaign identified as "the best that has been done on youth smoking [to date]." The advertisement stated in bold letters: "We don't think our kids should smoke, either." The advertisement further stated that: "As with many of life's pleasures, smoking, drinking and driving a car require a knowledge of oneself and a sense of moderation that can only come with age. When our children acquire this sense of moderation and this knowledge of themselves – and are, therefore, no longer children – they can make their own decisions. Until then, we'll try to

help them learn what every human being has always had to learn. When we confuse the pleasures of growing up with the satisfactions of being grown up, we miss a great deal of both." A handwritten notation on the document admitted that this was a public relations effort, rather than truly addressed to the issue of youth smoking: "This says it well but is not a 'youth program.' It's not addressed to young people but to a nebulous public. It's totally self serving. But great copy!" 3651952-1953 (U.S. Ex. 22,018).

3327. In September 1983, the Tobacco Institute circulated a card entitled "Cigarette Industry Advertising Standards." The card emphasized the "industry's longstanding policy against youth smoking," that "[t]he industry's position has always been that smoking is an adult custom." TIMN292908-2908 (U.S. Ex. 62,894) (U.S. Ex. 78,729).

3328. On the nationally televised ABC program *20/20*, broadcast on October 20, 1983, Ann Browder, a Tobacco Institute spokesperson, speaking on behalf of Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, and Lorillard, stated: "We feel very strongly that cigarette smoking is an adult custom that one should not even consider until they've reached the age of maturity" and that the "age of maturity is 21." Browder also stated that "Cigarette manufacturers are not interested in obtaining new business from teenagers. . . . We've been in business very well, thank you, for sometime now without attempting to hook kids. We do everything possible to discourage teenage smoking." 680286673-6686 at 6675-6676 (U.S. Ex. 20,999); 690149518-9531 at 9520-9521 (U.S. Ex. 21,046) (U.S. Ex. 78,732).

3329. On April 1, 1984, the Tobacco Institute initiated a project with the National Association of State Boards of Education ("NASBE") to publish a pamphlet "Helping Youth

Decide" which advised parents on how to communicate with their children and how to assist them in making decisions on issues such as tobacco and alcohol use, drug use and sexual activity. In an April 12, 1984 memorandum from Tom Humber, Chairman, Tobacco Institute Communications Committee, to the members of the Tobacco Institute's Executive Committee, Humber explained one of the advantages of working with NASBE: "NASBE will provide us with an established, clear link to all levels of government: federal, state and local." TIMN0013803-3803 (U.S. Ex. 21,292) (U.S. Ex. 62,780); TIMN0013845-3856 at 3846 (U.S. Ex. 77,042). On September 25, 1984, the Tobacco Institute's Vice President Walker Merryman stated in a speech pertaining to the "Helping Youth Decide" pamphlet: "[w]e do not want youngsters smoking cigarettes. That has been our policy for many years and it is a policy which has guided and will continue to guide our industry's marketing, promotion and advertising practices." TIMN0053189-3191 at 3189 (U.S. Ex. 77,043).

3330. On September 21, 1984, Curtis Judge, Lorillard President and Chairman of the Tobacco Institute's Executive Committee, stated in a press release that cigarette manufacturer feel "that smoking is among many behaviors that should be left to adults, like driving, voting, raising a family and knowledge enough to make an informed decision about all sorts of adult activities." He also stated: "The cigarette manufacturers of America do not want youngsters to smoke." TIMN0013806-3806 (U.S. Ex.85,140).

3331. In a draft of "In the Public Interest: Three Decades of Initiatives by a Responsible Cigarette Industry" dated July 10, 1985, the Tobacco Institute stated: "For the past thirty years – and for the future – this industry has maintained responsible positions in four policy areas of

concern to all Americans . . . : youth smoking, scientific research, truthful advertising, and workplace smoking." This booklet further stated that "Cigarette manufacturers have always believed that the decision to smoke or not is a choice to be made by informed adults" and discussed the adoption of the Code of Cigarette Sampling (a voluntarily-adopted pledge by the Cigarette Company Defendants not to distribute free cigarettes) and the provision of a "free parental guidebook, 'Helping Youth Decide'" as examples of the Defendants' commitment to reduce youth smoking. The booklet was published in 1986, and stated: "It has always been the policy of cigarette manufacturers that smoking is a custom for choice by informed adults. In keeping with that policy, its youth advertising restrictions and parental programs continue." TIMN350666-0671 (U.S. Ex. 65,676); TIMN375538-5546 at 5539-5541 (U.S. Ex. 22,209).

3332. The Tobacco Institute prepared a draft of testimony to be delivered at a July 18, 1986 House Energy and Commerce Committee's Subcommittee on Health and the Environment oversight hearing on cigarette advertising and promotion. The draft testimony stated: "[N]either advertising and sampling nor other forms of brand promotion create smokers" and that "the cigarette manufacturers do not want youngsters to smoke." 80422558-2570 at 2564-2565 (U.S. Ex. 21,924).

3333. In 1989, the Tobacco Institute issued a brochure entitled "Smoking and Young People – Where the Tobacco Industry Stands" which stated that the "tobacco industry has long taken the position that smoking is an adult practice to be considered solely by mature, informed persons." The Tobacco Institute further stated that "no other industry in America has taken such direct - and voluntary - action to steer its product away from young people." The Tobacco

Institute denied that advertising encourages people to begin smoking, stating that "[m]any [studies] have concluded that peer pressure and parental influence are the chief factors in an adolescent's decision" to smoke and that, "according to many behavioral experts, the answer is an unequivocal no -- there is no significant connection between advertising and the decision to start smoking." 2025861325-1334 at 1327, 1330, 1332 (U.S. Ex. 23,049); TIMN182160-2160 (U.S. Ex. 62,886) (U.S. Ex. 78,363).

3334. In a January 11, 1989 interview on *CBS This Morning*, the host asked Brennan Dawson, Vice President of the Tobacco Institute, whether cigarette brand advertisements, such as ones featuring "Joe Camel," were directed toward teenagers. Dawson denied the charge: "No. In fact, like all tobacco advertisements, they're directed at smokers, people who are already smokers, to give them education about how much and how many different brands there are, and things like that." TIMN389505-9507 at 9505 (U.S. Ex. 85,141).

3335. In 1990, the Tobacco Institute revised and republished "In the Public Interest Three Decades of Initiatives by a Responsible Cigarette Industry," originally published in 1986. It stated, under the heading "Our Commitments": "For the past thirty years – and for the future – this industry has maintained responsible positions in four policy areas of concern to all Americans, smokers and nonsmokers alike: Youth Smoking, Scientific Research, Truthful Advertising, and Workplace Smoking." The discussion on youth smoking alleged that "Cigarette manufacturers have always believed that the decision to smoke or not is a choice to be made by informed adults," and outlined various industry initiatives. TIMN0194781-4787 at 4782, 4783 (U.S. Ex. 21,397).

3336. In 1990, the Tobacco Institute issued a multi-page advertisement captioned "Cigarette Industry Initiatives Against Youth Smoking" which provided supposed examples of Cigarette Company Defendants' efforts to keep youth from smoking, including the Code of Cigarette Sampling and the ceasing of product placement in movies. TIMN325834-5835 (U.S. Ex. 21,283).

3337. In 1990, the Tobacco Institute issued a series of press releases entitled ". . . On Youth Smoking." The releases pronounced Defendants' public position on various youth smoking issues. A release entitled ". . . On Youth Smoking Tobacco Advertising . . . And Why Kids Smoke" stated: "cigarette advertising has no significant effect on the prevalence of smoking by young people." TI0607-1120-1121 (U.S. Ex. 62,219); TIMN187471-7472 (U.S. Ex. 85,142); TIMN0038824-8825 (U.S. Ex. 85,143); TIMN0038785-8786 (U.S. Ex. 85,144); TIMN0039100-9101 (U.S. Ex. 85,145). Another release, entitled ". . . On Youth Smoking Reducing Access" stated: "[i]n the past – and for the future– the tobacco industry has maintained responsible positions on the issue of smoking by young people. The longstanding policy of cigarette manufacturers is that the choice to smoke or not to smoke is to be made by informed adults." TIMN0015322-5322 (U.S. Ex. 85,146). A release entitled ". . . On Youth Smoking Tobacco Industry Initiatives" stated: "[t]he tobacco industry has long taken the position that smoking is an adult practice to be considered solely by mature, informed persons." TIMN0015624–5625 at 5624 (U.S. Ex. 65, 589); TIMN0038799-8800 at 8799 (U.S. Ex. 85,147). A release entitled ". . . On Youth Smoking Tobacco Industry Guidelines" stated: "Long holding the view that smoking is for adults who choose to smoke – and an activity that should not be engaged in by youth – the

tobacco industry has taken measures to address public concerns about youth smoking." TIMN0057161-7161 (U.S. Ex. 62,818); TIMN187548-7548 (U.S. Ex. 85,148).

3338. In a February 11, 1990 interview on *Larry King Live*, Brennan Dawson, Vice President of the Tobacco Institute, speaking on behalf of Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, and Lorillard, stated: "the industry does not target kids. In fact, you'll only find tobacco ads in publications that are primarily geared towards older people; adults, in fact." TIMN341405-1422 at 1409 (U.S. Ex. 67,295).

3339. On February 20, 1990, the Tobacco Institute issued a press release stating that Charles Whitley, Tobacco Institute Legislative Consultant, had appeared before the Senate Committee on Labor and Human Resources on behalf of the Tobacco Institute and had testified that "the cigarette industry does not want young people to smoke." TIMN341503-1504 (U.S. Ex. 85,377).

3340. On *CBS News Nightwatch*, broadcast on February 27, 1990, Brennan Dawson, stated: "advertising doesn't cause smokers . . . And advertising in a mature market doesn't create the urge to run out and buy a pack of cigarettes." Dawson further stated that: "The industry does not target children. We don't want kids smoking. We have taken a number of very proactive steps over a long period of time to make that demonstration very clear." CORTI1731-1738 at 1734, 1737 (U.S. Ex. 87,735).

3341. In March 1990, the Tobacco Institute issued a report on youth smoking stating, "Tobacco manufacturers have always believed that the decision to smoke or not is a choice to be made by informed adults." TIMN215242-2425 (U.S. Ex. 85,149).

3342. On the CNN program *Crossfire* broadcast on April 11, 1990, Brennan Dawson, stated: "There is no one in the tobacco industry that wants children and underaged youth to smoke. That has been a longstanding policy of the tobacco industry." CORTI1828 -1841 at 1837 (U.S. Ex. 85,150).

3343. On May 24, 1990, the Tobacco Institute issued a press release entitled "Discouraging Youth Smoking, Tax Burden On Smokers And Other Issues Discussed in Testimony" concerning the testimony offered by Charles O. Whitley before the Senate Committee on Finance. Whitley appeared before the Committee on behalf of the Tobacco Institute. The press release quoted Charles Whitley as testifying to the Senate Committee: "I know of no other industry in America that has taken such direct, voluntary action to steer its products away from young people." The press release also stated that Whitley "outlined many of the steps that the tobacco industry has taken to help discourage youth smoking." The press release further stated that "Whitley also disputed claims that raising cigarette taxes would discourage youth smoking." MNAT00600156-0157 (U.S. Ex. 22,349); TIMN0020530-0531 at 0530 (U.S. Ex. 21,713) (U.S. Ex. 36,253) (U.S. Ex. 62,795) (U.S. Ex. 62,797); TIMN0125424-5425 at 5424 (U.S. Ex. 22,594).

3344. In a July 1990 Tobacco Institute document entitled "Youth Guidelines" the Tobacco Institute issued new industry guidelines regarding sampling and product placement, updating its advertising code. The document stated: "The cigarette industry has long held the view that smoking is for adults who choose to smoke – an activity that should not be engaged in by youths. In fact, the industry already has taken measures to address public concerns about

youth smoking. To date cigarette manufacturers: do not advertise in publications directed primarily to persons under 21; do not use models in ads who are or appear to be under 25; do not distribute cigarette samples to persons under age 21; do not distribute cigarette samples within two blocks of any centers of youth activities, such as playgrounds and schools." The report also announced new additional industry guidelines regarding sampling and product placement. TIMN0038804-8804 (U.S. Ex. 85,151).

3345. On October 11, 1990, the Tobacco Institute issued a press release entitled "Major New Initiatives to Discourage Youth Smoking Announced" which stated that Defendants had a "longstanding policy" of discouraging and preventing smoking by youth and announced "five new initiatives that expand and reaffirm the industry's longstanding commitment and positive actions against youth smoking." The press release included a quote from Brennan Dawson, Vice President of the Tobacco Institute, stating that "[w]e also were determined to address substantively concerns about cigarette marketing. And so we reviewed our practices to find what more we could do." The press release further quoted Dawson as saying: "Since it is widely recognized that young people smoke primarily because of peer pressure, we are addressing this directly with a major program to assist parents in reducing that peer pressure." TIOK0000978-0980 (U.S. Ex. 21,714).

3346. On December 11, 1990, Dawson told news reporters: "If a child never picks up another cigarette it would be fine with the tobacco industry." TIMN0131524-1525 (U.S. Ex. 85,153); TIMN0047460-7460 (U.S. Ex. 85,154); TIMN0131505-1505 (U.S. Ex. 85,155); TIMN0131521-1521 (U.S. Ex. 85,156); TIMN0131494-1494 (U.S. Ex. 85,157); TIMN0131500-

1500 (U.S. Ex. 85,158); TIMN0131532-1532 (U.S. Ex. 85,159).

3347. On the nationally televised ABC program *Good Morning America*, broadcast on December 12, 1990, Dawson, speaking on behalf of Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, and Lorillard, stated that the tobacco "industry has a long standing history going back for decades of positive actions to discourage youth smoking." TIMN0041988-1911 at 1989 (U.S. Ex. 62,806), (U.S. Ex. 78,360).

3348. In 1991, the Tobacco Institute distributed to the public a booklet entitled "Smoking and Young People - Where the Tobacco Industry Stands," which stated that, in 1990, the industry "launched a set of bold, new initiatives designed to ensure that smoking remains an adult custom." In the booklet, the Tobacco Institute also stated that "[a]ccording to many behavioral experts, the answer is an unequivocal no – there is no significant connection between advertising and the decision to start smoking." TIMN0133916-3922 at 3917, 3919 (U.S. Ex. 22,206) (U.S. Ex. 34,426).

3349. In a 1991 statement to the New York State Association of Tobacco and Candy Distributors, Samuel Chilcote Jr., President of the Tobacco Institute, said: "the tobacco industry has long believed that smoking is an adult choice. Over the years we have taken many voluntary steps to make that clear." TIMN0031560-1560 (U.S. Ex. 85,161).

3350. On December 10, 1991, Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard and American, through the Tobacco Institute, issued a press release criticizing a study published in the *Journal of the American Medical Association* ("JAMA") on youth smoking and accusing the authors of "glaring omissions and distortions." The press release stated: "Youth

smoking is not on the rise in the U.S., contrary to the impression given in a study in today's Journal of the American Medical Association. . . . Contrary to the assertion of [the study's] authors, studies suggest that the majority of U.S. smokers are of legal age when they begin to smoke." The press release further stated: "cigarette ads have no significant effect on the prevalence of smoking by young people." The press release also contained the statement that "The tobacco industry has long taken steps to discourage youth smoking and to address concerns about tobacco marketing." In addition, the press release also contained statements falsely suggesting that the majority of smokers in the United States are of legal age when they begin smoking and that Defendants had discouraged youth smoking. TIMN0024039-4040 (U.S. Ex. 21,297) (emphasis in original) .

3351. In an effort to head off expected criticisms triggered by the 1994 Surgeon General's Report on smoking and youth, the Tobacco Institute circulated background fact sheets to the media. A cover letter attached to the four fact sheets summarized them as follows:

- "Cigarette Advertising and Youth Smoking, citing numerous studies and country experiences demonstrating that cigarette advertising does not influence young people to smoke;"
- "Why Young People Begin Smoking, outlining several U.S. and international studies reporting that family and peers are the primary influences of youth smoking;"
- "Incidence of Youth Smoking, highlights information on youth smoking data from federal studies;"
- "Tobacco Industry Initiatives Against Youth Smoking, providing a look at some of the steps the industry has taken to address these issues."

TI16300337-0345 at 0337 (U.S. Ex. 62,447) (U.S. Ex. 62,448).

(b) False and Misleading Statements of Philip Morris

(i) False and Misleading Public Statements

3352. Philip Morris prepared a brochure intended to publically promote its "thirty years of responsible marketing practices" dating from 1963 to 1993. The brochure stated: "Philip Morris Cigarette Ads are Directed to Adults Only . . . Philip Morris advertises to promote brand loyalty among adults who already smoke." 2078842782-2814 at 2809 (U.S. Ex. 25,040).

3353. In 1989, Philip Morris initiated a program called "It's The Law" as part of its publicly-declared intention to lessen underage smoking. In a document regarding this program, Philip Morris denied that advertising leads children to smoke, stating: "All that cigarette advertising does is help smokers select a brand; it does not encourage nonsmokers or kids to smoke." 2046573757-3759 at 3757 (U.S. Ex. 20,472).

3354. Doreen Baker, Manager of Marlboro Accounts at Philip Morris, sent a letter dated November 22, 1989 to Don Miller, Vice President and General Manager, Motorsports International, which stated that Philip Morris's "policy [is] to market to the twenty-one and above aged consumer." 2048513994-3994 (U.S. Ex. 20,483).

3355. Talking points produced from the files of Joshua Slavitt, Director of Policy & Programs for Tobacco, Philip Morris Management Corporation, dating to or after 1990, stated: "Philip Morris directs its marketing efforts to existing adult smokers 21 years of age and older." 2078842251-2253 at 2251 (U.S. Ex. 25,034).

3356. In 1991, Philip Morris placed advertisements which stated that "Philip Morris U.S.A. does not market cigarettes to children because smoking is an adult choice," and that

"smoking is an adult decision." 2022881505-1505 (U.S. Ex. 20,366); 2022881503-1503 (U.S. Ex. 20,365).

3357. According to "Message Points" intended for public dissemination dating to or after 1992, produced from the files of Norma Suter, currently the Vice President of Marketing, Discount Brands:

- Philip Morris does not market its products to minors and we do not want minors to smoke because smoking is an adult custom. . . .
- Minors do not start smoking because of cigarette advertising, promotions or sponsorship.

2048826863-6864 at 6863 (U.S. Ex. 23,992).

3358. In 1994, Philip Morris created message points intended to publically respond to the 1994 Surgeon General Report's conclusion that cigarette advertisements contributed to youth smoking. The Philip Morris message points stated: "No study has ever been able to draw the conclusion that advertising can cause anyone, particularly kids, to smoke. All that cigarette advertising does is help smokers select a brand; it does not encourage nonsmokers or kids to smoke. Brand recognition does not equate to smoking." 2062341135-1136 (U.S. Ex. 20,511).

3359. A draft article intended to appear in an issue of *PMGLOBE* published close in time to the publication of the 1994 Surgeon General's Report stated that: "Philip Morris U.S.A. does not market its cigarette products to children and underage teenagers." 2078842765-2766 at 2765 (U.S. Ex. 25,039).

3360. In a draft of Questions and Answers regarding its sports sponsorship apparently written during or after 1994, Philip Morris suggested the following answers for public

dissemination:

> Q : But aren't minors still exposed to cigarette brand sponsorship at these [sporting] events?
>
> A : Yes. But both common sense and available data argue that exposure to cigarette brand advertising or sponsorship does not influence anyone – either adults or children – to begin smoking.

2078842371-2376 at 2371 (U.S. Ex. 25,037).

3361. A June 27, 1995, Philip Morris press release announced a program – Action Against Access – which was described as a "new initiative to attack the problem of youth smoking." It further stated that "Philip Morris U.S.A. will fund a major retail compliance training program called 'Ask First/It's the Law' on how to ask for and verify proof of age for the purchase of cigarettes." The press release hailed these initiatives as "the best way to keep kids away from cigarettes." 2500050140-0141 (U.S. Ex. 21,804); 511407678-7680 at 7678 (U.S. Ex.. 22,928).

3362. Responding to a letter from school children at Fairmont Public School in Fairmont, North Dakota, in a February 24, 1995 letter to the Principal, Ellen Merlo, Senior Vice President at Philip Morris, wrote: "Let me start by assuring you that Philip Morris agrees with your students, in that we do not want minors to smoke. We believe that while smoking is a legitimate life-style choice for adults, it is completely inappropriate for children. For more than three decades we have taken great care to ensure that our cigarette products are marketed to adults only. We never advertise in publications geared toward youth and have not done so since

the early 1960s." 2070038936-8938 at 8936 (U.S. Ex. 24,506).

3363. A June 6, 1995 draft of Questions and Answers regarding sporting events signage, produced from the files of Joshua Slavitt, stated, "Any television pick-up that our advertisements may have received was and is purely incidental." 2078842259-2277 at 2274 (U.S. Ex. 25,035); 2048216551-1559 (U.S. Ex. 26,990).

3364. In a February 27, 1996 media training report for Philip Morris International to regional presidents, which provided "key messages" to be disseminated to the public, the section entitled "Marketing, Youth Access and Advertising" included the key message that "[a]dvertising doesn't cause young people to smoke." 2500121308-1353 at 1318-1320 (U.S. Ex. 20,553).

3365. At a May 15, 1996 press conference, Steve Parrish, then Senior Vice President of Corporate Affairs for Philip Morris Companies, stated that "[Philip Morris] think[s] kids should not smoke. We are committed to the issue." When asked about the appeal of cigarette advertising to youth, Parrish stated that "[Philip Morris] believe[s] that advertising does not induce kids to smoke." In explaining Philip Morris's proposal to limit advertising only to publications with 85 percent or higher adult subscribership, Parrish contended, "when you're talking about 85 percent subscribership, you're really talking about adult publications and really eliminating any tobacco advertising in youth-oriented publications at all." 2048370622-0641 (U.S. Ex. 22,094).

3366. On May 16, 1996, Parrish was interviewed on *The News Hour With Jim Lehrer* regarding Philip Morris's proposed legislation in response to FDA efforts to regulate the tobacco industry. When asked about Philip Morris's focus on subscribership levels rather than readership

levels in its proposal to cease tobacco advertising in all publications with higher than 15 percent youth subscribership, Parrish argued that "subscribership is a very appropriate way to look at this because it tells you whether a publication is a youth-oriented publication or not." 2077070349-0354 (U.S. Ex. 22,091).

3367. At a 1997 Philip Morris shareholders meeting, in response to a shareholder inquiry regarding youth smoking, the Philip Morris Board of Directors stated that "[t]he Company has a long-standing policy against the sale of cigarettes to minors and in favor of responsible marketing. Consistent with this policy, which is applicable worldwide, the Company is committed to leading and supporting initiatives to address the problem of youth smoking." Philip Morris Companies Inc., 1997 Proxy Statement Pursuant to Section 14(a) of the Securities Act of 1935, Proposal 1 - Protecting Youth from Smoking in Developing Countries (U.S. Ex. 87,736).

3368. On March 4, 1998, Geoffrey Bible, then Chairman and CEO of Philip Morris Companies, testified in State of Minnesota v. Philip Morris Inc., et al., that "We do not market cigarettes to teenagers." Trial testimony of Geoffrey Bible, State of Minnesota v. Philip Morris Inc., et al., March 4, 1998, 6167.

3369. At a 1998 Philip Morris shareholders meeting, in response to a shareholder inquiry regarding youth smoking, the Philip Morris Board of Directors stated that "the Company shares the proponents' desire to prevent youth smoking and is committed to taking action to prevent the sale of cigarettes to minors." Philip Morris Companies Inc., 1998 Proxy Statement Pursuant to Section 14(a) of the Securities Act of 1935, Proposal 1 - Protecting Youth from

Smoking in Developing Countries (U.S. Ex. 87,737).

3370. At a 1999 Philip Morris shareholders meeting, in response to a shareholder inquiry regarding youth smoking, the Philip Morris Board of Directors stated that "[b]oth Philip Morris U.S.A. . . . and Philip Morris International . . . have programs in place, and are subject to legal restrictions, that require that marketing and advertising activities be directed only to adults who choose to smoke." Claiming that Philip Morris goes "above and beyond" legal requirements, the Board further stated that "Philip Morris U.S.A. has a long-standing commitment to direct its advertising only to adults who choose to smoke. . . ." Philip Morris Companies Inc., 1999 Proxy Statement Pursuant to Section 14(a) of the Securities Act of 1935, Proposal 1 - Protecting Youth from Smoking in Developing Countries (U.S. Ex. 87,738).

3371. Philip Morris's internet website www.philipmorrisusa.com, launched on October 13, 1999, stated in part as follows: "Our goal is to be the most responsible, effective, and respected developer, manufacturer and marketer of consumer products, especially products intended for adults . . . . We will support our Mission by proactively engaging with our stakeholders to enhance our ability to act in a way that is consistent with society's expectations of a responsible company." The website further stated that "Philip Morris is committed to acting responsibly in marketing its tobacco products to adults who choose to smoke. We demonstrate this commitment by implementing all of our marketing programs in compliance with both the letter and the spirit of the laws, rules, policies and restrictions that govern our business practices." www.philipmorrisusa.com (U.S. Ex. 65,080).

3372. At a 2000 Philip Morris shareholders meeting, in response to a shareholder

inquiry regarding youth smoking, the Philip Morris Board of Directors stated, "[b]oth Philip Morris U.S.A. . . . and Philip Morris International . . . have programs and policies in place, and are subject to legal restrictions, that help ensure that marketing and advertising activities be directed only to adults that choose to smoke . . . Philip Morris U.S.A. has a long-standing commitment to direct its advertising only at adults who choose to smoke [and] complies with an industry code and company policy that help ensure that its marketing efforts are directed only to adults who choose to smoke." Philip Morris Companies Inc., 2000 Proxy Statement Pursuant to Section 14(a) of the Securities Act of 1935, Proposal 4 - Ensuring that Tobacco Ads Are Not Youth-Friendly (U.S. Ex. 87,739).

3373. At a 2001 shareholders meeting, in response to a shareholder inquiry regarding youth smoking, the Philip Morris Board of Directors asserted that "Philip Morris U.S.A. has a long-standing commitment to help ensure that its marketing efforts are directed only at adults who choose to smoke . . . ." Philip Morris Companies Inc., 2001 Proxy Statement Pursuant to Section 14(a) of the Securities Act of 1935, Proposal 2 - A Proposal to Ensure that Tobacco Ads Are Not Youth-Friendly (U.S. Ex. 87,740).

3374. On or about June 2001, Philip Morris posted on its Internet website a document entitled "U.S.A. Marketing Policies," which represented that "All of our brand advertising and promotions are intended for adults who choose to smoke. They serve to enhance brand awareness, recognition and loyalty among adult smokers." 2078296160-6161 (U.S. Ex. 20,534).

3375. As of January 13, 2002, a section of Philip Morris's Internet website, www.philipmorrisusa.com, entitled "Responsible Marketing" stated in part that "we demonstrate

our commitment to responsibly marketing our products to adult smokers by developing and implementing programs that comply with both the letter and the spirit of the laws, rules, policies and agreements that govern our business practices . . . [including] PM USA's Marketing Practices. . . . Our marketing programs are designed to enhance brand awareness, recognition and loyalty among adult smokers, while honoring the Company's commitment to responsible marketing." "Responsible Marketing" on www.philipmorrisusa.com (U.S. Ex. 78,280).

3376. At a 2003 Altria shareholder meeting, in response to a shareholder inquiry, the Altria Board of Directors stated, "Philip Morris U.S.A. . . . and Philip Morris International . . . both support efforts to prevent children from obtaining access to cigarettes, over the Internet or in any other manner." Altria Group, Inc., 2003 Proxy Statement Pursuant to Section 14(a) of the Securities Act of 1935, Proposal 2 - Cigarettes Over the Internet (U.S. Ex. 87,741).

3377. Philip Morris continues to disseminate false and misleading statements regarding its marketing to youth on its own website at the present time. Under a section entitled, "Responsible Marketing," Philip Morris states, "At Philip Morris USA, we demonstrate our commitment to responsibly marketing our products to adult smokers by developing and implementing programs that comply with both the letter and the spirit of the laws, rules, policies and agreements that govern our business practices." In describing its "marketing practices," Philip Morris states, "Philip Morris USA does not direct its advertising to underage smokers or to non-smokers." With regard to its obligations under the MSA, Philip Morris states, "Although the agreement restricts participation in promotional programs to "Adults" (defined as 18 years of age and older), PM USA voluntarily restricts such programs to adult smokers age 21 or older."

http://www.pmusa.com/responsible_marketing/default.asp (U.S. Ex. 78,280) (U.S. Ex. 78,281) (U.S. Ex. 78,782).

(ii) False and Misleading Testimony

3378. Ellen Merlo, Senior Vice President, Corporate Affairs, at Philip Morris testified that: "[w]hen we did focus groups or brought people together, it was always people who were 21 years of age or older." Deposition of Ellen Merlo, United States v. Philip Morris, et al., June 12, 2002, 334:12-15.

3379. Michael Mahan, Vice President for Marketing and Sales of the Asia Pacific Region for Philip Morris, at his May 31, 2002 deposition in this case, testified that Philip Morris did not study smokers under the age of 18. Deposition of Michael Mahan, United States v. Philip Morris, et al., May 31, 2002, 162-168.

3380. Suzanne LeVan, Vice President of Marlboro and former Vice President of Philip Morris Premium Brands, has been a Philip Morris employee since December 1991. At her June 25, 2002 deposition in this case, LeVan testified that "Philip Morris markets its brand to adults who choose to smoke" and that "Philip Morris doesn't direct any of its marketing efforts to non-smokers." In response to the question: "Does Philip Morris do anything to recruit non-smokers to begin smoking?" LeVan testified, "No, sir, they do not." And in response to the question "What percentage of Philip Morris' marketing efforts are spent trying to convince minors to smoke Philip Morris brands?" LeVan testified "None. Philip Morris doesn't market to minors" and testified that that was "a true statement for all of [her] years at Philip Morris." Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002, 268-270; 2063683072-

3077 (U.S. Ex. 21,870).

(c) False and Misleading Statements of Liggett

3381. On May 18, 1979, Raymond J. Mulligan, then President of Liggett, sent a letter to Joseph A. Califano, Jr., Secretary of the Department of Health, Education and Welfare, in response to a April 26, 1979 letter sent by Califano, which stated that millions of children are regular cigarette smokers and urged Liggett to dedicate a percentage of its advertising budget to youth smoking prevention programs. Mulligan stated that:

> [T]his Company does not promote or advertise its cigarette products to children or young people under twenty-one years of age, nor are our promotional activities and advertising aimed at encouraging such children and young people to begin smoking or even continue smoking. Cigarette smoking is an adult pleasure and custom, and our promotional activities and advertising are directed at attaining loyalty to our cigarette brands among adult smokers only.

Mulligan's letter also cited self-imposed restrictions against sampling and advertising on college campuses, using models under 25 years of age, television and broadcast advertising, and "many other programs and policies not herein specified which by the industry's free will are directed at limiting the pleasure of smoking to adults." In response to Califano's suggestion of an anti-youth smoking campaign, Mulligan stated, "I believe there is sufficient evidence to show that government intrusion only encourages and fosters an attitude among many of our young people to oppose such intrusion by doing the very opposite of that which the government advocates." TI03972545-2546 (U.S. Ex. 22,358).

3382. On July 13, 1999, Ronald S. Fulford, Chief Executive Officer of Liggett, sent an internal memorandum to all employees which stated that "[i]t is Liggett's policy to scrupulously

avoid any and all advertising or marketing which would appeal to children or adolescents." LDOJ2233261-3261 (U.S. Ex. 21,184).

(d) False and Misleading Statements of Lorillard

(i) False and Misleading Public Statements

3383. In a January 6, 1970 letter to Michael Pertschuk, General Counsel for the United States Senate Commerce Committee, Arthur Stevens, Lorillard General Counsel, responded to a *Consumer Reports* story which discussed a 1969 or 1970 letter written by Philip Gaberman, creative director for Robert Brian Associates, regarding a new package design for Lorillard Kicks cigarettes. Stevens' letter stated that: "[i]t is Lorillard's policy and practice to avoid directing its advertising or promotions to young people. Therefore, we sincerely regret any misunderstanding which may have arisen in this regard as a result of the actions referred to in the Consumer Reports story, and trust that the information we have supplied will demonstrate that we are continuing to avoid any such appeals and will continue to avoid them in the future." 00486108-6109 (U.S. Ex. 20,026).

3384. On March 25, 1992, Stevens sent a memorandum to Gary W. Garson, Loews Vice President, Deputy General Counsel and Assistant Secretary, entitled "Loews 1992 Annual Meeting Shareholder Proposals 5 and 6." Loews is the parent company of Lorillard. In the memorandum, Stevens stated that "[t]he WSJ article of 3/13/92 reported the R.J. Reynolds response to this survey, viz, that teenagers are influenced in both their decision to smoke, and their brand selection, by the practices of their peers and families, rather than by advertising. Our MRD [Marketing Research Department] people agree with that conclusion." 91763206-3206

(U.S. Ex. 21,112).

3385. In response to a shareholder inquiry regarding youth smoking at a shareholder meeting in 1996, the Lorillard Board of Directors stated that "[f]or over 30 years, Lorillard and other cigarette manufacturers have opposed smoking by minors. The voluntary code of the cigarette industry, to which Lorillard fully subscribes, contains a variety of provisions designed to discourage youth smoking . . . and a variety of restrictions strictly limiting the distribution of product samples. These efforts have been supplemented and enhanced over the years. . . ." Loews Corporation, 1996 Proxy Statement Pursuant to Section 14(a) of the Securities Act of 1935, Proposal No. 8 - Shareholder Proposal Relating to Smoking by Youth (U.S. Ex. 22,080).

3386. In response to a shareholder proposal regarding youth smoking at a shareholder meeting in 1997, the Lorillard Board of Directors stated that: "Lorillard and other cigarette manufacturers have opposed smoking by children and underage adults for over thirty years. In an effort to deal with this and other matters, the cigarette industry has adopted a voluntary code, to which Lorillard has always fully subscribed, containing a variety of provisions designed to discourage youth smoking." Loews Corporation, 1997 Proxy Statement Pursuant to Section 14(a) of the Securities Act of 1935, Proposal No. 5 - Shareholder Proposal Relating to Smoking by Youth (U.S. Ex. 87,742).

3387. A Lorillard document entitled "Corporate Principles of Marketing, Promotion and Youth Smoking" contained a message dated June 30, 1999, from Martin Orlowsky, CEO of Lorillard, stating in part: "For many years, Lorillard, as a matter of corporate policy, has voluntarily and scrupulously followed the tobacco industry Cigarette Advertising and Promotion

Code. . . . This Code was and is consistent with Lorillard's long-standing policy and practice that smoking is an adult custom and that children should not smoke." Orlowsky further stated:

> Lorillard does not and will not design or implement any marketing or promotional program intended to encourage youth to smoke cigarettes, and will continue to utilize only those advertising, promotional and marketing materials that do not, directly or indirectly, target youth. . . . Lorillard does not and will not advertise its products in publications directed primarily to persons under 21 years of age, including school, college or university media (such as athletic, theatrical or other programs), comic books or comic supplements. . . . Lorillard's advertising does not and will not depict as a smoker anyone who is or has been well known as an athlete, nor does it or will it show any smoker participating in, or obviously just having participated in, a physical activity requiring stamina or athletic conditioning beyond that of normal recreation. . . . and Lorillard does not and will not take any action the primary purpose of which is to initiate, maintain, or increase the incidence of youth smoking.

82225801-5805 at 5803-5805 (U.S. Ex. 55,455).

3388. In response to a shareholder proposal regarding youth smoking at a shareholder meeting in 1999, the Lorillard Board of Directors stated that:

> the MSA . . . is designed to provide a comprehensive framework to resolve many of the issues affecting the United States tobacco industry. This framework prohibits Lorillard . . . from targeting youth in its advertising and marketing. It also provides for the establishment of a foundation designed to . . . research, identify and implement effective means of reducing underage smoking, to be funded by approximately $1.45 billion supplied by the participating companies, including Lorillard. . . . The MSA requires corporate culture commitments in relation to full compliance with the MSA, including furthering its goal of preventing underage tobacco use. . . . As a consequence, Lorillard has advised the Company that all current and future promotional, marketing and/or advertising campaigns will be closely reviewed by Lorillard with the aim of complying with both the MSA, and Lorillard's commitment to reduce youth smoking.

Loews Corporation, 1999 Proxy Statement Pursuant to Section 14(a) of the Securities Act of 1935, Proposal No. 5 - Shareholder Proposal Relating to Executive Compensation and Teen Smoking (U.S. Ex. 87,743).

3389. In a May 6, 1999 speech at the Tobacco Merchants Association 84th Annual Meeting and Dinner in New York City, Alexander Spears, then CEO of Lorillard, stated: "We are committed to reducing underage access and consumption of cigarettes. . . ." 98427298-7301 at 7301 (U.S. Ex. 25,830).

3390. In June 2001, Lorillard posted on its Internet website a statement entitled "Marketing and Promotion" which promised that "Lorillard does not and will not design or implement any marketing or promotional program intended to encourage youth to smoke cigarettes, and will continue to utilize on those advertising, promotional and marketing materials that do not, directly or indirectly, target youth." www.lorillard.net/corp.html (U.S. Ex. 72,746).

3391. At a 2003 Loews shareholders meeting, in response to a shareholder inquiry about youth smoking, the Board of Directors asserted that "Lorillard strongly believes that underage persons should not smoke, and that all laws prohibiting the sale of tobacco products to underage persons should be vigorously enforced." Loews Corporation, 2003 Proxy Statement Pursuant to Section 14(a) of the Securities Act of 1935, Proposal No. 6 - Shareholder Proposal Relating To Cigarette Sales Over the Internet (U.S. Ex. 87,744).

3392. Lorillard states on its current website:

> As clearly set forth in the Tobacco industry's Cigarette Advertising and Promotion Code (the "Code"), to which Lorillard has adhered for many years, Lorillard believes that cigarette smoking is an adult custom and that children should not smoke. Accordingly, Lorillard

> advertises and promotes its cigarettes only to adult smokers . . . . Lorillard does not and will not take any action the primary purpose of which is to initiate, maintain, or increase the incidence of youth smoking.

http://www.lorillard.com/index.php?id=29 (U.S. Ex. 76,628) (U.S. Ex. 78,277).

(ii) False and Misleading Testimony

3393. In his April 2, 2002 deposition in this case, Steven C. Watson, Lorillard Vice President, External Affairs, testified that he caused to be issued a press release in 2001 stating that "Lorillard Tobacco Company has never marketed or sold its products to youth" which was transmitted electronically by e-mail from North Carolina to P.R. Newswire in New York, and distributed from there by wire to various news agencies, to be published in newspapers, magazines or similar publications. Deposition of Steven C. Watson, United States v. Philip Morris, et al., April 2, 2002, 190:5-191:6.

3394. George Telford, Vice President of Brand Marketing for Lorillard since 1990 with responsibility for developing Lorillard's annual strategic marketing plans, testified at his June 26, 2002 deposition in this case that the purpose of Lorillard's marketing and promotion efforts was to retain current smokers of Lorillard products and to convince competitive smokers to switch to Lorillard products. Telford also testified that Lorillard has set the target market for Newport as 21 to 34 year-olds since 1994. Deposition of George Telford, United States v. Philip Morris, et al., June 26, 2002, 39:17-42:10, 61:9-64:3.

(e) False and Misleading Statements of American Tobacco, BATCo and Brown & Williamson

(i) False and Misleading Public Statements

3395. On September 19, 1962, Paul Hahn, President of American Tobacco, sent a telegram to Frank Stanton, President of Columbia Broadcasting System in response the CBS television program "The Teen-Age Smoker." Hahn stated that "[i]t has always been the position of the American Tobacco Company that smoking is a form of pleasure for adults." ATC2622571-2571 (U.S. Ex. 64,815).

3396. In response to a suggestion at a 1961 stockholder meeting that American Tobacco consider a campaign against children smoking to "build good will," a 1965 statement by American Tobacco Company on public relations advertising asserted that: "We will continue to make clear our position that smoking is a form of pleasure for adults." ATC2662876-2877 (U.S. Ex. 64,817).

3397. On May 4, 1979, Brown & Williamson Chairman and Chief Executive Officer Charles I. McCarty sent a letter to Joseph A. Califano, Jr., Secretary of the Department of Health, Education and Welfare, in response to an April 26, 1979 letter from Califano that stated that millions of children are regular cigarette smokers and urged Brown & Williamson to dedicate a percentage of its advertising budget to youth smoking prevention efforts. McCarty stated that Brown & Williamson had a "policy against advertising or promoting the sale of cigarettes to persons under 21," and stated that Brown & Williamson "does not have at hand the research data and other information necessary to a responsible analysis of the suggestion made in [Califano's April 26 letter]." 521038912-8912 (U.S. Ex. 20,890); 521038792-8792 (U.S. Ex. 21,519).

3398. On June 1, 1979, McCarty sent a second letter to Califano further responding to Califano's April 26, 1979 letter. In this letter, McCarty stated: "We maintain a strict policy against promoting cigarettes to persons under 21 years of age." McCarty further stated: "We do not want children to smoke not because we agree with your oft-repeated slogan that smoking is 'slow-motion suicide' but because the decision whether to smoke, we think, is a decision which should be made by adults, not children. . . . I have serious doubts about the effectiveness of any campaign directed toward children advising them to postpone making the decision to smoke until they are adults. Such a campaign could backfire. Children might elect to smoke as a rebellion against authority or in an attempt to show adult behavior." 03535562-5563 (U.S. Ex. 21,523).

3399. A June 1981 memorandum from R.L. Ely, Head of Public Affairs at BATCo "To All No. 1's and Public Affairs Managers of Operating Companies" attached the latest version of a paper prepared by INFOTAB entitled "Advertising Argumentation." Ely instructed that, when using the information contained in the paper, "that you should please ensure that no mention is made of its source." The "Advertising Argumentation" paper included the following statements: "Cigarette advertising promotes brand switching, not overall sales . . . Cigarette advertising reportedly has little or no influence on the decision of young people to begin to smoking." 100439232-9236 at 9233, 9235 (U.S. Ex. 23,331).

3400. On July 7, 1987, W.J. Dickson, BATCo Director of Public Affairs, authored a "Note to No 1s Oversees" entitled "Smoking by Non-Adults and Advertising." Dickson stated that "[i]t is BAT's opinion that smoking is an adult choice. We are totally opposed to smoking by non-adults and it is totally against our policy to encourage non-adults to smoke . . .

Consequently we do not aim our cigarette advertising at non-adults nor do we use advertising campaigns which could be interpreted as encouraging non-adults to smoke . . . Non-adult means people under the age of 18 (or higher age if regulations in any particular country so require)." 501567217-7218 at 7217 (U.S. Ex. 66,345).

3401. In a document entitled "Statement of Business Conduct" dated December 21, 1993, BATCo stated that "[t]obacco advertising and marketing programmes are used to cause existing adult consumers to switch from one brand to another and are not used to encourage young people to start smoking." This "Statement" indicated that it applied to "all directors, officers, and employees" at BATCo. 503074962-4985 at 4965, 4978 (U.S. Ex. 21,869).

3402. In a February 6, 1997, press release responding to a news story in *The Washington Post* reporting that Brown & Williamson targeted youth in its marketing practices, Brown & Williamson declared, "Brown & Williamson Tobacco Corporation has not and does not market cigarettes to underage smokers." http://www.bw.com/Index_sub2.cfm?ID=12 (U.S. Ex. 78,272).

3403. On August 25, 1997, the Brown & Williamson Board of Directors (N.G. Brookes, R.L. Bexon, J.N. Jewell, M.J. McGraw, and C.L. Schoenbachler, Jr.) adopted a resolution that stated that Brown & Williamson does not market to youth and that advertising and promotion were not major determinants of tobacco use by youths:

> B&W does not agree that its actions encourage young people to use tobacco products. B&W believes that minors should not use or have access to tobacco products, and **B&W does not market or advertise its products to minors**. B&W does not believe that tobacco advertising or promotion are major determinants of tobacco use by minors. B&W therefore does not agree that "sweeping new restrictions" on the marketing and sale of tobacco products are necessary. Enforcement of existing laws prohibiting

> youth access to tobacco would be the single most effective means of reducing youth tobacco use.

321963884-3886 at 3884 (U.S. Ex. 85,173) (emphasis added).

3404. In an April 11, 1997 letter from Nicholas G. Brookes, Chairman and Chief Executive Officer of Brown & Williamson, to Ulrich Herter, Managing Director, BAT Industries, Brookes stated that "B&W is committed to the principle that smoking is an adult custom and directs all of its marketing, advertising and sales effort to adult smokers 21 years of age and older." 283202743-2744 at 2743 (U.S. Ex. 20,576).

3405. On February 24, 1998, Brookes testified to the U.S. Senate Commerce Committee that Brown & Williamson had "a policy that we do not promote our products to kids or underage smokers, and that would be a terminable offense. We would terminate somebody who clearly evaded that policy and, indeed, I think we have historically terminated contractors who have done so." 178200001-0132 at 0095 (U.S. Ex. 35,023).

3406. In 1998, Brown & Williamson's Internet website included a statement entitled "Marketing & Consumer Principles and Practices" which promised that: "we conduct our business in a principled manner to assure that our cigarettes are marketed responsibly, and that our advertising, promotion and sponsorship programs are not directed toward youth. Although state law permits individuals under the age of 21 to purchase tobacco products, the intended audience for all B&W marketing programs is adults twenty-one and over. Hence, the purpose of B&W's marketing programs is to encourage smokers twenty-one and over to select B&W brands." http://www.brownandwilliamson.com (U.S. Ex. 65,077).

3407. During 1999 and through June 2001, Brown & Williamson's website included a

document entitled "Hot Topics: Corporate Responsibility." The section of the document entitled "Marketing Principles and Practices: Advertising" stated that "the intended audience for all B&W marketing programs is adults 21 and over." "Hot Topics: Corporate Responsibility," "Marketing Principles and Practices: Advertising" on http://www.brownandwilliamson.com (U.S. Ex. 76,629).

3408. During a December 8, 1999 "Internet Chat," Claudia Newton, then Brown & Williamson Vice President of Corporate Responsibility and Youth Smoking Prevention, stated that "Brown & Williamson Tobacco Corporation strongly believes that kids should not smoke cigarettes, under any circumstances, and we're taking action to prevent youth smoking." Newton further stated that "Our company certainly is committed to acting responsibly. **Brown & Williamson has never aimed our marketing programs at youth**." http://www.bw.com/Index_sub2.cfm?ID=6. (U.S. Ex. 86,667) (emphasis added).

3409. In a July 7, 2000 interview with Charles Gibson of ABC News, Newton stated that the company was "making very sure that our marketing programs are aimed at the audience that we want to smoke our products, and that's people who are 21 years of age and up." 520526702-6705 at 6703 (U.S. Ex. 22,111); 106004533-4534 at 4533 (U.S. Ex. 87,751).

3410. In a press release issued on August 15, 2001, Brown & Williamson stated that it had asked "the New York Times to issue an official apology and correction for its page one story today incorrectly stating that the company is advertising its products in magazines with significant numbers of young readers. [Brown & Williamson] provided . . . information that shows the company does not advertise in youth-oriented publications." The release further

stated: "Beginning shortly, B&W ads will be carried only in those publications that are mailed to adults 21 years of age and older. The magazines match names on their subscriber lists against databases that confirm the recipient is at least 21 years old. B&W ads will not appear in newsstand editions of those publications." 525022464-2464 (U.S. Ex. 20,918).

3411. The "British American Tobacco Social Report 2001/2002," available on the British American Tobacco website, in response to the question of whether BATCo used advertising to encourage people to begin smoking, stated: "Our companies take care to ensure that their advertising does not encourage people to start smoking, to smoke more or not to quit. Our companies' advertising aims to inform adult smokers about British American Tobacco brands so that they will switch from competitor brands to ours, or if they are already a smoker of our brands will remain so." BATCo further stated: "Numerous research studies have sought to establish why people start to smoke but none has identified advertising as the primary motivation." www.bat.com (U.S. Ex. 76,316).

3412. Brown & Williamson's website currently contains a section entitled "Marketing & Consumer Communication Principles and Practices." There, Brown & Williamson asserts, "B&W has long taken the position that mass media advertising should be directed to *adults* 21 and over, despite the fact that 18 is the age at which most states permit the purchase of tobacco products. . . . Although we carefully screen our publications to ensure they are directed toward *adults*, we recognize that some readers may not be *adults*. Thus, when we do not know the age of a publication recipient, we restrict the content of our advertising as well as the publications in which we place advertising, using the age of 21 as our threshold rather than legal age." Brown &

Williamson further stated, "[t]oday, our primary focus is on consumer relationship marketing, that is, marketing to specific individuals who have confirmed that they are both *adults* and smokers." http://www.brownandwilliamson.com/ BWT/Index.cfm?ID=269&Sect=3 (U.S. Ex. 78,678) (emphasis in original).

3413. In discussing its "Corporate Responsibility" on its current website, Brown & Williamson asserts:: "Brown & Williamson invests in advertising to generate interest in our brands among competitive brand smokers and to discourage smokers of our brands from switching to other cigarette brands. . . . In addition, we do not target children or teenagers in our advertising or other marketing programs." http://www.brownandwilliamson.com/BWT/Index_.cfm?ID=169&Sect=3 (U.S. Ex. 72,407).

3414. The website for BATCo currently states, "British American Tobacco strongly believes children should not smoke, and smoking should only be for adults who understand the risks associated with it." http://www.bat.com/oneweb/sites/uk__3mnfen. nsf/vwPages WebLive /00EE816257C9ACD480256BF4000331D7?opendocument&DTC=20030905 (U.S. Ex. 78,268).

3415. In addition, BATCo currently states on its website that, "We believe strongly tobacco should never be marketed to youth. It should only be marketed to adult smokers, in an appropriate way that takes account of its health risks." http://www.bat.com/oneweb/sites/ uk__3mnfen.nsf/vwPagesWebLive/DO52EKDZ?opendocument&DTC=20030905&TMP= (U.S. Ex. 78,270).

3416. A March 18, 2004 Brown & Williamson press release appearing on the company's website included the following statement by Ludo Cremers, Divisional Vice

President, Brand Marketing: "B&W is a responsible company that only markets its products to adults who chose to smoke and strongly believes that anyone underage should not smoke cigarettes under any circumstances." http://www.bw.com/Index_sub2.cfm?ID=11 (U.S. Ex. 87,745).

(ii) False and Misleading Testimony

3417. In her April 17, 2002 deposition in this case, Claudia Newton, Brown & Williamson Vice President of Corporate Responsibility and Youth Smoking Prevention until 2001, testified that advertising and marketing influences brand choice, not smoking initiation. Newton testified that she had reached that conclusion based on the results of surveys in which smokers were asked the open-ended question, "Why did you start smoking?" Deposition of Claudia Newton, United States v. Philip Morris, et al., April 17, 2002, 150:15-20, 157:7-22, 158:17-159:4, 160:11-16.

3418. At her July 1, 2002 deposition in this case, Brennan Dawson, Brown & Williamson Vice President for External Affairs, testified that advertising drives adult brand choices, but not youth brand choices. "[T]here is a very large distinction between what makes, especially young people, begin to smoke and what then divides up the market of predominantly adults." Deposition of Brennan Dawson, United States v. Philip Morris, et al., July 1, 2002, 145:24-147:7.

3419. At his March 26, 2003 deposition in this case Robert Bexon, Brown & Williamson Senior Vice President of Marketing & Sales from 1995 until 1999, testified that Brown & Williamson did not conduct market research on any individuals under 21. He further

testified that it was the policy of Brown & Williamson to market its cigarettes only to individuals 21 and older. Deposition of Robert Bexon, United States v. Philip Morris, et al., March 26, 2003, 98:16-99:5.

3420. At her June 20, 2002 deposition in this case, Susan Ivey, President and Chief Executive Officer of Brown & Williamson, testified that Brown & Williamson "clearly target[s] adults in our marketing efforts." Ivey further testified that Brown & Williamson does not "talk to anyone under 21 years of age in the context of market research" Deposition of Susan Ivey, United States v. Philip Morris, et al., June 20, 2002, 132:19-20, 133:4-8 134:17-19, 144:20-22, 147:11-13.

3421. Nicholas Brookes, Chairman and Chief Executive Officer of Brown & Williamson from 1995 until 2000, testified at his March 31, 2003 deposition that Brown & Williamson "researched attitudes of people over the age of 21 who were smokers and principally those who were smokers of our competitive brands to seek to encourage those current smokers to try our products." He further testified that "it was only smokers aged 21 or older to whom we addressed our advertising." Deposition of Nicholas Brookes, United States v. Philip Morris, et al., March 31, 2003, 51:1-52:11.

3422. Paul Wessel, Brown & Williamson Divisional Vice President, testified at his March 19, 2003 deposition that it is the policy of Brown & Williamson not to market to youth. Wessel also testified that Brown & Williamson limited its sampling activities to adult only establishments. Deposition of Paul Wessel, United States v. Philip Morris, et al., March 19, 2003, 57:20-58:18.

(f) False and Misleading Statements of R.J. Reynolds

(i) False and Misleading Public Statements

3423. An April 7, 1972 letter written by T. K. Cahill, an employee in R.J. Reynolds's Public Relations Department, responded to a letter from Santa Monica, California fifth-grade teacher Kenneth Bersinger's class regarding a Winston ad in the *Los Angeles Times*. Cahill's response stated that "none of our cigarette advertising, either in its content or in the media used, is directed to youth." 500671015-1015 (U.S. Ex. 66,308).

3424. In a May 29, 1979 letter written on R.J. Reynolds letterhead from William D. Hobbs, then Chairman and Chief Executive Officer of R.J. Reynolds, to Joseph A. Califano, Jr., Secretary of the Department of Health, Education and Welfare, Hobbs stated that, "we sincerely believe cigarette advertising plays no part in the process which causes teenagers to take up smoking and feel your suggestion that our Company participate in a massive campaign aimed at teenagers is misplaced." TI03972552-2554 at 2554 (U.S. Ex. 21,242) (U.S. Ex. 78,793).

3425. In a press release drafted on January 13, 1984, intended for release on January 30, 1984, David B. Fishel, Vice President of Public Relations for R.J. Reynolds, stated that "our long-standing position has been that smoking is an adult custom, and we do not believe young people should smoke." 504638054-8056 at 8055 (U.S. Ex. 20,733).

3426. A January 17, 1984 R.J. Reynolds document entitled "Questions and Answers" stated, "We do not target our advertising to minors . . . . We do not develop marketing plans

against young people, we do not advertise to young people, we do not conduct consumer surveys among young people, and we have no intention of ever making any efforts to bring them into our market." 502276627-6637 at 6633 (U.S. Ex. 20,698).

3427. In or about April 1984, R.J. Reynolds placed in numerous publications nationwide, including the weekly magazine *U.S. News and World Report* on April 19, 1984, an advertisement entitled "We don't advertise to children." This advertisement stated that "we're running ads aimed specifically at young people advising them that we think smoking is strictly for adults." It further stated that "research shows that among all the factors that can influence a young person to start smoking, advertising is insignificant. Kids just don't pay attention to cigarette ads . . . . [A]ll of our cigarette ads are what we call 'brand advertising.' Its purpose is to get smokers of competitive products to switch to one of our brands, and to build the loyalty of those who already smoke one of our brands. . . . Getting smokers to switch is virtually the only way a cigarette brand can meaningfully increase its business." 500621541-1541 (U.S. Ex. 20,642); 500638176-8176 (U.S. Ex. 20,644).

3428. A draft Marketing Assistant Training Manual dated May 14, 1986, created by the R.J. Reynolds Law Department, stated: "The company does not market its products to youth. We believe that smoking is an adult custom; therefore, we do not market our products to persons under 18 years of age, nor do we research persons under that age. The Code of Cigarette Sampling . . . to which we subscribe, states that sample cigarettes shall not be distributed in public places to persons under 21 years of age -- we abide by this code." The manual further stated that "The Company has no interest in getting non-smokers to smoke. For this reason,

neither our research nor our advertising concerns itself with non-smokers." Additionally, the manual instructed that "We use [the term "young adult smokers"] to refer to smokers who are at the lower end of the adult spectrum, i.e. 18 and above. To avoid any misconception about our intention to reach only adult smokers, we use the phrase 'younger adult smoker', and never 'youth', 'kids', 'young people', etc." 515787126-7129 (U.S. Ex. 20,868).

3429. R.J. Reynolds talking points were apparently prepared for public dissemination in 1989 to respond to a statement made by Congressman T. Lukens regarding R.J. Reynolds's Supercross (stadium motorcycle racing event) contract. The talking points stated that R.J. Reynolds's signs placed at sports events were intended only to impact attendees and not television viewers, and denied that R.J. Reynolds's cigarette advertising signs were placed for maximum television exposure. 507416662-6669 (U.S. Ex. 20,776).

3430. James W. Johnston, Chairman and Chief Executive Officer of R.J. Reynolds, sent a letter dated March 5, 1990, to Mark Green, New York City Commissioner of Consumer Affairs, in response to a letter sent by Green to Louis V. Gerstner, President of R.J. Reynolds. In his letter, Green had raised questions concerning the "Joe Camel" advertising campaign. Johnston stated that it "has long been an R.J. Reynolds policy not to induce youth to smoke . . . we have published full-page statements in national publications urging youths not to smoke." Johnston further stated that, as CEO of R.J. Reynolds, "I have reinforced this policy," and "I see no basis to conclude that R.J. Reynolds has conducted itself in an unethical, illegal or misleading manner." 507603767-3767 (U.S. Ex. 20,780); 507721148-1153 (U.S. Ex. 20,783).

3431. In a May 3, 1990 letter addressed to Sales Representatives, J.P. McMahon, R.J.

Reynolds Division Manager, stated: "It has always been . . . [R.J. Reynolds's] policy that we do not promote or sell our cigarette products to anyone under the age of 21." 682817262-7262 (U.S. Ex. 21,031).

3432. On September 18, 1990, Joan F. Cockerham of R.J. Reynolds's Public Relations Department, sent a letter to private citizen Joanna Brown in response to a letter from Brown expressing concern that the Joe Camel "Camel Smooth Character" appealed to youth. Cockerham stated: "Our intention with this campaign, as with all of our advertising, is to appeal only to adult smokers. We would not have launched the current Camel campaign if we thought its appeal was to anyone other than this group . . . our advertising is directed to adult smokers and not younger people." Cockerham also stated that "research shows that among all the factors that might influence a young person to start smoking, advertising is insignificant." 507706384-6384 (U.S. Ex. 20,782).

3433. On January 28, 1992, Yancey W. Ford, Jr., Executive Vice President for Sales of R.J. Reynolds sent a letter to James Harrison, President of the Vermont Retail Grocers Association, regarding the request by certain public health groups that the Association's members remove Camel advertising from their stores. Ford stated that "R.J. Reynolds Tobacco Co. does not want youth to smoke. We do not believe that smoking should be a part of growing up." Ford further stated that "R.J Reynolds Tobacco Co. and the tobacco industry have long been on record against youth smoking" and that the Joe Camel advertising campaign was directed at adult smokers. Ford also discredited the then recent study on youth smoking in the *Journal of the American Medical Association* (JAMA), which found that Camel had 33 percent

of smokers 12-18 year olds, and cited Joe Camel as being widely recognized by this group. TIMN0165921-5923 (U.S. Ex. 22,354).

3434. R.J. Reynolds sent an August 28, 1992 letter addressed to Dr. Francis A. Neelon, Editor of the *North Carolina Medical Journal*, purporting to be from Dr. Robert G. Fletcher, Medical Director of R.J. Reynolds. The letter bore a handwritten notation on the copy retained by R.J. Reynolds stating that it was "written by SWM for Dr. Fletcher." SWM are the initials for Seth W. Moskowitz, an R.J. Reynolds employee responsible for media relations. The letter criticized Dr. Adam Goldstein's "Health Watch" article entitled "Youth and Tobacco: Addiction and Death" that appeared in the August 1992 volume of the *North Carolina Medical Journal*. The letter stated: "[Dr. Goldstein] claims the tobacco industry spends huge sums of money promoting its products to youth. This is blatantly false. None of Reynolds Tobacco's product advertising or promotions are directed toward anyone under the legal age to smoke . . . . I strongly share Dr. Goldstein's belief that children should not smoke, as does my company." The letter further stated that "peer pressure is the main influence prompting children to start smoking." 512024008-4011 at 4008-4009 (U.S. Ex. 22,994) (U.S. Ex. 76,095).

3435. An August 1994 R.J. Reynolds draft statement, intended for delivery to the U.S. House of Representatives Committee on Energy and Commerce, Subcommittee on Health and Environment stated: "radio and television exposure is not a motivating consideration for Reynolds in deciding whether to sponsor an event or a vehicle participating in an event." 509321275-1290 at 1276 (U.S. Ex. 21,993).

3436. At a 1995 R.J. Reynolds shareholder meeting, in response to a shareholder inquiry

regarding youth smoking, the R.J. Reynolds Board of Directors stated that "RJRT does not direct its cigarette advertising and/or promotions towards minors." 520807416-7418 (U.S. Ex. 22,239).

3437. At a 1996 R.J. Reynolds shareholder meeting, in response to a shareholder inquiry regarding youth smoking, the R.J. Reynolds Board of Directors stated that R.J. Reynolds holds a "firm and longstanding belief that 'Kids should not smoke' . . . [and] has effective programs offered throughout the United States to combat youth smoking." R.J. Reynolds Nabisco Holdings Corp., 1996 Proxy Statement Pursuant to Section 14(a) of the Securities Act of 1935, Item 4 - Stockholder Proposal on Underage Smoking (U.S. Ex. 87,747).

3438. In a press release issued on April 21, 1998, R.J. Reynolds claimed, "We do not want children to smoke, nor do we market this adult product to minors." http://www.rjrt.com/NR/NRreleases_rjrtview.asp?DocId=127 (U.S. Ex. 78,284).

3439. An R.J. Reynolds Media Contact Record indicated that on May 6, 1998, Cliff Pennell, head of R.J. Reynolds Sports Marketing Enterprises, was interviewed by Liz Clark, a sportswriter for the Washington Post. The Contact Record revealed that Pennell stated in his introductory comments stated "We don't want youth to smoke . . . RJR brands are only interested in communicating with adult smokers 21 and over." 700033868-3869 at 3868 (U.S. Ex. 54,421).

3440. At the 1998 Minnesota tobacco trial, Lynn J. Beasley, Executive Vice President for Marketing, was asked if "getting new smokers into the market" was ever an objective of R.J. Reynolds's marketing. She testified: "No it has never been." Testimony of Lynn J. Beasley, State of Minnesota v. Philip Morris Inc., et al., April 20, 1998, C1-94-8565, 35:16-20.

3441. At a 1999 R.J. Reynolds shareholder meeting, in response to a shareholder inquiry

regarding youth smoking, the R.J. Reynolds Board of Directors claimed that "Reynolds has policies and practices in place to assure that its advertising is responsible, and directed to adult and not underage smokers. Reynolds's policy prohibits any advertising research involving subjects under the age of 21. In their research about proposed new advertising, consistent with good qualitative research practices, Reynolds's researchers ask study participants whether the proposed ads are perceived as being for persons younger or older than or about the same age as the study participants. If an ad is thought to have particular interest to persons younger than 21, it is not used." R.J. Reynolds Nabisco Holdings Corp., 1999 Proxy Statement Pursuant to Section 14(a) of the Securities Act of 1935, Item 3 - Stockholder Proposal on Tobacco Advertising and Youth (U.S. Ex. 87,748).

3442. As of June 2001, the R.J. Reynolds internet website contained a document entitled "Marketing Philosophy," which stated that "Reynolds Tobacco is not interested in, and does nothing aimed at, trying to persuade any nonsmokers to begin smoking." www.rjrt.com (U.S. Ex. 65,063).

3443. As of September 2003, the R.J. Reynolds website stated regarding the company's position on youth smoking that: "We do not want children to smoke . . . . As a responsible manufacturer and marketer of adult products, we make every effort to ensure that all of our actions are guided by this basic belief." http://www.rjrt.com (U.S. Ex. 78,287).

3444. R.J. Reynolds also asserts on its website that R.J. Reynolds, "[does] not encourage nonsmokers to start smoking." http://www.rjrt.com/TI/tobacco_cover.asp (U.S. Ex. 78,286).

(ii) False and Misleading Testimony

3445. In his May 2, 2002 deposition in this case, Edmund Conger Leary, Senior Vice President of Marketing and President of Sports Marketing for R.J. Reynolds, testified that R.J. Reynolds marketed "to adult smokers twenty-one and over," and that "by the time [R.J. Reynolds is] talking to any consumer, they've already chosen to smoke." Deposition of Edmund Conger Leary, United States v. Philip Morris, et al., May 2, 2002, 19:13-18, 22:14-16, 30:3-33:12.

3446. In his June 12, 2002 deposition in this case, R.J. Reynolds President and Chief Executive Officer Andrew Schindler testified that R.J. Reynolds does not market to anyone under 21 in order to create a "buffer" between adult smokers and youth. Schindler described R.J. Reynolds's marketing policy as: "I will never talk to anybody about any marketing idea, packaging, promotion, [who is] under twenty-one years old." In a previous deposition, Schindler had testified that "We only talk to smokers twenty-one and above. We don't talk to anybody that's eighteen, nineteen, or twenty that is of legal age to use the product." Schindler further testified that not marketing to minors is embedded in the culture of the company, and that R.J. Reynolds does not try to get any non-smokers to start smoking, nor to urge smokers not to quit or to delay or slow down the quitting process. Schindler further testified that R.J. Reynolds "absolutely" does not want to design a product that might appeal to children, and that R.J. Reynolds would never design a cigarette that appeals to minors. Deposition of Andrew Schindler, United States v. Philip Morris, et al., June 12, 2002, 47:17-48:2, 59:12-60:3; Deposition of Andrew Schindler, Iron Workers v. Philip Morris, Inc., No. 1:97-CV-1422 (N.D. Ohio), January 29, 1999, 74-74.

(3) Defendants Do Not Follow Their Advertising Code That They Claim Prevents Them From Marketing To Youth

(a) Defendants' Adoption of An Advertising Code

3447. In 1964, Cigarette Company Defendants, through the Tobacco Institute, under public pressure and threat of federal regulation, adopted a voluntary industry-wide Advertising and Promotion Code ("Advertising Code" or "Code") which the industry claimed would thereinafter prohibit them from marketing to underage smokers. 2025345360-5362 (U.S. Ex. 20,414); 2070557699-7702 (U.S. Ex. 20,519).

3448. Defendants' adoption of the Code and subsequent public statements regarding the Code were in fact a public relations gambit designed to assuage the public's concerns about Defendants' cigarette marketing to youth. Although Defendants made numerous public statements that the Code prevented them from marketing to youth, Defendants knew that their statements were in fact false and misleading. Defendants wrote the Code with loopholes that would permit them to continue to market to youth. Moreover, after adopting the Code, Defendants did not follow many of the Code's provisions and continue not to follow them. By stating publicly that the Code prevented them from marketing to youth, Defendants used the Code to mislead the American public.

3449. On January 25, 1964, the Federal Trade Commission ("FTC") published a proposed Trade Regulation Rule for the prevention of unfair or deceptive advertising and labeling of cigarettes in relation to the health hazards of smoking and gave notice of a proceeding for the promulgation of the Rule. 29 F.R. 530-32 (U.S. Ex. 64,282).

3450. To avoid regulation by the FTC, and under public pressure regarding their

marketing practices, Cigarette Company Defendants adopted the Cigarette Advertising and Promotion Code in April 1964. Cigarette Company Defendants claim that they have obeyed and continue to obey the 1964 Code, which was last revised in December 1990. Key aspects of the Code include provisions prohibiting: (1) advertising that appears in magazines primarily directed to persons under 21 years of age; (2) advertising that represents cigarette smoking as essential to social prominence, distinction, success, or sexual attraction; (3) advertising using models or other characterizations who appear to be under 25 years of age; (4) advertising suggesting that healthy looking models derive their attractiveness from smoking or that good health is due to smoking; (5) advertising depicting a smoker as any person participating in, or obviously having just participated in, a physical activity requiring stamina or athletic conditioning beyond normal recreation; (6) advertising making health claims; (7) using sports celebrities that have special appeal to persons under 21 years of age; and (8) sampling to persons under 21. Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665; filed November 15, 2001); 2025345360-5362 (U.S. Ex. 20,414); 2070557699-7702 (U.S. Ex. 20,519); MNAT00608606-8614 (U.S. Ex. 21,228); TIMN0102493-2494 (U.S. Ex. 21,271); TIMN0102495-2498 (U.S. Ex. 21,273); TIMN0015615-5617 (U.S. Ex. 21,265); 2022976326-6335 (U.S. Ex. 20,370); ATX040294056-4056 (U.S. Ex. 58,599); 503686082-6096 (U.S. Ex. 20,722); 2021183940-3943 (U.S. Ex. 20,344).

3451. Defendants made public their adoption of the Code in an attempt to gain positive publicity and to persuade the public that they did not market to youth. 2025345360-5362 (U.S. Ex. 20,519); 2070557699-7702 (U.S. Ex. 21,228); MNAT00608606-8614 (U.S. Ex. 78,779);

TIMN0102493-2494 (U.S. Ex. 21,271); TIMN0102495-2498 (U.S. Ex. 21,273); TIMN0015615-5617 (U.S. Ex. 21,265); 2022976326-6335 (U.S. Ex. 20,370); ATX040294056-4056 (U.S. Ex. 58,599); 503686082-6096 (U.S. Ex. 20,722); 2021183940-3943 (U.S. Ex. 20,344).

3452. For example, on April 27, 1964, Philip Morris, Brown & Williamson, Lorillard, Liggett, R.J. Reynolds, and American Tobacco, through the Tobacco Institute, issued a press release entitled "Cigarette Manufacturers Announce Advertising Code" to announce their adoption of the Cigarette Advertising Code supposedly establishing "uniform standards for cigarette advertising," 2065081133-1135 at 1133, 1134 (U.S. Ex. 20,517).

3453. Authority to enforce the Code was vested in a Code Administrator. The Code stated that the Administrator was to be an independent person who would, among other duties, evaluate Cigarette Company Defendants' marketing efforts to ensure that they did not target young people. The Code vested in the Administrator the power to reject marketing that inappropriately appealed to youth and to assess damages of up to $100,000 for violations. The first and only Administrator was former Governor Robert B. Meyner of New Jersey. 503686082-6096 (U.S. Ex. 20,722).

3454. A July 8, 1964 letter regarding Defendants' Advertising Code from Anna F. Woessner, Lorillard employee, to Patricia Jenkins, Managing Editor of Consumer Reports, stated: "As you are aware, the tobacco industry has voluntarily adopted a Cigarette Advertising Code and has appointed former Governor of New Jersey Robert B. Meyner, as Code Administrator. . . . Every effort will be made by P. Lorillard Company to comply with both the letter and spirit of the Code." 03655231-5231 (U.S. Ex. 85,176).

3455. Governor Meyner was able to effect only minor changes in advertising practices during his time as Administrator. For example, in 1966, Governor Meyner issued a set of procedural regulations, rejected a number of advertisements, and issued a rule that cigarettes could not be advertised during television shows for which over 45% of the viewing audience was under 21. 85871536-1569 (U.S. Ex. 21,500); 502283897-3897 (U.S. Ex. 21,501); 503685788-5798 (U.S. Ex. 21,502).

3456. Governor Meyner found that, when he sought to exercise the full scope of his authority under the Code, Cigarette Company Defendants simply withdrew from his supervision. By the time the broadcast ban was implemented in 1970, Cigarette Company Defendants were no longer under the supervision of an Administrator and left to police their own conduct in accordance with the Code. 503685788-5798 (U.S. Ex. 21,502).

3457. On March 25, 1966, Manuel Yellen, Lorillard's Chief Executive Officer, wrote to Governor Meyner withdrawing his company's participation for his supervision. Yellen stated: "The Code was essentially the cigarette industry's response to a recognized need for industry self-regulation during a time of uncertainty over the course of future legislative and regulatory action. It is our belief that the circumstances which led to the establishment of the Code administration have now significantly changed. . . . Accordingly, we now wish to advise you of our resignation. . . . We shall also continue to adhere to those principles underlying the provisions of Article IV, Section 1, of the Cigarette Advertising Code dealing with limitations on advertising to youth." 03595414-5415 (U.S. Ex. 21,385).

3458. Defendants promulgated a separate Code of Cigarette Sampling Practices in 1983

that prohibited the distribution of free cigarette samples to non-smokers or those under 21, or near schools or any other center of youth activity. Like the Advertising Code, however, the Sampling Code lacked any credible enforcement mechanism. Defendants are to police their own sampling personnel, a requirement in direct conflict with the companies' goal of increasing the smoking market. TIMN0102495-2498 (U.S. Ex. 21,273).

3459. Between 1990 and 1995, BATCo issued a Cigarette Advertising and Promotion Code of Practice for "its operating companies world wide;" after 1996, such codes of practice were issued by BAT. This advertising and promotion code falsely stated that BATCo did not market to young people under the age of 18. In or about 2000, BAT issued a current and more specific advertising and promotion code as a "Marketing Standard;" its terms were arrived at in cooperation with Philip Morris and Japan Tobacco and possibly other tobacco companies. 780014011-4012 (U.S. Ex. 85,178).

3460. Despite the withdrawal of all Cigarette Company Defendants from the supervision of the Code Administrator twenty years earlier, the Tobacco Institute, on behalf of Cigarette Company Defendants, issued a multi-page advertisement in 1990 captioned "Cigarette Industry Initiatives Against Youth Smoking" emphasizing the cigarette manufacturers' opposition to youth smoking and stating that Cigarette Company Defendants continued to obey the marketing provisions in the Code. TIMN325834-5835 (U.S. Ex. 21,283).

3461. Defendants have cited the Code as preventing them from marketing to young people. For example, on January 1, 1972, the Tobacco Institute, on behalf of the Cigarette Company Defendants, publicly stated that the 1964 Code prohibited "advertising, marketing and

sampling directed at young people." ATX04029-4056 (U.S. Ex. 58,599).

3462. Similarly, a December 1990 pamphlet published by the Tobacco Institute, entitled "Cigarette Advertising and Promotion Code," stated: "The cigarette manufacturers advertise and promote their products only to adult smokers . . . [and] have adopted the following Code to emphasize their policy that smoking is solely for adults." Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 24-26; 2021183859-3862 (U.S. Ex. 36,717).

3463. Defendants' internal documents show that they intended to use the Code to communicate to the public that they would not market to anyone under the age of 21. A November 20, 1990 memorandum from Ronald S. Goldbrenner to James R. Cherry, both Lorillard in-house counsel, regarding the "Youth Action Plan & the 1990 Marketing Mangers Meeting" stated: "[T]he industry has adopted a new Youth Action Plan designed to accomplish these goals in practical terms and to demonstrate its commitment to avoid advertising or promoting to children. In this context 'children' means anyone under twenty-one. For those of you who have or have had teen-agers at home, you know this is an imperfect definition, but it is the one we are using. This Plan will go into effect on Dec. 11, 1990 and will be announced with much fanfare and P.R. In fact, we are advised that some of the companies are already implementing the Plan." 91384746-4749 at 4747 (U.S. Ex. 57,030).

3464. Defendants promised that the Code would stop them from advertising to youth. A draft article intended to appear in an issue of *PMGLOBE* published close in time to the publication of the 1994 Surgeon General's Report stated that the Advertising Code: "proscribes youth ads. . . . Inside the company, rigorous standards are observed in the marketing of cigarette

products to ensure that cigarette advertisements are directed only at adults who have already made the informed decision to smoke. . . ." 2078842765-2766 at 2765 (U.S. Ex. 25,039).

3465. Similarly, in a May 18, 2000 letter to the Honorable Christine O. Gregoire, Attorney General of Washington, Michael Szymanczyk, Senior Vice President of Sales at Philip Morris, stated, "As we have explained to you, the Tobacco Enforcement Committee and other Attorney's General and AG staffs on several occasions, Philip Morris uses a rigorous process to satisfy ourselves that we place our print advertising only in publications that are directed primarily toward adults, the standard of our Advertising Code." 2080147326-7329 at 7326 (U.S. Ex. 25,054).

3466. Each Cigarette Company Defendant continues to state to the public on its website and in other public fora that it has adopted the industry's voluntary Code, and that it follows this Code in planning and executing its cigarette marketing. These statements are knowingly false, deceptive, and misleading. 2021183859-3862 (U.S. Ex. 36,717); www.philipmorrisusa.com (U.S. Ex. 65,080); http://www.lorillard.com/index.php?id=29 (U.S. Ex. 76,628); http://www.bw.com/Index_sub2.cfm?ID=12 (U.S. Ex. 72,407); www.rjrt.com (U.S. Ex. 65,063).

(b) Defendants Do Not Follow Their Advertising Code

3467. As early as 1967, the FTC Report to Congress pointed out "loopholes" contained in the language of the Advertising Code which stated that "Cigarette advertising shall not appear . . . [o]n television or radio programs, or in publications directed primarily to persons under 21 years of age . . . . Cigarette advertising shall not depict as a smoker any persons participating in, or obviously just having participated in, physical activity requiring stamina or athletic

conditioning beyond that of normal recreation." The FTC Report criticized cigarette advertising for exploiting these loopholes by appearing during television shows with an audience of at least 45% of its viewers under 21; for portraying physical activity as long as the smoker is not a participant; and for implying that smoking contributes to success, even if it is not essential to it. 1967 FTC Report at 24-27 (U.S. Ex. 22,148).

3468. Cigarette Company Defendants did not, and have not to this day, changed the language of their Advertising Code to remove these loopholes. Their updated versions of the Code contain the identical language criticized by the FTC Report. 2022976326-6335 (U.S. Ex. 20,370).

3469. Despite provisions in the Code forbidding marketing directed at young people, and their public statements that the Code itself prohibited such marketing, Cigarette Company Defendants continued to market to young people through advertising in television and radio broadcasts, movie placements, sampling, and by using sports heroes and other celebrities to sell their products. Many more examples of Cigarette Company Defendants' marketing to youth follow infra, U.S. FPFF § IV.G(4), organized by Defendant. Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665; filed November 15, 2001).

3470. In addition to routinely violating the Code by marketing to persons under 21, the Cigarette Company Defendants also violated the Code provision that specifically prohibits advertising depicting a smoker as any person participating in, or obviously having just participated in, a physical activity requiring stamina or athletic conditioning beyond normal recreation. Such violations include Cigarette Company Defendants' advertisements depicting

Marlboro cowboys' athletic prowess in horseback riding and cattle roping, Marlboro race car drivers, Viceroy race car drivers, and Vantage downhill ski racers. These advertisements, and many others, exploited the loophole which Defendants intentionally created in the Code by not picturing the individual actually smoking while engaged in the physical activity. Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R.665; filed November 15, 2001).

3471. At his deposition in this case, Dr. Dean Krugman testified that, in his expert opinion, Philip Morris advertised Marlboro in a manner that violated the provision of the Advertising Code prohibiting advertisements showing "any smoker participating in or obviously just having participated in a physical activity requiring stamina or athletic conditioning that go beyond normal recreation." This prohibition was intended to avoid advertising cigarettes in a manner that appealed to youth. Dr. Krugman also testified that Lorillard's advertising of its Newport brand violated the Advertising Code. In cigarette advertising and promotions related to sports sponsorships, cigarette smoking was also associated with physical power and endurance, violating the prohibitions of the Code. Deposition of Dean Krugman, United States v. Philip Morris, et al., May 1, 2002, 266:18-268:1, 384:18-385:2; Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665; filed November 15, 2001); see also Deposition of Edmund Conger Leary, United States v. Philip Morris, et al., May 2, 2002, 64:18-65:21.

3472. Cigarette Company Defendants also violated the Code provision that specifically prohibits advertising that depicts cigarettes as essential to social prominence, distinction or success. Such violations include Vantage advertisements using the slogan "Taste of Success" and similar advertising. These advertisements, and many others discussed below, exploited the

loophole which Defendants intentionally created in the Code allowing an inference that smoking contributes to success, as long as the advertisement does not explicitly state that smoking is "essential" to success. Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665; filed November 15, 2001).

3473. Cigarette Company Defendants also violated the Code provision that specifically prohibits advertising that depicts cigarettes as essential to sexual attraction. Such violations include Newport's "Alive with Pleasure" campaign showing young people in sexually suggestive situations. These advertisements, and many others, exploited the loophole which Defendants intentionally created in the Code allowing an inference that smoking contributes to sexual attraction, as long as the advertisement does not explicitly state that smoking is "essential" to sexual attraction. Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665; filed November 15, 2001).

3474. Cigarette Company Defendants also violated the Code provision that states "[n]o one depicted in cigarette advertising shall be or appear to be under 25 years of age." For example, Brown & Williamson's "B Kool" advertising campaign uses a model whose age cannot be determined because only his torso, arm, leg, and hand holding a pack of Kools are visible. Brown & Williamson knew from focus group research that respondents could not tell the age of a male model posed in this way. Deposition of Sharon Smith, United States v. Philip Morris, et al., February 22, 2002, 91:14-20, 94:18-20, 95:1-2; see also 170600038-0038 (U.S. Ex. 87,749); DXA0633082-3082 (U.S. Ex 87,971); DXA0720053-0053 (U.S. Ex. 87,750).

3475. Philip Morris continues to state, as shown through the testimony in this case of

Richard Camisa, Philip Morris Director of Media since 1998, that it has adhered to the 1990 revised Advertising Code in determining the placement of cigarette media, including the Code provision that reads: "Advertising: Cigarette advertising shall not appear in publications directed primarily to those under 21 years of age, including school, college or university media, such as athletic, theatrical, other programs, comic books or comic supplements." Philip Morris has violated this section of the Code. See discussion in U.S. FPFF § IV.G(7)(d)(i) infra. Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 24-26.

3476. Denise Keane, Philip Morris General Counsel since January 2001, and Senior Vice President at Philip Morris Companies from 1997 to 2001, at her October 1, 2002 deposition in this case, testified that Philip Morris has its own internal advertising and marketing guidelines that remain in force after the MSA. Deposition of Denise Keane, United States v. Philip Morris, et al., October 1, 2002, 204:5-205:10. As recently as March 10, 2002, Philip Morris's Board of Directors cited the Advertising Code as a reason for recommending a vote against a shareholder proposal that would have provided for independent review of all marketing activities to eliminate activities that appealed to young people between the ages of 12 to 17 years old. Philip Morris stated that adoption of this shareholder proposal was unnecessary because "Philip Morris U.S.A. has a long-standing commitment to direct its advertising only to adults who choose to smoke; complies with an industry code and company policy that help ensure that its marketing efforts are directed only at adults who choose to smoke; is subject to comprehensive advertising restrictions and monitoring provisions of the master settlement agreement that prohibit the targeting of youth in the advertising, promotion or marketing of tobacco products; and has launched its own

comprehensive youth smoking prevention effort, including advertising specifically designed to help prevent youth smoking." 2078016400-6400 (U.S. Ex. 20,531); 2078016401-6401 (U.S. Ex. 20,532); 2-78016402-6452 at 6435 (U.S. Ex. 20,533).

3477. Despite its claims to have adhered to the Code, Philip Morris's senior marketing executives are unfamiliar with the Codes' provisions. For example, Robert L. Mikulay, a Senior Vice President for Marketing at Philip Morris, testified in this case that Philip Morris did not, from at least 1985, follow the provision of the Advertising Code requiring an impartial administrator to review advertising as there was no Administrator. Deposition of Robert Mikulay, United States v. Philip Morris, et al., June 1, 2002, 55:16-56:11.

3478. Richard Camisa, who has been the Director of Media at Philip Morris since April 1998, a former Marlboro brand manager, and a Philip Morris employee since 1979, testified when shown a copy of the Advertising Code then still in place: (1) that he did not recognize the Advertising Code of 1964; (2) did not recognize the term "Code Administrator;" (3) did not know how Philip Morris interpreted the term "Code Administrator;" and (4) did not know whether the company had a Code Administrator as the term is used in the Code. Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 24-26, 35-39.

3479. With respect to the provision of the Code that states, "Cigarette advertising shall not suggest that smoking is essential to social prominence, distinction, success or sexual attraction, nor shall it picture a person smoking in an exaggerated manner," Camisa testified that: (1) he could not explain its meaning and stated that it "could mean different things to different people" within Philip Morris; (2) he could not provide a single example of an advertisement that

might improperly suggest that smoking is essential to sexual attraction; (3) no one at Philip Morris ever provided him with a list of objective standards or characteristics to determine whether an advertisement violated this provision; and (4) he was not "trained" to determine whether an advertisement suggests that a person's attractiveness and good health is due to cigarette smoking. Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 41-49.

3480. With respect to the same provision of the Advertising Code, Nancy Brennan Lund, the Senior Vice President for Marketing at Philip Morris, stated at her June 27, 2002 deposition in this case that "it means that we are not able to say that, because you smoke a cigarette, you will more likely be socially prominent or successful or attractive sexually." Deposition of Nancy Lund, United States v. Philip Morris, et al., June 27, 2002, 171:22-172:8.

3481. Robert L. Mikulay, a Senior Vice President for Marketing at Philip Morris, testified in this case that although he was the head of Philip Morris's marketing department and ultimately responsible for ensuring compliance with the Advertising Code: (1) he could not recall the existence of a formal policy with respect to training new employees about the provisions of the Code; (2) he could neither confirm nor deny that new employees received a copy of the Advertising Code; (3) he was not aware of an independent entity that had the responsibility of ensuring that Philip Morris and Leo Burnett, Philip Morris's primary advertising agency, complied with the provisions of the Code; (4) he was not aware of the provision of the Code that states that advertising shall not represent that cigarette smoking is essential to social prominence, distinction, success or sexual attraction; (5) he had "never thought about . . . or had occasion to

think about" how a cigarette advertisement could violate this provision; and (6) the only example he offered of how Philip Morris would violate the provision would be to run "a print ad that would say just that: 'Reach social prominence by smoking a cigarette.'" Deposition of Robert Mikulay, United States v. Philip Morris, et al., June 1, 2002, 86:6-91:10, 99:5-103:18, 74:11-78:16.

3482. When asked whether the Advertising Code's prohibition on advertising in school, college or university media also prohibited research into the smoking habits and brand preferences of college students, Nancy Lund, Senior Vice President for Marketing at Philip Morris, testified at her June 27, 2002 deposition in this case that, while Philip Morris has a nominal policy to research "only adult smokers," she was not sure whether Philip Morris made a provision beyond that. Deposition of Nancy Lund, United States v. Philip Morris, et al., June 27, 2002, 171:12-21.

3483. At his deposition in this case, Victor D. Lindsley of Lorillard testified that Lorillard has no specific guidelines for determining, as required by the Advertising Code: (1) whether a model in an advertisement appears to be under 25; (2) whether an advertisement depicts smoking in an "exaggerated manner"; and (3) whether an advertisement depicts an individual participating or just having participated in "a physical activity requiring stamina or athletic conditioning beyond that of normal recreation." Lindsley testified that these decisions are "judgment calls" made by attorneys. Deposition of Victor Lindsley, United States v. Philip Morris, et al., May 5, 2002, 34:19-38:7.

3484. Despite the proscription in the Advertising Code that prevents Cigarette Company

Defendants from employing advertising themes associating above normal athletic ability with smoking, R.J. Reynolds until very recently continued to sponsor and advertise the Winston Cup Series. R.J. Reynolds admitted that the Winston Cup drivers have "above average athletic ability," but takes the position that the advertisements featuring the drivers do not violate the Code because they do not show race car drivers actually engaged in the act of smoking. Deposition of Edmund Conger Leary, United States v. Philip Morris, et al., May 2, 2002, 64:18-65:21.

3485. Claudia Newton, Vice President, Corporate Responsibility and Youth Smoking Prevention at Brown & Williamson, testified in this case that there is no mechanism at Brown & Williamson for punishing any employees for violations of the marketing code. Deposition of Claudia Newton, United States v. Philip Morris, et al., April 17, 2002, 11:10-21, 12:1-4, 61:5-12, 62:20-64:7; Deposition of Claudia Newton, United States v. Philip Morris, et al., May 15, 2002, 42:16-22, 43:11-13, 73:6-11; 106004533-4534 (U.S. Ex. 87,751).

3486. The fact that Cigarette Company Defendants' senior marketing executives are unaware of the Code's provisions, or have contradictory interpretations of how the Code should be interpreted and applied, and that none could provide an example of implementation of the Code leading to rejection of advertisements or other marketing, shows the falsity of Defendants' statements that they continue to obey the Code and that the Code prevents them from marketing to youth.

3487. Finally, Defendants' internal documents admit that they do not follow the Code and make clear that the Code was adopted so as to minimize external pressure and to maximize

profits. An April 1991 R.J. Reynolds's executive summary entitled "Operating in a Restricted Environment" stated plainly that R.J. Reynolds was not following the Code at that time, but would consider actually implementing compliance if Defendants were threatened by external restrictions on marketing. "At some future point, R.J. Reynolds and the industry may be forced to consider extreme and radical forms of self-regulation if deemed necessary and effective to avoid extraordinary restrictions or an outright advertising ban. [I]n the most extreme instance, re-institution of the Code with a Code Administrator. It is acknowledged that in [this] instance, R.J. Reynolds will be forced to change some marketing practices for such self-regulation to be viewed as a credible step." 507755082-5094 at 5093-5094 (U.S. Ex. 20,787).

3488. Similarly, a Philip Morris memorandum dated July 9, 1994 from Colin L. Goddard, Philip Morris Regional Manager, reveals that Philip Morris's motive for falsely stating that it adheres to an industry-wide Advertising Code is to avoid external, real regulation of marketing, that would decrease smoking incidence and thus decrease profits: "An industry code will be written [for Pakistan]. . . so that it can be used as both a lobbying lever and an argument against not introducing formal legislation." The memorandum stated: "The immediate implication [of advertising restrictions] for our business is clear: If our consumers have fewer opportunities to enjoy our products, they will use them less frequently and the result will be an adverse impact on our bottom line." 2504024765-4767 (U.S. Ex. 21,992).

3489. Defendants admit that their international codes are simply a ploy to avoid the pressures exerted by the public health community. A 1998 letter from Ronald Tully, a former Tobacco Documentation Centre ("TDC") employee, regarding a meeting with the Secretary

General of the International Tobacco Information Center and Dr. Hiroshi Nakajima, then Secretary General of the World Health Organization ("WHO"), stated: "The purpose of the meeting was to establish whether the WHO could be convinced to tone-down its assault on the industry worldwide, if the industry adopted voluntary global standards on marketing, which would limit the impact of tobacco advertising aimed at children. The discussion at that private meeting led to the suggestion that Nakajima should be offered an 'incentive' by International Tobacco Information Center, to assist the passage of such a proposal through the WHO system." 2070478701-8710 at 8702 (U.S. Ex. 40,332); 321737520-7529 at 7521 (U.S. Ex. 21,960).

(4) Defendants Knew That Their Public Statements Were False and Misleading

(a) Introduction

3490. The Cigarette Company Defendants' representations that their marketing efforts were and are only directed toward shifting current smokers from one brand to another, not toward attracting new smokers or youth, and not toward keeping smokers from quitting, are untrue. Defendants' marketing activities brought new smokers into the market and retained existing smokers in the market. Expert Report of Robert Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001).

3491. Defendants knew that their cigarette businesses could not survive absent acquiring youth smokers to replace those smokers who had quit or died. In internal documents, Cigarette Company Defendants expressed the view that stimulating youth smoking initiation and retaining and increasing their share of the youth market was crucial to the success of their businesses. Expert Report of Robert Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15,

2001).

3492. As stated on April 24, 1986 by advertising executive Emerson Foote, the former CEO of McCann-Erickson, which has handled millions of dollars in tobacco industry accounts: "The cigarette industry has been artfully maintaining that cigarette advertising has nothing to do with total sales. This is complete and utter nonsense. The industry knows it is nonsense, I am always amused by the suggestion that advertising, a function that has been shown to increase consumption of virtually every other product, somehow miraculously fails to work for tobacco products." TIMN277252-7253 (U.S. Ex. 77,086).

3493. Notwithstanding Defendants' repeated denials of marketing cigarettes to young people, Cigarette Company Defendants allocated substantial resources to research the habits and preferences of the youth market. From their extensive market research on youth smokers, on people under 21, and on people under 18, Cigarette Company Defendants knew that the majority of smokers began smoking as youths, develop brand loyalty as youths and that persons who began smoking when they were teenagers were very likely to remain lifetime smokers. From Cigarette Company Defendants' research into young people's vulnerabilities to cigarette marketing, Defendants knew that youths were highly susceptible to advertising, youths would underestimate the health risks of smoking, and that youths were price sensitive. Expert Report of Robert Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001); Expert Report of Frank J. Chaloupka, United States v. Philip Morris, et al. (R. 679; filed November 15, 2001); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R. 1136; filed May 10, 2002); Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665;

filed November 15, 2001).

3494. Knowing that advertising and promotion stimulated the demand for cigarettes, the Cigarette Company Defendants used their knowledge of young people's vulnerabilities gained in this research in order to create marketing campaigns (including advertising, promotion, and couponing) that would and did appeal to youth, in order to foster youth smoking initiation and ensure that young smokers would choose their brands. Expert Report of Robert Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R. 1136; filed May 10, 2002).

3495. Each Cigarette Company Defendant has developed a brand or brands which it hopes will dominate the youth market. In the 1950s, unfiltered Pall Mall (at that time owned by American Tobacco, today owned by Brown & Williamson) was the most successful youth brand. It was supplanted by Winston (R.J. Reynolds) in the later 1950s and 1960s, which was in turn supplanted by Marlboro (Philip Morris) in the 1960s. Marlboro has remained dominant in the youth market since that time. However, Marlboro was challenged by Kool in the 1970s, by Newport in the 1970s, and by Camel in the 1990s.

(i) Defendants' Marketing is a Substantial Contributing Factor to Youth Smoking Initiation and Continued Consumption

3496. Independent scientific studies performed by reputable independent scientists, and published in reputable scientific journals and in official government reports, have confirmed Defendants' knowledge, as set out in their internal documents, that their marketing contributes to the primary demand for and continuing use of cigarettes. Over the past ten years, there have been a number of comprehensive reviews of the scientific evidence concerning the effects of cigarette

marketing, including advertising and promotion, on smoking decisions by young people. From these reviews it is clear that the weight of all available evidence, including survey data, scientific studies and experiments, behavioral studies and econometric studies, supports the conclusion that cigarette marketing is a substantial contributing factor in the smoking behavior of young people, including the decision to begin smoking and the decision to continue smoking. Expert Report of Michael Eriksen, United States v. Philip Morris, et al. (R. 678; filed November 15, 2001).

3497. Despite Defendants' frequent public assertions that cigarette marketing only affects brand switching and brand loyalty, marketing has been and continues to be quite effective in influencing young people to smoke. This is shown by the fact that: (a) young people who are more familiar with the advertising are more likely to begin smoking; (b) increased expenditures on cigarette marketing campaigns have been associated with increases in the incidence of smoking among adolescents; (c) adolescents who are exposed to more cigarette advertising are more likely to begin smoking; and (d) the brands that are most popular with young people are the ones where advertisements are designed to appeal to their needs and the most money has been spent on advertising and promotional activities. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R. 1136; filed May 10, 2002).

3498. Recent studies, performed by reputable scientists and published in reputable journals and other fora, confirm that smoking initiation is caused by Cigarette Company Defendants' marketing activities. As an example, one such study measured progression to smoking in 1996 among young persons who reported being confirmed “never smokers” in 1993 (ages 12-17), but who had a favorite cigarette advertisement, or who owned or were willing to

own a cigarette brand promotion item, and concluded that 34% of all experimentation with cigarettes in California between 1993 and 1996 (ages 15-20) was attributable to tobacco marketing activities. Similar research using Massachusetts surveys, conducted in 1997-98 and published in 2000, replicated this result, finding that, among persons who reported smoking less than one cigarette in their lifetime in 1993 (ages 12-15), but who had a favorite cigarette advertisement or who owned a cigarette brand promotion item, 46% progressed to established smoking (ages 16-19). Expert Report of Michael Eriksen, United States v. Philip Morris, et al. (R. 678; filed November 15, 2001); Pierce JP, Choi WS, Gilpin EA, Farkas AJ & Berry CC. "Tobacco industry promotion of cigarettes and adolescent smoking," *Journal of the American Medical Association* 279 (7): 511-515 (1998) (U.S. Ex. 20,515); Biener AL & Siegel M. "Tobacco marketing and adolescent smoking: more support for a causal inference," *Journal of Public Health* 90:407-411 (2000) (U.S. Ex. 77,118).

3499. As another example, a recent study published on February 18, 1998, and produced from the files of Philip Morris, found that R.J. Reynolds's advertising is effective with children. This study found that receptivity to tobacco advertising and promotional activities actually precedes the first steps in the smoking uptake process, and estimated that 34% of all experimentation in California between 1993 and 1996 can be attributed to tobacco promotional activities. Nationally, this would be over 700,000 adolescents each year. J.P. Pierce, et al., "Tobacco Industry Promotion of Cigarettes and Adolescent Smoking," 279 *Journal of the American Medical Association* 511 (February 18, 1998) (U.S. Ex. 20,515).

3500. Cigarette Company Defendants intentionally exploit adolescents' vulnerability to

imagery by creating advertising that utilizes the themes of independence, liberation, attractiveness, adventurousness, sophistication, glamour, athleticism, social inclusion, sexual attractiveness, thinness, popularity, rebelliousness, and being "cool." Cigarette Company Defendants place this advertising in magazines, on billboards, at point of sale (or "POS," meaning marketing materials placed in retail locations such as convenience stores), and in other venues that historically and currently reach millions of teens. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R. 1136; filed May 10, 2002).

3501. The types of visual imagery used in cigarette marketing, including advertising, are especially appealing to young people. As an executive from Griffin-Bacal, one of the largest advertising agencies in New York, explained in a supplement to *Advertising Age*, published February 10, 1992, "Pictures sell. Visuals count . . . even those visuals that seemingly have nothing to do with the product sale [locations, sets, props, wardrobe, colors, numbers, sexes and ages of people in the ads] . . . . Kids want to be like each other. Group acceptance, and living the life of the gang, is critical . . . . Similarly, kids define themselves by the product choices they make and share. Be sure your advertising makes the "world" accessible and "invites" the viewer to join." Paul Kurnit, "10 Tips From The Top Agency - Exec Explains How Griffin Bacal Scores with Kids," *Advertising Age* (February 10, 1992) at 19-20 (U.S. Ex. 87,753).

3502. At his deposition in this case, Dr. Robert Dolan testified that, in his expert opinion, marketing cigarettes to youth was an "element of [the tobacco companies'] strategy," and that tobacco companies "devised strategies which were then implemented" to achieve that objective. Dr. Dolan also testified that "cigarette marketing is a substantial contribution to

initiating cigarette smoking. . . . [W]hat . . . the marketing efforts of the tobacco companies have done is . . . increase the perception of value which [consumers] would place on smoking . . . [and thereby] increase the likelihood that someone will buy the product [and] initiate smoking." Deposition of Robert Dolan, United States v. Philip Morris, et al., May 10, 2002, 239:4-241:25, 320:14-25, 341:16-342:4.

3503. At his deposition in this case, Dr. Anthony Biglan testified that, in his expert opinion, "[C]igarette advertising is a very substantial influence on young people starting to smoke." Deposition of Anthony Biglan, United States v. Philip Morris, et al., March 12, 2002, 30:13-20.

3504. Independent academic studies have concluded that, historically and currently, cigarette advertising has appealed to children and adolescents. The messages, images, and merchandise used in cigarette advertising have corresponded precisely to adolescent aspirations. Teens smoke the most heavily advertised brands: Marlboro, Camel, and Newport. Studies have found that advertisements targeted to women had demonstrable success among adolescent girls and that the Joe Camel campaign had demonstrable success among adolescents. Expert Report of Michael Eriksen, United States v. Philip Morris, et al. (R. 678; filed November 15, 2001).

3505. In his 1974 book *Giants, Pigmies and Other Advertising People*, Daniel Draper, the Leo Burnett employee who first created and "pitched" the Marlboro Cowboy to Philip Morris, wrote that in hindsight he would not have done so because "successful cigarette advertising involves showing the kind of people most people would like to be, doing the kind of things most people would like to do, and smoking up a storm. **I don't know any way of doing**

this that doesn't tempt young people to smoke, and in view of present knowledge, this is something I prefer not to do. Logically and verbally, all cigarette advertising confines itself to boosting the virtue of one brand over another and is addressed to people who already smoke. Visually and emotionally, however, the most effective cigarette advertising projects the impression that smoking gives you a great sensation." *Giants, Pigmies and Other Advertising People*, Daniel Draper at 245-246 (emphasis added) (U.S. Ex. 65,081).

(ii) Defendants Place Their Marketing To Reach the Maximum Number of Young People

3506. Not only do Cigarette Company Defendants choose marketing techniques that are particularly effective with children and adolescents, but currently and historically they place their marketing where it is most likely to be viewed by young people. They choose to place their advertisements in media that reach millions of young people: on radio and television, on billboards, and currently in magazines and at retail. The ubiquity of Defendants' marketing increases young peoples' perceptions of the prevalence of smoking, normalizes smoking, and connects positive imagery with smoking, all of which encourage youth smoking initiation and continued consumption. Expert Report of Robert Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R. 1136; filed May 10, 2002); Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665; filed November 15, 2001).

3507. As found in a 1992 study published in the *American Journal of Public Health*, vast sums are spent on advertising and promotion because advertising that is repeated frequently and in as many different media as possible is most likely to ensure that its message is received by

the maximum number of customers. A copy of this study was produced from the files of R.J. Reynolds. B. S. Flynn, et al., "Prevention of Cigarette Smoking Through Mass Media Intervention and School Programs," 82 *American Journal of Public Health* 827 (1992) (U.S. Ex. 51,373).

3508. From data on youth brand choice taken from the Monitoring the Future Study and data on Defendants' marketing spending taken from Defendants' reports to the FTC, Dr. Chaloupka concluded that the brands most heavily advertised and promoted are the brands young smokers are most likely to choose to smoke. In particular, Defendants' print, mail, and price/point of sale advertising marketing efforts have a consistently positive impact on youth brand choice. W08F30383-0387 (U.S. Ex. 87,754); VXA4340001-0001 (U.S. Ex. 73,689); VXA4340002-0003 (U.S. Ex. 73,692); VXA4340004-0026 (U.S. Ex. 73,693); VXA4340027-0027 (U.S. Ex. 73,694); VXA4340028-0043 (U.S. Ex. 73,695); VXA4340044-0063 (U.S. Ex. 73,696); VXA4340064-0080 (U.S. Ex. 73,697); VXA4340081-0081 (U.S. Ex. 73,698); VXA4340082-0090 (U.S. Ex. 73,699). From 1970 to the present, Defendants have reported their marketing expenditures to the FTC annually. See, e.g., 515767862-7863 (U.S. Ex. 87,755); 515767896-7914 (U.S. Ex. 87,756); 515768530-8549A (U.S. Ex. 87,757); 515768551-8749 (U.S. Ex. 87,758); 520920317-0969 (U.S. Ex. 87,759); 520879973-9973 (U.S. Ex. 87,760); 520879974-9977 (U.S. Ex. 87,761); EXC003 0137-0137 (U.S. Ex. 87,762); EXC003 0138-0138 (U.S. Ex. 87,763); EXC003 0139-0139 (U.S. Ex. 87,764); 515720853-1103 (U.S. Ex. 87,765); 520920970-1627 (U.S. Ex. 87,766); 680036824-6827 (U.S. Ex. 87,767); 680036830-6836 (U.S. Ex. 87,768); 680036837-6838 (U.S. Ex. 87,769); 680036840-6840 (U.S. Ex. 87,770);

LDOJ2107882-7883 (U.S. Ex. 87,771); LDOJ2232658-2659 (U.S. Ex. 87,772); LDOJ2615018-5029 (U.S. Ex. 87,773); LDOJ2615042-5054 (U.S. Ex. 87,774); LDOJ2615604-5623 (U.S. Ex. 87,775); LDOJ2619644-9659 (U.S. Ex. 87,776); LDOJ9535780-0004 (U.S. Ex. 87,777); LDOJ9800000-0019 (U.S. Ex. 71,497); LG2014013-4013 (U.S. Ex. 87,779); LGI062376-2412 (U.S. Ex. 59,264) (Category I); LGI170951-0958 (U.S. Ex. 87,780); LWDOJ6019854-9854 (U.S. Ex. 87,781); LWDOJ6019869-9874 (U.S. Ex. 87,782); LWDOJ6019946-0089 (U.S. Ex. 87,926); LWDOJ9395090-5112 (U.S. Ex. 87,784); LWDOJ9395113-5119 (U.S. Ex. 87,785); LWDOJ9395132-5161 (U.S. Ex. 87,786).

3509. Between 1952 and 1962, the leading six cigarette manufacturers spent approximately $1.2 billion for television, newspaper, and general magazine advertising. Their total expenditures for all media in this time period may have been as high as $2 billion. Between 1963 and 1970, they spent over $1.5 billion on television advertising, and over $180 million on radio. With television alone, during a single evening in this time period, it was estimated that cigarette advertising reached 46% of 13 to 17 year olds, 38% of the United States population 18 years old and over, and 26% of the population ages 2 to 12. FTC, Trade Regulation Rule for the Prevention of Unfair or Deceptive Advertising and Labeling of Cigarettes in Relation to the Health Hazards of Smoking and Accompanying Statement of Basis and Purpose of Rule at 44, Table 10 (Sept. 1964) (U.S. Ex. 64,282); FTC, Report to Congress Pursuant to the Federal Cigarette Labeling and Advertisement Act for the Year 1980, Table 7. (U.S. Ex. 64,288).

3510. The broadcast ban ended cigarette broadcasting of advertisements on television at

midnight on January 1, 1971. On January 1, 1971 alone, Cigarette Company Defendants spent over $2 million on television advertising, three times as much as spent on an average day in 1970. FTC, Report to Congress Pursuant to the Federal Cigarette Labeling and Advertisement Act for the Year 1980, Table 7 (U.S. Ex. 64,288).

3511. Following the broadcast ban which removed their advertisements from television, Cigarette Company Defendants turned to billboard advertising, newspapers, and magazines as a means to reach massive numbers of young people. Defendants' spending on newspapers and magazines increased almost threefold after the ban, from over $64 million in 1970 to nearly $160 million in 1971, and spending on outdoor advertising (mostly billboards) increased five-fold from under $12 million in 1970 to over $60 million in 1971. FTC, Report to Congress Pursuant to the Federal Cigarette Labeling and Advertisement Act for the Year 1980, Table 7 and Table 8 (U.S. 64,288). Billboard advertising also had an advantage for Defendants over television and radio: it did not result in the invocation of the Federal Communication Commission's Fairness Doctrine which had required equal time for public health, anti-smoking messages.

3512. Despite Joseph F. Cullman III's testimony, cited in U.S. FPFF § IV.G(2)(a), supra, in the hearings leading up to the 1971 broadcast ban that the industry would submit to the ban in order to rectify the over-exposure of children to cigarette advertising on television and radio, and his promise that advertising would be placed in "newspapers and magazines" because "an affirmative act is required by the reader to see and comprehend such advertising," Cigarette Company Defendants instead undertook a massive billboard campaign which indiscriminately exposed children to cigarette advertising. By 1979, almost half the billboards across the United

States displayed cigarette advertisements. FTC, Report to Congress Pursuant to the Federal Cigarette Labeling and Advertisement Act for the Year 1980 (1982) (U.S. Ex. 64,288); 670666577-6590 (U.S. Ex. 53,878); www.OAAA.org/outdoor/ (U.S. Ex. 26,036).

3513. As James J. Morgan, a Marlboro Brand Manager in the 1960s and 1970s and later the President of Philip Morris, testified on April 22, 1998 about Defendants' use of billboards as a mass reach marketing tool:

> Television had huge reach. Television reached 10, 12, 14 million people at a time, and we were losing that. And so I and a couple of associates came up with the idea that outdoor [billboards] could replace television as a reach medium, and that you could in fact reach large numbers of people with outdoor. But we had not done a lot of outdoor. . . . We found in Opelousas, Louisiana, a printer who could print on paper big enough that you could get what looked like a printed ad in a magazine on huge paper . . . . [W]ell before the rest of the industry caught up and [the rest of the industry] was still putting up stuff that was hand painted . . . [in] the early 70s, Marlboro outdoor started looking like Marlboro magazines, had the same high quality, and it gave you the flexibility to basically run the same things on outdoor that you ran in magazines. That not only built brand equity, but it added to the consistency, because people would see on the highways . . . what they saw in magazines. So the whole story of the broadcast ban is not the story of the broadcast ban, it is the story of the creation of the Marlboro outdoor effort, which has been recognized up and down the line as one of the best outdoor programs in the history of the outdoor industry in the United States.

Testimony of James J. Morgan, State of Minnesota v. Philip Morris Inc., et al., C1-94-8565, March 2, 1998, 13455-56.

3514. Billboards proved particularly effective in reaching youth. For example, one study conducted on children age 8-18 for the magazine *Advertising Age* found that 46% of children 8 to 13 years old said they most often saw cigarette advertising on billboards, and that

34% of children 14 to 18 years old cited billboards as the predominant advertising medium for tobacco products. A copy of this study was produced from the files of R.J. Reynolds. G. Levin, "Poll Shows Camel Ads are Effective with Kids: Preteens Best Recognize Brand," *Advertising Age*, April 27, 1992 (U.S. Ex. 20,850).

3515. Cigarette Company Defendants strategically placed tobacco advertisements and promotions to reach young people. A 1995 study of tobacco advertisements and promotions in California found that there were a significantly higher average number of tobacco advertisements and promotions for stores within 1,000 feet of a school than for stores not near schools, a significantly higher average number of exterior tobacco advertisements for stores within 1,000 feet of a school than for stores not near schools, and a significantly higher average number of tobacco advertisements for stores in which tobacco advertisements were found next to candy than for stores in which tobacco advertisements were not found next to candy. TI02630273-0286 (U.S. Ex. 21,813).

3516. Cigarette Company Defendants were also able to circumvent the broadcast ban and continue to promote their cigarette brands on television by sponsoring public entertainment events that enjoyed prominent television and/or radio coverage during which cigarette brand names and images were featured, including: Marlboro, Kool and Winston auto racing teams; Virginia Slims tennis; Benson & Hedges blues festivals; and Kool jazz festivals. For example, R.J. Reynolds began its sponsorship of Winston Cup Racing in the spring of 1971, directly following the broadcast ban. Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665; filed November 15, 2001).

(iii) The Surgeon General Has Concluded That Cigarette Marketing Encourages Youth Smoking

3517. In the 1994 Surgeon General's Report *Youth and Tobacco: Preventing Tobacco Use Among Young People*, the Surgeon General stated that: "A substantial and growing body of scientific literature has reported on young people's awareness of, and attitudes about, cigarette advertising and promotional activities. Research has also focused on the effects of these activities on the psychosocial risk factors for beginning to smoke. Considered together, these studies offer a compelling argument for the mediated relationship of cigarette advertising and adolescent smoking." *Youth and Tobacco: Preventing Tobacco Use Among Young People: A Report of the Surgeon General* Ch. 5, p. 188 (1994) (U.S. Ex. 64,693).

3518. In the same report, the Surgeon General dismissed Defendants' claims that their marketing activities were directed only toward adult brand-shifters: "Even though the tobacco industry asserts that the sole purpose of advertising and promotional activities is to maintain and potentially increase market shares of adult consumers, it appears that some young people are recruited to smoking by brand advertising. Two sources of epidemiologic data support his assertion. Adolescents consistently smoke the most advertised brands of cigarettes. . . . Moreover, following the introduction of advertisements that appeal to young people, the prevalence of the use of those brands – or even the prevalence of smoking altogether – increases." *Youth and Tobacco: Preventing Tobacco Use Among Young People: A Report of the Surgeon General* Ch. 5, p. 194 (1994) (U.S. Ex. 64,693).

3519. The Surgeon General further stated in the 1994 Report that: "Current research suggests that pervasive tobacco promotion has two major effects: it creates the perception that

more people smoke than actually do, and it provides a conduit between actual self-image and ideal self-image – in other words, smoking is made to look cool. Whether causal or not, these effects foster the uptake of smoking, initiating for many a dismal and relentless chain of events." *Youth and Tobacco: Preventing Tobacco Use Among Young People: A Report of the Surgeon General* Preface, p. iii (1994) (U.S. Ex. 64,693).

3520. In the 1995 United States Department of Education publication *Youth and Tobacco: Preventing Tobacco Use Among Young People*, which was adapted from the 1994 Surgeon General's Report, the Surgeon General concluded that "Cigarette advertising appears to increase young people's risk of smoking by affecting their perceptions of the pervasiveness, image, and the function of smoking." The Surgeon General further found that:

> In presenting attractive images of smokers, cigarette advertisements appear to stimulate some adolescents who have relatively low self-images to adopt smoking as a way to improve their own self-image. Cigarette advertising also appears to affect adolescents' perceptions of the pervasiveness of smoking, images of smokers, and the function of smoking. Since these perceptions are psychosocial risk factors for the initiation of smoking, cigarette advertising appears to increase young people's risk of smoking.

Youth and Tobacco: Preventing Tobacco Use Among Young People: A Report of the Surgeon General Ch. 1, p. 6 and 8 (1995) (U.S. Ex. 65,078).

3521. The Surgeon General also stated in this 1995 publication that "Cigarette smoking is a risk behavior portrayed by advertising and role models as a way to be attractive to one's peers, . . . and smoking appears to contribute to a positive social image in some settings. . . The functions of smoking established by advertising and adult role models coincide with the challenges of adolescence and thus make this age group the most vulnerable for experimentation

and initiation." *Youth and Tobacco: Preventing Tobacco Use Among Young People: A Report of the Surgeon General* p. 94 (1995) (U.S. Ex. 65,078).

3522. In the 1998 Surgeon General's Report *Tobacco Use Among U.S. Racial/Ethnic Minority Groups*, the Surgeon General stated that: "Advertising is an important influence on tobacco use initiation and maintenance. . . . Cigarette advertising and promotion may stimulate cigarette consumption by. . .encouraging children and adolescents to experiment with and initiate regular use of cigarettes. . . . In addition, cigarette advertising appears to influence the perceptions of youths and adults about the pervasiveness of cigarette smoking and the images they hold of smokers." This 1998 Report further concluded: "Available data indicate that young people smoke the brands that are most heavily advertised. In 1993, the three most heavily advertised brands of cigarettes, Marlboro, Camel, and Newport, were the most commonly purchased brands among adolescent smokers." *Tobacco Use Among U.S. Racial/Ethnic Minority Groups: A Report of the Surgeon General* Ch. 4, p. 220 (1998) (U.S. Ex. 64,831).

3523. In the 2000 Surgeon General's Report *Reducing Tobacco Use*, the Surgeon General stated that "[i]ntensive review of the available data . . . suggests a positive correlation between level of advertising and overall tobacco consumption – that is, as advertising funds increase, the amount of tobacco products purchased by consumers also increases." Moreover, "[I]ndirect evidence of the importance of advertising and promotion to the tobacco industry is provided by surveys that suggest that most adolescents can recall certain tobacco advertisements, logos, or brand insignia; these surveys correlate such recall with smoking intent, initiation, or level of consumption." *Reducing Tobacco Use: A Report of the Surgeon General* Ch. 5, p. 162

(2000) (U.S. Ex. 64,316).

3524. Contrary to Defendants' assertions that their main purpose in advertising is to maintain brand loyalty and increase market share among current smokers in the 2000 report, the Surgeon General found that "considerable evidence" supported the hypothesis that "advertising and promotion recruit new smokers." The Surgeon General stated: "Attempts to regulate advertising and promotion of tobacco products were initiated in the United States almost immediately after the appearance of the 1964 report to the Surgeon General on the health consequences of smoking. Underlying these attempts is the hypothesis that advertising and promotion recruit new smokers and retain current ones, thereby perpetuating a great risk to public health. The tobacco industry asserts that the purpose of marketing is to maintain brand loyalty. Considerable evidence has accumulated showing that advertising and promotion are perhaps the main motivators for adopting and maintaining tobacco use." *Reducing Tobacco Use: A Report of the Surgeon General* Ch. 1, p.14 (2000) (U.S. Ex. 64,316).

3525. Regarding the Joe Camel campaign, the Surgeon General found in the 2000 Report: "The role of advertising is perhaps best epitomized by R.J. Reynolds Tobacco Company's Camel brand campaign (initiated in 1988) using the cartoon character 'Joe Camel.' Considerable research has demonstrated the appeal of this character to young people and the influence that the advertising campaign had on minors' understanding of tobacco use and on their decision to smoke." Moreover, "an increase in smoking initiation among adolescents during 1985-1989 has been ecologically associated with considerable increases in promotion expenditures [by the tobacco industry], as exemplified by the Joe Camel campaign." *Reducing*

Tobacco Use: A Report of the Surgeon General Ch. 5, p. 15, 162 (2000) (U.S. Ex. 64,316).

3526. Other reputable experts have concurred with the conclusions drawn by the Surgeon General, as discussed below.

3527. *Monograph 14: Changing Adolescent Smoking Prevalence*, a 2001 National Cancer Institute publication found that: "Tobacco advertising and promotional activities are an important catalyst in the smoking initiation process. A review of the existing evidence on the relationship between exposure to advertising or having a tobacco promotional item and smoking behavior . . . suggests that there is a causal relationship between tobacco marketing and smoking initiation." *Changing Adolescent Smoking PrevalenceJune 24, 2004,* Smoking and Tobacco Control Monograph No. 14. Bethesda, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute, Chapter 1, p. 6 (Nov. 2001) (U.S. Ex. 72,977).

3528. Regarding the numerous studies which examine the role of tobacco advertising and promotion in smoking initiation, *Monograph 14* found that these studies:

> comprise an impressive body of evidence that tobacco advertising and promotional activities are important catalysts in the smoking initiation process. . . . [W]hen [these studies are] viewed as a group, . . . the conclusion that there is a causal relationship between tobacco marketing and smoking initiation seems unassailable. . . . [T]obacco advertisements are particularly attractive to adolescents who, for one reason or another, are looking for an identity that the images are carefully designed to offer.

Changing Adolescent Smoking Prevalence. Smoking and Tobacco Control Monograph No. 14. Bethesda, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute, Chapter 13 p. 210 (Nov. 2001) (U.S. Ex. 72,977).

3529. The Institute of Medicine publication "Growing Up Tobacco Free, Preventing Nicotine Addiction in Children and Youths" concluded: "The images typically associated with advertising and promotion convey the message that tobacco use is a desirable, socially approved, safe and healthful, and widely practiced behavior among adults, whom children and young people want to emulate. As a result, tobacco advertising and promotion undoubtedly contribute to multiple and convergent psychological influences that lead children and youths to begin using these products and to become addicted to them." The Institute of Medicine was chartered in 1970 by the National Academy of Sciences to enlist distinguished members of the appropriate professions in the examination of policy matters pertaining to the health of the public. In this, the Institute acts under both the Academy's 1863 charter responsibility to be an adviser to the federal government and its own initiative in identifying issues of medical care, research, and education. "Growing Up Tobacco Free, Preventing Nicotine Addiction in Children and Youths," B.S. Lynch & R.J. Bonnie, eds., p.131 (1994) (U.S. Ex. 33,038).

3530. In his September 19, 2002 testimony to the Senate Committee on Health, Education, Labor and Pensions Regarding FDA Regulation of Tobacco, Dr. Ronald M. Davis, MD, Director of the Center for Health Promotion and Disease Prevention at the Henry Ford Health System in Detroit, Michigan, speaking on behalf of the American Medical Association, stated: "Evidence that tobacco advertising and promotion increase tobacco use by children and adolescents comes from cross-sectional studies, longitudinal studies, and studies on the relationship between cigarette advertising and brand preference among youth. . . . Based on my review of the evidence, I conclude that tobacco advertising and promotion increase aggregate

tobacco consumption, in part through a material effect on smoking by youth." September 19, 2002 Testimony of Dr. Ronald M. Davis, MD to Senate Committee on Health, Education, Labor and Pensions (U.S. Ex. 86,688).

3531. The 1992 United Kingdom Department of Health, Economics and Operational Research Division publication "The Effect of Tobacco Advertising on Tobacco Consumption: A Discussion Document Reviewing the Evidence" concluded that the main results of their review "based on statistical analysis of tobacco advertising and consumption . . . are as follows:

> i. international comparisons: . . . These inter-country studies have found an effect, but there is a question mark about the direction of causation. Societal attitudes towards smoking may differ internationally, leading to lower levels of smoking and stricter controls on advertising in some countries than in others, thus creating an association between the two without the controls causing a lower tobacco consumption.
>
> ii. year-to-year variations in advertising expenditure within countries: . . . the great majority of the results [of aggregate statistical studies] point in the same direction - towards positive impact [on tobacco consumption]. **The balance of evidence thus supports the conclusion that advertising does have a positive impact on consumption.**
>
> iii. advertising bans in other countries: . . . In each case the banning of advertising was followed by a fall in smoking on a scale which cannot reasonably be attributed to other factors [other than the advertising ban].

(1992), "Summary and Conclusions" at 22 (U.S. Ex. 34,282) (emphasis added).

(b) Defendants Use Euphemisms To Refer To The Youth Market

3532. As the documents that follow show, open discussion of the youth market and use of words such as "starters," "beginners," "teenagers," and explicit references to smokers even as

young as 8, were frequent in Cigarette Company Defendants' early research and marketing documents. In the 1970s and 1980s, however, due to external social pressure and litigation concerns, Cigarette Company Defendants became more cautious about using such terms in their internal documents. As a result, Defendants' marketing documents were, and continue to be today, systematically expunged of terminology that explicitly referred to young smokers. Indeed, the Cigarette Company Defendants have been advised by their legal counsel to stop making explicit references to young people in such documents can be seen in the documents below dating to the 1980s and later. Instead, Cigarette Company Defendants have sterilized their documents by using euphemisms such as FUBYA (First Usual Brand Young Adult), YAS (Young Adult Smoker), YAUS (Young Adult Urban Smoker), YAMS (Young Adult Male Smoker), and YAFS (Young Adult Female Smoker); ASU 30 (adult smoker under 30); ASU 25 (adult smoker under 25); MASU 30 or MASU 25 (male adult smoker under 30/under 25); and FASU 30 or FASU 25 (female adult smoker under 30/under 25). This change in terminology was used to ensure that, should any marketing documents become public, the public would interpret Cigarette Company Defendants' marketing to be directed only at adults, when, in fact, their marketing practices were still aimed at youth. The following documents demonstrate Defendants' conscious change in terminology from explicit to euphemistic.

3533. A Philip Morris document entitled "Writing Tips" listed prohibited words and suggested substitutions. The word "target" is listed as prohibited because it connotes "Youth/Female/Minority" and either "specific" or "select" are suggested substitutions. Additionally, the word "targeted" is listed as prohibited for the same reason and either "intended"

or "designed" are suggested substitutions. 2072944560-4560 (U.S. Ex. 42,095).

3534. On January 24, 1975, Robert A. Pittman, Senior Vice President of Marketing at Brown & Williamson, wrote to Martin Broughton, Chairman of BATCo; John Anders of American Tobacco; J.W. Groome, Director of Advertising & Brand Management at Brown & Williamson; biostatistician Peter N. Lee; Donald S. Johnston, President and Chief Executive Officer of American Tobacco; J.K. Madsen, Director of Transportation; and Corny S. Muije, Manager of Market Research, requesting that they cease using terms such as "young smokers," "young market," and "youth market." Pittman wrote: "In the future when describing the low-age end of the cigarette business please use the term 'young adult smoker' or 'young adult smoking market.' Please advise all members of your department that these terms should be used in all written materials in the future." 670192436-2436 (U.S. Ex. 20,966).

3535. A handwritten memorandum dated June 7, 1979 stated that "a brand geared to a younger age bracket may be beneficial in bringing new, young smokers into the Lorillard market." Handwritten edits changed the sentence to read "a brand geared to a young adult age bracket may be beneficial in bringing new smokers into the Lorillard market." The memorandum was produced from the files of Lorillard. 00046175-6182 at 6175, 6182 (U.S. Ex. 20,021).

3536. On September 11, 1980, Lawrence W. Hall, Jr., Director of Marketing Development at R.J. Reynolds, wrote a memorandum stamped CONFIDENTIAL to Ernest J. Fakelman, Vice President for Business Information and Analysis at R.J. Reynolds; D.G. Fought, an employee of R.J. Reynolds; Ellen N. Monahan, R.J. Reynolds Marketing Development Department; Jerry R. Moore, R.J. Reynolds Marketing Development Department; Greg Novak,

an employee of R.J. Reynolds; and Herbert E. Osmon, Staff Vice President for External Affairs at R.J. Reynolds, copied to Gerald H. Long, R.J. Reynolds Executive Vice President, and blind copied to Nicholas W. Glover, Vice President of Brand Marketing at R.J. Reynolds; K. Kersen; C.R. Hill, an employee of R.J. Reynolds; and File. The memorandum stated: "Young Adult Smokers – Terminology[:] As you all know, the objectives of R.J. Reynolds's marketing activities are to convince existing smokers to select our brands rather than competition's [sic]. More to the point, it is not our business to motivate people to start smoking, particularly minors. . . . Given this policy, it is important that we do not do anything that would leave the false impression that our real intentions are otherwise. The risk area here is in the references we make in our written communications regarding younger adult smoker market. [PRIVILEGED MATERIAL REDACTED] As an additional thought, I would suggest that we all begin using this terminology in our oral communication, both formal and informal. By doing so, we'll develop a good habit that will reflect itself in our written communications. Please discuss this with your people and assure that they understand this new terminology, the rationale behind it, and that they put it into practice immediately." 504075896-5896 (U.S. Ex. 20,006).

3537. On September 12, 1980, Ellen N. Monahan, R.J. Reynolds Marketing Development Department, wrote to R.F. Whittington, an employee of R.J. Reynolds, R.H. Dorman, an employee of R.J. Reynolds, N. Vokl, R.J. Harden, an employee of R.J. Reynolds, J.A. Belott, A.P. Philyaw and G.S. Fry, attaching Hall's memorandum, and stated, "Larry has asked that we adopt a strict terminology of referring to 18-34 year olds as younger adult smokers. This terminology is to ensure that our marketing efforts are strictly interpreted to be aimed at the

appropriate target group. Would you please take steps to carry out this direction. For example, in proofing work, please be cognizant of Larry's request and make any appropriate changes. In drafting reports, please avoid short-cuts which may be misinterpreted by your secretary such that the inappropriate term is typed. Once we get into the habit, I'm sure it will become natural; but until then, let's be sensitive to the issue and give it our full attention." 503536932-6932 (U.S. Ex. 20,005).

3538. In January 1980, R.J. Reynolds's Legal Orientation Manual, signed by Tom Rucker, Associate Counsel, stated, "All written material, whether internal or external, confidential or nonconfidential, should be drafted as if it might be printed the next day on the front page of a nationally known newspaper. We would also suggest that much of your business can be communicated orally." 513389267-9274 at 9273 (U.S. Ex. 20,853).

3539. On September 12, 1980, R.J. Reynolds Executive Vice President Gerald H. Long wrote to R.J. Reynolds marketing employees that "I believe that we should state the age of smokers as beginning at 18 years of age for legal purposes and certainly not go below the 18 age bracket. This should be self-explanatory." 503747121-7122 at 7122 (U.S. Ex. 20,723).

3540. In a document dated September 27, 1981, R.J. Reynolds in-house counsel provided written comments in response to a *Washington Post* September 18, 1981 newspaper column dated discussing an internal Brown & Williamson marketing plan that included explicit comments about smokers' perception of cigarette smoking as dangerous to their health. The R.J. Reynolds counsel's comments indicate that "this article is a good example of why Law [R.J. Reynolds legal department] does, and should continue to, review our annual brand marketing

plans. The 1975 Winston (I believe) plan, contains statements almost as incriminating against our smokers. **Fortunately, later plans have been 'sterilized' through our review.**" The comments point to specific "stmts [sic] like this I try to expunge" from marketing plans. 504100354-0354 (emphasis added) (U.S. Ex. 20,727).

3541. An R.J. Reynolds Law Department Draft Marketing Assistant Training Manual dated May 14, 1986 stated: "We use [the term "young adult smokers"] to refer to smokers who are at the lower end of the adult spectrum, i.e. 18 and above. To avoid any misconception about our intention to reach only adult smokers, we use the phrase 'younger adult smoker,' and never 'youth', 'kids', 'young people', etc." 515787126-7129 at 7128 (U.S. Ex. 20,868).

3542. At her deposition in this case, Diane Burrows testified that the term "first usual brand young adult smoker . . . was a term coined by a lawyer who felt it would help clarify the meaning of some things I wrote." Deposition of Diane Stewart Burrows, United States v. Philip Morris, et al., June 27, 2001, 16:23-17:16.

3543. An internal 1990 Brown & Williamson document entitled "Resolve Brand Marketing Strategies" used the terms "starters," "switchers," "young smokers," and "young adults" interchangeably, showing Brown & Williamson's understanding that a "young adult" is in fact just a code word for an adolescent "starter." 528000268-0279 (U.S. Ex. 20,924).

3544. In a March 30, 1990 letter, L.L. Bender, an employee of R.J. Reynolds stated: "we must operate with the knowledge that anything we write, say, or do can become 'public knowledge' overnight." He also wrote that "Target" definitions should be broad and refer only to competitive brands. Proposals/recommendations that are not accepted should be discarded

immediately." 507511965-1967 at 1195-1196 (U.S. Ex. 20,777) (emphasis in original).

3545. At her April 16, 2002 deposition in this case, Shari Teitelbaum, Director of Marketing and Sales Decision Support for Philip Morris, testified that she did not include explicit references to respondents who were under 21 and non-smokers in an October 18, 1993 marketing survey report, choosing instead to call these respondents "others," due to concerns of the Philip Morris legal department. Deposition of Shari Teitelbaum, United States v. Philip Morris, et al., April 16, 2002, 57:16-61:12; 2048972933-2993A (U.S. Ex. 20,518).

3546. A Philip Morris document entitled "Document Creation Outline" dated March 11, 1996, stated: "Purpose: To Make all Employees Aware of the Need for Clarity in their Documents." The document cautioned, "These days, little need to remind that documents end up on the front page of papers, on the internet, on television, as well as in lawsuits, congressional hearings, government investigations." It provided examples of how to compose notes, letters, or emails so as to avoid having to "explain later (to your supervisor, the legal dep't, or a lawyer on the other side)" and suggested that employees "give thought to whether communication is necessary." This document was produced in this case from the files of Paula Desel, Philip Morris in-house counsel. 2069615662-5668 (U.S. Ex. 21,929).

3547. A June 27, 1997 email sent by Terry Malkin, a BATCo employee, on behalf of Paul Bingham, Manager of Marketing, Planning and Intelligence for BATCo, to various Brown & Williamson employees in Louisville informed them that the Tobacco Management Board at BATCo had "decided that all future references to young adult smokers will be changed to ASU 30-Adult Smokers Under 30 Years."

800146660-6660 (U.S. Ex. 85,181); Deposition of Paul Wessel, United State v. Philip Morris, March 19, 2003, 84:12-84:16 (Category 1).

3548.

2003," Philip Morris refers to this 18 to 24 year old age group as "adult smokers." PM3002956620-6692 at 6624-6628, 6635 (U.S. Ex. 88,650) (Confidential).

(c) Philip Morris Knew That Its Public Statements Were False and Misleading

3549. In August 1953, "A Study of People's Cigarette Smoking Habits and Attitudes," conducted by Elmo Roper for Philip Morris studied the smoking habits of a "cross section of men and women 15 years of age and over." Questions included: "How old were you when you started smoking?" and "What was your first regular brand?" The document indicated that Philip Morris had "very great strength among young people -- particularly under 20." 2022239148-9333 at 9149-9153, 9155, 9163 (U.S. Ex. 20,358).

3550. An October 7, 1953 letter from George Weissman, Vice President of Philip Morris, discussed the August 1953 Roper report, and stated that "industry figures indicate that 47% of the population, 15 years and older, smokes cigarettes" and that "we have our greatest strength in the 15-24 age group." Weissman stated: "An interesting aspect of the market is that in the age grouping, Lucky Strike is twice as popular among the 15-17 year olds as the next

leading brand, and therefore, has the potential basis to reverse its present trend in a few years. Encouragingly enough, we have our greatest strength in the 15-24 age group, as against Camel and Chesterfield, which are proportionally stronger among older age groups." 2022239142-9147 at 9142, 9144 (U.S. Ex. 22,931).

3551. A September 18, 1956 Philip Morris inter-office memorandum "re: College Survey" from Weissman to Dr. R.N. DuPuis, Philip Morris Scientific Research Director, demonstrates that Philip Morris knew as early as 1956 that the majority of smokers start prior to the age of 18. Regarding a 1956 survey conducted by Roper for Philip Morris, Weissman wrote: "The survey indicates a good number of the students started smoking prior to college, 36% started by age 16 and 81% by age 17 or 18. . . . This of course, raises the policy consideration of where to begin promotional efforts." The memorandum further stated that the survey captured "an important segment of the college market that in many cases sets styles or predicts in advance trends of the college, youth and, in many instances, the general markets." 2022240073-0075 at 0073-0074 (U.S. Ex. 20,359).

3552. A 1957 document entitled "Research Needs on Low-Yield Cigarettes: Behavioral Study Section" produced from the files of Philip Morris and written by Ellen Gritz, of the Veterans Administration Hospital, Brentwood, discussed smoking initiation. The document posed the following questions to be answered:

> 1. Will adolescents increase initiation rates as more low-yield cigarettes enter the market and as they become more popular among adults? At the present time, we know that adolescents smoke traditional high-yield cigarettes, such as Marlboro, although teenage girls are slightly ahead of teenage boys in the use of lower tar brands. The issue is both pharmacological and social. a)

> Adolescents initiate smoking because of social factors – low-yield cigarettes may make it easier to start and thus encourage more 'experimenters' to continue to use until they graduate to the stronger brands. b) As low-yield brands become more popular among adults (given that they may) modeling behavior may lead adolescents to smoke them as well. Furthermore, such brands may become considered 'safer,' thus leading teenagers to pay less attention to public health campaigns designed to encourage. 2. Will age initiation of smoking be affected (lowered) by having a larger proportion of weaker cigarettes in the market?

1005052538-2539 at 5238 (U.S. Ex. 20,196).

3553. W.H. Danker, a Philip Morris employee, wrote a May 28, 1959 memorandum entitled "Roper Attitude Study of January 1959" to R.N. DuPuis, Philip Morris Vice President of Research and Development and Member of the Board. Danker summarized the study's findings: "[W]e also should win more young non-smokers with mildness." 1001755243-5244 at 5244 (U.S. Ex. 20,114).

3554. In 1961, Philip Morris began running a nationwide advertising campaign, "Marlboro Country," on radio and television broadcasts, and in newspapers. This campaign featured Western scenery and cowboys; Philip Morris has continued to run this campaign to the present day, using over the years billboards, magazines, retail and direct mail. (U.S. Ex. 2,974).

3555. A December 27, 1961 letter from Shoi Dickinson, Survey Director of Opinion Research Corporation, to William L. Dunn, Senior Scientist at Philip Morris, offered a new research service studying the teenage market: "Any company interested in obtaining information on teenagers' use of their products, or teenagers' attitudes toward their products, can participate . . . since teenagers currently constitute a portion of the cigarette market and are constantly entering that market, we think this research service will be of interest to you." 2022240887-0887 (U.S.

Ex. 20,360).

3556. A follow-up letter dated February 8, 1962 from Dickinson to Dunn indicated that Philip Morris was interested in and had seen the teenager information referenced in Dickinson's 1961 letter. Dickinson wrote: "This is just to keep you up to date on our follow-up of showing our Teen study presentation to Jet Lincoln [Philip Morris Vice President]. Joe Bevis [Opinion Research Corporation] called on Lincoln yesterday and we felt we received a good hearing for the Teen study." 2022241769-1771 at 1769 (U.S. Ex. 21,781).

3557. Beginning March 5, 1962, and running through 1964, Philip Morris placed in media various "On Campus with Max Shulman" one-page Marlboro advertisements which were intended to appeal to college students. 2045214122-4131 (U.S. Ex. 21,783).

3558. A document entitled "Teen-Age Cigarette Purchasing and Smoking Habits in the U.S.A. 1963," produced from Philip Morris's files, discussed a nationwide study of teenagers aged 13 to 18 years old which examined the extent of teenage smoking, the volume of cigarettes smoked by teenagers, where teenagers obtained cigarettes, the extent to which minors purchased cigarettes from vending machines, and possible factors motivating teenagers to smoke. Although this was purportedly an independent study, it was conducted at the request of Lewis J. Risman of the National Automatic Merchandising Association ("NAMA"), who corresponded around the same time with Philip Morris executives regarding youth research. 1005040495-0515 (U.S. Ex. 20,193). On September 4, 1997, James J. Morgan, President and Chief Executive Officer of Philip Morris USA, testified that in 1963, "Philip Morris would have participated in . . . NAMA conventions, and would have tried to cultivate relationships with the association and its

membership as important customers." Deposition of James J. Morgan, State of Minnesota v. Philip Morris Inc., et al., September 4, 1997, at 133:10-14.

3559. A September 28, 1965 letter from Philip Morris to Robert B. Meyner, then Administrator of the Cigarette Advertising Code showed that Philip Morris was tracking its brand share of smokers as young as 17. The letter stated: "Marlboro is not the leading seller in the youth market. In the youngest age bracket (17-24 year olds), the 1963 HTI [Home Testing Institute] study shows Winston to be far and away the number one brand, Pall Mall as the second largest seller and Marlboro third. The more recent study, by Elmo Roper in 1965, shows that Marlboro now ranks fourth behind Winston, Pall Mall and Salem." 1005126805-6805 (U.S. Ex. 20,221).

3560. A March 1, 1967 report entitled "Survey of Cigarette Smoking Behavior and Attitudes," performed for Philip Morris by Eastman Chemical Products included the ages at which individuals begin smoking and detailed the steep slope of the curve of beginning smokers ages 15-18 during the high school years. The report stated: "One Survey shows that about two-thirds of all persons who ever smoke start before they finish high school." It further stated: "About 40 million people in the United States will reach 16 in the next 10 years. The size of the cigarette market in the future depends on the extent to which these youths begin smoking." 1001806514-6590 at 6525, 6527 (U.S. Ex. 20,117).

3561. James J. Morgan, former President and Chief Executive Officer of Philip Morris USA, during his April 24, 1998 testimony agreed that, since 1968, Marlboro's share of the youngest demographic group has always been substantially higher than Marlboro's overall

market share. Testimony of James J. Morgan, State of Minnesota v. Philip Morris Inc., et al., C1-94-8565, April 24, 1998, at 13,907:12-19.

3562. In 1968, Philip Morris began a nationwide Virginia Slims newspaper and magazine advertising campaign. The advertisements often depicted slim, independent, well-dressed attractive women smoking cigarettes. (U.S. Ex. 87,789).

3563. The "1969 Survey of Cigarette Smoking Behavior and Attitudes" performed by Eastman Chemical Products for Philip Morris contained detailed analysis of beginning smokers, including interviews with 12-14 year olds. This report stated that 16-20 is a critical age group for smoking initiation and explained that "at age 14, 60% of the boys who were to become smokers had smoked their first cigarette." The report included information on why these teenagers smoked their first cigarette and whether they liked their first cigarette. 1001806761-6828 at 6784-6789 (U.S. Ex. 20,118).

3564. In a May 23, 1969 memorandum, Myron E. Johnston, Senior Economist for Research and Development at Philip Morris, wrote to Robert S. Seligman, Vice President for Tobacco Science and Research at Philip Morris, regarding Marlboro market penetration by age and sex. Attached to the memorandum was a chart on the "percent of smokers who smoke Marlboro by sex and single years of age" which included data on the percentage of 15 year-old smokers who smoked Marlboro. 1000306237-6239 at 6238 (U.S. Ex. 20,091).

3565. Helmut Wakeham, Vice President for Corporate Research and Development at Philip Morris, made a November 26, 1969 presentation to the Philip Morris Board of Directors entitled "Smoker Psychology Research." A bound report contained the typed presentation and

accompanying slides. The report stated that, although "the primary motivation for smoking is to obtain the pharmacological affects of nicotine," it is psycho-social motivations and not nicotine that are responsible for smoking initiation: "We are not suggesting that the affect of nicotine is responsible for the initiation of the habit. To the contrary, the first cigarette is noxious experience to the noviate. To account for the fact that the beginning smoker will tolerate the unpleasantness we must invoke a psycho-social motive. Smoking a cigarette for the beginner is a symbolic act . . . a symbolic declaration of personal identity." The report further stated: "The 16 to 20 year-old begins smoking for psychosocial reasons. The act of smoking is symbolic; it signifies adulthood, he smokes to enhance his image in the eyes of his peers." The document concluded: "As the force from the psycho-social symbolism subsides, the pharmacological affect takes over to sustain the habit, augmented by the secondary gratifications." 1000273741-3771 (U.S. Ex. 26,080); 1003287880-7890 (U.S. Ex. 20,163); 1003287836-7848 at 7836, 7838-39 (U.S. Ex. 22,848).

3566. A May 8, 1970 report entitled "Project 1600 Consumer Psychology" described the study of the town of Greenfield, Ohio, a community that quit smoking in conjunction with local filming of the motion picture "Cold Turkey." According to the report, Philip Morris distributed questionnaires to approximately 95% of the households in Greenfield: "We estimate that 98% of the households and 99% of those over 14 years old received questionnaires." 1003288248-8249 at 8248 (U.S. Ex. 20,164).

3567. In a June 12, 1970 memorandum, "Suggestions for Research to Answer Questions Raised on Philip Morris Benchmark Study," Steve Fountaine, a Philip Morris

employee, discussed the discrepancy between the reported results on the market share survey and Marlboro's actual sales share. Fountaine stated that this discrepancy was "due to people our survey misses of necessity (on campus college students, those in the military and those under 18 years of age.)" This memorandum set forth a detailed proposal for research into the smoking habits of young people aged 14 to 17: "To get a reading on the smoker percentage and Marlboro share among teenagers not covered in the Benchmark study we recommend interviewing young people at summer recreation centers (at beaches public pools, lakes, etc.). . . . In our opinion, this suggested approach will provide a good reading on the Marlboro share among very young smokers, as well as adding information on college student smoking habits." 2026234664-4669 at 4664, 4665-4667 (U.S. Ex. 20,424).

3568. In the July 15, 1970 Philip Morris "R&D Strategic Plan: 1971-1975," Helmut Wakeham, Vice President for Corporate Research and Development at Philip Morris, stated: "Without an effective counter-effort by cigaret [sic] makers, there is likely to be an erosion of the social acceptability of smoking. Whereas smoking has traditionally been viewed by adolescents and young adults as sophisticated adult behavior to be emulated, it is in danger of being regarded generally as undesirable behavior to be avoided." 1000837808-7813 at 7809 (U.S. Ex. 20,110).

3569. In an August 17, 1970 memorandum to Wakeham from William L. Dunn, Senior Scientist at Philip Morris, entitled "Considerations Pertinent to the Proposed FTC Requirement of Published Numbers," Dunn argued that Philip Morris did not need to attempt to block FTC regulations requiring disclosure of tar and nicotine levels in all cigarette advertising, because a study of 12-18 year olds indicated that youth smoking initiation would not be influenced by such

FTC action. Dunn stated: "We have . . . evidence that the will to smoke is remarkably impervious to concerted, dissuasive pressures: a) Horn's recent survey data of teenagers revealing a higher percentage of smokers among 12-18 year olds in the USA than ever before recorded." 1002375102-5107 at 5102 (U.S. Ex. 20,135).

3570. The September 24, 1971 "R&D Strategic Plan: 1972-1976" prepared by Harry Daniel, Planning Coordinator at Philip Morris, stated that "whereas smoking has traditionally been viewed by adolescents and young adults as sophisticated adult behavior to be emulated, the growing youth market may be in danger due to changing value systems and attitudes." 2022163543-3555 at 3544 (U.S. Ex. 20,353).

3571. A "Marketing Planning Guide" written in approximately 1972 to provide a template to Philip Morris employees for creating yearly marketing plans, included a section entitled "Industry Trends," which stated: "Although the total population will increase by 3.4% during the 1973-1978 period, the 15-19 year old age group from which many new smokers are gained, will only increase by 1.9%, while undergoing actual decreases in 1977 and 1978." The document included smoking incidence figures for 12 to 17 year olds, as well as population numbers but not smoking incidence for smokers "under 15 years"of age. 2041400206-0236 at 0223 (U.S. Ex. 20,439).

3572. A June 27, 1972 inter-office memorandum written by R.M. Jones of Philip Morris to Raymond Fagan, Principal Scientist at Philip Morris, entitled "Fifteen Year Cigarette Smoking Trends: 1955-1970" analyzed percentages of smokers and non-smokers by sex beginning at age 17, and concluded that there was a decrease in the number of current smokers and an increase in

the number of former smokers. 1002647352-7365 at 7352-7353 (U.S. Ex. 20,141).

3573. The Philip Morris U.S.A. "Research and Development Strategic Plan 1972-1976" stated: "Whereas smoking has been viewed by adolescents and young adults as sophisticated adult behavior to be emulated, we should not overlook the possibility that changing value systems and attitudes might endanger our product market." 2025010585-0596 at 0586 (U.S. Ex. 23,732).

3574. A May 18, 1973 memorandum entitled "Incidence of Smoking Cigarettes," sent by Neil Holbert, Philip Morris Marketing Research Department, to numerous Philip Morris employees, discussed findings from a survey conducted by the Opinion Research Corporation of smoking incidence among 12 to 17 year olds and those aged 18 and over. Holbert stated that the survey found that 13% of the 452 12 to 17 year olds polled smoked at least a pack a week. 2041761791-1801 at 1791, 1795 (U.S. Ex. 21,493). According to James J. Morgan, President and Chief Executive Officer of Philip Morris USA, copies of this memorandum summarizing the results of this proprietary study of teen smoking were received by, among others: Ross Millhiser, President of Philip Morris; James Morgan, then-Director of Brand Management; Bob Fritzmaurice, Marlboro Brand Manager; Bob Cremin, head of sales; Max Berkowitz, assistant head of marketing and sales; Claude Beck, advertising buyer; Ellen Merlo, brand group manager; and brand managers Dick Gums, John Granville, Allen Levine, and Tom Keim. Deposition of James Morgan, State of Minnesota v. Philip Morris Inc., et al., September 4, 1997 at 145:9-146:18.

3575. Philip Morris USA's "U.S.A. Tobacco Marketing Five Year Plan" dated June

1973, discussed the concern that a decline in the 15-19 year old age group from which many new smokers are gained" would cause a loss of cigarette volume:

> the new-smoker age group (15-19) will increase only 1.9% over the total period and will actually decline in 1977 and 1978. A decline of 7.8% for this period in the under 15 age group indicates that this trend will continue in the following years. . . . However, more than offsetting the loss of cigarette volume from the declining trend in the 'new-smoker' age group (15-19), are substantial increases in those two population segments which have the highest smoking incidences, the 20-29 year olds (+14.8%) and the 30-39 year olds (+19.1%). . . . In summary, then, the total industry volume will increase at an average annual rate of about 1.9% through 1976 on the strength of increases in the three key population segments - the 15-19 group which represents the primary source of new smokers, and the 20-29 and 30-39 groups which are characterized by high smoking incidences.

1005159031-9168 at 9034, 9043-9044 (U.S. Ex. 26,207).

3576. A July 1974 Philip Morris Marketing Research memorandum entitled "The New Competition for Marlboro's Smokers" stated that "[f]or the past year, Marlboro's growth in share of market has slowed down considerably. . . . this problem is especially clear among the most important segment of the Marlboro franchise, smokers aged 18 to 24." In response to this trend, the memorandum reported that the "Roper Organization was commissioned to undertake [a] study. . . . with the intention of probing the dynamics of the market among smokers below the age of 24. (This was not the 'usual' sample of age 18-24; **in this study, no lower age limit was set.**)" Roper conducted 1050 interviews. Comparing Roper's results and Philip Morris' own National Tracking Study, the document reported that the results were not significantly different, but "[t]he somewhat larger share for Marlboro smokers found in the Roper Study (33% Vs. 27%

found in Tracking) may be accounted for by the **popularity of this brand among those under age 18** who are not interviewed in Tracking," but who were interviewed by Roper. The Roper study determined that "Marlboro is still the most frequent '**first regular brand**'" and stated, "The ideal situation would be to have lots of people choosing our brand as their first (which we do)." According to the Roper study, "The most important reason these young smokers give for settling on their first regular brand is what we might call peer pressure. . . . This tendency to 'go with the leader' feeds on itself. As a brand increases in popularity, it is more likely to be adopted as 'the' brand to smoke." 2022245802-5823 at 5803, 5804, 5807, 5808, 5809 (U.S. Ex. 26,748) (emphasis added).

3577. The study referenced above prepared by the Roper Organization in July 1974 for Philip Morris was entitled "A Study of Smoking Habits Among Young Smokers," and found that "Marlboro is the starting brand for young whites, and Kool is the starting brand for young blacks." The study questionnaire asked respondents when they started smoking and included a category for 14 and under. The study's findings included: "Marlboro N/M [non-menthol] appears to be attracting fewer new smokers than some of the other brands . . . [and] appears to have become static" and "Marlboro is the starting brand for young whites." The study report also stated: "We are not sure that anything can be done to halt a major exodus if one gets going among the young. This group follows the crowd, and we don't pretend to know what gets them going for one thing or another. Certainly [Philip] Morris should continue efforts for Marlboro in the youth market." 1002646151-6185 at 6152, 6154-6157 (U.S. Ex. 20,140).

3578. A July 25, 1974 Philip Morris Marketing Research Department memorandum

entitled "Highlights of Special Roper Study on Young Smokers" discussed the implications of "new trends in the marketplace, particularly among young smokers." This Roper study, commissioned by Philip Morris, detailed Marlboro's slowing growth in share of market. The memorandum stated: "[T]his problem is especially clear among the most important segment of the Marlboro franchise, smokers aged 18 to 24 and that, while this softness was notable for Marlboro, menthols, and especially Kool, were showing growth among these young smokers." 1000730691-0713 at 0691, 0693 (U.S. Ex. 20,104).

3579. An August 2, 1974 Philip Morris memorandum written by Frank Ryan, a Philip Morris International scientist, entitled "Behavioral Research" proposed a study of hyperkinesis (hyperactivity) in children: "We don't propose giving cigarettes to first graders, of course, but we think that it is quite possible that as such children reach adolescence at least some of them will find that smoking produces – for them – the advantage of improving their ability to concentrate." 2057065986-5991 at 5988 (U.S. Ex. 20,498).

3580. According to the July 24, 1995 Congressional Record, the Philip Morris study of hyperkinesis (hyperactivity) in children actually began in June of 1974:

> to determine if [children] will 'discover the advantage of self-stimulation via nicotine' and 'become cigarette smokers in their teenage years'. . . . In July 1975, the researchers report the status of their investigation of the 'hyperkinetic child as a perspective smoker' . . . and . . . tell the Philip Morris vice president: 'We hypothesize that the characteristics of smokers and hyperkinetic children so closely resemble each other that in the past hyperkinetics were almost sure to become smokers'. . . . Finally, the study of hyperkinetic children stops in March 1978, due to objections from school systems and physicians.

July 24, 1995 Congressional Record (U.S. Ex. 61,234); 1003287987-7989 at 7987 (U.S. Ex.

35,701); 2060542715-2743 at 2737 (U.S. Ex. 39,009); 1003288034-8036 at 8036 (U.S. Ex. 35,703);1003293097-3098 at 3098 (U.S. Ex. 35,735).

3581. A Philip Morris March 3, 1975 internal document entitled "Economic Forecast 1975-1980" written by Myron E. Johnston, Senior Economist for Research and Development, stated that "the most recent surveys have shown an increase in the proportion of teenagers (particularly girls) who are beginning to smoke cigarettes. Thus, even though there will be a decline in the absolute number of teenagers from 1975-to-1980, the number of teenage smokers will remain constant. From 1969-to-1974, by contrast, the number of teenage smokers increased at an average rate of 2.2%. . . . During the last ten years Marlboro has benefitted from the rapid increase in the number of people 15 to 19 years old, the ages at which most smokers begin smoking." Johnston also predicted that, because of the declining number of 15-19 year olds, "Marlboro will be deprived of one source of its growth and, increasingly, will have to rely for growth more on switchers from other brands and on maintaining the brand loyalty of Marlboro smokers. Because of this decline in the number of 15-19 year olds, Marlboro sales will increase at a decreasing rate." 1000739883-9907 at 9903, 9905, 9907 (U.S. Ex. 21,601).

3582. Johnston sent an inter-office memorandum dated May 21, 1975 to Robert B. Seligman, Director of Commercial Development, Tobacco Products at Philip Morris, with the subject "The Decline in the Rate of Growth of Marlboro Red." Johnston discussed four factors contributing to the Marlboro Red growth slowdown: fewer 15 to 19 year olds, the recession, increasing cigarette prices, and the "changing brand preferences of younger smokers." Johnston stated: "It has been well established . . . [by studies] that Marlboro has for many years had its

highest market penetration among younger smokers. Most of these studies have been restricted to 18 and over, but my own data, which includes younger teenagers, shows even higher Marlboro market penetration among 15-17 year olds." 1003285497-5502 at 5497 (U.S. Ex. 20,160).

3583. In a November 10, 1975 document Richard L. Stirlen, Director and Brand Manager for Philip Morris, discussed various sites, including ski resorts and beaches, to conduct the Marlboro Spring Vacation Program aimed at young people on Spring Break from colleges and universities. 2045015823-5828 (U.S. Ex. 20,458).

3584. Philip Morris inter-office correspondence dated February 13, 1976 entitled "Marlboro Resort Program - Ft. Lauderdale, Florida March - April" discussed the company's sampling program that targeted young people on Spring Break from colleges and universities. 2045015714-5717 (U.S. Ex. 20,457).

3585. An April 8, 1976 Philip Morris inter-office memorandum from Myron Johnston and Frank Ryan, Senior Associate Scientist for Philip Morris to W.L. Dunn, a Philip Morris International Senior Scientist, entitled "Teenage Smoking" reported on the "upsurge" of smoking among teenage girls, and hypothesized that the increase in teenage girls' smoking may be connected to the teenage boys' smoking habits and the fact that "teenage boys typically date girls who are their own age or a year or two younger." This document included information on males age 12 to 17 and females age 10 to 15, and observed that the 13 year old age group "shows the most dramatic increase proportion of smokers." 1000743958-3959 at 3958 (U.S. Ex. 20,105).

3586. A May 1976 study prepared for Philip Morris by the Roper Organization entitled "A Study of Smokers' Habits and Attitudes With Special Emphasis on Low Tar Cigarettes"

stated that "[a]s usual, in the studies we conduct for Philip Morris, we undermeasure Marlboro's share since we do not interview people under the age of 18, and Marlboro is strong with teen-age smokers. Marlboro continues to be a young smoker's brand, with one-quarter of those 18 to twenty-one reporting they smoke Marlboro Red most often." 2024921314-1612 at 1374 (U.S. Ex. 20,403).

3587. A June 2, 1976 Philip Morris memorandum from Alfred Udow, of the Philip Morris Consumer Research Department, to James Morgan, then Vice President of Philip Morris, entitled "Why People Start To Smoke" stated: "most smokers appear to have begun smoking between the ages of 10 and 18." The memorandum identified the "factors involved in the initiation of smoking," explaining: "In general, the studies suggest that youngsters' beginning to smoke is related to: a) curiosity about smoking; b) conformity pressures among adolescents; c) need for status among peers, including self-perceived failure to achieve peer-group status of satisfaction; d) the need for self-assurance; and e) striving for adult status." With respect to high school students, the memorandum stated: "The smoking pattern is established relatively early. Before 12 years of age, less than 5% of boys and 1% of girls smoke, but soon thereafter a steady increase begins. In the 12th grade, from 40-to-55% of children are smokers, and by the age of 25 years about 60% of men and 36% of women have acquired the habit." Udow indicated that he consulted both external, independent research and internal Philip Morris research on youth smoking: "Information on the motivation that leads to a continuation of smoking comes from a special study done for Philip Morris (Brand, 1971)." 1000744089-4096 at 4089, 4092, 4095-4096 (U.S. Ex. 20,106).

3588. Neil Holbert, Philip Morris Marketing Research Department employee, sent an inter-office memorandum dated October 13, 1976 about "Teen-Age Smoking" to Jon N. Zoler, Director of Marketing Research for Philip Morris. Holbert stated that "[w]e have an operational decision to make on what age to use as a low-end in working out incidence, consumption, and brand usage." Holbert also wrote that the "data suggest that we use Age 15 as a base." 1005085359-5359 (U.S. Ex. 20,207).

3589. In a memorandum dated June 1977, an employee of the William A. Robinson marketing services agency submitted a list of potential Youth Resort Program locations to Philip Morris. All venues mentioned were ones that attracted large Spring Break crowds of college and university students. 2045015656-5659 (U.S. Ex. 20,456).

3590. A June 13, 1977 memorandum written by Frank Ryan, Senior Associate Scientist for Philip Morris, entitled "PM-USA Behavioral Research Annual Report" stated: "We have been seeking a data source to provide us with a large sample of hyperactives who, at the time of their diagnosis, were too young to be smokers. We would then track these children until they reached smoking age, and compare the proportion among a control group . . . . Although school system records would seem best suited for such research . . . restrictions on access to records, on the length of time records can be kept, on the type of records which can be kept, and on the use of children in research without the informed consent of their parents will keep us out of the school systems until the rules are rewritten." 2048370187-0190 at 0189 (U.S. Ex. 20,482).

3591. An October 11, 1977 letter from Jetson E. Lincoln, Vice President of Planning at Philip Morris, to Dr. Carl D. Seltzer, a CTR Special Projects researcher, and copied to Alexander

Holtzman, Vice President and General Counsel at Philip Morris, stated: "Alex tells me you are planning a study of young people to elicit the difference between those who become smokers and those who do not become smokers. This is excellent news." 1005083998-3998 (U.S. Ex. 20,205).

3592. A November 10, 1977 memorandum from Neil Holbert to Jon N. Zoler entitled "Incidence of Smoking" stated: "We are often asked about incidence of smoking." The memorandum described an updating of a "compilation" of "studies and releases" discussing "Teen-age incidence data." A table attached to the memorandum included data obtained from sources, such as Opinion Research Corporation on the incidence of smoking in the United States from 1968-1977 among 12 to 17 year olds. 2041761868-1868 (U.S. Ex. 20,440); 2041761869-1871 at 1871 (U.S. Ex. 88,801). Opinion Research Corporation performed proprietary research for Philip Morris. Deposition of James Morgan, State of Minnesota v. Philip Morris Inc., et al., September 4, 1997 at 193:16-194:4.

3593. In a 1978 document entitled "The Assets," Philip Morris reported that "the percentage of smokers in the 17-24 year old age group is up, and the amount smoked per day per young smoker is also up." 1003058994-9017 at 8999 (U.S. Ex. 20,151).

3594. In a July 1978 document entitled "Estimated Number of US Smokers," Philip Morris tracked smoking incidence among the population starting at age 12. 2042521997-2001 at 1997, 2001 (U.S. Ex. 20,445).

3595. A March 1979 study prepared by the Roper Organization for Philip Morris entitled "A Study of Smokers' Habits and Attitudes With Special Emphasis on Low Tar and

Menthol Cigarettes" stated: "While we do not interview below age 18, we would guess the trend towards doing almost everything at a younger age applies to cigarette smoking as well, and is a further factor in enlarging the market." 2049455309-5318 at 5313 (U.S. Ex. 22,218).

3596. A March 29, 1979 memorandum on Philip Morris USA letterhead entitled "Marlboro" stated: "Marlboro dominates in the 17 and younger age category, capturing over 50% of this market" and itemized various special promotions, including summer sampling and the Marlboro Cup. 20483828174-8176 at 8174-8175 (U.S. Ex. 21,517).

3597. An October 18, 1979 unsigned confirmation letter memorialized the agreement between Philip Morris Europe S.A. and Pinewood Studios, England to feature the Marlboro brand name in the film "Superman II" in return for £20,000 (approximately $42,500). 2046788819-8821 (U.S. Ex. 20,478).

3598. An October 24, 1980 internal Philip Morris memorandum from Neil Holbert to Jerry Choyke, an employee of Philip Morris, regarding "Number of Smokers" discussed smoking incidence for the 1960s, 1970s, and projected for 1981, and included information from a Roper study conducted by the Tobacco Institute which surveyed 17 year olds. 2042329572-9572 (U.S. Ex. 20,444).

3599. A March 31, 1981 report conducted by the Philip Morris Research Center entitled "Young Smokers Prevalence, Trends, Implications, and Related Demographic Trends" stated that "**Today's teenager is tomorrow's potential regular customer**, and the overwhelming majority of smokers first begin to smoke while still in their teens . . . The smoking patterns of teenagers are particularly important to Philip Morris: Of the eleven packing of which the median age of

smokers is under age 30, seven are Philip Morris packings . . . [I]t is during the teenage years that the initial brand choice is made." The report indicated Philip Morris's concern over demographic and social trends that were creating a downturn in teenage smoking rate: "because of our high share of the market among the youngest smokers, Philip Morris will suffer more than other companies from the decline in the number of teenage smokers." 1000390803-0855 at 0808-0809 (U.S. Ex. 22,334) (emphasis added).

3600. In a document dated May 7, 1981, Myron Johnston, Senior Economist for Research and Development at Philip Morris, stated that 33.2%, 32.6% and 32.2% of people 17 and over were current regular smokers for the years 1978, 1979, and 1980, respectively. 1000792013-2013 (U.S. Ex. 20,108).

3601. In inter-office correspondence regarding "Smoking Prevalence by Age, Race, and Sex" dated July 29, 1982, from Johnston to Janet E. Brown, an employee of Philip Morris, Johnston discussed interview samples from age groups ranging from 17 and older. 1003285379-5384 at 5379, 5381-5384 (U.S. Ex. 20,158).

3602. In inter-office correspondence entitled "Cigarette Sales Forecasts, 1982-1990" dated October 18, 1982, from Johnston to C.H. Rowe, an employee of Philip Morris, Johnston stated that 18-24 year olds were "in many ways . . . the age group of greatest significance in any forecast" and noted that "[t]he number of people 18-24 will decline by about 15 percent from 1980-1990." 2049456666-6669 at 6667 (U.S. Ex. 20,488).

3603. In a January 19, 1983 inter-office memorandum to Jon Zoler entitled "The Ages at Which People Start Smoking," Myron Johnston set out the smoking initiation ages for

demographic groups, finding that the largest percentage (20 to 35%) began smoking before age 18, some (20%) began between the ages of 18 and 21, and a few (5 to 10%) began between the ages of 21 and 25. He asserted: "Conventional Wisdom has long held that anyone who has not started smoking by age 18 is unlikely to become a smoker. . . . Clearly, Conventional Wisdom has to be rephrased to read: 'Anyone who has not become a smoker by age 25 is unlikely to become a smoker.' It is interesting to note that the younger cohorts of white females, but not males, are beginning to smoke at progressively younger rates." 1003478157-8159 at 8157 (U.S. Ex. 35,772) (emphasis in original).

3604. In inter-office correspondence dated February 18, 1983, from Johnston to Alfred Udow, Consumer Research and Marketing Department at Philip Morris, entitled "Still More on Trends in Cigarette Smoking Prevalence," Johnston discussed "the encouraging upward trend in smoking prevalence among 18-29 year-olds -- encouraging because of the importance of these younger smokers to Philip Morris." 1003285174-5178 at 5174 (U.S. Ex. 20,157).

3605. A Philip Morris document entitled "Magic: Finding the Right Twist to Individual Smoking" discussed 1983 data that included a 16-24 age group. The document proposed the creation of "the first American blend cigarette with variable taste" called "Magic." Since, as the document stated, most older smokers do not switch brands, "Magic should try and attract a younger smokership - people who are more flexible in terms of choice." The target group, described as the "Artari [sic] Generation" were the "age group between 16-34 years old (46% of all smokers are in this age bracket.) Magic is made for people who work hard to be able to play hard. They are young, active people full of vitality and determined to enjoy their lives."

2073690712-0724 at 0716, 0717 (U.S. Ex. 24,678).

3606. An internal document entitled "Product Testing Short Course," dated January 23, 1984, prepared by the Philip Morris Research and Development Department, explained how Marlboro succeeded by attracting new teen smokers: "Marlboro floundered for 8 years and then hit a responsive chord among the post-war baby-boom teenagers with the theme from the 'Magnificent Seven' and an image uncalculatedly right for the wave of teenagers coming of smoking age." Explaining the importance of teenage smoking initiation, the document stated: "Of the two important demographic influences in the last 35 years – women and teenagers – one has peaked and the other is working against us. Other demographic groups probably don't hold much promise since they are already smokers." 2028817401-7576 at 7504, 7508 (U.S. Ex. 20,016).

3607. Metacorp, a marketing development corporation, prepared a March 1984 document entitled "1984 Marlboro Spring Resort Field Marketing Opportunities" for Philip Morris. Metacorp outlined various venues and events occurring during Spring Break, among them the 2nd Annual New Music Showcase, featuring Duran Duran, a band popular with teenagers. 2044390059-0073 (U.S. Ex. 20,453).

3608. In a March 16, 1984 memorandum to Leo Meyer, a Philip Morris Scientist, discussing smoking incidence and smokers' educational attainment, Myron Johnston stated, "Not much can be said of the 17-24 year olds because most of them are still in school." 2040280991-1022 at 0993 (U.S. Ex. 21,780).

3609. A March 20, 1984 Philip Morris document entitled "The Cigarette Consumer"

stated that "[p]eople begin smoking 1) [because of] peer pressure, 2) to rebel/assert independence, 3) to appear grown up, [and] 4) to experiment," and that "products targeted to younger end of spectrum [are] most viable." 2500002189-2207 at 2203, 2205 (U.S. Ex. 21,460).

3610. In a May 9, 1984 Philip Morris USA inter-office memorandum from Jon N. Zoler, Director of Marketing Research at Philip Morris USA, to Hamish Maxwell, Chairman of the Board and Chief Executive Officer of Philip Morris Companies, Zoler reported the results of a "FTR-EPSY Study" conducted in Switzerland. EPSY "conducted six 8-12 hour group sessions consisting of **Marlboro beginners**, Marlboro regular smokers, switchers to Marlboro from Camel, **Camel beginners**, Camel regular smokers, switchers to Camel from Marlboro" among smokers who "**ranged in age from 16-34**." The study, "based on a relatively new research method which uses very long depth group sessions . . . provided a provocative life style and psychological picture of the Marlboro and Camel smoker." It found that "[t]he **new Marlboro smoker** still lives strongly in the world of illusions (**due to his young age**) and is attached to the Marlboro cliché to a much greater degree than the regular smoker." Given Marlboro's vulnerability "because of discrepancies between brand psychology and the changing life attitude of the **juvenile target group** . . . [a]ttraction for juvenile smokers has decreased." In order to reverse this trend, Zoler recommended that Marlboro place "[m]ore emphasis on motivational promotions." 2040261472-1474 at 1472, 1473, 1475, (U.S. Ex. 26,919) (emphasis added); 204261475-1479 at 1479 (U.S. Ex. 26,920) (emphasis added).

3611. A July 9, 1984 Philip Morris memorandum drafted by Myron Johnston to Leo Meyer on the subject of "The Changing Geography of Menthol and the Threat Posed by

Newport" recognized the success of Lorillard's Newport brand and stated: "The fact that Newport smokers are very young gives further indication that Newport's growth is disproportionately at the expense of Marlboro. (Their median age as derived from the Tracking Study data is 23.2, and that does not take into consideration those under the age of 18.)" Johnston further stated: "Lorillard has clearly recognized that menthol smokers are disproportionately black and disproportionately young-groups that have relatively low newspaper and magazine readership and that tend to be pack buyers rather than carton buyers. Hence Newport relies heavily on point-of-purchase and outdoor advertising-63 percent of Newport's 1983 advertising expenditures were for outdoor." 2040280951-0977 at 0954-0955 (U.S. Ex. 37,496).

3612. A November 1, 1984 Philip Morris USA inter-office correspondence from Myron Johnston to Tom Goodale, Philip Morris Director of Operations and Sales, and copied to the Central File and twenty-two Philip Morris employees, including Carolyn Levy and Bob Mikulay, both of whom would later head Philip Morris's Marketing Department, acknowledged the impact that smokers under the age of 18 had on the median age of smokers of the Virginia Slims brand. In the memorandum, Johnston addressed his "serious reservations about the advisability of introducing a Virginia Slims 120," a line extension with an older demographic that he thought might damage Virginia Slims's younger demographics (including teenagers). Johnston wrote:

> The most serious reservation is demographic. Will the natural constituency for 120s (females with a median age of 38 for the menthols and 48 for the nonmenthols), be attracted by the carefully nurtured image created for Virginia Slims, where the median ages are 30 for the menthols and 35 for the nonmenthols? (Since these median ages are based only on smokers aged 18 and over, the

> actual median ages are probably several years younger.). . . . I'm not sure that it should be done, for fear of damaging the youthful image of Slims that has contributed so much to its success.

2001255708-5710 at 5709 (U.S. Ex. 85,182).

3613. A December 12, 1984 Philip Morris report entitled "Cigarette Market History and Interpretation" prepared by John E. Tindall, Senior Scientist at Philip Morris, traced the history of the cigarette market from 1938 to 1984, and analyzed brand shares and relative performance in terms of the demographics of the smoking population and the turnover in the smoking population. The report explained the rise of Marlboro, Kool, and Newport: "New smokers entering the market were disproportionately attracted to those brands." The report stated: "**[I]f the domestic cigarette market is to survive long-term, it must have a constant influx of new smokers.** In the past, the psychology of brand choice for new smokers has been an area to which we have had to give little attention since our brands have been among the major beneficiaries of new smokers' brand choices. There are reasons to believe we may not be so fortunate in the future." The report further stated that "**Marlboro's growth and, presumably, its position as the brand of choice among new smokers, coincided with the Marlboro Country campaign. That was certainly a remarkable campaign and one that probably did appeal to young people**, but not one that marketers would have been likely to have composed to attract young people in the 1960s." 2001265000-5045 at 5012, 5030 (U.S. Ex. 20,299) (emphasis added).

3614. An August 15, 1985 report entitled "Trends in Smoking Among High School Seniors," authored by Johnston and addressed to Jon Zoler, stated that "about half of all people, in all age cohorts, who ever smoked have been smokers at age 18. Thus by studying trends in

smoking among 18-year-olds we might gain some insight as to what to expect in the future." The report provided extensive data on the smoking habits of high school seniors. Zoler commented that this study was "the most comprehensive study I've seen on the subject." 2040282066-2092 at 2066 (U.S. Ex. 20,437); 2040282065-2065 (U.S. Ex. 20,436).

3615. A September 18, 1985 Philip Morris inter-office memorandum by Johnston to Tom Goodale, entitled "The Implication of Those Strange Happenings in the Menthol Market," surveyed menthol smokers by race, age, and gender in order to explore a drop in the 18-24 year old menthol smoker market. The memorandum identified menthol as an "entry brand," and asked the question, "Why are the young abandoning menthols?" Johnston concluded that women who begin smoking before age 18 were less likely to choose menthol, whereas those who begin smoking after age 17 were more likely to choose menthol. 2056267569-7584 at 7570, 7572-7573 (U.S. Ex. 20,497).

3616. A document apparently drafted after 1986 entitled "Impact of Marlboro Sponsorship in CART Racing: Are We on Track?" discussed Marlboro car racing promotions. The document stated that 14% of 18-24 year olds were racing fans and that racing was perceived as "masculine, dangerous . . . [because racing] is like grabbing Death by the gonzos and saying 'Ha!'" 2040750492-0510 at 0495, 0496 (U.S. Ex. 20,438).

3617. Philip Morris sent an advertising contract dated January 14, 1986 to the Los Angeles Dodgers Advertising and Novelty Department for the purpose of placing Marlboro advertising in the 1986 Dodgers scorecard and magazine available at Dodgers major league baseball games. 2041595387-5387 (U.S. Ex. 38,212).

3618. The November 6, 1986 Marlboro Review included the following as part of the Philip Morris overall "Five Year Challenge": "**Increase share of new smokers** . . . Retain current smokers . . . Develop targeted marketing tactics." The review recommended that Philip Morris "[e]xpand [the] Marlboro franchise into the mainstream menthol category" by pursuing the "**new smoker**." To accomplish these goals, the review recommended: "[d]iagnostic consumer research to further assess positioning/advertising . . . [and] [i]nterviews with young smokers to determine potential appeal." The review stated: "**One of Marlboro's primary sources of growth is its ability to attract increasing shares of adults under age 25** . . . the brand has maintained or increased share among all age categories, **reflecting Marlboro's continued ability to retain smokers as they age.**" However, "several challenges" are noted, including "[a]ggressive industry pricing and the proliferation of lower price alternatives [which] leave Marlboro at a competitive price disadvantage due to its significantly lower level of couponing and price promotion. . . . This could have a disproportionate impact on young adults and lower income individuals, who comprise sizeable portions of Marlboro's smoker base." 2045409872-9911 at 9890, 9906, 9908,9913, 9914 (U.S. Ex. 26,949) (emphasis added).

3619. A 1987 Philip Morris document entitled "Parliament Brand Plan Executive Summary" recommended a shift of focus to a younger demographic target because "[s]trategically, if Parliament is to stabilize and grow over the long term, we must pick up younger smokers. Fortunately, we have reason to be optimistic about our ability to appeal to younger smokers. . . . To target the 18-24 males and females, our retail focus will be on pack outlets (52% of smokers in this age group buy the pack compared to 30% of all smokers) and

will be trial/conversion oriented. This younger age group is more likely to make decisions based on peer pressure. To convey the idea that everyone is smoking Parliament, the brand should have continuous high levels of visibility in as many pack outlets as possible." One question for research was: "Who are the 18-24 year old male and female Parliament smokers? Why do they smoke Parliament (taste, filter, advertising, peer pressure)?" 2045287048-7092 at 7061, 7063, 7064 (U.S. Ex. 38,407).

3620. A 1987 Switching Study Analysis, prepared for Philip Morris USA's Virginia Slims brand by Leo Burnett, stated that "new smokers" who have "no previous brand" are typically "young, white. . . . [and] compared to total smokers they index higher in 18-24." The study found that "[s]witching studies verify that the Virginia Slims Brand does and can attract new and competitive smokers at a healthy rate" and suggested that the brand "[t]arget marketing efforts to young smokers." 2072999836-9857 at 9841, 9856, 9857 (U.S. Ex. 24,646); 2048507241-7253 (U.S. Ex. 38,698).

3621. An August 1987 Philip Morris document stated that Marlboro, Benson and Hedges, and Virginia Slims events, like Marlboro Auto Racing, had been "highly successful in creating brand awareness and generating positive publicity." 2044732959-2963 at 2959 (U.S. Ex. 21,754).

3622. An August 19, 1987 inter-office memorandum from Nancy E. Brennan [Lund], current Senior Vice President for Marketing at Philip Morris, to David E.R. Dangoor, Executive Vice President at Philip Morris, summarized "Key Marlboro Issues." According to Brennan, "**The life blood of the Red franchise is new, young (male) smokers**. In this regard, several

demographic and industry factors are working against us: 1) a shrinking population of young adults, 2) a lower incidence of smoking among young adults and, 3) an increasing percentage of new smokers entering the market with a low tar cigarette." In order to maximize share, Marlboro should "**[s]eek ways to display Marlboro continually in the convenience stores to fully capitalize on new smoker trial** and reduce temporary 'defection' . . . . For Marlboro, the most critical retail visibility is displayed product. Currently, the Brand does not have continuous leadership display presence in pack or carton outlets. This should be our first priority. **We are missing trial opportunities**." 2045305938-5942 at 5938, 5939, 5941 (U.S. Ex. 26,948) (emphasis added).

3623. Roy Anise, a manager in the Philip Morris Market Research Department, drafted a February 1, 1988 report addressed to Jon Zoler which noted that Philip Morris had reviewed the decreasing smoking incidence among high school seniors to determine if it was a cause of declining smoking rates of military personnel. Anise's report cited Myron E. Johnston's 1985 report entitled "Source Trends in Smoking Among High School Seniors" which stated that historically about half of all smokers begin smoking by the age of 18. 2042078401-8405 at 8402 (U.S. Ex. 20,442); 2022214369-4395 at 4369 (U.S. Ex. 20,357).

3624. A March 1988 Industry Review for Philip Morris included a section entitled "Smoking Among High School Seniors," which contained charts tracking, among other things, total cigarettes smoked by high school seniors and the race and gender of those seniors who smoked. The review did not distinguish between those seniors aged 18 and those 17 or younger. 2073001682-1737 at 1695-1700 (U.S. Ex. 24,647).

3625. Myron Johnston authored a March 17, 1988 memorandum addressed to Jon Zoler entitled "Smoking Among High School Seniors" in which he stated that, "I am ever more confident than before that we can use the data on high school seniors to predict trends in smoking among young adults." 2042329558-9561 at 9566 (U.S. Ex. 20,443).

3626. An April 5, 1988 letter from Elizabeth H. Reiman, Leo Burnett employee, addressed to Nancy Brennan Lund, now Senior Vice President for Marketing at Philip Morris, provided "details regarding the upcoming Camel qualitative study" and stated that "[r]ecent strong Camel performance, especially among the young male target, has resulted in an effort to explain that success and determine the potential threat to Marlboro." The letter indicated that respondents for this study were to be recruited among 18-24 year old smokers. 2045471014-1015 at 1014 (U.S. Ex. 20,461).

3627. A June 20, 1988 memorandum on Philip Morris USA letterhead from consumer researcher Jan Jones to Ed Gee, Director of Consumer Research at Philip Morris, entitled "Statement of Position on the Social Pressures Construct" stated: "**We already have Marlboro as the brand of choice for young smokers entering the market**." 2050801835-1853 at 1845 (U.S. Ex. 38,763) (emphasis added).

3628. A September 14, 1988 letter from Leo Burnett-Kyodo Company, Ltd. Advertising to DANJAG SA concerned product placement of Philip Morris's Lark cigarettes in the James Bond movie "License to Kill." The letter "confirm[ed] that DANJAG SA will use its best endeavors to have included in the proposed feature film currently entitled 'License Revoked' . . . the exposure of a Lark cigarette . . . and will assign to Leo Burnett - Kyodo the rights to run a

Lark media promotion . . . to coincide with the opening of 'License Revoked' in Japan." This agreement called for a "pack of Lark cigarettes to be clearly identified during a scene in which James Bond opens a pack of Lark cigarettes which will contain antennas and detonators which James Bond will use as an action prop (illustration attached). The Lark brand name will be clearly established on screen." The agreement also gave Philip Morris the rights to produce a six month long promotion for the film. 2023035490-5496 at 5490, 5492 (U.S. Ex. 20,372).

3629. A September 26, 1988 inter-office memorandum written by Carolyn Levy, then Philip Morris Assistant Director of Consumer Research, and sent to David Dangoor, Executive Vice President at Philip Morris, outlined issues to research in 1989, including: "Can we gain a better understanding of young smokers? What are their personality traits, beliefs, values, lifestyles? What are the marketing implications of these findings?" 2080009511-9515 at 9511 (U.S. Ex. 20,535); see also 20080009516-9522 (U.S. Ex. 88,155); 20080009523-9529 (U.S. Ex. 88,156).

3630. A Philip Morris report entitled "Starter Profile and Their Regular Brands" provided data from 1989 to 1991 for "starters" who were "under 25." The report stated that in 1989, 82% of total "starters" were under the age of 25. 2504018410-8423 at 8411 (U.S. Ex. 27,965); 25040184-8429 (U.S. Ex. 27,966).

3631. Philip Morris's 1989 Proposed Budget earmarked $80,000 to "Understand the Group Dynamics of Smoking Behavior and Brand Choice" including "entry brand choice." 2060393130-3189 at 3145 (U.S. Ex. 20,504).

3632. A "Schedule of Product Placement 1987-1989," apparently drafted in 1989, listed

a number of movies in which Philip Morris cigarettes and other products, such as neon cigarette advertising signs, were supplied to movie studios for product placement in films. This list included such movies as "Disorderlies," "Robocop," "Tapeheads," "K-9," "Crocodile Dundee," and "Who Framed Roger Rabbit." 2025863632-3635 (U.S. Ex. 20,420).

3633. On February 24, 1989, John A. Kochevar, Vice President Corporate Affairs at Philip Morris wrote to Representative Thomas A. Lukens, detailing the product placement of Philip Morris cigarettes and marketing materials in movies from 1979 to 1989. Kochevar wrote: "During the preceding 10 years, when approached by filmmakers, Philip Morris U.S.A. has occasionally provided free cigarettes and promotional materials such as brand name signs, and in a few instances, apparel promoting the film. On such occasions, the script for the film in question has provided for one or more scenes in which smoking or related products were to be depicted." According to Kochevar, during that ten year period, Philip Morris "employ[ed] independent film industry consultants to review scripts submitted by movie producers and script writers and to advise us" and "provided signage and cigarettes for an average of 17 films per year," as well as making a $5,000 contribution to the Sylvester Stallone Fund for Autism. 2025863700-3702 at 3700-3701 (U.S. Ex. 87,790).

3634. In a May 18, 1989 letter to Rep. Lukens, Kochevar admitted that Philip Morris had provided cigarettes and period cigarette advertising signs for "Who Framed Roger Rabbit" in 1988, and had provided cigarettes for "Crocodile Dundee" in 1986. 2023326334-6340 at 6339-6340 (U.S. Ex. 20,387).

3635. A May 12, 1989 Philip Morris document entitled "Marlboro Brand Review"

contained a discussion of Marlboro issues, performance, and strategy: "Major strategic shifts are not recommended for Marlboro. Our plans, in fact, have become even more focused on appealing to the core young adult male user and reinforcing our strong male, full flavor brand image. Further, Marlboro's position against competitive threats will be offensive not defensive." Regarding the threat of Camel, the document stated: "Camel has perhaps the strongest flavor, most male image of any cigarette in the industry. This equity is being effectively leveraged with the bold, young 'smokin' Joe' advertising and promotion effort, an effort which taps directly into the young male headset – have fun, get wild, and be macho. **The campaign limitation may be that it can't support the franchise as it ages because the message is so young.**" To meet Camel's threat, the document discussed a potential new advertising campaign, in addition to the traditional Marlboro advertisements, which would be "designed to appeal specifically to the young, adult male; ads which are strong in subject and tonality thereby reinforcing our core position." 2025871433-1506 at 1434, 1438, 1440 (U.S. Ex. 22,054) (emphasis added).

3636. Leo Burnett prepared a September 22, 1989 report for Philip Morris entitled "Young Adult Smoker Target: An In-Depth Look" which examined the values and goals of the 18-24 year old age group who are "now key to PM (Philip Morris) target," and described the "young adult smoker" as a "**moving target in transition from adolescence to young adulthood**." 2048677983-8044 at 7984-85, 7987, 7994, 8037 (U.S. Ex. 22,336) (emphasis added). At his May 31, 2002 deposition in this case, Michael Mahan, Vice President for Marketing and Sales of the Asia Pacific Region for Philip Morris, testified he assumed, based upon the terminology "young adult smokers," that this document only meant 18 to 24 year olds,

but admitted that "adolescents" are 13, 15, 16, and 17 year-olds. Deposition of Michael Mahan, United States v. Philip Morris, et al., May 31, 2002, 89-91.

3637. In internal Philip Morris correspondence dated October 25, 1989 from Cathy Lieber, Philip Morris Manager of Promotions, to David Dangoor, Executive Vice President at Philip Morris, Lieber wrote: "[W]e are naturally more interested to learn how you plan to target the emerging young adult female smokers rather than the older female smokers." 2504034812-4813 at 4812 (U.S. Ex. 20,570).

3638. The "Philip Morris USA R&D Strategic Plan, 1991-1995," written in 1990, stated: "A review of Marlboro demographics is also a review of the 18-25 year old age group. . . . [I]n 1989, Marlboro's share of that smoker group was in excess of 60%. The brand's strength since 1977 has been in that age group. . . . **[T]he continued success of this brand depends on keeping its age profile young. This fact then would say that we do not want Marlboro or the Marlboro image to be old. Its success through the years have been its ability to attract the entry smoker.**" 2026230097-0713 at 0211 (U.S. Ex. 20,423) (emphasis added).

3639. A Philip Morris presentation entitled "Reasons for Considering Camel as a Serious Competitor," apparently drafted in 1990 or 1991, stated that "Camel is becoming younger." The presentation cited market share statistics showing "in the past three years, Camel's share of adult college smokers almost doubled" and named Camel's growth among youth as the key reason Camel had to be taken seriously. 2043982154-2167 at 2155, 2159 (U.S. Ex. 20,452).

3640. A report dated August 7, 1990 entitled "New Brand Opportunities in the Cigarette

Industry" was written for Philip Morris by Gibbons, Voyer & Associates. The report found that 17-19 year olds comprise 18.9% of smokers. It stated "Marlboro dominates young adult smoker market: initial exposure, peer pressure, meets image wants," and "switching occurs as smokers enter their mid-20's." It recommended that any marketing approach "insure that Philip [Morris] has a brand entry to meet the various wants of young adult smokers: image, product, price." 2049397333-7369 at 7348, 7350 (U.S. Ex. 20,486).

3641. A 1991 Philip Morris document stated that "the top four brands in the industry all have extremely high unaided awareness levels." 2072697569-7574 at 7571 (U.S. Ex. 20,529).

3642. Jeanne Bonhomme, Manager of Consumer Research at Philip Morris, and Karen Eisen, a marketing researcher at Philip Morris, wrote a February 6, 1991 memorandum to James Taylor, Brand Manager, New Products at Philip Morris, entitled "Marlboro/Camel Consumer Research" which discussed research comparing the advertising and images of Camel and Marlboro among 18 to 24 year old male Marlboro and Camel smokers. Respondents were asked whether various descriptive statements fit the Marlboro Man and Joe Camel, including whether these characters were "macho," "independent," "rebellious," "cool/hip," and whether they were someone that "I'd be friends with." When asked what the Marlboro slogan "Come to Marlboro Country" means, most respondents responded that it meant to "smoke/try/switch" to Marlboro. 2045732054-2074 at 2054, 2057-2058 (U.S. Ex. 20,465).

3643. An April 25, 1991 speech given by Carolyn Levy, then Director of Philip Morris Consumer Research, discussed the marketing research conducted on Marlboro Medium, a Marlboro extension created in order to compete with the market success of Camel. Engle v. R.J.

Reynolds et al. at 153:22-155:10; 2044957040-7047 (U.S. Ex. 85,183).

3644. Handwritten notes taken by Levy dated May 2, 1991 related to a Philip Morris project where Philip Morris market researchers were trying to understand the "mental highway or mental construct of smoking in American culture." Levy's notes stated that "smoking is a social ritual which enables us to express and reaffirm our self-image by reactivating the **initiation into adulthood**. This tabu [sic] is for you . . . playing with fire, forbidden fruit, U.B.U., badge of honor, it hurts so good, dare to be me, the rite to be me." 2062145828-5833 at 5833 (U.S. Ex. 85,184) (emphasis added). At the time of her June 8, 1998 deposition in Engle, Carolyn Levy acknowledged that "cigarettes are one of the things that adolescents use in their transition from childhood to adulthood." Deposition of Carolyn Levy, Engle v. R.J. Reynolds et al., 133:3-136:20, 138:24-141:2, 144:19-146:2.

3645. A Philip Morris inter-office memorandum dated June 14, 1991 from Natalie Ellis, Senior Manager at Philip Morris, to Jim Raporte, an employee in Trade Marketing at Philip Morris, entitled "Marlboro Focus Groups Topline" discussed Philip Morris's and its competitors' use of premiums to promote cigarettes. The memorandum discussed how R.J. Reynolds used promotional items with the Camel logo to increase the visibility and market share of Camel. Although the memorandum referred to the targets for Philip Morris premium items as "young adult men," the description given was equally appropriate for teenagers: "these men's lives revolve around friends, music, cars, and jobs." A description of the perceived benefits of providing premiums to customers was also appropriate for teenagers: "Clearly, the main value of many premiums is to get envious comments from friends. That is why the items need to be 'cool

and unique.' You can't impress your friends with something you can easily buy at any store." 2045731041-1044 at 1041, 1043 (U.S. Ex. 20,464).

3646. The "Philip Morris Draft Marketing Plan (1992-1996)" stated: "To sustain growth during the plan, Marlboro must maintain its strength among young adult smokers." 2021508238-8284 at 8239 (U.S. Ex. 20,347).

3647. During a 1992 presentation to analysts regarding Philip Morris's 1993 plans, Michael Szymanczyk, then Senior Vice President of Sales at Philip Morris, stated: "To protect our premium volume we plan to continue focusing our marketing and retail sales efforts on Marlboro. Its younger smoker base and ability to retain its smokers mean that its profit stream has a longer time horizon than any other brand in the industry." Szymanczyk also stated that, "The average age of adults who smoke our brands is seven years younger than the average age of our competitors' smokers." 2046569094-9117 at 9105, 9115 (U.S. Ex. 20,470).

3648. "The Viability of the Marlboro Man Among the 18-24 Segment" dated March 1992, prepared by Bruce Eckman for Philip Morris, made recommendations for Marlboro advertising in light of Camel's success. Eckman recommended that, "to reduce the effectiveness of the Camel advertising with the 18-24 segment, Marlboro should consider: a) capitalizing on the strength of being the number one brand; make the users feel that they belong to a special group of smokers through point of sale which reinforces being number one; b) increasing the breadth and variety of the Marlboro Man advertising campaign without sacrificing the strength of his integrity[:] 1) show him not only at work, but also at leisure, . . . 2) show him enjoying the benefits of his chosen path, . . . 3) show him in charge . . . and desirable in magazines where he

could be pictured with a woman, . . . 4) consider using a copy line to direct the visuals, [and] . . . make him more accessible and less removed." 2045060177-0203 at 0178, 0180 (U.S. Ex. 20,459).

3649. In an April 1992 presentation to the Philip Morris Board of Directors, David Dangoor, Senior Vice President of Marketing at Philip Morris International, explained how the race car drivers pictured in Marlboro advertisements represented a "contemporized" and "relevant" Marlboro man:

> We are in constant search for more contemporary ways to convey the 'west' with more appeal to young adult smokers. Auto racing is one such avenue. Our drivers symbolize the modern day cowboy and the advertising support creates more relevance for today's consumer. . . . Marlboro's positioning remains strong and relevant. Its advertising whilst effective, needs careful attention to maintain its appeal to young adult smokers. We must continue to compete effectively at retail with more image enhancing promotions.

2045068451-8470 at 8456, 8460 (U.S. Ex. 23,931).

3650. Philip Morris's "Marlboro Brand Review" dated April 12, 1992 analyzed Marlboro's past share growth and predicted future patterns. The document stated that, while Marlboro Red King Size and Marlboro Lights King Size had shown steady growth from 1989 to 1992, this growth "has not however compensated for the loss from the Red parent brand" which showed declining sales. The document discussed marketing strategies aimed at a key type of Marlboro consumer, the CHIMP (defined as 18-24 year olds). 2501081089-1104 at 1093, 1094 (U.S. Ex. 20,560).

3651. A document entitled "PM USA Business Update" dated October 8, 1992 stated that Philip Morris "faces two significant negative trends. The growth in discount cigarettes is

reducing our premium sales and we are not obtaining our historic share of entry-level adult smokers." In order to "[a]ssure PM USA's long term prospects by obtaining our historic share amongst entry-level adult smokers," Philip Morris must:

> Contemporize all Marlboro creative with more arresting promotional advertising like Adventure Team and racing, Develop the Marlboro Adventure Team and similar high quality continuity programs into long term affordable promotion in C-stores [convenience stores], Reinvigorate Marlboro Medium with stronger and more relevant advertising, Develop an alternate mainline campaign to Marlboro Country/Cowboy, and Relaunch Bucks, including a lower priced box, with an irreverent advertising campaign meaningful to the young adult smoker.

2046569728-9731 at 9728, 9729-9730 (U.S. Ex. 20,471).

3652. A document dated November 23, 1992 entitled "Philip Morris Marlboro Adventure Team Flex Fund Promotions For Retail Masters Full Participants Who Accept the MAT Promotion" discussed two promotions "intended to increase visibility and build Marlboro sales." The two programs, "Win the Gear Here" and "Win the Adventure of a Lifetime," were consumer sweepstakes run by retailers in conjunction with the Marlboro Adventure Team (MAT) promotion. As discussed above, the Marlboro Adventure Team promotion was one marketing tool recommended in the October 8, 1992 "PM USA Business Update" to regain Philip Morris's "historic share amongst entry-level adult smokers." 2042538958-8968 at 8959 (U.S. Ex. 20,446); 2046569728-9731 at 9728-9729 (U.S. Ex. 20,471).

3653. A December 1992 Philip Morris document entitled "Motorsports Sponsorship Marketing Review" discussed the marketing of Marlboro to 18 to 25 year olds. The document stated: "Motorsports Overall Objectives . . . To look at current and new program opportunities to

extend our reach with starters and young adult smokers . . . . Formula 1 Marketing Strategy Media: Focus on TV, cinema, and innovative outdoor campaigns; explore new programming, eg., MTV." As discussed above, racing-themed promotion was one marketing tool recommended in the October 8, 1992 "PM USA Business Update" to obtain Philip Morris's "historic share amongst entry-level adult smokers." 2501058650-8680 at 8658, 8667 (U.S. Ex. 21,702); 204656728-9731 at 9728-9729 (U.S. Ex. 20,471).

3654. According to the "Philip Morris USA 1994-1998 Plan Overview," Marlboro had approximately a 60% market share among young adult smokers in 1993, and Philip Morris understood these "favorable demographics" as the "key to long-term growth." This share of young smokers was disproportionate to Marlboro's overall market share of approximately 40%. 2071032180-2206 at 2181, 2185, 2187 (U.S. Ex. 21,964).

3655. In 1993, Philip Morris conducted research among 21-34 year olds to determine the effectiveness of various Marlboro advertising themes, among them the western cowboy theme and the Marlboro Adventure Team promotion. This "Marlboro Adventure Team Image Study" was summarized in a July 1993 document. As discussed above, the Marlboro Adventure Team promotion was one marketing tool recommended in the October 8, 1992 "PM USA Business Update" to obtain Philip Morris's "historic share amongst entry-level adult smokers." 2042581409-1521 (U.S. Ex. 20,447); 204656728-9731 at 9728-9729 (U.S. Ex. 20,471).

3656. During a March 26, 1993 speech, Michael Szymanczyk, then Senior Vice President of Sales at Philip Morris, stated, "The fact that there is not a clear discount brand leader among 18 to 24 year old smokers suggests that whoever catches these smokers may be able to

retain them over a longer period of time." Szymanczyk further stated that "**we have to maintain our 60 share of young adult smokers, since we know that they are our future**." 2023771556-1604 at 1587-1588, 1603 (U.S. Ex. 20,395) (emphasis added).

3657. A document entitled "Worldwide Marlboro Monitor Five Year Trends 1988-1992," written in April 1993 and produced from the files of Philip Morris's Marketing Research Department, stated: "In markets where Marlboro Red's share of young adult smokers has declined, **share of starters was also down. Thus, the ability to attract new smokers and develop them into a young adult franchise is key to brand development**. . . . **Longer-term brand development depends more on a growing share of starters translating into a strong franchise of young adult smokers**. . . . If the young adult smoker franchise is not growing, the brand profile ages over time, which means a smaller proportion of its smokers are in the prime target. As a result, the brand is less visible and impactful among our target smokers and their peer group." 2044895379-5484 at 5389 (U.S. Ex. 85,185) (emphasis added).

3658. "Marlboro Friday" occurred on April 2, 1993, when Philip Morris cut the price of the world's best-selling cigarette by almost 20%. Marlboro Friday successfully ended the price war that "discount" (cheaper) brands had been waging on the "premium" brands such as Marlboro. Prior to Marlboro Friday, Marlboro's share of the United States cigarette market, once around 30%, had fallen to 22%. Philip Morris, like the other Cigarette Company Defendants, had responded to the gradually falling volume of cigarette consumption in the 1980s and early 1990s by pushing up prices to maintain profits. Manufacturers of generic cigarettes had held down prices to maintain volume. The widening gap between premium and generic products had

been filled by low cost brands. American Tobacco – which had once dominated the industry in the United States but had since undergone steady decline – was filling that gap. However, Marlboro Friday halted the growth of the discount brand market and American Tobacco quit the market altogether, selling the remains of its operations to BATCo. By 1994, due to the significantly lower cigarette prices resulting from Marlboro Friday's sharp reductions of the wholesale prices of premium cigarettes, total cigarette consumption stabilized – a reversal of the previous ten consecutive years' of decline. By 1995, Marlboro had regained its lost market share, and premium and generic prices were rising together. "Tobacco Situation and Outlook," USDA Economic Research Service (April 1995) (U.S. Ex. 64,530); "Identifiable objectives, depths of resources and strength of commitment are the keys to success in a price war. Don't launch one if you don't have them." *Financial Times* (July 1996), 520879976-9977 (U.S. Ex. 87,761).

3659. Szymanczyk stated in a speech to Equipment Manufacturers in October 1993: "Marlboro's age profile reveals a brand that has a higher share among each successively younger adult age group. Its share of adult smokers under age 25 is greater than the combined share of all other brands, premium or discount." 2062331315-1324 at 1322 (U.S. Ex. 20,510).

3660. Philip Morris's "1994-1998 Plan Overview," apparently drafted in 1993, listed as Philip Morris's primary goal the delivery of "predictable IFO growth, cash flow and share growth." The document stated: "Marlboro has over a 60% share of young adult smokers. Its share of the young adult smokers coupled with its ability to retain the loyalty of smokers as they age are Marlboro's largest assets and the foundation of its growth." 2071030043A-0068 at 0043A, 0050 (U.S. Ex. 20,520).

3661. In 1994, Bob P. Roper, International Vice President of Marketing for Philip Morris, forwarded to Geoffrey Bible, President and Chief Executive Officer of Philip Morris Companies, notes from the Marlboro summit in Monaco. The notes summarized the "key conclusions of our worldwide review of the issues facing Marlboro" and stated: "Generally speaking in Asia, the full flavour segment is declining. . . . Despite that, **Marlboro Red's share of young adults and beginners is up everywhere which is encouraging.**" 2048237361-7370 at 7361, 7366 (U.S. Ex. 21,987) (emphasis added).

3662. Jeanne Eiban and Linda Schwartz, both in Philip Morris's Direct Marketing Group, sent an inter-office memorandum dated February 9, 1994 to Roy Anise, a Manager in the Philip Morris Market Research Department, proposing "heavy-up name generation options in Region 5 " because of the paucity of information regarding that Region's 21-25 year olds in Philip Morris's database. The memorandum stated that "Marlboro's goal is to maximize the number of YAM/YAF [Young Adult Male/Young Adult Female] smoker contacts in this geography, and subsequently follow-up with branded direct mail packages to these smokers in order to establish an on-going line of communication." 2061808612-8620 at 8612 (U.S. Ex. 20,508).

3663.

Deposition of Thomas Dudreck, United States v. Philip Morris, et al., June 21, 2002, 83:9-107:19; LB0053448-3468 (U.S. Ex. 22,063) (Confidential); LB0058147-8168 (U.S. Ex. 22,070) (Confidential); LB0053469-3533 (U.S. Ex. 22,972) (Confidential) (emphasis added).

3664. The March 24, 1994 plan for Philip Morris's Chesterfield brand prepared by Young & Rubicam for Philip Morris, stated: "Smoking enthusiasm is firmly grounded in the emotional connection . . . **[t]he emotional connection – adventure, living on the edge – is the deep basis for category attraction** . . . [l]ater, more rational issues may counterbalance this attraction." Moreover, the plan stated: "Significant choice moments in cigarette smoking tend to coincide with critical transition stages in life. . . . **Choice of a 'starter' brand [coincides with] [y]outhful conformity/rebellion**." 2500086977-7024 at 6983, 6984 (U.S. Ex. 27,908) (emphasis added).

3665. In a handwritten request dated April 4, 1994, Bill and Marcy Schuler requested that Philip Morris cancel the Marlboro Adventure Team Gear order made by their 16 year old daughter, and that Philip Morris "not send any more of [its] filth through the mail to [their] daughter [because] . . . she is becoming addicted to your vile product." Similarly, on April 12,

1994, Jennifer Mykyton wrote to "Marlboro" to return the bonus certificate sent to her minor son and request that his name be removed from the mailing list. 2044934347-4348 at 4347 (U.S. Ex. 20,455); 2044934340-4340 (U.S. Ex. 87,792).

3666. The 1994 Revised Marlboro Media Plan dated May 20, 1994, stated that an objective is "to find the most effective and efficient balance of media which reinforce/build brand image among key YAS 21-24." 2060331504-1687 at 1523 (U.S. Ex. 20,503).

3667. A July 13, 1994 research report entitled "Generation X Focus Groups" written by Marian Halpern, Brand Marketing for Philip Morris, indicated that the 18-24 year old focus group respondents appreciated "ads containing humor" and "seek[ing] out new experiences." In conclusion, Halpern wrote: "The findings from this research suggest that Generation Xers will respond to marketing efforts that are different than those to which they have already been exposed. . . . Subject matter that is relevant to Generation Xers (new adventures, fun) could be incorporated in promotions and advertising. Further, the approach could be on a personal rather than a global level, appealing to their self-focus. Importantly, any marketing effort aimed at this audience should not obviously target them because they find that unappealing." Generation X, a term encompassing the entire post-baby-boomer generation (approximately, born between 1966 and 1985), in 1994 included individuals under 18 years old. 2045616238-6240 at 6239-6240 (U.S. Ex. 22,709); 2078018676-8687 at 8678 (U.S. Ex. 24,994); 2072036685-6685 (U.S. Ex. 24,580).

3668. The Philip Morris Continuous Smoker Tracking Survey is a telephone survey commissioned by Philip Morris and performed by its various market research suppliers. It is a

ongoing survey that Philip Morris has conducted since approximately 1980. Until 1988, the survey was conducted approximately twice per year. In approximately 1988, on the recommendation of Carolyn Levy, director of the department handling the survey, the data collection methodology was modified to become a "continuous" study in order to avoid "gaps" in information. The method of calling is a "random digit dialing" procedure, where surveyors call people who claim to be adult smokers and ask them questions about their cigarette brand preferences and their buying behavior. According to Levy's testimony at her June 23, 1998 deposition, "[H]istorically, and we continue to this day, our method is to go for the youngest male who is at home. So the idea was you select the youngest male adult smoker in the household who's home at the time. . . . We try to go to the hardest to find first [the youngest male] if they are there." Questions asked include: the promotions they may have seen or purchased; the cigarette brands they have purchased in the last week; the type of store at which they purchase cigarettes; whether they are saving Marlboro Miles; their knowledge of certain brand images; promotion and advertising awareness; and the number and ages of all smokers in the household. Deposition of Carolyn Levy, People of the State of California v. Philip Morris, June 23, 1998, 19:1-30:25.

3669. Philip Morris has conducted extensive consumer research to help inform and shape marketing campaigns that appeal to their youngest potential smokers.

2048735500-5604 at 5505, 5518, 5531-5541, 5547, 5543, 5555, 5501, 5508 (U.S. Ex. 21,971) (Confidential); 2077682241-2255 (U.S. Ex. 88,164).

3670.

2048735500-5604 at 5565-5604, 5563-5564 (U.S. Ex. 21,971) (Confidential).

3671. On November 29, 1994, Shari Teitelbaum, Director of Marketing and Sales Decision Support for Philip Morris, wrote a draft memorandum to Karen Chaikin, Manager of Trade and Business Programs at Philip Morris, which summarized and attached the research results of the "Ohio Retailers Study." This memorandum showed Philip Morris's knowledge that underage purchase of cigarettes is frequent. In the memorandum, Teitelbaum concluded from the results reported in an attached table that: "It appears that minors attempting to buy cigarettes happen on a fairly regular basis. Approximately 85 percent of retailers say that minors under the age of 18 attempt to purchase cigarettes in their store <u>at least once a day</u>. Of these, more than half say this happens <u>at least three to four times a day</u>, including 16 percent saying this happens <u>ten times a day</u>." This conclusion and the corresponding table were omitted from the final version of the memorandum and attachment, which were sent on December 9, 1994. 2046828693- 8693 (U.S. Ex. 21,802); 2046828694-8697 (U.S. Ex. 21,803) 2046828612-8615 at 8612 (U.S. Ex. 20,479) (emphasis in original).

3672. A document entitled "Proposed Script for Marlboro Story," apparently drafted in 1995, traced the development of Marlboro advertising themes from the Marlboro Man to the Marlboro Racing Team and Marlboro Adventure Team. The document indicated that the Marlboro Man represented independence and rugged independence, whereas the promotional events Marlboro Racing Team and the Marlboro Adventure Team used themes of freedom and adventure. As discussed above, the Marlboro Adventure Team promotion was one marketing

tool recommended in the October 8, 1992 "PM USA Business Update" to obtain Philip Morris's "historic share amongst entry-level adult smokers." 2071349278-9281 (U.S. Ex. 20,526); 2046569728-9731 at 9728-9729 (U.S. Ex. 20,471).

3673. A Philip Morris document produced from the files of Joshua Slavitt, Director of Policy & Programs for Tobacco, Philip Morris Management Corporation, written in or after 1995, provided talking points in "Opposition to Ban on Slotting Allowances": "Self-service display advertising is an effective means to enhance awareness and encourage loyalty at the point-of-purchase for individual brands among adult smokers. Cigarette racks and promotional displays are positioned to help generate greater visibility and accessibility for adult smokers' favorite brands." 2063018737-8739 at 8737 (U.S. Ex. 85,164).

3674.

2040171445-1455 at 1445, 1446 (U.S. Ex. 37,478) (Confidential).

3675. Susan Norris, a fifteen-year Philip Morris employee and former Marlboro Brand Manager from 1995-1999, testified at her July 31, 2003 deposition in this case that during her tenure as a Brand Manager for Marlboro she attended "at least one presentation" on Generation X regarding "attitudes, lifestyles, trend, trend changes, trend forecasts as it relates to young adults. I assume younger adults." Norris testified that the presentation was either given by the Philip Morris consumer research department or an outside consumer research department brought in by the Philip Morris consumer research department. Norris testified that the presentation was attended by Philip Morris marketers and employees from the consumer researcher department. Norris further testified that she attended the presentation because "to the extent that I was working on Marlboro programs or new products, I needed to understand what young adults were thinking. So certainly that would have been important for general knowledge as a marketer." Norris testified that she was unaware of what age groups Generation X encompassed at the time she attended the presentation. Deposition of Susan Norris, United States v. Philip Morris, et al., July 31, 2003, 254:12-257:8.

3676. Nancy Lund, Senior Vice President of Marketing at Philip Morris, testified at her June 27, 2002 deposition in this case

Currently Philip Morris's cigarette displays are consolidated behind the counter at retail outlets, and its point of sale materials are similarly placed.

Deposition of Nancy Lund, United States v. Philip Morris, et al., June 27, 2002, 200:25-203:9; 2073194491-4524 at 4493, 4494 (U.S. Ex. 42,869) (Confidential).

3677. A February 1, 1995 letter on Leo Burnett letterhead from Esther Terrell Franklin, then researcher for Leo Burnett, addressed to Susan Norris, Marlboro Brand Manager from 1995-1999, delivered an attached study entitled "Insight: A Look at Today's Young Adults." In the letter, Franklin wrote: "*InSight* is part of a larger project, Young Adult Trend Track, initiated by the Philip Morris research group. The purpose of this project is to keep the entire Philip Morris team abreast of the current lifestyles of young adult consumers." Under the heading "Notes from the Editor," Franklin, listed as Editor-In-Chief, explained the purpose of the project: "[t]his booklet (and the editions which will follow) will help you gain a clearer understanding of [Generation X], by giving you a sense of their hearts, their minds, their souls. And by beginning to better comprehend the young adult mindset, advertising to this segment can be truly inviting, impactful and influential." Half of the study's participants were non-smokers. At her July 31, 2003 deposition in this case, Norris was unable to identify what age groups Generation X

encompassed in 1995 when she received the study. 2041601887-1931 at 1888, 1889, 1891 (U.S. Ex. 38,213); Deposition of Susan Norris, United States v. Philip Morris, et al., July 31, 2003, 238:25-250:6.

3678.

2071443747-3788, 3749, 3767, 3768-3772 (U.S. Ex. 40,459) (Confidential) (emphasis in original).

3679. In 1995, Philip Morris decided to attempt to expand its Virginia Slims target audience, previously age 25-44, to include younger women aged 18 and older. Philip Morris conducted marketing research itself and also contracted with third parties for research on women 18 plus.

2045812333-2387 (U.S. Ex. 38,490) (Confidential).

2063684453-4480 (U.S. Ex. 39,819) (Confidential).

2045592024-2082 (U.S. Ex. 38,432) (Confidential).

2063684304-4306 (U.S. Ex. 70,272) (Confidential). To effectively reach these smokers, Philip Morris conducted qualitative research "to understand the attitudes that are relevant to switching

from a . . . herd brand to a non-herd brand and to . . . explore both product and imagery associated with those two categories of brands and to provide input on new product concepts that might be available for Virginia Slims." Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002 148:12-18; see also 2063684338-4340 (U.S. Ex. 39,817) (Confidential).

3680.

2071580565-0605 at 0565-0566 (U.S. Ex. 20,528) (Confidential); 2071580567-0605 at 0596, 0601-0605 (U.S. Ex. 40,489) (Confidential)..

3681.

2047152000-2029 at 2001, 2003 (U.S. Ex.

23,948) (Category I); 2063684341-4371 at 4342 (U.S. Ex. 39,818) (Confidential); see also 2072047214-7216 (U.S. Ex. 24,585) (Category I)

3682. Using this research, Philip Morris designed a new campaign 'It's a Woman Thing' and a bar program aimed at women aged 18 and older; this campaign was launched after June 1995 and successfully increased Virginia Slims's share of women 18 to 24. A set of talking points for a presentation given by Szymanczyk in late 1998 or early 1999 referred to Virginia Slims's growth of market share among women 18 to 24 in 1997 or 1998 and stated: "Virginia Slims growth among women 18 to 24 years old driven by new 'It's a Woman Thing' campaign and 'Dueling Diva's' bar program." 2070672027-2027 (U.S. Ex. 85,189); Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002 176:9-178:12.

3683.

2040171445-1455 at 1445 (U.S. Ex. 37,478) (Confidential). While discussing the document during her June 25, 2002 deposition in this case, LeVan agreed with the statement: "Marlboro scores by far and away the highest in terms of brand usage and smoking incidence among 18 year olds." Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002 185:19-22.

3684

2045596130-6141 (U.S. Ex. 20,462) (Confidential); 2045719095-9180 at 9097 (U.S. Ex. 38,484) (Confidential).

3685.

2045592699-2709 (U.S. Ex. 38,434) (Confidential); 2040180022-0049 (U.S. Ex. 37,487).

3686. In a September 19, 1995 Philip Morris memorandum entitled "Parliament Lights Menthol Blind Tasting," authored by Melissa Jeltema, a Philip Morris scientist, and addressed to Shelby Rafferty and George Yatrakis, Jeltema wrote that: "**Interest in this product will likely come from a variety of sources, including new smokers**." 2051835270-5271 (U.S. Ex. 38,803) (emphasis added).

3687.

2072953301-3316 at 3302, 3314 (U.S. Ex. 42,434) (Confidential).

3688.

2079012906-2976 at 2910 (U.S. Ex. 22,675) (Category I).

3689.

2040181458-1531 (U.S. Ex. 37,489) (Confidential); 2045729000-9065 (U.S. Ex. 85,190).

3690

2041518797-8956 at 8820 (U.S. Ex. 23,907) (Category I).

3691.

2072516263-6267 at 6263 (U.S. Ex. 41,558) (Confidential).

3692.

2072953279-3296 at 3279, 3287 (U.S. Ex. 42,433) (Confidential).

3693. A 1996 telephone study produced by Philip Morris USA surveyed 850 smokers on "the appeal of racing in key demos in order to assess its viability as a national marketing equity." The study concluded that "[r]acing imagery and Marlboro 'fit' on a number of levels" because racing "[o]verlaps core imagery of confidence, determination masculinity, independence and control. . . . Reinforces Marlboro's status as a popular, worldwide brand. . . . Lends an upbeat

tone of excitement, competitiveness, dynamism, challenge and 'edginess' to brand image [and] Provides relevant, aspirational but obtainable images." Additionally, "traits associated with the drivers are consistent with those often mentioned for the cowboy - masculinity, confidence, strength, determination, independence and skill." In sum, "[r]acing as a communication vehicle (i.e. calendar, newsletter, advertising) has strong national potential, particularly among YAS by communicating values of masculinity, independence and strength . . . excitement, color and cutting edge modernism to the base image." 2072475100-5149 at 5102, 5122, 5123, 5148 (U.S. Ex. 85,191).

3694.

2072953660-3671 at 3661 (U.S. Ex. 42,460) (Confidential).

3695. A December 1996 Philip Morris document included a chart entitled "Marlboro Racing, Who attends Indy Racing?" which showed that 5.5 % of individuals who attended Indy racing were younger than age 18, and 17.3 % were ages 18 to 25. 2063690496-0500 at 0499 (U.S. Ex. 70,273).

3696. A December 10, 1997 Philip Morris memorandum from Craig Johnson, Senior Vice President of Sales, to his Field Sales Force stated: "Strong execution of both Retail Masters

values and our national promotional events have yielded impressive results for Marlboro in 1997 . . . . Our concern, however, is a trend that we have identified over the last few months, which shows that the sales momentum that Marlboro enjoyed earlier in the year has begun to slow down." To counteract this trend, "we already have aggressive promotional plans in place for the next several months . . . [and] Marlboro will have at least three times the POS presence of any other brand in the store." 2063451749-1750 at 1749 (U.S. Ex. 70,270) (emphasis in original); 207294612A (U.S. Ex. 87,795).

3697.

2073966872-6883 at 6875 (U .S. Ex. 70,637) (Confidential).

2063007459-7477 at 7464, 7465, 7466 (U.S. Ex. 70,269) (Confidential).

3698. Prior to the MSA, and prior to Philip Morris's development of its Print Leadership Initiative, Philip Morris had a leadership program in outdoor advertising that was designed to get "great locations on great expressways." Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 115:20-117:2.

3699.

2082512930-2986 at 2931, 2935, 2986 (U.S. Ex. 45,497) (Confidential).

3700.

2070770040-0109 at 0043, 0055, 0065 (U.S. Ex. 24,536) (Category I).

3701. In order to counteract its dropping share of so-called "young adult smokers," Philip Morris launched new Retail Visibility and Bar Event Programs, as well as related magazine and newspaper advertisements

20 4 at 3600, 3608 (U.S. Ex. 24,574) (C onfidential) (emphasis added).

3702.

(U.S. Ex. 42,807) (Confidential) (emphasis added); Deposition of Susan Norris, United States v. Philip Morris, et al., July 31, 2003, 227:10-238:10 (Confidential).

3703.

2073056263A-6264 at 6263E, 6263G, 6263J, 6263M (U.S. Ex. 25,750) (Confidential); see also LB0170038-0053 (U.S. Ex. 25,906) (Confidential).

3704.

At her June 27, 2002 deposition in this case, Philip Morris Senior Vice President of Marketing Nancy Lund confirmed that these programs were launched "to increase [Philip Morris's] share of young adult smokers." LB0170036-0037 (U.S. Ex. 25,905) (Confidential); 2073056243-6263 at 6243, 6245 (U.S. Ex. 21,818) (Confidential); Deposition of Nancy Lund, United States v. Philip Morris, et al., June 27, 2002, 195:23-196:13; 2072353182-3193 (U.S. Ex. 87,796); 2072353167-3178 (U.S. Ex. 87,797); 2072353152-3163 (U.S. Ex. 87,798); 2072353137-3148 (U.S. Ex. 87,799); 2072353198-3109 (U.S. Ex. 87,800); 2072353085-3096 (U.S. Ex. 87,801); 2072353124-3135 (U.S. Ex. 87,802); 2072353111-3122 (U.S. Ex. 87,803).

3705.

2081804781-4820, 4786 (U.S. Ex. 45,449) (Confidential).

3706. A new Marlboro promotion called "Cowboy's Place," created by Philip Morris's advertising agency, Leo Burnett, for Philip Morris's Marlboro brand was described in a document dated February 2, 1999. The document acknowledged that Marlboro's traditional advertising image "plays on the '**approaching adulthood**' side . . . [featuring] independence," and compared that to the "competition" - specifically, Camel and Newport - whose advertising

LB0090212-0230 (U.S. Ex. 33,211) (Confidential) (emphasis added).

3707. A Leo Burnett document entitled "Virginia Slims - Stuck in the Seventies" establishes that Philip Morris initiated the "Find Your Voice" campaign in 1999 to make Virginia Slims more appealing to younger women. The document stated that "Find Your Voice" advertisements "will begin running in December 1999 publications" and predicted subsequent "volume growth" for Virginia Slims cigarettes. LB0131023-1026 at 1023, 1026 (U.S. Ex. 33,402).

3708.

2070648930-8964 at 8954 (U.S. Ex . 24,534) (Confidential). During her June 25, 2002 deposition in this case, Suzanne LeVan testified that this presentation was given to Philip Morris employees on June 25, 1999 by Michael Peters from the Leo Burnett Company. LeVan confirmed that "brand loyalty," as captured by this presentation, was a concept that was frequently internally discussed at Philip Morris. LeVan defined "brand loyalty" as "in fact this idea [referring to the quote from the presentation] – that premium tobacco brands and smokers are very highly loyal and that they don't switch brands very often." Deposition of Suzanne

LeVan, United States v. Philip Morris, et al., June 25, 2002, 225:15-228:12.

3709.

2080490740-0774, 0746-0747, 0760, 0765 (U.S. Ex. 70,717) (Confidential).

3710. A December 6, 1999 email from Paula Desel to Kevin Osborne of PMMC's Legal Department demonstrated that, as of that date, Philip Morris was still sending coupons via the mail to individuals for whom they had no Government Issued Identification ("GIID") such as a drivers license proving that they were 21. 2081039079A-9079A (U.S. Ex. 27,793).

3711. Philip Morris increased its media presence in 1999

2071230813-0888

(U.S. Ex. 40,404) (Confidential). Philip Morris increased its spending on placing advertisements in media in 1999. 2085313660-3660 (U.S. Ex. 85,193); 524941712-1722 (U.S. Ex.87,804).

3712.

2073970989-1050 at 0991, 1049, 1050 (U.S. Ex. 24,685) (Confidential).

3713.

Marlboro Lights, and Marlboro Ultra Lights. 2080985436-5438 at 5436 (U.S. Ex. 45,363) (Confidential).

3714.

2701400725-0738 at 0725, 0726 (U.S. Ex. 46,092) (Confidential).

3715. Contrary to its assertions that the goal of its marketing was to maintain brand loyalty and to get adult smokers to switch to their brands rather than to attract new smokers, as recently as 2001, Philip Morris tracked industry volume of cigarette sales on a weekly basis.

2700100027-0057 (U.S. Ex. 25,647) (Confidential); Deposition of Roy Anise, United States v. Philip Morris, et al., May 3, 2002, 19:16-25.

3716. Starting in the calendar year 2001, Philip Morris implemented a new marketing strategy called "Focus on Four." This strategy was "a way of focusing [PM's sales force] resources . . . both monetarily as well as manpower on four brands: Marlboro, Virginia Slims, Parliament and Basic. These brands contribute most to Philip Morris's business objectives; even if Parliament does not have the largest market share nationally, it has the largest market share in Northeast region." Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25,

2002, 40-43.

PM3000540103-540118 at 0111 (U.S. Ex. 88,649) (Category I).

PM3000613782-3913 at 3879 (U.S. Ex. 88,647) (Category I).

3717.

2067198070-8071 at 8070 (U.S. Ex. 85,194) (Confidential).

3718. At her April 16, 2002 deposition in this case, Shari Teitelbaum, Director of Marketing and Sales Decision Support at Philip Morris, testified that Philip Morris markets its products to smokers 18 years old and older. Teitelbaum testified that Philip Morris continues to conduct extensive research into the preferences of young smokers beginning at age 18, in focus groups, triads, and in-depth one-on-one interviews. Deposition of Shari Teitelbaum, United States v. Philip Morris, et al., April 16, 2002, 77:21-78:25.

3719. At his May 31, 2002 deposition in this case, Michael Mahan, Vice President of Marketing and Sales of the Asia-Pacific Region for Philip Morris, testified that Philip Morris markets its products to smokers 18 years old and older, and further testified that some of Philip

Morris's marketing efforts such as bar night programs are specifically directed toward young adult smokers which he defined as smokers age 18 to 24. Mahan testified that Marlboro's "prime target" is young adult smokers. Mahan testified that he attributes Marlboro's overall success to the original positioning of the brand, good marketing, and a good quality product. Mahan described Philip Morris's communication strategy for Marlboro as using high-quality visuals and focusing advertising on the core elements of the campaign, which are "Come to where the flavor is" and "Marlboro country." Mahan also admitted that point of sale promotions in retail stores used by Philip Morris to this day, as well as advertisements on the back covers of magazines used by Philip Morris until late 2000, could be seen by children. Deposition of Michael Mahan, United States v. Philip Morris, et al., May 31, 2002, 76-77, 84-85, 186-194, 120:20-122:2.

3720. Suzanne LeVan, Vice President of Marlboro and former Vice President of Philip Morris Premium Brands, has been a Philip Morris employee since December 1991. At her June 25, 2002 deposition in this case, LeVan testified that, as current head of the Marlboro brand group, she is the highest level person at Philip Morris who is responsible for marketing Marlboro. LeVan testified that Marlboro's brand image has not changed since 1954. Marlboro's brand imagery is an "image that portrays quality, freedom, independence, adventure, and the gateway to the American frontier, the American West." While LeVan testified that Philip Morris did not "want people that are currently not smoking to smoke," she also admitted that if there were no new smokers, but only existing smokers, Philip Morris would eventually go out of business. Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002, 124:14-17, 221:10-221:14.

3721. At her June 25, 2002 deposition in this case, LeVan testified that: "[A]dvertising is a vehicle which . . . had a broad reach, that could in fact reach children, and it certainly reached adults who did not choose to smoke." Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002 261:13-23.

3722. At her June 27, 2002 deposition in this case, Nancy Brennan Lund conceded that tobacco marketing has an impact on the smoking habits of minors. Deposition of Nancy Lund, United States v. Philip Morris, et al., June 27, 2002, 58:19-60:11 41:5-43:12.

3723. At her June 11, 2002 deposition in this case, Ellen Merlo, Senior Vice President at Philip Morris, admitted that she was aware that Marlboro was the leading cigarette brand smoked by minors, and that Philip Morris has not "taken issue" with this statistic or undertaken to determine whether this conclusion was inaccurate. She also admitted that she was aware that over 80% of smokers start smoking before they turn 18. Deposition of Ellen Merlo, United States v. Philip Morris, et al., June 11, 2002, 42:22-45:15, 48:2-48:6.

3724. Notwithstanding its public statements that it intends to market only to adults 21 years of age and older,

PM3002956620-6692 at 6624, 6692 (U.S. Ex. 88,650) (Confidential).

(d) Liggett Knew That Its Public Statements Were False and Misleading

3725. Liggett, like the other Cigarette Company Defendants, was well aware of the import of the youth market, and designed its advertising and marketing to appeal to youths. For instance, Liggett's Chesterfield advertisements portrayed cowboys smoking Chesterfields. (U.S. Ex. 88,724) (*Life* 1953); (U.S. Ex. 88,721) (*Life* 1953). Another Liggett advertisement featured a group of young individuals on a beach, with surfboards and rafts, and in the foreground a cartoon king and lion touted Chesterfield Kings. (U.S. Ex. 87,487) (*Time* 1985). Liggett marketed various Christmas editions of its brands, including Oasis, which featured Santa Claus on its carton. (U.S. Ex. 86,676) (1958 "Best to give-best to get!" advertisement). Liggett's Chesterfield advertisements also featured Hollywood and sports celebrities. LATH00309237-9237 (U.S. Ex 88,026); LATH00309303-9303 (U.S. Ex 58,896); LATH00309329-9329 (U.S. Ex 88,027); LATH00309323-9323 (U.S. Ex 71,456); LATH00309300-9300 (U.S. Ex 71,455); LATH00309301-9301 (U.S. Ex 88,028); LATH00309374-9374 (U.S. Ex 88,029); see also LATH00309330-9330 (U.S. Ex 88,030) (Camel advertisement featuring baseball celebrities).

3726. Liggett's Board of Director Minutes dated August 17, 1960 indicate that Liggett purchased advertising time for NCAA football games and that its L&M Filters brand sponsored one of the college football bowl games. The minutes also indicate that Liggett used L&M, Chesterfield, and Oasis brand cigarettes to sponsor a college football contest at 100 colleges. Liggett's Board of Director Minutes dated September 21, 1960 indicate that Liggett's participation in the NCAA college football telecasts "enabl[ed] [Liggett] to attract the attention of the young college audience, a group always difficult to reach." LMIN000001249-1251 (U.S.

Ex. 85,195); LMIN00001252-1255 at 1254 (U.S. Ex. 85,196).

3727. Liggett's Board of Director Minutes dated April 19, 1961 stated that Liggett sponsored television programs such as "Gunsmoke," "The Twilight Zone," and "Dr. Kildare." Liggett also sponsored the television show "Way Out," and in its corporate minutes Liggett stated that such sponsorship "appears to be attracting a young audience which we have had difficulty in reaching heretofore." LMIN000001301-1304 at 1303 (U.S. Ex. 85,197).

3728. Liggett advertisements for its L&M brand featured a cartoon character named Zoltan the Gypsy Chief. In a 1963 advertisement, Zoltan discovered "that every puff of an L&M taste [was] as good as the first." A colorized version of the "Zoltan the Gypsy Chief" was featured in advertisements in 1969. (U.S. Ex. 87,208) (*Life* 1969). Other advertisements featured parachutists, race car drivers, and people playing on the beach. (U.S. Ex. 87,497) (*Esquire* 1972); (U.S. Ex. 87,501) (*Esquire* 1972); (U.S. Ex. 87,485) (*Time* 1972); (U.S. Ex. 87,486) (*Time* 1972); (U.S. Ex. 87,496) (*Esquire* 1972); (U.S. Ex. 87,500) (*Esquire* 1972); (U.S. Ex. 87,499) (*Esquire* 1972); U.S. Ex. 87,488 (*Time* 1975); U.S. Ex. 87,503 (*Esquire* 1985); U.S. Ex. 87,503 (*Esquire* 1985); (U.S. Ex. 86,680); (U.S. Ex. 86,678).

3729. Liggett's Executive Committee Minutes dated June 4, 1963 indicated that Liggett was advised by R. B. Walker, American Tobacco Company, of his surprise that Liggett had contracted for sponsorship participation of the "Jamie McPheeters" television show that featured a 12-year old boy. Walker advised Liggett that advertisement of cigarettes on this program might be questioned since the television show might be viewed by young people. Liggett's Executive Committee felt the idea that advertising on this show would appeal to youth was "far fetched."

LMIN000005080-5082 at 5081 (U.S. Ex. 87,805). Liggett's Executive Committee Minutes dated November 6, 1963 stated that Liggett later cancelled its advertising on the "Jamie McPheeters" television show because of poor ratings. LMIN000005096-5097 at 5097 (U.S. Ex. 85,149).

3730. Francis K. Decker, Jr., of Webster Sheffield Fleischmann Hitchcock & Brookfield sent an August 9, 1968 letter to Frederick P. Haas, Vice President and General Counsel of Liggett, with an attached abstract of an article on student smoking in an unnamed city in the Soviet Union. The article indicated that "at a particular high school in the Soviet Union approximately 50% of vocational high school students were smokers. All this was achieved without advertising." LG2011235-1235 (U.S. Ex. 21,207).

3731. On March 20, 1997, Bennett LeBow, Chief Executive Officer of Vector Tobacco and controlling shareholder and Chief Executive Officer of Vector Group, the holding company that is 100% owner of both Liggett, Vector, and Liggett Vector Brands, testified that "Liggett acknowledges that the tobacco industry markets to youth, which means those under 18 years of age, and not just those 18 to 24 years of age." Testimony of Bennett LeBow, Howard A. Engle v. R.J. Reynolds Tobacco Co. (94-08273), June 22, 2002, 55,408.

3732. In his September 27, 1997 deposition, Bennett LeBow confirmed that his attorneys, after reviewing Liggett documents, informed him that the Cigarette Company Defendants targeted young people with their advertising and marketing. LeBow testified that the purpose of targeting young people was "to try to keep people smoking, keep their [cigarette] business going," because, if young people did not start smoking, the Cigarette Company Defendants would "have no business in this generation." LeBow also testified that his attorneys

told him that they found some Liggett documents that indicated that Liggett cigarette marketing had been targeted at the young. Testimony of Bennett LeBow, State of Minnesota v. Philip Morris Inc., et al., (C1-94-8565), September 27, 1997, 69, 100.

3733. On November 2, 2000, Liggett stated that "it acknowledges that the tobacco industry has marketed to youth, which means those under 18 years of age, and not just those 18-24 years of age." Answer of The Liggett Group, Inc. to Plaintiff's Complaint For Damages and Injunctive and Declaratory Relief, United States v. Philip Morris, et al. (served November 2, 2000).

3734. At his June 21, 2002 deposition in this case, LeBow reaffirmed his earlier admission that the Cigarette Company Defendants targeted youths. Deposition of Bennett LeBow, United States v. Philip Morris, et al., June 21, 2002, 95:10-96:11.

(e) Lorillard Knew That Its Public Statements Were False and Misleading

3735. A document entitled "Lorillard Military Market Proposals 1963" stated that: "The military market, on the whole, tends to be young and impressionable; 68% of them currently are 25 years of age and under. In fact, the median age is 22.9 years. Thus, it follows that the majority now in the service, and those entering and leaving, are at an age where future buying habits are being formed. Many brand preferences are established in the service years that carry through the rest of their lives." 91523841-3856 at 3842 (U.S. Ex. 25,787).

3736. A July 24, 1963 letter from Shirley Young of Grey Advertising to Richard F. Kieling, Director of Market Research at Lorillard, discussed a Lorillard study which sampled the smoking behavior of students as young as 16 years of age. 89834681-4684 at 4681 (U.S. Ex.

21,108).

3737. A November 8, 1963 letter from Nicholas E. Keesley, Senior Vice President, Radio-Television, Lennen & Newell to Manuel Yellen, Vice President at Lorillard, enclosed a picture of two adults with a child of about twelve examining a cigarette package. In the attached note, Keesley wrote: "There's nothing like starting them out young! 'Ritchie' is a wonderful little guy and, while he doesn't smoke, he tells me he talks up Newport all the time." 84409798-9799 (U.S. Ex. 21,075).

3738. Manuel Yellen wrote a September 15, 1964 memorandum entitled "Lorillard Sales Position" to Morgan J. Cramer, Lorillard President and Chief Executive Officer. In this memorandum Yellen stated that Lorillard marketed Newport as "a 'fun cigarette'. . . . It was advertised as such and obtained a youthful group as well as an immature group of smokers." 01124257-4265 at 4262 (U.S. Ex. 20,033).

3739. On June 2, 1966 Lorillard sent a letter authorizing Grey Advertising to conduct a "Penetration/Usage/Image" study designed to examine the success of Kent and True marketing. The letter indicated that the study's results "will be tabulated out for the age cell of 16 thru 20 years, in order that we may analyze this group separately." 89834271-4271 (U.S. Ex. 20,943).

3740. In 1966 and 1969, Eastman Chemical Products, a subsidiary of the Eastman Kodak Company, conducted extensive surveys of cigarette smoking behavior and attitudes that it provided to Lorillard. The introduction to the first volume of Eastman's 1969 study of cigarette smoking behavior and attitudes provided to Lorillard noted that: "[i]n the 1966 survey group interviews, only adults aged 18 and over were included . . . However in 1969 a better insight into

the habits and attitudes of the younger age groups was needed . . . So this [group interview] phase of the survey was concentrated on young people ranging in age from 12 to 24 years." 81560431-0496 at 0438 (U.S. Ex. 85,200).

3741. Also in the first volume of Eastman's 1969 study of cigarette smoking behavior and attitudes provided to Lorillard, Eastman looked closely at smoking initiation behavior of individuals aged 7 to 21. Eastman found that over thirty percent of young males obtained their first cigarette, not from parents, friends or relatives, but from buying it (over 10%), stealing it (over 15%), or making it (nearly 10%). Both boys and girls reported about equally that their first cigarette made them feel grown-up. Among the subset of interviewees 16-24 years of age, nearly 20% of males and over 10% of females reported feeling "big," while nearly 20% of both sexes mentioned confidence and security as reasons why they started smoking. The study also examined regular smoking among youth ages 13 and up. 81560431-0496 at 0454-0455, 0465-0471 (U.S. Ex. 85,200). The second volume of Eastman's 1969 study of cigarette smoking behavior and attitudes included a survey of the literature published between 1967 and 1969 on the smoking behavior of children as young as 11, as well as teenagers. 81560497-0541 at 0500-0508 (U.S. Ex. 85,201).

3742. On August 13, 1970, Philip Gaberman, creative director for Robert Brian Associates, was involved in creating a new package design for Lorillard's Kicks cigarettes brand. Gaberman wrote a letter to Professor Charles Seide of Cooper Union, an art college, proposing the use of Seide's students in creating the Kicks package design. The letter stated: "We're adults. You've got a group of talented kids. Hence this letter. We have been asked by our client to come

up with a package design . . . a design that is attractive to kids . . . (young adults). We were wondering if this project might serve as a challenging assignment for your package design class(es). . . . Note: While this cigarette is geared to the youth market, no attempt (obvious) can be made to encourage persons under twenty-one to smoke. The package design should be geared to attract the youthful eye . . . not the ever-watchful eye of the Federal Government." 92352889-2890 (U.S. Ex. 21,725). A January 1970 article in Consumer Reports reported that "[t]he art school ignored the letter." 00486113-6113 (U.S. Ex. 85,202).

3743. A February 1972 Lorillard report entitled "The Menthol Cigarette Market – A Summary" stated that "[t]here is a wide difference among Menthol brands, with Newport and Kool far more heavily youth oriented by volume than Salem." 89824702-4785 at 4734 (U.S. Ex. 32,092).

3744. F.B. Satterthwaite, a Lorillard employee, wrote a June 7, 1973 memorandum to Lorillard President Curtis H. Judge, regarding Lorillard's analysis of its own and its competitors' brand shares by age. Satterthwaite stated that:

> The company analysis, based on cumulative brand shares by age group, though correct as far as it goes, is misleading. The favorable trends toward youth for R.J. Reynolds, [Philip Morris] and Brown & Williamson are completely explained by three brands - Winston, Marlboro and Kool, respectively. Without these three brands these companies present an older age pattern similar to the other two companies. The exclusion of Newport from their most recent period is detrimental to the overall Lorillard pattern.

91270029-0030 at 0029 (U.S. Ex. 21,109).

3745. Charles W. Toti, Marketing Group Director of Product Development at Lorillard, sent an inter-office memorandum dated October 24, 1974 entitled "Young Adult Extra Effort -

Newport" to Robert J. Ave, Executive Vice President of Marketing for Lorillard. Toti recommended in this memorandum "that Newport institute a special advertising promotion effort against the young adult." 85561072-1079 at 1072 (U.S. Ex. 21,079).

3746. A report entitled "A Special Presentation for Lorillard . . . Cigarette Advertising 1974-1975" by Gallup was produced from Lorillard's files. In the report's "Magazine Impact Research" section, the effectiveness of advertising in particular magazines was gauged, including in the category of "Glamour (Age 15-34)" magazines such as, among others, *Seventeen* and *Teen*. 03280646-1046 at 0658 (U.S. Ex. 20,054).

3747. E.J. Greene, a Lorillard regional sales manager, sent a letter dated March 17, 1975 to A. Judson Bass, Lorillard Vice President of Sales, which stated that "[t]he Newport T-Shirt offer for March is great for the displays around colleges where younger people congregate." 91529144-9146 at 9145 (U.S. Ex. 21,111).

3748. A document dated June 10, 1975 contained the script of a speech given by Curtis Judge to a "Maxwell Tobacco Seminar" describing Lorillard's marketing strategy for the latter half of the 1970s. In his speech, Judge stated: "Recent research indicates the Old Gold brand smoke profile has changed dramatically over the past few years from an older, blue collar market to a young adult market with better education and better income. We are currently testing new marketing efforts which are designed to develop strong appeal for Old Gold among this target audience." Judge also discussed Zack, a new filter cigarette "designed to find a place within today's casual, young adult lifestyle." 01424199-4215 at 4207, 4208 (U.S. Ex. 20,051).

3749. An August 11, 1975 document prepared by the Marketing Corporation of

America for Lorillard regarding new products stated that "the reasons behind Lorillard interest in additional entries into the market include: . . . the need to attract young smokers, particularly young male smokers to the Company's total franchise." 03366372-6382 at 6378 (U.S. Ex. 20,056).

3750. An August 22, 1975 memorandum entitled "Progress Report - Zack Filter and Menthol" from R.E. Ritchie to A.J. Bass at Lorillard reported that "retailers continue to comment that the majority of consumers are younger people between 14 to 25 years of age. Sales from types of accounts like convenience stores continue to support these comments. I feel another sample program is needed with emphasis placed in the suburban areas where the younger people can be reached, and this to be done with outside samplers." 91529112-9114 at 9112 (U.S. Ex. 21,110).

3751. A November 1976 report entitled "Lorillard 1976 Switching Study Summary" prepared by Marketing Corporation of America for Lorillard concluded that one of the "major findings supporting the specific moves underway or in development behind established and new brands" was:

> Enriched Nicotine – This directly addresses the finding that there is less satisfaction among current super-fi smokers than smokers in general, provides Lorillard with an opportunity to get at younger smokers interested in the cigarette controversy (something only being accomplished by Merit, if you exclude 'lights'), increases the chances to satisfy the taste/impact expectations of newcomers to the category, and offers and opportunity for a pre-emptive strike at brands promising 'lowest' numbers.

03296482-6544 at 6502 (U.S. Ex. 46,455).

3752. In a June 10, 1977 Lorillard memorandum from J. Gordon Flinn, Director of

Market Research for Lorillard, to company president Curtis Judge, Flinn projected that, of the 55 million smokers in 1977, teenagers aged 14 to 17 accounted for 28% of the total. 03357069-7070 at 7069 (U.S. Ex. 20,055).

3753. At a March 27, 1978 Lorillard field sales representatives seminar, several marketing ideas for Newport cigarettes were discussed. Discussion subjects included: sponsoring youth sports teams; advertising featuring black athletes; tie-ins with pro sports teams; sports posters and bumper stickers; give-away sweat bands; tie-ins with record companies; scholarships for underprivileged youth; "Tie-in with any company who help black . . . Target group age 16+;" and sponsoring Miss Black Teenager contests. Also specifically discussed was "[h]ow to reach *Younger* Smokers: P.O.S. material, sampling, Black inner-city newspapers, Tee-shirt give aways." 85530255-0264 at 0262-0263 (U.S. Ex. 31,998).

3754. A June 9, 1978 Lorillard memorandum from Newport Assistant Brand Manager Robert Davis to J.R. Ave, Senior Vice President of Marketing, and T.H Mau, G. Flinn, J. Rowe, J. Greene, and E. Ricci was entitled "Black Marketing Research-Findings and Recommended Actions to Date." Davis stated in the memorandum that Newport was "definitely a starter brand . . . . Newport is identified as an 'entry' brand." Under the heading "Demographics," Davis stated: "Black Newport and Kool smokers are even younger than the switching data would indicate." The memorandum characterized the Newport brand profile as being "Age 18-30." Davis also indicated in his memorandum that Newport appealed to high school as well as college students, in competition with Kool, "the dominant entry brand in the inner city." Because inner city convenience stores lacked financial resources to hold inventories of many competing brands,

Davis recommended that, instead of forcing Kent and other brands on these retailers in addition to Newport, "the push should be for the brand with the most potential, usually Newport." Davis additionally recommended that Lorillard implement the recommendations discussed at the March sales seminar to market to teenagers: "Trial generating promotions, especially sampling;" "more frequency at the local level in newspapers;" and developing in-store and neighborhood promotional activities. Davis concluded that: "the key to sustained . . . growth in 'inner-city' areas is 'image' promotion somehow tied in with events and trial inducing devices." 85530255-0264 at 0255-0256, 0258-0260 (U.S. Ex. 31,998).

3755. An August 30, 1978 Lorillard memorandum from Ted Achey, Lorillard's Director of Sales in the Midwest, to company President Curtis H. Judge regarding "Product Information," demonstrates that Lorillard recognized the significance of the underage market to the company:

> The success of NEWPORT has been fantastic during the past few years. Our profile taken locally shows this brand being purchased by black people (all ages), young adults (usually college age), but **the base of our business is the high school student**. NEWPORT in the 1970's is turning into the Marlboro of the 60's and 70's. It is the 'In' brand to smoke if you want to be one of the group. Our problem is the younger consumer that does not desire a menthol cigarette. If that person desires a non-menthol, but wants to be part of the 'In' group, he goes to Marlboro . . . . I think the time is right to develop a NEWPORT NATURAL (non-menthol) cigarette to attract the young adult consumer desiring a non-menthol product . . . . A good test area might be the Camden, New Jersey Division.

03537131-32 (U.S. Ex. 22,357) (emphasis added).

3756. An October 24, 1978 memorandum from Kenneth Heidelberg of the advertising firm Foote, Cone & Belding to Connie Humphrey, Lorillard employee, discussed the conclusions of Lorillard's 1978 Switching Study Analysis. Heidelberg suggested approaching a "younger"

market for Kent. 03297149-7151 at 7149 (U.S. Ex. 21,490).

3757. A January 5, 1979 letter from Edward Ricci of MCA-Graham Advertising to Tom Mau, a future Lorillard Senior Vice President, regarding the appeal of Newport box stated that an advantage of the box was "attracting a greater percentage of young adult new entrants." 85087247-7254 at 7248 (U.S. Ex. 21,077).

3758. An August 11, 1981 memorandum from Tom A. Mau to various Lorillard employees attached a document entitled "Replies to 5-year Plan Questionnaire" which stated that "the easiest [brand] to keep riding is Newport. However, I think **we must continually keep in mind that Newport is being heavily supported by blacks and the under 18 smokers.** We are on somewhat thin ice should either of these two groups decide to shift their smoking habits." 01110993-1032 at 1030 (U.S. Ex. 20,031) (emphasis added).

3759. An October 1981 report prepared for Lorillard by the research firm Shoi Balaban Dickinson Research entitled "An Exploratory Study for Newport Smoking and Purchase Behavior of Young Adults" stated:

> One-half of these respondents began to smoke at ages 10 to 13 years, with most of the remainder starting to smoke between 14 to 17 years of age, with the pattern precisely equal between male and female respondents. Among these participants, it was rare to start smoking at an age older than 18 years. Marlboro and Newport were mentioned far more often than any other brands as the initial brand smoked. . . . Almost all of the respondents report current friends who smoke the same brand as the respondent, and there is a ready awareness of the brands their friends smoke. . . . One of the most striking findings is the very limited number of brands mentioned either as used by their friends or associated with smokers their own age.

The report further stated: "Both the male and female respondents thought of the typical Newport

smoker as 'young,' and both cited Newport as a brand used by those who are just starting to smoke." 84411662-1689 at 1669,1680 (U.S. Ex. 55,999); 83896981-7009 at 6989, 7000 (U.S. Ex. 55,927).

3760. A November 25, 1981 Lorillard memorandum from Laurie Moroz, Manager of General Marketing Research, to J.R. Ave entitled "Smoker Incidence by Age Groups" attached estimates of smoking incidence (the number of smokers) within 11 age groups for the total population. The incidence chart included smokers aged 13 to 17. The author relied on census bureau projections, internal "switching study data," and government studies on smoking among teenagers, and stated that "the teenage smoking figures are the least reliable." 03926040-6042 at 6040 (U.S. Ex. 20,065).

3761. An August 2, 1982 Lorillard memorandum from Florian Perini, Senior Research Chemist, to M.A. Sudholt, Manager of Analytical Development, on the subject of "Idea Session July 27, 1982 of the Tobacco Science Group" contained a proposal that "Video Game Imagery [be] incorporated in pack design (youth appeal) E.g., the widespread video game craze has certain fundamental features which we could be the first to exploit. Names such as PAC, SPACE INVADERS, TRON and their imagery can imaginatively show up on cigarette packs with repeat motifs . . . and patterns, and their bright imagery can have lasting appeal. Can extend concept to SPACE IMAGERY, (Galaxy Cosmos, Universe) (Perini and Bell)." 96509517-9519 at 9519 (U.S. Ex. 56,890).

3762. A March 14, 1983 Lorillard document regarding magazine and newspaper data detailed which magazines were likely read by teenagers 12 to 17 years old. The document stated

that: "[T]here is no reliable research on 12-17 year olds. Lorillard and its agencies use only the adults 18+ figures when analyzing media. . . . [T]here was a 1976 study that measured teenage readers but the firm (TGI) is no longer in business." In order to determine teenage readership, the document relied upon United States census figures to calculate the proportion of the population made up of teenagers, and derived teenage readership from that calculation: "Based on these figures, if we assume that teenagers read as much as their parents, then approximately 12% of any magazine readership would be teenagers." 04334493-4500 at 4494, 4497, 4499 (U.S. Ex. 20,067).

3763. Laurie R. Moroz, Manager of General Marketing Research at Lorillard, stated in a September 2, 1983 memorandum to Curtis H. Judge, President of Lorillard, that "because the number of teenagers is declining rapidly, even a stable smoking incidence would mean a declining number of entering smokers." 03922854-2854 (U.S. Ex. 21,755).

3764. A 1984 Lorillard document entitled "Kent marketing manager's conference speech presented by Mr. 'Monty' Kiernan, product manager, and Vickie Lamb [Assistant Brand Manager]," stated:

> A year ago we unveiled a new long-range plan for Kent. It targeted sharply against the new market of younger smokers and was based on new totally offensive marketing strategies. Every element in the brand's marketing mix has now been fine tuned. In 1985, we will move beyond the planning phase, we are into implementation. . . . You also know that with our industry under pressure and the competitive climate intensifying, any constraint to new user trial is unacceptable. . . . In recent years, entry level smokers . . . have gravitated to more artificial, smoother, fuller flavored brands. As a result the entire market is shifting . . . In 1985, Kent will make its move to meet this shift in consumer demand. We []now have every element in place. We have targeted advertising and

> promotional programs to pull us younger. Most importantly, [we] now have the product modification that can pull us up with no disruption to our user base. Combined, the totally integrated effort will drive Kent into a market growth position by mid-1985. By year's end, we should be strategically positioned to exploit maximum sales and profit opportunities.

04398447-8468 at 8447-8448, 8450 (U.S. Ex. 20,068).

3765. In February and March 1984, Lorillard conducted focus groups of young menthol smokers ages 18 to 24. A February 20, 1984 Lorillard document entitled "Topic Guide for Young Menthol Smokers" provided ways for an interviewer to gather information about young smokers. This document included a list of questions to ask young adults, including:

> 1) How many packs do you usually buy at a time? . . . 3) When do you buy cigarettes in a store, do you notice it if some brand has a special display? 4) Sometimes you might get a small free sample pack of a brand. Have you ever bought the brand later based on trying the sample? 5) How do you think of the cost of cigarettes compared to other things you buy – expensive, cheap, or what? . . . 8) Quite often there are brands on display that are being promoted at a lower price than other brands. When you see that type of offer do you ever take advantage of the lower price? . . . 10) What do you think of the idea of being able to buy cigarettes in packs of 10 cigarettes, which would be priced at half of what you now pay for a pack? Under what circumstances can you imagine yourself buying a 10-pack?

85377724-7729 (U.S. Ex. 21,078). A March 8, 1984 memorandum from S.T. Jones, Lorillard Director of Product Development and Marketing Research, to Laurie Moroz entitled "Young Menthol Focus Groups" discussed "observations and hypotheses" from these focus groups and stated: "the females in the 18 to 24 year old age group are more experimental and open to new brands than males." 85377682-7682 (U.S. Ex. 87,806); 85377680-7681 (U.S. Ex. 87,807).

3766. Lorillard's September 1988 "Newport Image Study" concluded that "in all areas

Newport smokers were viewed as party-goers, those that do their own thing and [are] fun-loving" and "in all areas Newport smokers were viewed younger and more fun-loving than Kool and Salem smokers." 89579737-9797 at 9784 (U.S. Ex. 67,673); 89576893-6936 at 6935 (U.S. Ex. 67,669).

3767. Richard DiDonato, Division Manager at Lorillard, wrote in a March 16, 1989 memorandum to R.H. Orcutt, Lorillard Senior Vice President of Sales and Marketing, entitled "Style Lights Progress Report" that large, bright, and extremely eye catching point-of-sale materials are helpful in gaining consumer awareness of the products. 89817995-7998 at 7995-7996 (U.S. Ex. 21,107). In a similar progress report entitled "Newport Slim Menthol Box 100's Progress Report," DiDonato wrote: "The P.O.S. is extremely effective, it perfectly targets our potential consumer. It conveys a crisp, clear message and is easy to read, resulting in the reinforcement of brand awareness and the stimulation of consumer trial." 92007692-7693 at 7693 (U.S. Ex. 57,157).

3768. A document written by Mike Gretz and Tom Marnell entitled "Database Marketing Proposal For Lorillard Brands" dated January 1990 stated that one of the "Uses of Database Marketing" was: "Overcoming the loss of some media- print media with high under 21 readership." 87533115-3137 at 3120 (U.S. Ex. 22,208).

3769. A document setting out strategies for Newport's Van and Music Truck Programs, Club Event Nights, Race Car Program, and other promotional events for 1991 and 1992 stated that the programs "maximize Newport's exposure to our target audience, where they live, and where they have fun." For example, the Newport Van Program sent out vans which acted as

"mobile billboards," for the purpose of "developing new business." The document explained that "[y]oung adult smokers, especially in inner-city areas, will tend to emulate those adults that are already smoking. . . . The targeted age factor plays a major role in selecting sampling locations." Regarding Newport's Special Events programs at music festivals and street fairs with "exceptionally large crowds," the document stated: "The promotional effectiveness of getting potential smokers to touch, hear, taste and see the activities we provide . . . must have the desirable impact in generating trial and positive recall for Newport." 93374749-4761 at 4756, 4757 (U.S. Ex. 85,204).

3770. The "Newport 1992 Strategic Marketing Plan" dated August 15, 1991 discussed Newport's "1992 Key Issues," which included "Fewer entry level smokers," and mentioned the importance of the "Alive With Pleasure" advertising campaign, coupled with price promotions, to "generate interest and trial among entry level smokers." Although the document stated that Newport's "primary target" was 18 to 24 year olds, Lorillard was well aware that the majority of smokers "entered" the cigarette market before the age of 18. 92011118-1156 at 1124, 1130, 1134, 1137 (U.S. Ex. 22,352).

3771. The "Newport 1992 Brand Plan" recommended marketing to the young adult market through print media "to increase brand awareness and reinforce brand image." 92278882-8951 at 8898 (U.S. Ex. 21,114); 92124650-4694 (U.S. Ex. 74,450).

3772. A 1992 Lorillard presentation on Kent stated that "Kent's franchise is one of the oldest of all cigarette brands (50+)" and that "one way to reduce Kent's smokers' median age is to to [sic] introduce substantially younger smokers (18-34) into the franchise." The presentation

also stated that "magazines are the only medium that allows us to target a particular demographic group." 94245877-5885 at 5877-5878 (U.S. Ex. 85,205).

3773. Lorillard's September 23, 1991 "Harley-Davidson Year I Strategic Marketing Plan" stated: "Harley-Davidson cigarettes are positioned to appeal to young adult male smokers, 18-24 years of age with high school educations, generally blue collar occupations as a brand which offers a unique smoking experience by virtue of its association with Harley-Davidson motorcycle imagery." 94258098-8143 at 8105 (U.S. Ex. 85,206).

3774. An August 17, 1993 letter from Ronald Goldbrenner, Lorillard Associate General Counsel, to Timothy K. Hoelter, Harley Davidson Vice President and General Counsel, indicated that Lorillard was still seeking a trademark license for the Harley Davidson name for use with a new cigarette brand. 88024283-4286 at 4284 (U.S. Ex. 21,105).

3775. In two letters, one dated August 17, 1993, and the other dated August 27, 1993, Timothy K. Hoelter wrote to Ronald Goldbrenner expressing Harley Davidson's concern that Lorillard's proposed upcoming cigarette advertising campaign to introduce its new Harley Davidson brand, especially when combined with the low price of the brand, would appeal to underage smokers. In fact, Hoelter indicated that Harley Davidson had hired a market research firm specializing in child research to evaluate the Lorillard advertising campaign, and that this firm had concluded that "the campaign will appeal to underaged children." 92330049-0050 (U.S. Ex. 21,115); 92670418-0419 (U.S. Ex. 21,760).

3776. By letter dated August 30, 1993, Goldbrenner responded to Hoelter's August 27 letter with a warning to Harley-Davidson:

> In your letter you refer to market research which Harley-Davidson has conducted. As you know, Lorillard's 'American Quality' campaign is an important trade secret, as are the timing and details of virtually all new products and advertising campaigns. Your letter raises serious concern on our part for the basic protection of very important Lorillard trade secrets. . . . Furthermore, if such research has been improperly conducted or analyzed, it may be very damaging to the reputation and business of Lorillard's disclosure, whether or not trade secrets are involved. . . . We would further appreciate your forwarding to us an immediate copy of the test results and methodology so that we will be better able to discuss this matter with you. We cannot impress upon you too strongly your obligation to maintain these materials in confidence and to permit us to review and validate the market research you describe so that we may properly assess this matter.

92670436–0437 (U.S. Ex. 57,194); 92670438-0438 (U.S. Ex. 57,195).

3777. On September 22, 1993, Harley-Davidson filed in the United States District Court for the Southern District of New York an Answer and Counterclaim against Lorillard. In this filing, Harley-Davidson recited that:

> On August 20, 1993 Harley-Davidson authorized KRC Research & Consulting ("KRC"), a firm which specializes in child behavioral research, to conduct an independent study to help determine whether Lorillard's promotional campaign is likely to appeal to children. . . . KRC conducted several studies of teenagers using various research methodologies. They conducted group discussions with teenagers in four different states. They interviewed 300 teenagers individually in several locations throughout the United States selected for their demographic diversity. In addition, they conducted a nationwide random sampling of 500 teenagers over the telephone. . . . Based on the data KRC collected and based on their experience with children, KRC advised Harley-Davidson on August 26, 1993, that Lorillard's intended promotional campaign for Harley-Davidson cigarettes would appeal to . . . children who are below the legal age to buy or smoke cigarettes. . . . Lorillard continued to refuse to reveal its test data and analysis about the likely effects of its promotional campaign, and Harley-Davidson inferred that the

> withheld data and analysis would have suggested possible or likely recruitment of underage persons.

93791722-1760 at 1754-1755 (U.S. Ex. 85,207).

3778. In another letter dated September 27, 1993, Hoelter wrote back to Goldbrenner stating that "Lorillard needs to recognize that, based on what we know now, Harley-Davidson cannot withdraw its pending veto without an agreement about changes to the proposed advertising campaign or additional data showing that the advertising steers clear of underage smokers." 88024194-4195 (U.S. Ex. 21,104).

3779. Despite Hoelter's letters protesting the appeal of Harley-Davidson cigarettes to underage persons, Lorillard proceeded to introduce the brand and marketed the cigarettes until 1996 when Lorillard replaced Harley-Davidson with another brand called Maverick. 94917017-7017 (U.S. Ex. 88,152); 92715334-5457 at 5440-5442 (U.S. Ex. 87,927).

3780. A "Newport #1 Menthol Fact Sheet," prepared by Victor Lindsley in April 1993, discussed Newport's "20 straight years of volume growth" beginning in 1972, which he credited to the brand's marketing: "To communicate the Brand's 'Pleasure' image among targeted smokers, the 'Alive with Pleasure' campaign was created. The campaign, which has remained unchanged over the past 20 years, is a reflection of the franchise in social situations, capturing highly original, relevant, pleasurable experiences with a unique visual twist." This campaign, coupled with "a powerful promotion plan," moved Newport all the way up to the "#1 Menthol Brand" and the #3 Brand in the nation. 89959484-9486 (U.S. Ex. 22,350); 899599500-9502 (U.S. Ex. 22,350).

3781. In a November 2, 1993 memorandum sent to Lorillard employees on the subject

of "Special Promotions - POS! Pleasure on Wheels," Richard DiDonato wrote: "POW is a promotional program that utilizes Newport vans, operated by agency personnel, to distribute promotional items to Newport purchasers. The objective of the POW program is two fold:

- Generate incremental volume thru [sic] impulse purchase and long term conversion
- Reinforce Newport's image as the 'peer brand' among young adult smokers."

92092650-2651 at 2650 (U.S. Ex. 57,159).

3782. Newport's 1994 Brand Plan, dated November 16, 1993, stated that "Newport's creative product must strengthen Newport's competitive edge as the 'peer' brand among younger adult smokers," and that Newport is "positioned to appeal primarily to general market/urban center adult smokers ages 18-24." 91945017-5124 at 5033, 5045 (U.S. Ex. 21,113); 92002948-3012 (U.S. Ex. 87,808); 92003013-3021 (U.S. Ex. 87,809).

3783. A January 1994 document entitled "Final Report on Eight Focus Groups with Black and White Users of Newport, Salem, and Kool Cigarettes on Issues Related to Newport Cigarettes and its Advertising Campaign" was prepared by RIVA Market Research for Lorillard. In the "Executive Summary," the report stated that "Black Newport smokers perceive Newport as the 'in' cigarette, or cigarette of choice among themselves and their peers. They view it as a popular cigarette which fits with their lifestyle." The report continued: "White Newport Smokers (men) really enjoy the taste of Newport cigarettes, yet feel they are 'out of the mainstream' because most of their friends smoke Marlboro Lights. The women feel they are smoking a 'cool' cigarette that people with happy, active, and upbeat lifestyles smoke, as Newport ads project." This report also stated that "Lorillard's Newport brand recognizes younger adult smokers as an

important consumer base for this cigarette. This market is defined as a 'twenty-something' market; adults ages 18-29." 91950191-0242 at 0193, 0195 (U.S. Ex. 74,423) (emphasis in original).

3784. Lorillard's "Newport '95 Promotional Platform Preliminary Presentation" dated November 30, 1994 stated that one objective was "[t]o develop a comprehensive Newport Promotion Program which . . . Enhances image as one of the 'cool' brands." 91945211-5218 at 5216 (U.S. Ex. 85,208).

3785. A July 15, 1996 memorandum from Dick Westwood at Strategy & Tactics, Ltd. to Scott Benson, Group Manager of Marketing Research at Lorillard, regarding "The Menthol Market Study Reanalysis" concluded:

> Brand imagery should be pursued as the primary lever Lorillard can deploy in acting against the menthol market. Some Image Segments are, indeed, taste-based (for example, the Taste/Sensation segment with its focus on mintiness and iciness), and it is appropriate to pursue such segments through a taste-centered strategy. **But other market segments – including the Social Acceptance segment which is Newport's primary strength – are defined by more subjective aspects of imagery and**, for these, taste profiles need to be subsumed to fitting the image that the Company is seeking to create. . . . From a taste perspective, Newport is currently oriented to the Stronger end of the spectrum where, from the standpoint of taste characteristics, it competes primarily with Kool. However, the two brands play in different Image Segments – Social Acceptance and Strength respectively, and thus do not interact as directly as taste alone would suggest. Thus, for example, although both brands skew to males and African Americans, Newport has been able to attract a considerably younger adult smoker as its user base.

96290861-0869 at 0869 (U.S. Ex. 85,209) (emphasis added).

3786. A September 4, 1997 Lorillard memorandum from M.L. Orlowsky, CEO of

Lorillard, to George Telford, Vice President of Brand Marketing for Lorillard, confirmed that the 1998 marketing budget for Newport would be $137.5 million. 82458620-8620 (U.S. Ex. 85,210).

3787. In approximately 1998, Lorillard undertook a nationwide advertising campaign for Newport cigarettes captioned "Pleasure! Fire It Up!" in newspapers and magazines. Among several treatments, "Pleasure! Fire It Up!" advertising depicted attractive young men and young women smoking cigarettes, often in circumstances involving sports and other physical activities. (U.S. Ex. 11,209); (U.S. Ex. 9,664); (U.S. Ex. 11,216); (U.S. Ex. 11,247); (U.S. Ex. 11,257); (U.S. Ex. 11,265); (U.S. Ex. 11,283); (U.S. Ex. 11,290); (U.S. Ex. 11,314); (U.S. Ex. 11,321).

3788. A March 27, 1998 letter to Collett Thatch, the Senior Brand Manager for Newport, from Dorothy Straub at Saatchi & Saatchi, provided information on competitive print advertising campaigns. The letter described Lucky Strike as "making a concerted effort to reposition themselves as contemporary retro cigarette" (see inside visual of a James Dean look-a-like leaning on a 60's convertible coupe). At the bottom of the advertisement was a toll-free number to call which provided information on upcoming "trendy bars/special promotions and money saving coupons." 86165773-5775A at 5775 (U.S. Ex. 22,207).

3789. A document entitled "Lorillard Marketing Regulation Manual (A Guide From Counsel)" dated Summer 1999 contained the following statement with respect to the direct mailing of coupons: "The MSA allows the mailing of coupons to adults, and so we may mail coupons without the required adult identification and certification. This is because the age restriction on coupons is policed at the point of sale." 83511623-1691 at 1672 (U.S. Ex. 22,203).

3790. A memorandum dated January 13, 2000, from H.H. Bell, Lorillard in-house counsel, to G.T. Baroody and A. Pasheluk, Lorillard employees, and copied to R.S. Milstein, Lorillard General Counsel, regarding "Database Name Compilation/Proof of Age for Continuity Programs" contained Bell's responses to a number of issues raised at a January 6, 2000 meeting. The first issue addressed was: "When soliciting or purchasing names for inclusion on Lorillard's consumer database, is it necessary to request/receive a 'photo I.D.' from the consumer?" Bell concluded: "It is not. The MSA requires an age-verified identification only when providing 'any item in exchange for the purchase of Tobacco Products.' See Section III(h) [page 26]. Since we are merely compiling a database rather than conducting a continuity program, the obligation to secure proof that the person is an adult is inapplicable. . . . [T]he mere accumulation of names on our database, without more, would not violate these principles." The second issue that Bell addressed was: "When soliciting or purchasing names for inclusion on Lorillard's consumer database, is it necessary to request/receive the consumer's signature?" Again, Bell concluded: "The MSA does not require that we have signatures on file." Another issue addressed by Bell was: "Is it desirable to maximize the number of consumers on our database who have supplied Lorillard with photo I.D. and signature?" Bell responded: "Ideally, yes. To do so creates a larger pool of already qualified consumers who can be communicated with in a variety of ways without having to take further steps to do so. However, it is a management call as to whether we maintain only a database of pre-qualified consumers or additional database(s) on non-qualified consumers." 82093356-3358 at 3357-3358 (U.S. Ex. 22,198).

3791.

Deposition of George Telford, United States v. Philip Morris, et al., June 26, 2002, 102:3-7 (Confidential).

3792. At his May 16, 2002 deposition in this case, Lorillard's senior group brand director Victor D. Lindsley III, testified that the long-running advertising concept of "'Newport Pleasure' should be appealing to anyone that likes to have a good time." Lindsley also testified that the advertising theme of "pleasure" used by Newport appeals to all ages, especially the advertised "pleasure" of hanging out with friends. Deposition of Victor Lindsley, United States v. Philip Morris, et al., May 5, 2002, 113:8-15, 115:7-116:3.

3793. As acknowledged by George Telford, Vice President of Brand Marketing at Lorillard at his June 26, 2002 deposition in this case,

Deposition of George Telford, United States v. Philip Morris, et al., June 26, 2002, 85:13-88:14 (Confidential).

3794. At his June 26, 2002 deposition in this case, George Telford also testified that, as part of Lorillard's direct marketing efforts, the company collects demographic information about smokers' age, gender, and race, data which is then used by Lorillard to focus its marketing efforts. Telford further testified that Lorillard tailors its advertising for different brands based on the particular demographic profile of those brands. Because Newport advertisements are targeted at the younger segment of the adult smoking population, Lorillard advertises Newport in publications like *Sports Illustrated, Playboy* and *Penthouse*, all of which have substantial youth readership. Deposition of George Telford, United States v. Philip Morris, et al., June 26, 2002,

59:22-61:9 and 64:3.

(f) American Tobacco, BATCo and Brown & Williamson Knew That Their Public Statements Were False and Misleading

3795. In a September 25, 1957 memorandum to Albert R. Stevens and Alan C. Garratt, Brown & Williamson Advertising Managers, F.X. Whelan, American Tobacco Company Assistant Treasurer and Credit Manager, stated: "The first cigarette to saturate the morning television market will achieve positive results. There is also the point that there is a vast audience of children at this time of day and, while I am not prepared to discuss the ethics of this particular phase, a child accompanying his mother to the market has an overwhelming passion for suggestion. Many a Saturday I have gone to the A&P in my town and come back with several excess items over my wife's list because my children who were with me had seen a product advertised on television and wanted it." Whelan concluded: "To sum up, I believe the advantages in morning television are . . . [i]t delivers the message to the housewife at the best possible time – and to her children." ATX030308897-8899 at 8898 (U.S. Ex. 21,121).

3796. An April 6, 1960 American Tobacco memorandum from James R. Huott of the Filing Department to Karl W. Schillinger, Assistant to the Advertising Manager, stated that "the largest potential market for Lucky Strike is in the younger age groups," and that "Bonanza" would be a better television venue for Lucky Strike than "Lawrence Welk" because "Bonanza" was viewed by a greater number of people in the "younger age groups." An attached chart showed that three times as many "Teen-Agers (boys and girls 13-17)" watch "Bonanza" as watch "Lawrence Welk." 30308900-8901 at 8900 (U.S. Ex. 20,583).

3797. A May 25, 1960 report by Charles Ellis, a scientific advisor to the Board of

BATCo stated, "The sale of a cigarette depends on how it is advertised to the public. . . The key of the matter is that public taste, molded by advertising, sets a specification and this the manufacturer must meet." 100068038-8042 at 8038 (U.S. Ex. 20,103).

3798. An August 1962 proposal to the Tobacco Manufacturers' Standing Committee (TMSC, later renamed the Tobacco Research Council) by Market Investigations, Ltd. summarized youth smoking research that had already been performed for the British cigarette manufacturers (including BATCo) in 1961, and recommended that the TMSC fund further studies into youth smoking habits and patterns. BATCo officers sat on the TMSC Board and the TMSC funded industry-sponsored research in the United Kingdom similar to CTR in the United States. The 1962 proposal from Market Investigations Ltd. was entitled "Smoking by Children and Adolescents, Memorandum on Further Research to the Tobacco Manufacturers' Standing Committee" and suggested follow-on interviews of children as young as 10 years old. The proposal stated: "Children in their teens present a dilemma for the tobacco manufacturer. On the one hand you want to discourage children from smoking . . . on the other hand, it is difficult for you to lend your weight to a campaign against smoking by young people without running the risk of discouraging them from taking up smoking altogether." 105408812-8815 at 8813 (U.S. Ex. 26,273).

3799. American Tobacco continued to study the impact of certain advertising on children ages 16 and above after it adopted the 1964 Advertising Code. American Tobacco determined that its advertising was reaching the 16 to 20-year old market. Deposition of Eric Gesell, State of Minnesota v. Philip Morris Inc., et al., September 18, 1997, 54:19-55:11, 57:23-

59:2.

3800. On December 15, 1967, Brad H. Littlefield, Brown & Williamson Assistant Brand Manager, sent Brown & Williamson internal correspondence to J.W. Burgard, Executive Vice President of Sales and Public Relations, which was copied to A.Y. Yeamen, Brown & Williamson General Counsel, regarding "Analysis of Youth Audience Subgroups" for television viewing. Littlefield discussed the 2-20, 2-17, 6-20, 6-17, and 12 to 17 age groups as audiences for prime time television, defined by Littlefield as "7:30-11:00 p.m., EST." LG2004540-4542 at 4540 (U.S. Ex. 21,202).

3801. Mark F. Fox, Product Manager for American Tobacco, sent a January 10, 1968 analysis of the Tareyton brand demographic profile to Clive Michaels of the advertising agency Batten, Barton, Durstine & Osborn. Fox explained in his analysis that: "Specifically, the brand shows greater than average strength among women, the high school educated and the 16-20 age group." Attached to the analysis was a chart that included data on the demographic profile of Tareyton, including the percentage of smokers between ages 16 and 20 who smoked Tareyton. MNAT00399850-9851 at 9850 (U.S. Ex. 21,632); MNAT00399852-9852 (U.S. Ex. 88,802).

3802. A July 1968 document "[p]repared for the American Tobacco Company" and entitled "The Position of Brighton in the St. Louis Market" stated: "The purpose of the study is to provide American Tobacco with consumer feedback on the impact of the Brighton brand. Such feedback, beyond the customary sales information that is presently available, would greatly aid the company in realistically assessing the sales performance - not only of Brighton - but of other new brands in test markets, and would aid the company in instituting changes in strategy

(advertising, packaging, etc.) to maximize the success of new brands." The researchers telephoned approximately 5,000 individuals in the age groups of 16-20, 21-34, 35-49, and 50 and over. In addition, "Age and sex quotas were assigned so as to yield the correct proportions of teen-age contacts and adult male and female contacts." MNAT00405881-5912 at 5883-5585 (U.S. Ex. 88,157).

3803. On August 2, 1968, William Scholz of Ted Bates Advertising provided an analysis of brand switching studies to Anthony Mercer, a marketing employee at Brown & Williamson. The analysis found that "Kool attracts more in the 16-25 age group than it loses." In addition, the analysis included an "Index of Starters – Menthol Brands – All Four Brands" that included data on individuals ages 16-25. 170051478-1481 (U.S. Ex. 26,590); 170051490-1490 (U.S. Ex. 26,599); 170051499-1499 (U.S. Ex. 26,608).

3804. A report dated April 3, 1970 discussed a "1969 Survey of Cigarette Smoking Behavior and Attitudes" that was written by Eastman Chemical Products for American Tobacco Company. The survey was performed on consumers aged sixteen and over, and included data indicating that, at age fourteen, 60% of boys who would become smokers had already smoked their first cigarette: "The age at which people start to smoke regularly is an important factor in assessing the future markets for cigarettes." In the survey, consumers were asked the following question: "What brand or brands of cigarettes come to mind when I say: Is best for people who are just starting to smoke regularly ?" The survey also recorded negative reactions to first cigarette smoked including "coughing," "unpleasant," "dizzy" or "ill." 650340129-0193 at 0151, 0156, 0162 (U.S. Ex. 20,948).

3805. A September 9, 1972 Brown & Williamson Project Report from the firm Marketing Innovations, Inc., entitled "Youth Cigarette - New Concepts" contained suggestions for the company to develop "youth-oriented" cigarettes with new types of flavoring, such as Coca-Cola and Apple. The report also suggested developing a "sweet flavor cigarette" because "[i]t's a well known fact that teenagers like sweet products." 170042014-2014 (U.S. Ex. 20,291).

3806. A 1973 Brown & Williamson report entitled "New Product Concepts" described the company's strategy to reach a "**[d]irect target group: 6.3 million 16-25 year old smokers.**" The strategy plan was to "[t]o improve Brown & Williamson's position in attracting young male smokers by making as direct an appeal as possible in product, packaging, and advertising to young males." Possible names for a cigarette appealing to this segment included Laredo, Lancer, Durango, Champion, and Voyager. 670186789-6824 at 6811, 6815-6816 (U.S. Ex. 21,431) (emphasis added).

3807. A February 21, 1973 internal Brown & Williamson memorandum from R.L. Johnson, an employee of Brown & Williamson's Advertising Department, to R.A. Pittman, a Brown & Williamson Vice President, regarding Kool sales recommended that Brown & Williamson should focus its media spending to the magazines that teenagers read: "Kool's stake in the 16-25 year old population segment is such that the value of this audience should be accurately weighted and reflected in current media programs. As a result, all magazines will be reviewed to see how efficiently they reach this group and other groups as well." Johnson explained the reason for its targeted approach: "Kool has shown little-or-no-growth in share of

users in the 26+ age group. Growth is from 16-25 year olds. At the present rate, a smoker in the 16-25 year age group will soon be three times as important to Kool as a prospect in any other broad age category." 680135996-6002 at 5996-5997, 5998 (U.S. Ex. 20,989).

3808. A 1974 Brown & Williamson document entitled "Young Adult Smoker Life Styles and Attitudes," recorded that "as part of [Brown & Williamson's] investigation of the 'new smoker,' a program of consumer research was undertaken." The purpose of the research was "to gain insight into the perceptions, attitudes and behavior of younger, recently starting smokers regarding initial product usage, current smoking and health concerns." Included in the findings was the statement that smoking starts with younger people for four reasons: "The first factor is the desire of young people to look older than they really are. The second is peer pressure and doing what friends and authority figures do. The third reason is to rebel against parents with only modest risk. The fourth reason identified had to do with physical reaction. This physical reaction was described as a 'high' or as a challenge to be strong enough to smoke without getting sick." Brown & Williamson designed its marketing campaigns around themes that would exploit these attitudes. 170040977-1001 at 0977 (U.S. Ex. 20,289).

3809. On May 31, 1974, J.F. Monohan, Brown & Williamson field manager, submitted a handwritten Field Manager's report including a suggestion for marketing to youth with the "Don't Be Boxed In" Kool campaign: "To reach the 'youth market' a little human illustrated figure could be a dissatisfied smoker of his present brand. . . . This could be possibly used on billboards in the areas where Salem Box and Marlboro Menthol Box are . . . advertised." A June 12, 1974 letter from R.E. Kiser to Monohan stated that Monohan's idea "has been sent to our

[Brown & Williamson] Advertising Department for their consideration." 679081621-1627 at 1621, 1624, 1627 (U.S. Ex. 25,435).

3810. A June 1974 Brown & Williamson document entitled "Tramps Cigarette National Marketing Plan" described a plan to "[p]lace marketing efforts against all current smokers and those who are predisposed to commence smoking in the near future." The stated objective of the marketing plan was to "generate maximum exposure against a target audience of men and women 18-34." 670170921-0935 at 0926, 0930 (U.S. Ex. 20,965).

3811. A September 1974 report written by Kenyon & Eckhardt for Brown & Williamson's New Ventures Project entitled "The New Smoker" detailed Kenyon's focus group research conducted on behalf of the company: "The purpose of this research was to gain insight into the perceptions, attitudes and behavior of younger, recently starting smokers regarding initial product usage, current smoking, and health concerns." Focus groups were conducted on regular smokers under age 22, and data was tabulated for smokers age 16 and older. The research identified the typical smoking initiation process occurring before 10, and continuing into the junior high school or the early high school years. Influences on initiation included the desire to belong to a group and to rebel against parents. The research found that smoking initiation was prompted by psychological factors: "[O]vercoming the unpleasant physical reaction became a strongly motivated goal. The psychological rewards for 'conquering' smoking seemed to center on proving manliness and strength to themselves and others and, for the most part, they seemed to feel it was worth the effort." The study concluded that "[t]he younger smoker is of pre-eminent importance." 779217759-7833 at 7760, 7763-7768, 7827 (U.S. Ex. 21,054);

779217758-7793 at 7760, 7768 (U.S. Ex. 85,211).

3812. A September 23, 1974 Brown & Williamson Five Year Plan for all of Brown & Williamson brands, written or approved by Richard L. Johnson in Brown & Williamson's Advertising and Marketing Planning Department (which he subsequently managed), stressed the importance of effective marketing to young "starters" for the continued profitability of the company. The plan stated that, although Brown & Williamson's share of smokers under twenty-five was greater than the rest of the industry, this was due to Kool: "[w]ithout Kool's influence, the Company's profile is female, old and getting older . . . a relatively undesirable situation." The document anticipated a coming battle over the shrinking pool of 16-25 year old potential smokers:

> [T]he younger smokers' importance cannot be denied. They have distinct brand choices and association appears to exist between growth brands and segments, and the younger smoker. Industry switchers and starters are predominantly found in this under-25 year old category -- especially among women. If the pool of starters and switchers shrinks, as it is expected to, even more effort could be waged against under-25 year olds in the battle for remaining new users.

The plan indicated that youth smokers were the market's growth: "among under 25 year olds, users have almost doubled. Kool's growth in this market is the greatest of any brand. It is also the fastest growing cigarette in the total market." The plan recommended that "[n]ew ways to selectively reach younger smokers and females entering the market should be found," and "[t]he need to make revitalization programs on established brands work is now critical." It summarized: "Segments or brands with attraction to the young and the female will be more likely to grow than segments or brands with male or older appeal. . . . Advertising funds may be more

productively employed on growing brands than on declining brands in a more stable environment. In that regard, the transfer of advertising money from declining brands to growing brands could be worthwhile." 682823798-3801 at 3801 (U.S. Ex. 21,032); 680500903-1076 at 0918, 0930, 0942, 0945 (U.S. Ex. 21,607).

3813. A December 11, 1974 Brown & Williamson document entitled "Marketing Planning Project Specifications Sampling" provided a framework for the company's product sampling activities. The report noted that "those [smokers] who are most inclined to switch (people under 30) are hard to reach selectively," and that one of the tasks for the supplier chosen to assist Brown & Williamson in this effort was to "develop a national sampling program(s) on an established brand – Kool King Size – and a new product to be designated at a later date." 6801063446350-6347 at 6344, 6346 (U.S. Ex. 20,985); 680106344-6347 at 6344 (U.S. Ex. 20,985).

3814. A December 12, 1974 Brown & Williamson report entitled "Target Audience Appendix" concluded that the target audience for Kool was a "pool of switching smokers" including 2.5 million people ages 16 to 25. The document also stated that the target audience for the Kool King Size sampling effort described above should take into consideration the "relative value" assigned to various groups of smokers, including 15 to 24 year olds. 680106344-6350 at 6349 (U.S. Ex. 20,985).

3815. A Brown & Williamson document from 1975-1976 entitled "Viceroy Agency Orientations Outline," was written to "prepare agencies for the creative and positioning assignments on Viceroy." The outline stated that Viceroy's target audience was "males 16-35,

primarily." The document also stated that the "Racing Campaign . . . clearly positioned the brand as a young, exciting, full-flavored, satisfying cigarette." 680116947-6968 at 6947, 6959-6961 (U.S. Ex. 21,877).

3816. A 1975 Brown & Williamson marketing presentation entitled "Cigarette Brand Switching Studies" stated that "Kool has a young age profile. The largest proportion of Kool's smokers are between 16 and 25 years of age," and that "Kool's young age profile contrasts with the older age profile of the other major menthol brand – Salem and is more similar to that of Marlboro." The presentation also stated that starters made up 15% of smokers ages 16 to 25, and that "Kool attracts a high level of starting smokers[,] especially 16-25 year old starters." 665076894-6916 at 6899, 6904, 6916 (U.S. Ex. 20,958).

3817. A May 26, 1975 report entitled "What Have We Learned From People? A Conceptual Summarization of 18 Focus Groups Interviews on the Subject of Smoking," was prepared for Brown & Williamson by the Ted Bates agency. A section of the report entitled "How Can We Introduce Starters and Switchers to our Brands," stated:

> With only very few exceptions, young people start to smoke because of their peer group." The document also stated that "an attempt to reach young smokers, starters should be based . . . on the following parameters: [p]resent the cigarette as one of a few initiations into the adult world. Present the cigarette as part of the illicit pleasure category of products and activities . . . . Consider a sampling technique to allow the young starters to actually try your brand . . . . In your ads create a situation taken from the day-to-day life of the young smoker but in an elegant manner have this situation touch on the basic symbols of the growing-up, maturity process. To the best of your ability (considering some legal constraints) relate the cigarette to 'pot', wine, beer, sex, etc.

680092632- 2668 at 2664-2665 (U.S. Ex. 21,693); 170043558-3593 at 3581-3582 (U.S. Ex.

20,293); 679018125-8278 (U.S. Ex. 87,928).

3818. A document dated September 10, 1975 from L.M. Marshall, Jr., Ted Bates Advertising, to Mike A. Willson, Brown & Williamson employee, regarding "Kool Analysis of Brand Switching Study – Wave 18" stated that "Brand switching has reversed a previous downward trend and is now at 16% level, up from 14% in Wave #17 and the highest since November, 1972. This trend is consistent across both sexes and among all age groups, with the most dramatic increase evidenced in the 16-25 age group." It further stated that "Kool Milds continue to show a strong skew toward young smokers (30% in the 16-25 age group vs. 18% for Total Menthol)." 665076813-6817 at 6813, 6814 (U.S. Ex. 20,957) (emphasis in original).

3819. A 1976 Brown & Williamson summary report entitled "Starters" recorded data and tracked starting smokers as a percentage of all smokers from 1969 to 1976, by gender and by age group. One of the age groups was "16-25." The report concluded that, "**The 16-25 age group has consistently accounted for the highest level of starters**." 170040333-0333 (U.S. Ex. 22,359) (emphasis added).

3820. R.D. Lewis, Brown & Williamson Manager of Marketing, sent a report dated April 1, 1976 entitled "Final Report - Study of Brand Switching Among Young Adults Smokers (Project # 1974-244)" to Robert A. Pittman, Senior Vice President of Marketing at Brown & Williamson. This report stated that "[t]he 16-25 year old smokers have a much higher level of brand switching (59%) than the 26-35 year old smokers (37%)." 677354259-4263 at 4260, 4263 (U.S. Ex. 20,978) (emphasis in original).

3821. An August 4, 1976 letter to Frank McKeown at Brown & Williamson from

Jeffrey Clinaman at Zimmer-McClaskey-Lewis attached a "recommendation for Kool's 1977 Promotion Program." The plan recommended a Kool Basketball Premium: "Basketball is a major source of recreation among young, black males. We would capitalize on this interest by offering a basketball premium, perhaps even green and white to tie in with Kool." The plan also advised that "Since Kool is heavily oriented toward the young and the brand's starter index is 10, it will benefit us long-term to develop promotion events that involve the young and especially, to convince the starter group to smoke Kool." 777080491-0522 at 0491, 0500, 0508 (U.S. Ex. 31,585).

3822. An August 10, 1976 document, written by Robert G. Yizar, Brown & Williamson Assistant Brand Manager, about the Pontiac Kool Jazz Festival, stated: "Audience composition covered the age spectrum with a slight skew toward the 16-25 age group." 666011286-1287 at 1286 (U.S. Ex. 20,960).

3823. An August 22, 1976 document prepared for Brown & Williamson by Young & Rubicam International entitled "Starters, Creative Workplan" summarized problems with the Viceroy brand and suggested Viceroy advertising objectives for the company:

> 1. Key Fact. Every year two million people in this country start smoking. 50% of them gravitate toward full flavored cigarettes – Marlboro and Winston. Viceroy gets none of them.
> 2. Problem The Advertising Must Solve. New smokers are not attracted to Viceroy because it has no clear image either as a smoke, or in terms of its personality.
> 3. Advertising Objective. To convince new smokers that Viceroy has the flavor and taste that they want as well as the image that is suitable to their needs and self perceptions.

170010440-0440 (U.S. Ex. 20,283).

3824. A 1977 "Study of Consumer Awareness of and Attitudes Toward 24 Leading Cigarette Brands" produced by Brown & Williamson concluded that the three factors that determined "sales success" were "brand share of advertising pressure [and] intrusiveness and memorability of the advertising," "[p]ersuasive brand imagery," and "[b]rand [l]oyalty." 660110387-0390 at 0387 (U.S. Ex. 20,955).

3825. In a Brown & Williamson document entitled "Brown and Williamson Tobacco Corporation Problem Lab" dated April 27, 1977, the authors recorded a brainstorming session addressing "[h]ow to better estimate future environment for tobacco industry and B&W growth" and Brown & Williamson's need to "measure the intensity of the attitudes of children or other precursor groups." The group of Brown & Williamson employees and executives participating in the session generated the following ideas generated at the session:

> 15. Wish I knew the impact of smoking and health propaganda on kids in schools – future customers' attitudes.
> 16. Correlate smoking incidence between kids and parents.
> 17. Psychological analysis, predictions: who's going to be kids' heroes.
> 18. A six-month report on heroes of beginning age smokers (Do it every six months).
> 25. Look at images of children and images of starting smoking age – are there certain characteristics that pre-dispose a child to smoke.
> . . .
>
> 1. Contact leading firms in terms of children research, e.g., Gilbert/Reilley. . . .
> 3. Contact Sesame Street.
> 4. Get a raft of 15-year olds who are not smoking . . . go back 3 or 4 years later and see who is smoking.
> 5. Contact Gerber, Schwinn, Mattel. . . .
> 7. Run a series starting at 6. . . . Learn correlation between age 6 and 18. . . .
> 9. Look at 13, 14-year olds and images of what they want to be.

> 10. Take a group of 6, 10, 14-year olds. Four years later see if can [sic] predict. Predict age group behavior based on previous response. . .

680067120-7123 at 7120-7122 (U.S. Ex. 20,982).

3826. A Brown & Williamson report entitled "Situation Analysis" dated June 23, 1977, forecasted Kool's performance among teens: "Population data indicate that the 16-20 year old segment will be diminishing in size – the historical stronghold of Kool smokers and starter smokers." The "Demographic Profile for Media Selection" for the "Kool Kings & Box" style of cigarettes was described as "Young adult males, 16-25, young blacks (both sexes), 16-25, and some females 16-25." The document also included a chart on consumer awareness of Kool which contained data on the 13 to 24 age group. 666022186-2223 at 2193, 2200, 2219 (U.S. Ex. 30,803).

3827. An October 18, 1977 report prepared for Imperial Tobacco, a member of the BAT group of companies, by Kwechansky Marketing Research stated: "Since how the beginning smoker feels today has implications for the future of the industry, it follows that a study of this area would be of much interest. Project 16 was designed to do exactly that -- learn everything there is to learn about how smoking begins, how high school students feel about being smokers, and how they forsee [sic] their use of tobacco in the future." The "recruiting qualifications" for the study were respondents "aged 16 or 17, attending high school, and smokers of 5 cigarettes or more per day." 566627826-7935 at 7839, 7840 (U.S. Ex. 20,939).

3828. On November 15, 1977, B.L. Broeker, a Brown & Williamson Senior Brand Manager, wrote to Phil Weinseimer at the Bates agency attaching "exploratory advertising

strategies, 'Exhilaration' and 'Confidence.'" The "Key Fact" under the Confidence advertising strategy was that "Kool is losing smokers to menthol competition and not attracting enough starter and switcher smokers to effect this loss." The 'Confidence' advertising was designed to address the problem that Kool "lacks an upbeat exciting image to reinforce its youthful franchise and attract new smokers." The "Promise" of the Confidence creative strategy was "Smokers who try Kool will derive a sense of confidence and preeminence among their peers via association with this superior product." 686032807-2811 at 2808, 2810 (U.S. Ex. 31,034).

3829. E.B. Wilkes, a BATCo Statistician, sent notes to Drs. C.I. Ayres, a BATCo Research Advisor, and Dr. R.E. Thornton, a BATCo Senior Research Scientist, on April 17, 1978 regarding "76th Meeting of the Statistical Sub-Committee of T.R.C." Wilkes' notes stated that "[t]he smoking habits of young people must be of interest to anyone concerned with the future of the industry." 105609269-9272 at 9270 (U.S. Ex. 20,244).

3830. An April 20, 1978 Brown & Williamson document entitled "Implications for Cigarette Industry" stated that "imagery will continue to be important in brand selection for teenagers" and "packaging will become more important if not the most important advertising vehicle." 667007711-7714 at 7711, 7712 (U.S. Ex. 20,961).

3831. An August 1978 Brown & Williamson document entitled "Kool Family Utopian Objectives 1979-1985" discussed strategies for Kool to replace Winston "as the No. 2 cigarette in the country by 1985." The author wrote that to accomplish this goal, "Kool must achieve a user image that is acceptable to the majority of young adult and starter smokers." A section of the document entitled "Demographic Objectives" included the statement: "[r]eturn the starter index

to 11% by 1982 and maintain this level as the highest starter index in the industry . . . [t]he starter index has been the historical pillar of Kool strength and to return it to 11% will be to build longevity into the franchise." Strategies to achieve this objective included "advertising pressure against high filtration styles in young adult skewed publications" and to "dominate specific young adult publications with a particular style." 680559149-9162 at 9149, 9152-9154 (U.S. Ex. 54,048).

3832. A November 10, 1978 presentation to Brown & Williamson by Acton Marketing Ltd. entitled "Kool Jazz Festival and Country Shindig Final Recommendations" stated that one of the Kool Brand Group's "primary objectives" was to "directly link Kool to music." A June 7, 1983 "formal" and "approved by Senior Management" memorandum from Brown & Williamson Senior Brand Manager G.T. Reid to Senior New Products Manager M.A. Schreiber was entitled "Kool Copy Strategy" and stated: "The Kool property uses musical symbolism to communicate the strategy. The brand desires an improved quality image and universal appeal to all age groups." 666022850-2898 at 2856 (U.S. Ex. 88,158); 675159236-9242 at 9238 (U.S. Ex. 21,749).

3833. A BATCo document dated April 4, 1979 entitled "Year 2000" listed predictions for changes from 1979 to 2000, and advised "in **most** markets do not examine smoking habits of those under 15." 109883101-3103 at 3101 (U.S. Ex. 21,518) (emphasis added).

3834. An internal Brown & Williamson document dated September 21, 1979 from Robert Chambers, a Brown & Williamson Brand Manager, attached a report entitled "The Growth of Menthols, 1933 to 1977" describing Kool's growth phase from 1963-1977. The report

stated: "Salem had created a vast market potential for menthol, and Kool had retained its taste, while brands in the 'tar derby' had dropped tar and taste. This put Kool in a good position to capitalize on two emerging markets -- the blacks and college-aged marijuana users. The post-war baby boom had, by this time, swelled the population of young and [blacks]; and Kool was positioned to take advantage. Kool increased its advertising and promotion to blacks and youth, who were both heavy pot users and heavy menthol smokers." 660110380-0386 at 0380, 0385 (U.S. Ex. 20,954).

3835. An October 1979 Brown & Williamson document entitled "History and Key Trends in the U.S. Cigarette Market" contained several reports prepared for the company describing market trends occurring in the United States in previous decades. One of the reports described "Kool's growth phase" between 1963-1974: "Use of marijuana by young people was growing . . . according to a consumer survey, however, 52% of marijuana users aged 12 to 17 also smoked cigarettes compared to only 11% of non-users. No hard data are available on the brands of cigarettes used by smokers of pot but menthols would appear to hold an above average share among such smokers. **This would be consistent with Kool's position as the favored cigarette of young smokers**." The report on menthols also tracked Kool's share of smokers ages 16 to 25 and specifically noted Kool's share of black male smokers ages 16 to 34. 670624932- 5364 at 4932, 5008-5009, 5013-5014 (U.S. Ex. 53,869).

3836. Nicholas Brookes, Chairman and Chief Executive Officer of Brown & Williamson from 1995 until 2000, testified at his May 2, 2002, deposition that Brown & Williamson did not institute a company policy prohibiting research on youth marketing and

smoking behavior for those under 21 until the "late 1970s or early 1980s." Brookes also admitted that prior to the early 1980s, Brown & Williamson conducted marketing research on individuals as young as 16, specifically on the switching behaviors of individuals between the age of 16 and 25. Brookes also testified that since 1998 "the emphasis of the Marketing Department has moved . . . from mass media types of advertising to one on one marketing, and where you're able to verify that the individual is a smoker who's of legal age, i.e. eighteen or nineteen years old, then we might very well, you know, just talk to them about their smoking habit, but it would be on a one-to-one basis." Deposition of Nicholas Brookes, United States v. Philip Morris, et al., May 2, 2002, 134:24-136:23, 146:18-147:18, 148:2-148:22.

3837. Another Brown & Williamson document entitled "Kool Switching History" tracked demographic data and smoking incidence of people aged 16 and older from 1966 to 1980. 542011811-1812 (U.S. Ex. 20,934).

3838. A BATCo document dated 1980 discussed its Project Kestrel: "There would seem to be an opportunity for a brand targeted at advertising literate youth, which rejects the traditional approaches . . . this should be done by addressing real and durable youth values (such as rebellion, or the glamour of danger) rather than passing fashion." 401857185-7185 (U.S. Ex. 20,604).

3839. According to Brown & Williamson's internal 1981 "Kool Strategic Brand Plan," the company decided that "Kool resources will be allocated against geographic and demographic segments which represent the highest opportunity [including] young adult starting smokers." 670624652-4705 at 4654 (U.S. Ex. 20,973).

3840. A February 4, 1981 Brown & Williamson study entitled "Viceroy Switching Study Analysis Wave 28" stated that because "starting is a function of awareness among potential smokers which is directly related to brand size (SOM) and levels of [promotional] support, Viceroy's parent's low starter rate is understandable. Viceroy parent has not been advertised since 1977." The report also stated that "Viceroy Rich Lights' starter rates (15% and 11%) are significantly greater than the category and competitive brands, primarily because the brand was introduced relatively recently and supported by a relatively high spending rate." 670110917-0959 at 0937, 0945 (U.S. Ex. 20,963).

3841. In an April 22, 1981 internal memorandum to Dick Veatch, Brown & Williamson Brand Promotion Manager, from P.W. Stebbins, Brown & Williamson employee, memorialized a phone conversation with Betty Carr regarding a Barclay sampling program, in which Carr reported that her Houston store, Tobacco Road, had been inundated with teenagers trying to sell or exchange the cigarettes they received as part of a Barclay promotion. Carr indicated that a similar situation had occurred with Kool Milds sampling in Houston. 666006105-6106 (U.S. Ex. 20,959).

3842. Kwechansky Marketing Research wrote a report dated May 7, 1982 for Imperial Tobacco Limited entitled "Project Plus/Minus" which focused on two age groups: 16 to 18 year olds, and 19 to 24 year olds. The report built on "Project 16," an earlier study which examined "why do young people start smoking, and how do they feel about being smokers?" The report stated that a smoker's first brand choice comes from "peer example," and that "Imperial Tobacco's brands have the apparent lions share of this [the youth] market." The study stated that

"the age of brand independence and of cessation of peer brand judgment seems to be getting lower," and concluded with an analysis of brand choice of cigarettes by young people. The report stated: "Juvenile dabblings with smoking take place early for reasons of seeking to experiment with forbidden fruit." 566627751-7824 at 7753, 7755, 7812, 7813, 7816 (U.S. Ex. 20,938).

3843. A Brown & Williamson document apparently drafted in 1983 entitled "Kool Advertising" stated as a "Problem" that "[o]ur campaign does not currently appeal to young adults of all races (<25)," due to "trial growth weakest of all age groups" and "franchise aging rapidly." As the solution, the document recommended that Kool advertising "go for the fantasy" and "go for the cool." 675159252-9253 (U.S. Ex. 21,730).

3844. In a memorandum apparently drafted in 1983, Brown & Williamson discussed placing cigarette advertisements in movie theaters because these "will be more memorable to a younger audience." The memorandum also pointed out Brown & Williamson's recognition that such advertisements "will probably be misconstrued as an outright approach to underage audience members." 690132323-2324 at 2323 (U.S. Ex. 21,045).

3845. On April 13, 1983, Brown & Williamson Artistry Limited, Pinewood Studios, England, mailed a contract to Brown & Williamson. This contract was signed by N.V. Domantay, Vice President of Brand Management for Brown & Williamson, and memorialized the agreement to place Barclay outdoor advertising displays in the film "Supergirl." 675048039-8042 at 8039 (U.S. Ex. 20,976). On August 4, 1993, David Remes, an attorney with Covington & Burling, wrote to Congressman Schiff "[o]n behalf of the . . . six principle U.S. cigarette

manufacturers" that the billboard in Supergirl was "included against the manufacturers wishes." The statement in Remes' letter is contradicted by the signed agreement between Brown & Williamson and Artistry Limited, Pinewood Studios. 947181920-1921 at 1921 (U.S. Ex. 22,527); 675048039-8042 at 8039 (U.S. Ex. 20,976).

3846. A letter dated April 28, 1983, from Sylvester Stallone to Bob Kovoloff at Associated Film Productions ("AFP") recorded his promise to smoke Brown & Williamson cigarette brands in five upcoming movies in exchange for $500,000. 690132319-2319 (U.S. Ex. 21,044).

3847. A June 14, 1983 letter from James Ripslinger, Senior Vice President at AFP to Sylvester Stallone provided further details of the agreement to use Brown & Williamson's tobacco products in his next five scheduled motion pictures. The letter stated that AFP was "representing their client Brown & Williamson." 685083120-3120 (U.S. Ex. 21,033).

3848. A September 14, 1983 Brown & Williamson document entitled "Belair 1984 Media Plan" recommended a media target audience for Belair that included males and females ages 16 to 29. 676025033-5033 (U.S. Ex. 53,922).

3849. H.T. Hughes, a Brown & Williamson Marketing Manager, wrote a letter dated September 16, 1983 to P.R. Hill, BATCo, and copied to G.E. Lajti, an employee of the Brown & Williamson Marketing Research Department, and John Powell, responding to Hill's requests for "general socio-economic information on the domestic U.S. cigarette market" and information to fill "data gaps for the years 1972-1981." Hughes attached a questionnaire which, under the heading "Age," included a category for those "Under 16" and "16 to 25." 539003010-3021 at

3010, 3012 (U.S. Ex. 20,933).

3850. A Brown & Williamson September 17, 1983 internal memorandum from J.L. Hendricks, Brand Promotions Project Manager, to M.A. Schreiber, Senior Brand Manager of Kool, stated that "the purpose of this memo is to recommend a continuity promotional concept for Kool." and that the Record Club of America ("RCA") had offered their Record Club facilities to Kool for 50% off regular price. 676026171-6172 at 6171 (U.S. Ex. 20,977).

3851. An October 1983 document entitled "Market Dynamics" reported research conducted by Brown & Williamson to determine trends in starting smoking and switching brands. The document stated that "[s]tarters are concentrated in the youngest age groups," and included a chart indicating that smokers age 16 to 25 compromise 15.2% of former smokers and 34.0% of starters. The document further stated that "Kool's ability to attract starters has been because of high development among young smokers," and provided a table of "Kool Starters: Male smokers 16-25" with data from 1979 to 1982. Concluding that "starters are concentrated in the younger age groups" and "starters are influenced by their peer group," the authors recommended that, "**to increase Kool's share of starters, it will be necessary to increase Kool's share among young smokers.**" 670585199-5216 at 5211-5212, 5214 (U.S. Ex. 20,972) (emphasis added).

3852. A 1983 Brown & Williamson document entitled "Switching Overview" examined several brands to determine which ones were "attracting starters" or "attracting switchers" and which were "losing due to switching-out," and concluded that "Marlboro is the only male brand attracting starters." As to female brands, "[Virginia] Slims, Eve and Satin [are] attracting

starters." 674017018-7030 at 7020-7021 (U.S. Ex. 20,975).

3853. An October 26, 1983 memorandum from D.R. Scott, Brown & Williamson Director, Audit and Special Services, to N.V. Domantay, Vice President of Brand Management for Brown & Williamson, attached an internal audit of Brown & Williamson's relationship with Associated Film Productions ("AFP"). The audit revealed that Brown & Williamson paid AFP $30,000 quarterly to "place B&W advertising and products in selected new movie productions." The audit indicated that AFP had succeeded in making placements in 22 movies and one television show between 1981 and 1983 including "Nine to Five," "Body Heat," "Only When I Laugh," "Sharkey's Machine," and the television program "The A Team." AFP had also placed Brown & Williamson advertisements in movie theaters until August 1983 for approximately $100,000 per year. 685086477-6487 at 6477-6481, 6487 (U.S. Ex. 21,731); 549000789-0789 (U.S. Ex. 20,936).

3854. An October 26, 1983 report produced by the Information Center for Brown & Williamson on the "starting age of all smokers on the switching study" shows starting ages ranging from 1-86, with most smokers starting between the ages of 12-18. Handwritten comments on the report state "get smokers as young as possible" and "Brand Choice of Starters [females 16-25] can best be predicted by Brand Choice of Smokers [females 16-25]." 670579884-9946 at 9888, 9891, 9896 (U.S. Ex. 25,429).

3855. A 1984 BATCo document entitled "Tobacco Strategy Review Team: Philip Morris, Inc." detailed BATCo's perception of market trends and competition. The report stated: "The young, urban, trend setting smoker will remain the focus and prime target group for Philip

Morris brands. That this segment constitutes only a small percentage of the total market is less important than the fact that they represent the future and reflect the aspirations of other smokers." 522000971-0978 at 0974 (U.S. Ex. 20,906).

3856. A 1984 Imperial Tobacco Limited document produced from the files of BATCo reported that among "Potential Areas of Investigation/Activity" are "5. Starters/Potential Starters - Expand industry volume via maximization of starting - relevant products. 6. Starters/Potential Starters - Expand industry volume via maximization of starting - attitude change. 7. 'Quitters'/'Potential Quitters' - Expand industry volume via minimization of quitting - relevant products. 8. 'Quitters'/'Potential Quitters'- Expand industry volume via minimization of quitting - attitude change." 321932455-2464 at 2455, 2456 (U.S. Ex. 47,010) (U.S. Ex. 47,011) (emphasis in original).

3857. A January 1984 report entitled "Additional Analysis: The National Brand Switching Studies" prepared by Market Facts for Brown & Williamson concluded that "[b]y age group, incidence among 16-25 year olds rose" and that "[f]irst time starters are a great deal younger, and smoke considerably less than the other categories of smokers." 670579702-9724 at 9705, 9723 (U.S. Ex. 20,971).

3858. On May 18, 1984 Brown & Williamson Special Events Manager R.J. Miller sent a letter to Dino Santangelo at Festival Productions regarding "Kool Jazz Festival Advertising." The letter discussed print, television, and radio advertising for the Kool Jazz Festival. 682144612-4614 (U.S. Ex. 25,449).

3859. BATCo organized a "Structured Creativity Conference" near Southampton,

England, from June 25-28, 1984, due to "… the need for more effective liaison between R&D and Marketing[,]" with "…[p]articular emphasis… to be placed on making R&D projects more directly relevant to the marketplace." Prior to the conference a group of ten R&D and marketing employees convened for "an intensive session of 'structured creativity.' This was not to be a mere brainstorming session but a way of generating thoroughly evaluated project ideas for formal discussion at the main conference." D.E. Creighton, BATCo Research and Development Scientist, presented a "Structured Creativity Group Presentation" at the conference that included a section entitled "Future Market Trends, Directions Constraints and Opportunities." Creighton predicted "[c]ompetition with Cannabis, glue sniffing, heroin and cocaine. [BAT] must find a way to appeal to the young, who want to protest so that the product image, and the product will satisfy this part of the market. . . . Cigarettes will follow as something 'My father and Grandfather did' unless we are careful." 321922003-2028 at 2009-2010, 2022 (U.S. Ex. 85,216).

3860. A July 30, 1984 Imperial Tobacco Limited document entitled "Proceedings of the Smoking Behaviour-Marketing Conference, Montreal, Quebec, July 9th-12th, 1984, Session 1" was distributed to many people including BATCo's Dr. L.C.F. Blackman; Tilford Riehl, Division Head, Product Development, Brown & Williamson; Andy Mellman, Marketing, Brown & Williamson; Michael Brennan, Scientific Advisory Board, Center For Tobacco Research; and C.I. (Ian) Ayers, Research Manager, BATCo. The report stated "our future business depends on the size of [the] starter population," and asked, "Can we develop models of how smoking careers unfold?" The document indicated that Wayne Knox, Marketing Manager, Imperial Tobacco Limited, had "pointed out that the failure to develop new smokers may have more detrimental

impact on the industry in future than losses due to quitting." 536000000-0090 at 0016, 0017, 0027 (U.S. Ex. 22,338).

3861. A Brown & Williamson 1985 Strategic Marketing Plan stated: "High attraction of starters key to growth whether by company (PM) or brand (Newport, Virginia Slims, Marlboro or Generics)." The document also discussed the marketing strategy for Kool: "concentrate efforts on young adult, male prime prospects. . . . Advertising should symbolize both the best cigarette (quality) and a contemporary image of masculinity, self-assurance, confidence and control (cool)." 670146621-6701 at 6626, 6637, 6638 (U.S. Ex. 30,805).

3862. A March 6, 1985 Brown & Williamson memorandum from Brand Assistant A.G. Forsythe to R.D. Sharp, a Brown & Williamson Group Product Director, copied to Brand Assistant D.N. Lapere and L.D. Johnson posed the question: "How did Marlboro and Newport become the in-brands?" With respect to Newport, the response was "Newport was a regional brand that depended primarily on local programs targeted to young adults (beach events, sampling, vans, etc.) supported primarily by outdoor. Like Marlboro, Newport has maintained creative consistency since the early 70's. The Newport campaign has been tightly targeted to young adults. During this time, Kool either had no user image campaigns or was depicting older models. As a result 'Ports' [Newports] has become the in-brand among young Black adults while Kool has declined significantly among this group." This document also stated that "Kool must aggressively seek to re-establish itself among young adults with aggressive programs" such as music events and outdoor advertising. 554000052-0060 at 0053 (U.S. Ex. 20,937).

3863. An April 19, 1985 internal Brown & Williamson memorandum from Lawrence E.

Gravely, Research Operations Manager, to Betty A. Sproule, Research, Development and Engineering, regarding "ARE STARTERS YOUNG OR OLD?" stated: "This is in response to your question of April 18, 1985. This data comes from the 1984 Brand Switcher . . . Starters are: 50.8% [ages] 16-25." 670541820-1820 (U.S. Ex. 20,970).

3864. An internal April 29, 1985 document analyzing the success of the Marlboro brand entitled "Resolve Brand Marketing Strategies" stated that Brown & Williamson's market weaknesses were among starters and switchers, largely due to the company's "failure to meet needs of young smokers." The author also stated that Kool needs to "focus on young adults." 528000268-0279 at 0269, 0275 (U.S. Ex. 20,924).

3865. A June 1985 Brown & Williamson document entitled "The Marlboro Success Story" found that the Marlboro Man advertising capitalized on the "confusion, especially on the part of young men, who were looking for role models in the media for the first time." The document further stated that the "milder character in a smooth, mellow cigarette, was critical to Marlboro's success . . . The young male smokers, not yet ready for the harsh taste of the major competition could project their manliness while smoking a cigarette they could tolerate. . . While the blend is different . . . the rich/mellow dichotomy was monitored and continued to be preferred versus competitive products, especially among the critical younger male target audience." 542001043-1046 at 1044-1045 (U.S. Ex. 55,134).

3866. A July 9, 1985 Brown & Williamson document entitled "Beta M National Theoretical Media Plan" stated that the "target audience for Brown & Williamson's BETA-M cigarette" was "[w]omen [s]mokers 18-34 years of age," and recommended placing advertising in

Ms. magazine "because of its special editorial directed to young women. *Ms.* magazine ranks high with women smokers age 18-34." It further recommended placing advertising in *Rolling Stone*, *Record*, and *Spin*, all described as "youth targeted music books." 670661599-1665 at 1627, 1628 (U.S. Ex. 23,054).

3867. BATCo's November 1985 General Marketing Policies declared that "overall BATCo strategy will be market specific and multi-brand but within each major market major effort behind one brand aimed at starters/young adults." 109870521-0561 at 0536 (U.S. Ex. 21,925); 700429626-9685 (U.S. Ex. 54,540).

3868. A 1987 document entitled "Econometric Analyses of the Kool Brand Family and Newport Brand Family With Recommendations" included data on the birth rates of teenagers, including both "white birth rates" of "17, 19, 26 and 27 year olds," and the "non-white birth rates" of "13, 16, 17, 18, 21 and 26 year olds." 795005304-5331 at 5307 (U.S. Ex. 21,056).

3869. A February 17, 1987 memorandum entitled "Kool Isn't Getting the Starters" from D.V. Cantrell at Brown & Williamson to I.D. Macdonald, Brown & Williamson Marketing Vice President, addressed "the fact that Kool is no longer attracting new smokers (further referred to as starters)." The memorandum explained that "Menthol brands have been said to be good starter products because new smokers appear to know that menthol covers up some of the tobacco taste, and they already know what the menthol tastes like, vis-a-vis candy." 621079918-9921at 9918, 1920 (U.S. Ex. 30,792).

3870. A July 2, 1987 Brown & Williamson memorandum to "all area promotion managers" entitled "Kool Nights Bar Promotions" described a program "to conduct bar

promotions in inner-city, Black neighborhoods to increase awareness and trial of Kool Milds and to further reinforce Kool as the leading Menthol Brand." Under the program, packs of Kool Milds would be made available for sampling (free give-aways) and area managers would be allocated "bar kits" including promotional items such as Kools Milds ashtrays, "Kool & Mild Today" table tents, and "Kooltown" t-shirts. In a section entitled "Publicity," the memorandum suggested having local radio stations co-sponsor Kool Night events in order to "maximize awareness and attendance at your event; however no funds are authorized for this purpose." In addition, the memorandum instructed that the radio stations could broadcast the date, location, and times of the events, but could not mention the word Kool during any on-air promotion. 671712346-2355 at 2347-2349 (U.S. Ex. 22,182).

3871. A document produced by BATCo, apparently drafted between 1987 and 1989, discussed "Project Saturn," an Imperial Tobacco project that explored adding flavors including "berry," "maple," "spearmint," and "vanilla" to cigarettes. Focus group testing of these cigarettes emphasized participants' "experience as beginning smokers." A summary of the focus group findings described an "experimental phase – 9-12 years old" which included smoking out of curiosity, in a desire for social acceptance, and to revolt against authority. It also described "adoption phase – 14-16 years old - high school" which included smoking to follow role models in order to avoid rejection by peers, to revolt against authority, and as a right of passage. The document also pointed out that smokers "tend to stay with" the brand that they adopt between the ages of 14 and 16. 400229127-9148 at 9131-9132, 9134, 9138, 9139 (U.S. Ex. 47,489).

3872. A memorandum dated December 18, 1991 from The Creative Research Group to

Brown & Williamson attached an Imperial Tobacco report entitled "Project Viking Study (Wave 1, 1986 and Wave 2, 1988)" that studied Canadian smokers and non-smokers as young as 15 years old. The memorandum also stated that the 1990 "Project Viking" study "was aimed at providing BAT personnel with the background information from which appropriate factual responses can be prepared to questions raised about the ITL documents." 566627937-7946 at 7937-7938 (U.S. Ex. 53,145); 689466608-6608 (U.S. Ex. 25,458).

3873. Minutes from a November 5, 1992 BATCo Management Board Meeting revealed that the company was aware of, and even calculated, the monetary value of cigarette brand exposure through the sponsorship of televised sporting events. Specifically, BATCo estimated the value of the television airtime that its brand State Express 555 would receive through its sponsorship of the Subaru International Rally Works Team in the 1993 World and Asian Specific Rallies Championship. 320010638-0640 at 32001639 (U.S. Ex. 28,201); 321440293-0311 at 0294 (U.S. Ex. 85,217).

3874. A November 1993 report entitled "The Psychology of Significant Moments and Peak Experiences in Cigarette Smoking, The Motivations and Semiological of Smoking" was prepared by Hugh Baines Research for BATCo. One section of the report focused on children's motivations to begin smoking, finding that: "Children's reasons for experimenting with smoking: Children start to experiment with smoking for a variety of reasons. Observing adults smoking, children from a very early age often substitute objects as 'pretend cigarettes' in play, mimicking the actions adults make when smoking." 500287512-7596 at 7532 (U.S. Ex. 20,624).

3875. An August 2, 1994 letter from Laura Moorhead at Campbell Mithun & Esty, an advertising and marketing communications firm, to Donnar Sengalaub, a Brown & Williamson Marketing Financial Analyst, showed that in 1994 Kool had a higher media and sales promotion production budget than Viceroy and Capri. An August 25, 1994 invoice from Campbell Mithun & Esty indicated that in 1994 Brown & Williamson placed Kool advertisements in magazines with a substantial youth readership, such as *Sporting News* and *Sports Illustrated*. According to MRI data, nearly 28% of readers of *Sporting News*, and nearly 18% of readers of *Sports Illustrated* were between the ages of 12 to 17 in 1994. 671443677-3677 (U.S. Ex. 20,974); 461301164-1167 at 1166 (U.S. Ex. 21,994); Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 2, ¶ 5, Exhibit A (U.S. Ex. 75,942).

3876. At his October 29, 2002 deposition in this case, Carl Schoenbachler testified that Brown & Williamson in the mid-1990s was interested in acquiring Santa Fe Tobacco because Brown & Williamson needed to address the problem of having "a fairly old brand portfolio when measured in demographic terms." Santa Fe Tobacco's main brand, American Spirit, had "grown year after year after year and so, and . . . [was] a very much younger, ASU 30 type of brand." Deposition of Carl Schoenbachler, United States v. Philip Morris, et al., October 29, 2002, 37:14-40:5.

3877. In 1995, Brown & Williamson employees attended regular meetings at BAT Centre of the Brand Group, meetings attended by brand managers and marketing executives from all BAT operating companies. At these meetings, Brown & Williamson and all the sister operating companies shared brand advertising campaigns, product development plans, packaging

research, and marketing research. Although Brown & Williamson claims it does not market to persons under age 21 or perform market research using persons under age 21, the BAT global policy is that it markets to and conducts market research on persons ages 18 and above. Deposition of Sharon Smith, United States v. Philip Morris, et al., February 28, 2002, 16:19-17:19; 25:11-13; 42:24-44:4; 59:2-14; 500049909-9912 (U.S. Ex. 20,618); 283000783-0787 at 0783-0784 (U.S. Ex 87,810).

3878.

500029079-9090 at 9080-81 (U.S. Ex. 66,280) (Category I).

3879. On January 11, 1995 Tim Rutter, Creative Alliance employee, sent a document entitled "Growing the Kool Franchise" to Robert John Dunham, Kool Brand Manager, which included "initial, topline ideas for enhancing the growth of Kool." Rutter stated that "[t]he Kool franchise continues to age, attracting fewer and fewer new customers each year." Suggestions for "growth" include vending machines and Kool signage inside jukeboxes in bars and nightclubs. 291001508-1508 (U.S. Ex. 67,743); 291001509-1515 at 1509, 1513 (U.S. Ex. 22,992).

3880. A letter dated October 10, 1995 from Nicholas G. Brookes, Brown & Williamson Chairman and Chief Executive Officer, to Hilary Barton, BATCo employee, enclosed "briefing notes" including one entitled "B&W's Strategic Vision." The notes stated that, in 1995, Brown

& Williamson's strategic vision was to generate "sustainable long-term growth through increased penetration of young adult smokers (Kool, Lucky Strike)." The briefing notes also stated that "[b]uilding a strong position in the YAS segment has been identified as a priority during the plan period." 582302425-2436 at 2426, 2434 (U.S. Ex. 20,942).

3881. At her February 22, 2002 deposition in this case, Brown & Williamson Director of Creative Services Sharon Smith testified that the company engaged in intense market research beginning in 1995 into advertising campaigns emphasizing independence, masculinity, and peer leadership, which led to the creation of revised Kool and Lucky Strike campaigns which were run in 1998. In an April 28, 1998 Business Briefing video, Senior Market Analyst Nick Wilkerson discussed "Project Look," an attempt to re-establish Kool among so-called younger adults. At this time, Kool was by far Brown & Williamson's most profitable brand, representing 20% of Brown & Williamson's sales volume. In fact, Wilkerson stated that Kool was extremely important to both Brown & Williamson and BAT. Consequently, when market research showed that Kool received low ratings for "leading brand," "kept up with times," and "for a younger adult," Brown & Williamson embarked on a repositioning of the brand "to stay relevant." Wilkerson stated that the purpose of "Project Look" – which included the new Kool soft and box packs, the "Team Kool Green" Indy car, and "B Kool" advertising campaign – was to reestablish the Kool brand among younger adults. Wilkerson reported positive marketing research results from consumer focus groups about the B Kool advertising campaign. In the April 28, 1998 Business Briefing Video, Wilkerson stated that Brown & Williamson wanted to launch these campaigns at the beginning of 1998, before the marketing environment became more restricted.

Deposition of Sharon Smith, United States v. Philip Morris, et al., February 22, 2002, 27:4-6, 29:9-12, 29:18-20, 30:10-20, 36:2-37:5, 58:8-59:6, 64:11-65:4, 182:24-184:5, 194:4-7; 582302425-2436 at 2426 (U.S. Ex. 20,942); Deposition of Sharon Smith, United States v. Philip Morris, et al., February 28, 2002, 123:5-22; DXA0031418-1423 (U.S. Ex. 87,812); 462109239-9240 (U.S. Ex. 47,668); DXA1100054-0054 (U.S. Ex. 87,811); 166000000-0024 (U.S. Ex. 87,813); 307000035-0036 (U.S. Ex. 87,814); 465960989-1027 (U.S. Ex. 87,815); 465961028-1029 (U.S. Ex. 87,816).

3882. On December 12, 1995, Ed Gelson from Market Research at Brown & Williamson faxed a document to Faisal Saigol at Bain & Company entitled "Consumer Classification Matrix – Status Update." The original update had been sent from Jonathan Bean (Bain & Company, London) to John Winebrenner on November 29, 1995. In the update, Bain & Company conducted an analysis of seven countries including the United States "to determine the most valuable segments for BAT both on a country and global level." In summarizing the United States' market, the update indicated that "BAT is weak in full revenue Lights/Ultra and amongst the young[,]" and articulated a ". . . [n]eed to strengthen BAT position in Full Flavour Lights category, either targeted at young smokers or at other smokers as they step down." 306003470-3491 at 3471, 3476, 3484 (U.S. Ex. 24,081).

3883. Between 1995 and 1999, Brown & Williamson attempted to promote the "ubiquity" of Kool; Brown & Williamson marketing executives refer to the concept of "ubiquity" as "a perception of popularity." Deposition of Robert Bexon, United States v. Philip Morris, et al., March 26, 2003, at 121:12-122:16; 321440293-0311 at 0293 (U.S. Ex. 85,217).

3884. A 1996 Brown & Williamson study of the Kool brand reported that "Young Adult Smokers (YAS) represent approximately 11% of total smokers in the U.S." and that "[b]uilding a strong position in the YAS segment is critical to achieving long-term sustainable growth in the U.S. market." The document further stated that Brown & Williamson "continues to significantly underperform" in this important segment. 314002773-2792 at 2776 (U.S. Ex. 21,835).

3885. In a 1996 BATCo memorandum entitled "Brand Portfolio Strategy Development," Bob Miller, BATCo's Head of Marketing Information, stated that "[g]aining young adult smokers is critical for the future growth of our brands and business (ergo, YAUS [young adult urban smokers] target audiences across many key brands)." 780011787-1790 at 1787 (U.S. Ex. 22,197).

3886. A March 27, 1996 Marketing Research-Initiating Project brief outlined a research project in conjunction with the 125th anniversary of the Lucky Strike trademark. The objective of the research was to "understand consumer's general perception on the idea of . . . celebrating the 125th anniversary of the Lucky Strike Trademark. Participants in the research included individuals as young as 18. The research results were to be submitted to the Lucky Strike United States International Brand Group in Louisville, including Paul Wessel, a Vice President of Marketing at Brown & Williamson. This evidence contradicted the company's professed policy of not conducting marketing research on individuals under 21. 780003262-3264 at 3262-3263 (U.S. Ex. 22,196).

3887. Paul Wessel, Brown & Williamson Divisional Vice President, testified at his March 19, 2003 deposition that employees in the International Brand Group in Louisville had

access to a database that included research on individuals under 21, despite Brown & Williamson's policy of not conducting consumer research on individuals under 21. He further testified that these consumer surveys included information on brands such as Lucky Strike and State Express 555 which are sold in the United States. When asked whether the consumer surveys were limited to individuals under 21, he testified that "they would go market by market, subject to age of majority . . . [and that] some markets go lower than 21, down to 18." Deposition of Paul Wessel, United States v. Philip Morris, et al., March 19, 2003, 64:6-71:4.

3888. In the "Project Look Overview Brief" dated October 1, 1996, Nick Wilkerson, Director of Market Strategy and Development for Brown & Williamson, discussed "Kool's shortfalls in image attributes [among] . . . Young Adult Smokers." The document indicated that Project Look aimed to "return Kool to its heritage by making the brand relevant over time to male smokers aged 21-30" by sponsoring race events and by the promotion of sports and music events. With respect to promotions, the document stated that "primary consideration should be given to addressing the wants and needs of the Noisy Boys." 295020733-0739 at 0734, 0736-0737 (U.S. Ex. 36,451).

3889. A summary of an October 11, 1996 Brown & Williamson marketing meeting in Louisville documented that "JR [BATCo Marketing Director Jimmi Rembiszewski] complimented the new Kool promotion concepts ("Extremely Kool," "House of Blues") as excellent tools to help make Kool more relevant to young adult smokers and bring the brand up-to-date." 800058817-8821 at 8820 (U.S. Ex. 56,547).

3890.

800251281-1299 at 1282, 1287 (U.S. Ex. 56,593) (Category I).

3891. The 1997 Media Plan for Kool cigarettes listed the following among its objectives" "Communicate 'Up-to-Date', 'Leading Brand', 'Quality', and Popular.'" The 1997 preliminary list of magazines in which Kool advertisements were placed included publications such as *Spin* and *Sport*, each of which had a youth readership (readers between the ages of 12 to 17) of over 30%. In 1997, Brown & Williamson spent $429,800 on advertising in *Spin* and $391,000 on advertising in *Sport*. 176020856-0296 (U.S. Ex. 23,357); Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 2, ¶ 5, Exhibit A, Exhibit B3 (U.S. Ex. 75,942).

3892. The 1997 Creative Plan For Kool cigarettes included a section on the development of creative images to be used in advertisements, in POS, and in communications to support the Kool Indy car sponsorship. The plan indicated that the images should "[r]eflect masculinity, popularity, and young adult imagery in a manner that differentiates Kool from Newport and Marlboro Menthol through a contemporary exploitation of the Kool Indy car program." 176020757-0775 at 0773 (U.S. Ex. 23,344).

3893. The 1997 Media Plan for Lucky Strike cigarettes described its "Target" as "21-25

Year Old Make Smokers . . . Bohemian Noisy Boys." 176020856-0926 at 0910 (U.S. Ex. 23,357).

3894. In 1997 Brown & Williamson sponsored the H.O.R.D.E. (Horizons of Rock Developing Everywhere) Festival, an annual all-day music festival which was staged in 28 cities across the United States over the summer. Prior to the H.O.R.D.E Festival, Brown & Williamson sponsored the "Extremely Kool Band-to-Band Combat" competitions in 10 U.S. cities "with the grand prize being the opening act on the Second Stage at three H.O.R.D.E shows." The objectives for the "Extremely Kool Band-to-Band Combat" competitions included "[i]mprov[ing] perceptions of Kool as a popular, up-to-date, leading brand" and capturing names for Brown & Williamson's smoker database. 306014279-4279 (U.S. Ex. 22,102).

3895.

325335439-5468 at 5443, 5445, 5451 (U.S. Ex. 24,093) (Category I).

3896. Other internal documents confirm that Brown & Williamson sought to "update the image of its Kool brand" with its "B Kool" advertising.

462110343-0376 at 0344 (U.S. Ex. 22,490); 309031048-1071 at 1051 (U.S. Ex. 22,660) (Category I); 315022030-2207 at 2041 (U.S. Ex. 22,496); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R. 676; filed Nov. 15, 2001) at 11-12, 14-16; Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665; filed Nov. 15, 2001) at 22-23.

3897. A February 12, 1997 agreement between Brown & Williamson and Gateway Motorsports Corporation made Kool the "Official and Exclusive Tobacco Sponsor" of the 1997-1998 CART World Series event at Gateway International Raceway. Brown & Williamson received the right to display Kool banners and signage around the racetrack, as well as point of sale signage "in and around all concession areas." The agreement also included provisions guaranteeing that Kool would receive six P.A. announcements each day of the event, and provisions authorizing Brown & Williamson to conduct a direct mail promotion in connection with the event. 323011515-1519 at 1515-1516, 1517 (U.S. Ex. 47,068).

3898. In March 26, 1997 internal correspondence to Tom Moser, BATCo employee, Bert Kremer, Brown & Williamson Director Sponsorship and Promotions, stated that Brown & Williamson "wants to acquire a first-class merchandising unit for Team Kool green merchandise sales at CART races and other events." The correspondence indicated that Brown & Williamson anticipated that FDA marketing restrictions, if they were implemented, would eliminate this activity, "it is not prudent to invest in a first-class unit unless there is a defined need for the unit

elsewhere within the [BAT group]" 323011968-1968 (U.S. Ex. 85,218).

3899. Nancy Spriggs of media relations for Brown & Williamson sent an inter-office memorandum dated April 4, 1997 regarding the "Indy Winner Ad" which stated that "to get more 'national' exposure, the best opportunity appears to be Sports Illustrated." According to MRI data, 18% of *Sports Illustrated* readers were between the ages of 12 to 17 in 1997. 220280587-0587 at 0587 (U.S. Ex. 20,541); Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 2, ¶ 5, Exhibit A (U.S. Ex. 75,942).

3900. At her February 22, 2002 deposition in this case, Sharon Smith testified that Brown & Williamson received Imperial Tobacco market research showing the success of Players' Indy car sponsorship, information which motivated Brown & Williamson to embark on Kool's recent Indy car sponsorship. Smith further testified that Brown & Williamson chose the Indy car CART sponsorship for Kool in order to convey that Kool was a modern, high quality brand for men. Smith also testified that the Indy car CART races attracted "a very young crowd, with 53 percent of the audience being in the 21 to 35 age bracket." Smith confirmed that CART racing news is carried in several car and sport magazines with substantial readership among youth ages 12 to 17. Deposition of Sharon Smith, United States v. Philip Morris, et al., February 22, 2002, 81:01-82:11, 175:00-176:00; 680116947-6968 at 6958 (U.S. Ex. 21,877); 282300205-0207 (U.S. Ex. 20,574); DXA0031418-1423 (U.S. Ex. 87,812); DXA1100055-0055 (U.S. Ex. 87,817).

3901. A May 30, 1997 BATCo plan entitled "Lucky Strike – Strategic Development of Get Lucky Campaign" produced from the files of Brown & Williamson demonstrated that Brown & Williamson had access to and reviewed BATCo marketing research using smokers under 21.

The plan discussed Lucky Strike's "[e]xtremely successful results . . . achieved in two . . . key test markets," and indicated that the principal target group of the Lucky Strike campaign was male young adult urban smokers ages 18 to 25 who were "opinion leaders and trendsetters." The document described Lucky Strike as: "James Dean – an archetypal Luckies smoker," "a legendary marque of teenage rebellion and rock 'n' roll heroes of the 1950's," "having a smooth, not harsh smoke, and communicating an irreverent, light-hearted humor." It stated: "Lucky Strike is one of the greatest 'badges' of all time . . . . Cigarette consumers crave this sort of 'badge'; it is more important to them than anything else. This sort of authenticity is rare and invaluable since it demonstrates to peer groups that you are 'in the know.'" 844002422-2437 at 2432, 2434, 2437 (U.S. Ex. 21,921).

3902. An August 21, 1997 letter from Roger DiPasca at Grey Advertising to Nick Wilkerson, Sharon Smith and Leslye Thornton, Manager of Marketing Research at Brown & Williamson, included information regarding a "psychographic" study the focus of which was young men whose personalities were described as "noisy boys #2 and 3." 220280849-0849 (U.S. Ex. 20,542).

3903. A Brown & Williamson list dated August 21, 1997 entitled "Kool Oct./Nov. Magazines That Can Run 'B Kool'" included magazines such as *Jet* and *Rolling Stone*, both of which have a high percentage and a high actual number of 12 to 17-year old readers. According to MRI data, nearly 16% of readers of *Jet*, and 20% of readers of *Rolling Stone*, were ages 12 to 17 in 1997. 309030164-0164 (U.S. Ex. 20,585); Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 2, ¶ 5, Exhibit A (U.S. Ex. 75,942).

3904. Nicholas Brookes testified at his March 31, 2003 deposition in this case that Brown & Williamson advertised its Kool cigarettes using a marketing campaign known as "B-Kool." According to Brookes, the campaign had an "ASU 30 [adult smoker under 30] focus" and was "focused on a play of words . . . around the name of our brand Kool." When asked whether Brown &Williamson considered whether the "phrase 'B Kool' might be attractive to youth," Brookes responded: "I am sure we did not." Deposition of Nicholas Brookes, United States v. Philip Morris, et al., March 31, 2003, 58:19-60:24.

3905. In or about late 1997, BAT (Holdings) Tobacco Management Board received a report recommending the "One Step Ahead" program of developing "a model to be used to determine various shades of darkness [marketing restrictions] experienced by end markets [the operating companies] and what actions should be taken at each stage to maximize corporate reputation and competitive advantage." 321331611-1618 at 1614 (U.S. Ex. 85,219). Some of the marketing vehicles BAT used, or considered using, in 1997 and 1998 were product placement and Formula 1 racing. 800134922-4924 (U.S. Ex. 85,220) 800134925-4928 (U.S. 31,705); 800134928-4929 (U.S. Ex. 31,707); 321463617-3618 (U.S. Ex. 24,083).

3906. GPC, a Brown & Williamson Brand, was the title sponsor of the 1998 and 1999 George Strait Country Music Festival National Tours. The festivals were comprised of 10 or 12 events across the summer months, with activities such as a country and western GPC smoking room; GPC also appeared on promotional material for selling tickets and signage. Deposition of Robert Bexon, United States v. Philip Morris, et al., Mar. 26, 2003, at 185:20-189:9; 283204039-4040 (U.S. Ex. 85,221).

3907. An April 6, 1998 Brown & Williamson memorandum entitled "Kool Mix Nights" from Jeff Picket, Manager of Trade Marketing Promotions, to Roger DiPasca at Grey Advertising suggested targeting 21 year old and over smokers with promotions at urban dance clubs. 210430224-0228 (U.S. Ex. 21,825).

3908.

142000500-0663 at 0503, 0558-0559 (U.S. Ex. 23,342) (Category I).

3909. A December 8, 1998 TMG Worldwide proposal to Brown & Williamson for the development of a Kool brand loyalty program contained a situation analysis that provided information on the growth of the age 18 and older "smoker universe." The report detailed the growth of the Marlboro, Newport, and Camel brands from 1994 to 1998 among this population in contrast to the decrease in the number of Kool smokers among the same population.

318034354-4406 at 4360-61 (U.S. Ex. 22,215).

3910.

321539777-9806 at 9782, 9787-9788 (U.S. Ex. 24,084) (Category I).

3911. A May 19, 1999 memorandum from Patrick Carrol, BATCo affiliate employee, to Brian O'Connell, a BATCo employee, and copied to Susan Ivey, current CEO of Brown & Williamson, entitled "Potential Marketing Uses of the Internet" stated that "the most valued smoker at BAT is the ASU." 321884042-4042 at 4042 (U.S. Ex. 88,159).

3912. At his May 21, 2002 deposition in this case, Carl Schoenbachler, current president and CEO of BATIC (a parent of Brown & Williamson Tobacco and a holding entity for Brown & Williamson Tobacco and related tobacco subsidiaries), was asked if the statement "The key to sustainable long-term profit growth in the U.S. is ASU30" was accurate. Schoenbachler responded: "Yes, I would say that's true." He explained that "there tends to be a great deal of loyalty in cigarette brands. So, just a natural mathematical equation would suggest if you -- if you don't have thirty-year-olds smoking your product, you won't have forty-year olds and fifty-year-olds. It's a very brand loyal business." Carl Schoenbachler conceded that there would

be a financial benefit for Brown & Williamson if it was able to obtain market share in the under 21 age group. He also testified that although the company has a stated policy of not marketing to non-smokers, "it was a reasonable conclusion" that Brown & Williamson would become unprofitable if non-smokers did not become smokers. Deposition of Carl Schoenbachler, United States v. Philip Morris, et al., May 21, 2002, 72:16-73:22; 141:11-141:21; 152:16-153:8.

3913. In a report dated June 9, 1999 entitled "Creative Brief - Brand Kool," Bates USA analyzed its client Brown & Williamson's request to have Bates create t-shirts featuring Team Kool Green, an auto racing team. To target the under 30 crowd, Bates USA stated, "T-shirt design should reflect the attitude, tonality of Team Kool Green and the sport of CART racing: on-the edge, bold, high-speed excitement, 'instinctual passion,' 'kick butt' attitude, 'Gotta-have-it' design." The shirts were to "be sold at race tracks during the races from open vans/trailers (makeshift stores) and vendor kiosks under the grand stands." 309030803-0805 at 0803 (U.S. Ex. 21,846).

3914.

___ 325116042-6218 at 6140 (U.S. Ex. 80,676) (Category I)

3915.

325114510-4548 at 4512, 4514, 4523 (U.S. Ex. 24,091) (Category I).

3916.

250300207-0268 at 0210, 0222 (U.S. Ex. 25,512) (Category I).

3917. In May 2000, Brown & Williamson launched a new advertising campaign for Kool known as the "House of Menthol" campaign. Brown & Williamson sought to market to youth through its "House of Menthol" advertising. Richard Newman, executive vice president and worldwide account director at BATES USA, stated that one of the meanings associated with "House" is house music, a type of music which is popular with teenagers. 700500191-0193 at 0193 (U.S. Ex. 85,223); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R. 676; filed Nov. 15, 2001) at 20.

3918. Contrary to its public assertions that it does not conduct research on individuals

under 21,

271101190-1121 (U.S. Ex. 22,210) (Category I).

3919. On March 18, 2004, Brown & Williamson issued a press release entitled "Kool Introduces Smooth Fusions: Innovative Menthol Experiences With A Revolutionary Pack Design." The press release announced the introduction of flavored Kool cigarettes and stated that "[t]he four Kool Smooth Fusions are Caribbean Chill, Midnight Berry, Mocha Taboo and Mintrigue." The press release further stated that, "[r]esponding to the demand of the hip trendsetting consumers, Kool Smooth Fusions packs will be introduced in bar, restaurant and night club venues, making it available to the most up-to-date, plugged in smokers. Further expansion is planned for later in the year." http://www.bw.com/Index_sub2.cfm?ID=11 (U.S. Ex. 87,745)

3920. Nicholas Brookes conceded at his March 31, 2003, deposition in this case that it is possible that some nonsmokers might be "prompted by an advertisement" to start smoking. Deposition of Nicholas Brookes, United States v. Philip Morris, et al., March 31, 2003, 77:17-78:2.

3921. At her June 20, 2002 deposition in this case, Susan Ivey, President and Chief Executive Officer of Brown & Williamson, conceded that it was possible that advertisements

targeting adults could appeal to youth. Deposition of Susan Ivey, United States v. Philip Morris, et al., June 20, 2002, 145:23-146:10; 153:14-153:25.

3922. Susan Ivey also testified that youth smoking is driven by "issues facing youth; rebellion and wanting to rebel," as well as peers and parents. Deposition of Susan Ivey, United States v. Philip Morris, et al., June 20, 2002, 155:12-156:6.

3923. At his May 21, 2002 deposition in this case, Carl Schoenbachler, current president and CEO of BATIC (a parent of Brown & Williamson Tobacco and a holding entity for Brown & Williamson Tobacco and related tobacco subsidiaries) testified that Brown & Williamson's marketing expenditures have increased since the Master Settlement Agreement ("MSA"). Deposition of Carl Schoenbachler, United States v. Philip Morris, et al., May 21, 2002, 108:20-109:5.

3924. At his March 19, 2003 deposition in this case, Paul Wessel, Brown & Williamson Divisional Vice President, testified that Brown & Williamson defined youth as "people who are below the age of majority to smoke," which would be 19 in certain states. Wessel also testified that Brown & Williamson would market to individuals as young as 19 in states where that was the age of the majority. Therefore, contrary to its stated policy not to market its product to individuals under 21, Brown & Williamson marketed its cigarettes in certain circumstances to individuals under 21. Deposition of Paul Wessel, United States v. Philip Morris, et al., March 19, 2003, 58:21-59:9.

(g) R.J. Reynolds Knew That Its Public Statements Were False and Misleading

3925. R.J. Reynolds requested and obtained a proposal dated March 14, 1958 from

George MacGovern of the William Esty Company to study high school students' attitudes toward cigarette smoking. 501113763-3764 (U.S. Ex. 22,361).

3926. A December 9, 1958 letter from MacGovern to W.A. Sugg, R.J. Reynolds, enclosed a marketing study of the smoking habits of high school and college students undertaken by the William Esty Company resulting from the March 14, 1958 R.J. Reynolds proposal. One of the conclusions reached was that, "Preference-wise, CAMEL and WINSTON are shown as holding their shares substantially constant while SALEM increased its share, especially among high school students." 501113723-3730 (U.S. Ex. 22,366).

3927. The December 1958 report prepared at R.J. Reynolds' request was entitled "Summary of Findings" of "The Youth Research Institute Study Regarding Cigarette Smoking Among 8,112 High School and College Students in 82 Cities Throughout the United States, October – November, 1958." The report included data and conclusions on smoking incidence, smoking volume, and brand preferences of 3,052 high school students, 58% of whom were smokers, and 5,060 college students, 73% of whom were smokers. Both the high school and the college categories were further broken down into "freshman-sophomore" and "junior-senior" classes. 501113743-3749 (U.S. Ex. 22,362).

3928.

517145828-5830 at 5828 (U.S. Ex. 80,621) (Confidential).

3929. A lengthy February 1964 report prepared for R.J. Reynolds by the William Esty

Company entitled "Summary of Findings" of "National Studies of Trends in Cigarette Smoking and Brand Preference Base Period Study – January, 1964" included further information on smoking incidence, smoking volume, and brand preferences for 8,863 families who participated in the National Family Opinion ("NFO") panel. Information in this report was collected on smokers as young as 16. 500396569-6607 at 6572 (U.S. Ex. 20,632).

3930. In a March 12, 1964 letter from W.A. Sugg at R.J. Reynolds to William S. Smith of the Tobacco Institute Advertising Committee, Sugg attached the February 1964 study and stated: "We [R.J. Reynolds] put a similar study in the field about February 10. . . . This and later studies will help us in evaluating changes in incidence of smoking, volume of smoking, and brand switching resulting from the report of the Surgeon General's committee and subsequent developments. . . . **The most interesting finding in the study is the great strength of WINSTON among young smokers, the brand having its highest preference share with teen-agers**, its next highest with young adults, and its lowest popularity with smokers 50 years of age and older." 501795141-5141 (U.S. Ex. 20,687) (emphasis added).

3931. A March 16, 1965 document produced from the files of R.J. Reynolds contains charts on the audience composition of various daytime television programs. At the top of each chart is a reference to "P. Lorillard Company." The first chart contains data on the percentage of viewers under age 17 for programs such as *Andy of Mayberry*. Subsequent charts break down the viewership of these programs into age groups as young as 2 to 5 years old. According to this document, 35.7% of the total viewers of *Andy of Mayberry* were between the ages of 2 and 5. 501934748-4757 at 4748-4749 (U.S. Ex. 87,818).

3932. In 1966, R.J. Reynolds ran advertisements for its cigarette products during television shows *The Beverly Hillbillies* and *The Flintstones*; R.J. Reynolds marketing documents described *The Flintstones* as an "adult comedy." In 1966, the Advertising Code Administrator, Robert B. Meyner, promulgated a rule that cigarettes could not be advertised during television shows for which over 45% of the viewing audience was under 21 years old. In response, R.J. Reynolds withdrew its sponsorship of *The Beverly Hillbillies* and changed its contract terms to require radio and television stations to run its cigarette advertisements only in adult time slots. 503686082-6096 (U.S. Ex. 20,722); 502283897-3897 (U.S. Ex. 21,501); 503685788-5798 (U.S. Ex. 21,502).

3933. In an April 9, 1968 memorandum entitled "Teenage and Adult Smoking Attitudes," T.P. Haller, Marketing and Research Department at R.J. Reynolds, recommended that R.J. Reynolds needed semi-annual studies of teenagers (both smokers and non-smokers) in order to "forecast future requirements in leaf buying, plant facilities, manpower, etc." Among other benefits, Haller stated that the study "will put light on the very vital teenage sector of the market." 517142447-2448 (U.S. Ex. 21,659).

3934. In a September 19, 1969 draft document entitled "Proposal of a New, Consumer-Oriented Business Strategy for R.J. Reynolds Tobacco Company," Claude E. Teague, Assistant Director of Research, analyzed the behavior of the "pre-smoker," Teague's term for a person who had not yet begun to smoke, most often a teenager. In his analysis, Teague stated that "the propensity of a pre-smoker to begin to smoke cigarettes is largely determined, on the positive side, by the gratifications he expects to receive. These are largely social and emotional

gratifications which may be offset by health anxieties and changes in the social acceptability of smoking." 500915701-5719 at 5706 (U.S. Ex. 21,433).

3935. As early as 1964, as set forth above, and during the 1970s, R.J. Reynolds gathered and interpreted data on the smoking habits of 14 to 17 year olds from the National Family Opinion ("NFO") survey results. National Family Opinion data could be used to determine how underage smokers perceived certain aspects of certain brands. At his May 13, 2002 deposition in this case, Donald Tredennick, Manager of Marketing Research at R.J. Reynolds, testified that during the 1970s he could use information from publicly available sources to determine why people under 18 started smoking. Tredennick further testified that, in the mid-1970s, R.J. Reynolds became aware by using various consumer research methods that their "share of market among younger people [was] much lower than it had to be in order to maximize [their] volume." Deposition of Donald Tredennick, United States v. Philip Morris, et al., May 13, 2002, 42:16- 46:20, 104:3-105:05, 148:22-149:09, 144:05-22, 171:07-24. The data on "teenage smokers" (14-17) from the NFO enabled the company to become very familiar with the teenage smoking market. Specifically, using the data, the company could calculate: the relative share of R.J. Reynolds in capturing this market; the share of each of the company's competitors in this age group; R.J. Reynolds's share among this age group among its own key brands; the share of the company's competitors in this age group by key cigarette brands, the share of the total market broken down by age and gender, and the number of cigarettes smoked per day in this age group broken down by gender. 501443912-3921 at 3913-3915 (U.S. Ex. 20,681).

3936. At an April 7, 1971 meeting between representatives of the R.J. Reynolds's Marketing Research Department and the William Esty Company, R.J. Reynolds decided to include and count smokers ages 13 and under and to begin profiling of 14 to 20-year olds in future National Family Opinion surveys. 500347108-7111 (U.S. Ex. 20,628).

3937. A July 2, 1971 letter from William Esty Company to Jerry Clawson, R.J. Reynolds's Marketing Research Department employee, reported the preliminary findings of a study requested by R.J. Reynolds regarding "smoking incidence and preference shares, by age, among those aged 14 to 20 responding to the new questionnaire" during the National Family Opinion survey. The letter concluded, "[f]inally, Jerry, you expressed interest in learning the number of cigarette smokers 13 or younger found in the sample. There were 14 such smokers [out of sample of 1,850 respondents], thirteen aged 13 and one aged 12." 506052583-2584 (U.S. Ex. 20,751).

3938. A November 29, 1971 report issued by the R.J. Reynolds's Marketing Research Department entitled "Marketing Research Report on NFO [National Family Opinion] Profiles for Camel Regular and Filter Cigarettes" concluded that "there are indications of progress in expanding our franchise among younger adult smokers." Attached to this report was a chart entitled "Younger Smokers - Ages 14-20." 501426066-6095 at 6067 (U.S. Ex. 20,679).

3939. Claude Teague wrote an April 14, 1972 report entitled "Research Planning Memorandum on the Nature of the Tobacco Business and the Crucial Role of Nicotine Therein." On the topic of smoking initiation, Teague wrote that a smoker "appears to start to smoke for purely psychological reasons -- to emulate a valued image, to conform, to experiment, to defy, to

be daring, to have something to do with his hands, and the like. Only after experiencing smoking for some period of time do the physiological 'satisfactions' and habituation become apparent and needed. Indeed, the first smoking experiences are often unpleasant until a tolerance for nicotine has been developed." 517142403-2411 at 2406-2407 (U.S. Ex. 68,558).

3940. A September 21, 1972 memorandum written by Joseph H. Sherrill, Director of Marketing Research at R.J. Reynolds, to William S. Smith, Tobacco Institute Advertising Committee, entitled "Company Shares Broken by Age Groups" stated "Philip Morris [is] the fastest growing company . . . among smokers under 35" and "that in the last six years Marlboro King has almost doubled its share with most all of its growth coming from young adults." 500769839-9840 at 9839 (U.S. Ex. 21,454).

3941. A September 26, 1972 memorandum entitled "Share of Smokers: By Age - Top Ten Brand Items" from Sherrill to Smith included tables tracking brand share among teenagers ages 14 and older based on April 1972 data. In the memorandum, Sherrill stated that "Marlboro King and Kool King have significantly higher shares among younger smokers than among the population in general." 500810043-0046 at 0043 (U.S. Ex. 21,456).

3942. In an October 25, 1972 letter to Robert A. Rechholtz, R.J. Reynolds Vice President and Marketing Director, Beverly Walker of Universal Pictures solicited the use of contemporary Winston and Camel cigarette radio advertisements for placement in the film "American Graffiti." Walker stated that "[t]he value of this type of subliminal advertising is known and accepted by now. It certainly seems an excellent means of having your products identified with the warmest aspects of American life, to a captive audience at 'prime' time."

500201433-1433 (U.S. Ex. 21,875).

3943. A December 18, 1972 memorandum by A.P. Ritchy, R.J. Reynolds employee, recommended "conducting the second phase of research to determine if the concept of a fruit wine flavored cigarette is viable among young adult smokers (18-35)." The memorandum stated: "Competitive brands, e.g. Marlboro and Kool, have exhibited exceptional strength in the under 35 age group, especially in the 14-24 age group. RJR Brands do not generally skew toward the younger socio-economic groups, and a product strategically targeted at this group would complement our current product line." 501283430-3431 (U.S. Ex. 20,675).

3944. In a February 2, 1973 R.J. Reynolds research planning memorandum entitled "Some Thoughts About New Brands of Cigarettes for the Youth Market," Teague addressed a dramatic decline in R.J. Reynolds market share due to Marlboro's success in attracting new teenage smokers. Teague addressed the significance of the underage market in these terms:

> At the outset it should be said that we are presently, and I believe unfairly, constrained from directly promoting cigarettes to the youth market; that is, to those in the approximately twenty-one year old and under group. Statistics show, however, that large, perhaps even increasing, numbers in that group are becoming smokers each year, despite bans on promotion of cigarettes to them. If this be so, there is certainly nothing immoral or unethical about our Company attempting to attract those smokers to our products. We should not in any way influence non-smokers to start smoking; rather we should simply recognize that many or most of the '21 and under' group will inevitably become smokers, and offer them an opportunity to use our brands. **Realistically, if our Company is to survive and prosper, over the long term, we must get our share of the youth market. In my opinion this will require new brands tailored to the youth market** . . . . Thus we need new brands designed to be particularly attractive to the young smoker, while ideally at the same time being appealing to all smokers. Several things will go to make up any such new "youth" brands . . .

> What image? and What quality? Perhaps these questions may best be approached by consideration of factors influencing pre-smokers to try smoking, learn to smoke and become confirmed smokers.

502987407-502987418 at 7408 (U.S. Ex. 20,708) (emphasis added).

3945. In the same 1973 memorandum, Teague examined the physical and physiological factors affecting the decision to begin smoking, and discussed "factors influencing pre-smokers to try smoking, learn to smoke and become confirmed smokers." Teague stated a teenager will "start to smoke for purely psychological reasons-to emulate a valued image, to conform, to experiment, to defy, to be daring, to have something to do with his hands, and the like." Teague added that beginning smokers may not like the physical effects of smoking at first, but after smoking for some period of time, the "physical and psychological habit patterns are firmly established and become self-perpetuating." 502987407-7418 (U.S. Ex. 20,708); 502987357-7368 (U.S. Ex. 21,475).

3946. Donald Tredennick, former Director of Consumer Research at R.J. Reynolds, subsequently reviewed the aforementioned memorandum entitled "Some Thoughts About New Brands of Cigarettes for the Youth Market," and made extensive notes on a copy of the memorandum. His handwritten comments included: "Outlandish attempt to exploit perceived vulnerabilities of youth (clearly 19 + <u>under</u>) . . . must start before 18 . . . clearly 21 + under including 'teens' . . . although bad marketing, his intent is clearly to induce non-smokers to become smokers . . . **almost the smoking gun**." 519556867-6878 (U.S. Ex. 85,227) (emphasis added).

3947. John McCain of the William Esty advertising firm sent a March 8, 1973 letter to

Jack Watson at R.J. Reynolds concerning National Family Opinion preference share data for 14-20 year old Marlboro and Winston smokers. McCain wrote that "[m]any manufacturers have 'studied' the 14-20 market in hopes of uncovering the 'secret' of the instant popularity some brands enjoy. . . . Creating a 'fad' in this market can be a great bonanza. To date, success, if it comes, has often been a function of luck than of prior marketing perception." 508453918-3920 at 3919 (U.S. Ex. 20,812).

3948. An April 12, 1973 R.J. Reynolds marketing group memorandum credited Marlboro's appealing advertising for its growing market share, particularly among young smokers:

> The Reynolds marketing group feels that the favorable share trend for Marlboro as compared to Winston is due almost entirely to the fact that Marlboro has hit upon a highly successful advertising copy approach. . . . Marlboro's ability to gain market share while Winston is losing market share, should in my judgment, be the primary concern of Reynolds in the cigarette field. . . . In my opinion some way must be found to sharply reverse the present market share trend on Winston vs. Marlboro if Reynolds is to retain its preeminent position in the cigarette field. It was said that young smokers are smoking Marlboros two-to-one over Winstons. This is an alarming statistic for Winston.

500165434-5439 at 5437-5438 (U.S. Ex. 21,494).

3949. A May 4, 1973 proposal entitled "Meet the Turk" was presented to R.J. Reynolds management to "expose management to the opportunity to aggressively position Camel Filter against the young adult market (male)." The proposal stated that males aged 14 to 34 "represent approximately 35% of 85 mm NFF [non-filter full flavor] smokers." 500723696-3718 at 3697 (U.S. Ex. 20,647).

3950. The November 1973 R.J. Reynolds Winston Box Marketing Plan recommended increasing marketing efforts to support the Winston box franchise because "[b]oth Winston and Marlboro enjoy their strongest franchise among the under 25 year old smoker and especially the young male smoker" and "[w]hile only 7.2% of all adult smokers (18 and over) smoke a cigarette in a Box, **24.4% of those 14-20 yrs . . . smoke a Box cigarette**" 500724265-4313 at 4272-4273 (U.S. Ex. 20,648) (emphasis added).

3951. A December 4, 1973 inter-office memorandum entitled "Cigarette Concept to Assure R.J. Reynolds a Larger Segment of the Youth Market" from Frank G. Colby, Associate Director of Scientific Information at R.J. Reynolds, to R.A. Bleyins stated "that to succeed in the youth market," the company should "develop a new R.J. Reynolds youth-appeal brand" that "delivered more 'enjoyment' or 'kicks.'" The memorandum stated: "**it should be easy to develop, within a relatively few weeks, these new youth-appeal cigarettes for market testing** for which the following advertising claims could be unequivocally proven: They will deliver more flavor, more enjoyment, and more puffs for the money than any large selling cigarette on the market, or for that matter, than any other cigarette now on the market." 501166152-6153 (U.S. Ex. 23,051) (emphasis added).

3952. A December 5, 1973 R.J. Reynolds internal study entitled "Salem 'Ripe 'n' Ready' Campaign Evaluation - Final," included a profile of black smokers ages 14 to 20. The study discussed the Salem "Ripe 'n' Ready" campaign, which was designed to increase Salem's market among black smokers but which was eventually terminated because it "failed to achieve its objective." 500791561-1577 at 1566 (U.S. Ex. 85,228).

3953. In 1974, Donald Tredennick, Manager of Consumer Research for R.J. Reynolds, was directed by a supervisor to determine what caused smokers to select their first brand of cigarettes. In response to this direction, Tredennick sent a July 3, 1974 memorandum to F. Hudnall Christopher, Director of Marketing Research for R.J. Reynolds. Using publicly available sources and consumer surveys of people over 18, Tredennick found that "most smokers begin smoking regularly and select a usual brand at or before the age of 18." Tredennick further stated: "If a person is going to smoke cigarettes, he generally starts during his teens, primarily to conform with a close friend or friends, to give himself greater confidence in a stress situation, or to avail himself or [sic] the physical enjoyment smoking offers . . . . The main causes of initial brand selection; i.e., the influence of friends, the user image a brand projects and differentiated product characteristics, are logically related to the reasons a young person begins to smoke." A table entitled "Age Started Smoking," which included a category for "12 & Under," was appended to this memorandum. 501899346-9355 at 9351 (U.S. Ex. 20,688).

3954. A February 28, 1974 inter-office memorandum from A.H. Laurene, Director at R.J. Reynolds, to Murray Senkus, Director of Research for R.J. Reynolds, and Claude Teague with the subject "New Product Proposals Which Would Require Some Research" indicated that "a low tar cigarette ('tar' range of VANTAGE and below) with good Marlboro character might be a winner in the youth market and in the elder Marlboro smokers' market." The memorandum proposed research and development of a "Camel Filter cigarette with increased free nicotine level and more Camel than Winston taste." 508116703-6704 (U.S. Ex.20,808).

3955. Joan F. Stuart, R.J. Reynolds marketing research employee, sent a March 15, 1974

letter to National Family Opinion. In the letter, R.J. Reynolds requested that, when National Family Opinion conducted its consumer surveys, it continued to question 14 to 18 year olds. The letter also requested different types of reports from National Family Opinion, including those entitled "Product Testing Availabilities," "Smoking Incidence & Brand Preference - ages 14-17," and "Sales Promotion/Special Events." 500487414-7416 (U.S. Ex. 21,865). On April 16, 1974, Stuart sent another letter to National Family Opinion. In this letter, she asked NFO to separately break out the results of the sales promotion questions for "men over 17 years of age." 500571477-1478 at 1477 (U.S. Ex. 22,498).

3956. In a March 21, 1974 letter from Jane Z. Martin of R.J. Reynolds's Marketing Research Department, to National Family Opinion's Kathe E. Schultz, Martin enclosed "the following books from [its] October, 1973 Screening of Smokers: . . . Cigarette Switching Matrix (Ages 14-20) . . . Cigarette Brand Preference Report (Ages 14-20)." 501375647-5648 at 5647 (U.S. Ex. 48,840).

3957. According to a R.J. Reynolds conference report, Teague met with R.J. Reynolds's internal marketing staff and representatives from outside advertising agency Tatham-Laird & Kudner on June 5, 1974. The report of this meeting identified R.J. Reynolds's developments in the area of creating a "Cigarette Designed for Beginning Smokers," stating: "This cigarette would be low in irritation and possibly contain an added flavor to make it easier for those who have never smoked before to acquire the taste for it more quickly. It would not necessarily be low in tar and nicotine content. The taste would be somewhat bland; there would be minimal aftertaste/buildup – which would tend to cut down on the 'motorman's glove' morning-after

mouth taste . . . . The idea is based on the fact that smoking to the initiate is a fairly traumatic experience." 503874245-4247 (U.S. Ex. 50,525); 501186367-6369 (U.S. Ex. 20,673); 500254578-4580 (U.S. Ex. 48,080); 501186367-6369 (U.S. Ex. 20,673).

3958. Douglas Cummins, an R.J. Reynolds employee, sent a September 24, 1974 letter to A.M. Allen, William Esty Company, with attachments entitled "Salem [cigarette brand] Back-Up Advertising and Creative Development Statement" to A.M. Allen, William Esty Company. The letter discussed Salem's "image problem among young adults as identified by several research studies over the past year (including focus groups, the segmentation study, etc.). . ." According to the letter "[t]he attached sheet outlines the objective and strategy and should serve as a guide for all of us in evaluating new [cigarette] campaign alternatives." The creative strategy was to "[i]mprove the Brand's image among young adults" by repositioning Salem's personality: "[t]his Brand 'personality' positioning will also provide, as a secondary benefit, an image which will improve Salem's attractiveness to . . . current Kool smokers . . . as well as to the majority of young adult smokers entering the cigarette market for the first time." The letter recommended communicating "simple, clear product benefit(s) compatible with the projected [cigarette] Brand personality" which "should serve as a rational handle for the consumer to use to justify Salem trial even though his real motivation for trial may be our improved image. In effect, then, our image advertising will be working through the 'back door' of the consumers mind." 501721136-1140 at 1136-1137 (U.S. Ex. 21,868).

3959. A September 30, 1974 R.J. Reynolds document entitled "1975 Marketing Plans Presentation" (also referred to as "The Hilton Head Report") stated: "In 1960, this young adult

market, the 14-24 age group, represented 21% of the population. . . . [T]hey will represent 27% of the population in 1975. They represent tomorrow's cigarette business. **As this 14-24 age group matures, they will account for a key share of the total cigarette volume – for at least the next 25 years.**" The presentation discussed the importance of youth smokers in reestablishing R.J. Reynolds's share of market growth and setting the marketing strategy that would be implemented to gain market share among youth. When asked whether this document was inconsistent with the statement that the industry does not market to youth, Brennan Dawson, Vice President of Public Affairs at the Tobacco Institute, responded "You would have to say that, yes." 500746950-6976 at 6951 (U.S. Ex. 21,609) (emphasis added); Deposition of Brennan Dawson, Iron Workers v. Philip Morris, December 17, 1998, 151:15-151:18, 162:20-162:23.

3960. In a November 26, 1974 memorandum entitled "R.J. Reynolds Tobacco Company Domestic Operating Goals," the company stated its "[p]rimary goal in 1975 and ensuing years is to reestablish R.J. Reynolds's share of growth in the domestic cigarette industry." Increasing the young adult franchise was crucial to reestablishing R.J. Reynolds's growth because the "14-24 age group in 1960 was 21% of population; in 1975 [it] will be 27% . . . [and a]s they mature, will account for key share of cigarette volume for next 25 years. Winston has 14% of this franchise, while Marlboro has 33% – Salem has 9% – Kool has 17%." The memorandum indicated that R.J. Reynolds "will direct advertising appeal to this young adult group without alienating the brand's current franchise." 500796928-6934 at 6928 (U.S. Ex. 22,363); 500796976-6983 at 6977 (U.S. Ex. 21,610).

3961. In a "Secret" memorandum dated January 23, 1975 to R.J. Reynolds President of

Marketing Charles Tucker, James F. Hind advised: "Our attached recommendation to expand nationally the successfully tested 'Meet the Turk' ad campaign and new Marlboro-type blend is another step to meet out marketing objective: To increase our young adult franchise. **To ensure increased and longer-term growth for Camel Filter, the brand must increase its share penetration among the 14-24 age group which have a new set of more liberal values and which represent tomorrow's cigarette business**." A handwritten cover memorandum to the "Secret" Hind memorandum revealed that Tucker subsequently obtained company approval of the "Turk" recommendation. 505775556-5561 at 5556, 5557 (U.S. Ex. 78,787) (emphasis added).

3962. A document entitled "Smokers Screening – October 1975 Profile (14-17)" conducted by National Family Opinion for R.J. Reynolds included cigarette brand preference information for respondents aged 14 to 17. 501375984-6124 (U.S. Ex. 48,841). A similar document, "Smokers Screening – April 1976 Profile (14-17)" also contained 1976 brand preference information for respondents aged 14 to 17. 501376255-6406 (U.S. Ex. 20,678).

3963. J.M. Wallace, R.J. Reynolds Marketing Research Department employee authored an October 30, 1975 product research report entitled "Share of Smokers by Age Group." Wallace's report provided an "annual update of trends in share of smokers by age. Information is drawn from the April NFO [National Family Opinion] panels." Wallace continued:

> Marlboro's traditional source of strength – younger smokers, though still sizeable, is eroding at a rapid rate. Between April, 1974 and April, 1975, Marlboro King showed a five share point loss in the 14-17 year-old age group and since 1973, Marlboro King's share of market has declined by 8 share points in this segment . . . . Winston King did not capitalize on Marlboro's

> decline, but exhibited some softness itself - especially in the younger age groups (14-17 and 21-24) . . . . This growth for Salem occurred at a time when Kool King declined substantially in the 14-17 market and the 18-24 market. Thus, while Salem is beginning to show strength in the younger markets, Kool is showing major signs of weakness in the same markets.

500769032-9036 at 9032 (U.S. Ex. 21,814).

3964. R.J. Reynolds annually engaged in ten year planning forecasts using youth data. According to an March 15, 1976 report entitled "Planning Assumptions and Forecast for the Period 1977-1986 for R.J. Reynolds Tobacco Company":

> The present large number of people in the 18 to 35 year old age group represents the greatest opportunity for long-term cigarette sales growth. Young people will continue to become smokers at or above the present rate during the projection period. The brands which these beginning smokers accept and use will become the dominant trends in future years. **Evidence is now available to indicate that the fourteen-to-eighteen year old group is an increasing segment of the smoking population. R.J. Reynolds tobacco must soon establish a successful new brand in this market if our position in the industry is to be maintained over the long term**.

Deposition of Edmund Leary, United States v. Philip Morris, et al., May 2, 2002, 102:9-105:12; 501630269-0288 at 0283 (U.S. Ex. 21,605) (emphasis added).

3965. An R.J. Reynolds May 4, 1976 document discussed a "HI-FI category," defined as "14 mg [of tar] and lower," including brands such as Marlboro Lights and Winston Lights. This document included data which tracked "HI-FI" smokers ages 14 to 50 and over. 500379448-9474 (U.S. Ex. 20,629).

3966. Tim Key, R.J. Reynolds Marketing Research Department employee, wrote an August 12, 1976 memorandum to T.L. Ogburn entitled "Share of Smokers by Age Group" which

contained "an annual update of trends." The memorandum stated that Winston King's share among 14-17 year olds "is off two points for the second year in a row. Current share is 9%. Conversely, Marlboro King's share among this age group which had shown losses during the past three years was up one point. Current share is 32%." Key stated "Salem King appears to have retained most of the share gain seen during 1975 among 14-17 year olds. Current share of 9% is only one point off the previous years [sic] high of 10%. Kool King has a larger share at 15% and was even with the previous year." Under "Corporate Comparisons," the memorandum stated: "Philip Morris posted a 4 point gain among 14-17 year old smokers (R.J. Reynolds and Brown & Williamson each lost 2 points)." 500234050-4051 (U.S. Ex. 48,071).

3967. An October 8, 1976 R.J. Reynolds Marketing Department Report entitled "Marketing Department Key Issues – Position Papers" observed that adult smokers under age 25 would "show a major shift in brand preference" away from Marlboro and that the decline in Marlboro's share of this market would continue to open the market for another dominant brand to emerge from peer group pressures. The basis for this projection was a National Family Opinion study showing that "Marlboro's acceptance among 14-17 year olds had dropped from 39% to 32%. This pattern has been repeated by three brands with Pall Mall peaking in 1969, total Winston in 1970, and total Marlboro should peak share in 1978." The report further predicted a "reduction in [the] number of new smokers" due to stronger enforcement of "laws prohibiting sale of cigarettes to teenagers," which according to the report would have a negative impact on R.J. Reynolds's sales and profits. 500387795-7799 at 7822, 7836 (U.S. Ex. 20,631).

3968. An October 31, 1977 memorandum to T.L. Ogburn, Jr., written by Jeffrey F.

Durgee, R.J. Reynolds Product Design, and copied to J.H. Sherrill, E.N. Monahan, and T.J. Key, regarding "Share of Smokers by Age Group," was "the annual update of trends in share of smokers by age group" with data "drawn from the April NFO panels" that included 14 to 17 year old smokers. The memorandum reported various trends among 14 to 17 year olds, including:

> Perhaps because of their higher susceptibility to fads, peer pressure, etc., younger (14-18) smokers show frequent, short-term changes from one brand to another. . . . As a group, younger smokers probably emulate the smoking habits of smokers in the next oldest group, the 18-24 year olds, since trends for younger smokers tend to follow (by 2-3 years) trends for the latter group. . . . Every year, Vantage and Carlton gain slightly among older (over 35) smokers. At the same time, the popularity of these brands seems to filter down to younger and younger age groups. RJR's share of younger (under 18) smokers continues a 3 year decline. In 1975, RJR brands accounted for 28% of the smokers in this category. Today, they account for 25%. Among younger smokers, only Brown and Williamson brands have shown a similar decline. In contrast, Philip Morris has shown steady gains, not only among the younger smokers, but also among the adult (over 18) age groups. If share trends for the past 5 years indicate future share trends, Philip Morris will draw increasing numbers of young smokers (ages 14-35), giving it a decidedly younger franchise.

94681077-1079 at 1077, 1079 (U.S. Ex. 32,322); 501380878-0982 at 0878-0880 (U.S. Ex. 48,844).

3969. A June 23, 1978 R.J. Reynolds memorandum from G.H. Durity, Manager, Forecasting Group, to H.H. Cudd, Jr., Business Planning and Research Manager stated: "**For legal reasons we do not include in our calculations persons under 18, although we recognize that they are potential smokers.**" 501730483-0483 (U.S. Ex. 22,532) (emphasis added).

3970. A June 30, 1978 report entitled "Demographic Characteristics of Smokers" authored by R.J. Reynolds employee G. Harry Durity attached tables "display[ing] the

demographic characteristics of smokers as compiled from survey data supplied by the National Family Opinion (NFO)." The tables included data on the incidence of smoking among males and females ages 14-17. 501989644-9647 at 9644-9655 (U.S. Ex. 49,012).

3971. In an August 24, 1979 internal document written in response to a question by G.A. Mason, an R.J. Reynolds employee "whether the young adult market (35 years of age and younger) is responsive to . . . promotions," Kay Brubaker, also an R.J. Reynolds employee, asserted that "the young adult market is most responsive, in terms of participation, to retail sampling, disco sampling, and B1G1F's [Buy one pack get one pack free] in convenience stores." 500686342-6351 at 6342 (U.S. Ex. 20,646).

3972. A November 11, 1979 letter from Dr. Vernen J. Knott, who was affiliated with the Royal Ottawa Hospital, proposed a five year study both of children as young as eight and of adults to see whether some people are predisposed to be smokers due to intrinsic pyschophysiological factors. Knott hypothesized that, since "smoking relieves stress," it might have "clinical utility for psychiatric patients." The letter was submitted to the Canadian Manufacturers Tobacco Council, whose members included Imperial Tobacco, R.J. Reynolds-MacDonalds, Rothmans, and Benson & Hedges. 500944757-4758 (U.S. Ex. 20,663). In a March 26, 1980 document, D.A. Crawford, Director of R&D for R.J. Reynolds-MacDonald discussed a study proposed by Dr. Knott. Crawford indicated his agreement with Guy-Paul Massicotte, R.J. Reynolds-Macdonald, that there would not be any reaction from an anti-smoking group in Canada, and stated that Dr. Knott would avoid using terms such as drug and dependency and would delete any reference to marketing. 500945157-5158 (U.S. Ex. 20,664).

3973. In 1980, the R.J. Reynolds Marketing Development Department issued a series of internal reports entitled "Teenage Smokers (14-17) and New Adult Smokers and Quitters." The reports contained the R.J. Reynolds Marketing Research Department's analysis of the data provided by the National Family Opinion regarding the smoking behavior of 14-17 year-old smokers. 501443912-3921 (U.S. Ex. 20,681); 501098917-8922 (U.S. Ex. 23,050); 500768429-8438 (U.S. Ex. 20,649); 500768427-8428 (U.S. Ex. 22,341); 501254289-4301 (U.S. Ex. 20,674); 501254267-4283 (U.S. Ex. 22,342); 501757367-7384 (U.S. Ex. 22,343); 500768754-8754 (U.S. Ex. 20,650); 500794841-4843 (U.S. Ex. 20,653).

3974. One of the series of "Teenage Smokers (14-17) and New Adult Smokers and Quitters" reports, dated February 1, 1980, written by Stephen R. Perry, R.J. Reynolds Marketing Research Department employee, discussed "franchise aging" – the process of young smokers entering the smoking population as older smokers leave the market, either because they quit or they die. The report stated: "For example, in 1979 approximately one million smokers became 18 years old while approximately 450,000 older smokers left the market. The extent that each company is affected by this process is determined by the age skew of its franchise." This report demonstrates R.J. Reynolds's knowledge that smoking initiation and brand choice most often occurred in the teenage years even before age 18: "[m]any adult smokers have already formed consistent smoking patterns by the time they enter the market at age 18." 501443912-3921 at 3912, 3915 (U.S. Ex. 20,681).

3975. Another in the series of "Teenage Smokers (14-17) and New Adult Smokers and Quitters" reports, dated February 4, 1980, from Uziel Frydman, an employee of R.J. Reynolds's

Marketing Research Department, was sent to J.B Stuart, also an employee of the Marketing Research Department. This report stated: "In the last five years, share of cigarette volume of the 14-17 year-olds declined by about 36%, from 3.14% in 1975 to 2.00% in 1979. . . . The share of companies of the 14-17 year-olds has changed very significantly in the last five years: R.J. Reynolds's share declined from 29.9% in 1975 to 21.3% in 1979. A large part of the share loss can be traced to Winston." 500768427-8428 at 8427 (U.S. Ex. 22,341).

3976. Another in the series of "Teenage Smokers (14-17) and New Adult Smokers and Quitters" reports was dated July 9, 1980, and sent from Kay Duffy, R.J. Reynolds employee, to Uziel Frydman, an employee of the Marketing Research Department; Jerry R. Moore, R.J. Reynolds Marketing Development Department; and S.R. Perry. This report included the claim that the gathering of youth data is "a natural by-product of the tracking of adult smokers" which was conducted "in order to improve our ability to forecast future trends. . . [and was] not designed to be used as a tool for developing marketing strategies for this population group." The memorandum stated that, while R.J. Reynolds was losing share among young smokers, Philip Morris was gaining share and that "18-24 year olds are more active than any other age group in terms of quitters and new smokers." 501254289-4301 at 4289, 4291 (U.S. Ex. 20,674).

3977. Kay Duffy wrote an October 23, 1980 memorandum to L.W. Hall Jr., Vice President of Brands Marketing at R.J. Reynolds, entitled "Younger Adult Smokers." Duffy stated "[s]moking behavior of 14-17 year olds is analyzed . . . to improve our ability to forecast future trends." The memorandum stated: "Philip Morris continues to gain share among the 14-17 year old age group. . . . Philip Morris's large share among 18 year olds has made it the only

company to realize substantial share gains due to the aging process." Duffy also stated that "RJ Reynolds Tobacco Company continues to lose share due to . . . a decrease in new smokers and an increase in quitters," that Lorillard and American were also are losing share and that Liggett Group, Inc. & Myers had an unchanged share. Finally, Duffy stated that "Brown and Williamson Tobacco Corporation gain share from . . . new smokers and quitters" although, like American, Brown & Williamson share among 14-17 year olds had declined. 500686301-6313 at 6302 (U.S. Ex. 21,566).

3978. An internal July 22, 1980 R.J. Reynolds memorandum from G.H. (Jerry) Long, R.J. Reynolds Executive Vice President, to Edward A. Horrigan, Jr., R.J. Reynolds's CEO, entitled "MDD [Marketing Development Department] Report on Teenage Smokers (14-17)," stated: "Attached is a MDD report covering the aforementioned subject. Last January, a report was issued on this subject that indicated that Philip Morris had a total share of 59 among 14-17 year old smokers, and specifically, Marlboro had a 52 share. This latest report indicates that Philip Morris's corporate share has increased by about 4 points; however, Marlboro remains the same at 52." This memorandum stated that "R.J. Reynolds continues to gradually decline," and concluded, "hopefully, our various planned activities that will be implemented this fall will aid in some way in reducing or correcting these trends." 508453894-3894 (U.S. Ex. 20,811); TINY0003247-3247 (U.S. Ex. 62,960).

3979. According to an August 20, 1980 memorandum to Dick Nordine, R.J. Reynolds Product Design Department, from Diane Burrows, R.J. Reynolds Marketing Development Department researcher, R.J. Reynolds decided to no longer market on college campuses in or

shortly after August 1980, based on data that indicated that the rate of smoking among college males was less than half that of out-of-school young adults. 526146929-7161 at 7010-7012 (U.S. Ex. 87,819); Deposition of Diane S. Burrows, United States v. Philip Morris, et al., June 27, 2001, 24:3-10.

3980. On September 12, 1980, in preparation for a meeting with Wall Street security analysts, Gerald Long, Executive Vice President of R.J. Reynolds, wrote to L.W. Hall, Jr., Vice President of Brands Marketing; Ellen N. Monahan, Marketing Development Department; Greg Novak; and H.E. Osman seeking "any information that you could specifically provide that would compare prime prospect age information for the various Winston, Salem, and Camel brand styles versus primary competitive brand styles" in order to counter the perception that R.J. Reynolds's "brands appeal only to older smokers." 503747121-7122 at 7121 (U.S. Ex. 20,723) (emphasis in original).

3981. As the prior documents demonstrate, R.J. Reynolds's substantial market research on young people performed during the 1970s revealed that Philip Morris's Marlboro brand was dominating the youth market. By the early 1980s, according to internal documents and the testimony of Diane S. Burrows on June 27, 2001, R.J. Reynolds knew through research that the combination of so few young smokers choosing to smoke R.J. Reynolds brands and the tendency of those smokers to be loyal to their first brand of choice would ultimately lead to market share declines for the company if its brands continued to be unpopular with young people. R.J. Reynolds knew, as it stated in its "1975 Marketing Plans Presentation," that teenage smokers were "tomorrow's cigarette business" and accounted for "a key share of the total cigarette volume

-- for at least the next 25 years." 500746950-6976 at 6951 (U.S. Ex. 21,609); Deposition of Diane S. Burrows, United States v. Philip Morris, et al., June 27, 2001, 15:19-16:4.

3982. R.J. Reynolds also knew at this time that it was unlikely to be able to win the teenage market with a new, unknown brand, and that it would be wiser for R.J. Reynolds to revise an existing brand's image to make it more appealing to teenagers. In a September 29, 1980 R.J. Reynolds memorandum to Gerald Long entitled "Younger Adult Smoker Opportunity Analysis – New Brands," L.W. Hall stated about young smokers:

> Socially insecure, they gain reinforcement by smoking the brands their friends are smoking, just like they copy their friends dress, hair style, and other conspicuous things. To smoke a brand no one has heard of – which all new brand names are – brings one the risk of ostracism. It's simply not the 'in' thing to do. If this theory is correct, it would be extremely difficult to achieve success with a new brand name who's primary thrust was against younger adult smokers. Certainly, there have been many attempts – 'Maverick,' 'Zack,' 'Luke,' and 'Redford,' come immediately to mind – and all have failed. . . . My thinking is that to maximize our success among this important group, we should place our efforts and our resources behind our established brand names, keeping them young and contemporary through advertising, promotion, and line extension strategies and executions.

501340949-0950 (U.S. Ex. 20,677); 501785796-5820 (U.S. Ex. 87,820).

(i) R.J. Reynolds's Joe Camel Campaign

3983. The following internal documents, from the early 1980s onward, demonstrate R.J. Reynolds's continuing research on teenagers, marketing to teenagers, and the development of the Joe Camel campaign intended to appeal to teenagers. "Joe Camel was very cleverly organized to appeal to young people, was very successful at appealing to young people, and . . . it increased the market share of -- of R.J. Reynolds." Deposition of Anthony Biglan, United States v. Philip

Morris, et al., March 12, 2002, 102:6-102:10.

3984. Despite the fact that the documents below clearly demonstrate that R.J. Reynolds marketed Camels to youth with its Joe Camel campaign, R.J. Reynolds publically denied doing so.

524944105-4112, at 4105, 4111 (U.S. Ex. 30,567) (Confidential).

3985. In the early 1980s, as Diane Burrows testified on June 27, 2001, R.J. Reynolds did not have a successful young "adult" smoker brand that could challenge Marlboro's dominance of the younger smoker market. However, Burrows also testified that Camel was identified through focus group research performed in 1985 as the only R.J. Reynolds brand that younger smokers did not hate. In fact, R.J. Reynolds had tried already, unsuccessfully, to transform Camel into a youth brand with its 1973 to 1978 campaign "Meet the Turk." R.J. Reynolds thus chose to use the established brand name of Camel and add the appeal of the Joe Camel cartoon character, in order to best target teenagers. Deposition of Diane S. Burrows, United States v. Philip Morris, et al., June 27, 2001, 55:09-56:14; Deposition of Gerald H. Long, United States v. Philip Morris, et al., October 18, 2001, 66:04- 25.

3986. Between 1979 and 1982, R.J. Reynolds CEO Edward A. Horrigan, Jr. initiated the Joe Camel campaign by asking his marketing department to look at the French "Funny Camel" campaign to see if R.J. Reynolds could reinvigorate Camel with a similar approach. According

to Horrigan, people at the company were excited about the idea. The French "Funny Camel" campaign had been very effective with young people in France. As a February 7, 1984 memorandum from Dana Blackmar to Rick McReynolds about the "French Camel Filter Ad" stated: "I think the French advertisement for Camel filters is a smash. It would work equally well, if not better, for Camel regular. It's about as young as you can get, and aims right at the young adult smoker Camel needs to attract." 502303940-3940 (U.S. Ex. 22,067); Deposition of Edward A. Horrigan, Jr, United States v. Philip Morris, et al., October 25, 2001, 25:00-26:00.

3987. In 1984, Frances V. Creighton of the R.J. Reynolds Marketing Research Department prepared an "Established Brand Research Proposal: Camel Younger Adult Campaign Focus Groups," a proposal which sought to "qualitatively explore three creative strategies/campaigns for their appeal, relevance, and fit among target 18-20 year old smokers." In order to compete with Marlboro, "the Brand is currently developing new advertising creative targeted to younger adult male smokers. Three advertising strategies are being pursued . . . : Freedom and Independence, Interactive Sociability, Pack Graphics." 521895585-5587 at 5585 (U.S. Ex. 20,902).

3988. Charles A. Martin of the R.J. Reynolds Marketing Development Department in an October 18, 1984 document entitled "Younger Adult Smoker Perceptions of Camel," discussed how young adults' perceptions of Camel could be used to increase market share, especially among FUBYAS (First Usual Brand Younger Adult Smokers). Martin stated: "Camel is excellently positioned to appeal to FUBYAS who want to project themselves as being different from the crowd because they seek the ultimate in adventure and excitement. It supports this

image through its heritage and mystique. Camel is a brand which differentiates itself from the vast majority of other cigarettes in the market. Camel projects an image of virility that is heroic and 'larger than life.' And, as it is a brand that's not for everyone, Camel is exciting to smoke." 503561565-1570 at 1567 (U.S. Ex. 21,704); 502656424-6660 (U.S. Ex. 87,821).

3989. A 1985 R.J. Reynolds Report entitled "Are Younger Adult Smokers Important?" contained an extensive discussion of young smokers, that divided young adult smokers into two distinct classes: (1) FUBYAS, "those younger adults who are already smokers but have reached the stage of choosing a first usual brand;" and (2) "switchers, younger adult smokers who have already chosen a First Usual Brand." The premise for this report was that "FUBYAS, not switchers, have driven the success of the brands of this century. They are leading indicators of growth and decline." This report examined the marketing strategy of Jack Daniels (calling it "the Marlboro of bourbons") and Budweiser as brands that had successfully repositioned themselves as leaders in the youth market, noting marketing techniques used by Jack Daniels that were subsequently utilized in the Joe Camel campaign. As one example, the report stated that, to target the younger "adult" audience, "JD [Jack Daniels] puts more 'pages' in *Rolling Stone* than any other book." The report also commended Jack Daniels for its use of promotional merchandise: "JD is an example of a viable positioning, executed in a 'non-standard' but authentic and unpretentious way, which reaches YA consumers, not only through their books, but by converting YAs into walking billboards. They started with a good idea and stuck to it." Finally, the report concluded with a breakdown of the "social groups" that make up young "adults," analyzing their values and attitudes as well as their likelihood to be smokers. The

groups discussed in the report described pre-teens and teenagers more accurately than adults using terms such as: "Rockers," "Party Parties," "Punkers," "Discos," and "Burnouts." The report concluded that these groups "are large, loosely knit BUT HIGHLY LABELED sub-societies FROM WHICH FUBYAS DRAW THEIR IDENTITY, i.e., BY BELONGING to the group and using the group TO BE DIFFERENT from other younger adults." Although authorship of this report is unknown, a copy produced by R.J. Reynolds included Burrows' name in marginalia. 505931938-2044 (U.S. Ex. 20,749).

3990.

517161840-1842 at 1840 (U.S. Ex. 80,666) (Confidential).

3991. A February 1, 1985 focus group report written by Charles A. Martin entitled "Established Brand Research Proposal: Camel Younger Adult Smoker Focus Group" stated that, "[d]ue to the growing importance of younger adult smokers, Camel has developed a campaign which is directed solely towards this group." Martin summarized the findings of the focus group: "Overall, many of the male and female respondents held negative user and product perceptions of Camel. In their minds, Camel was thought to be a non-filtered, harsh product smoked by older males. However, exposure to the younger adult ads appear to somewhat improve these attitudes. This improvement stemmed primarily from two characteristics: humor, and relevancy to younger adult smokers. Certain ads did convey the message that Camel was acceptable choice for

younger adult smokers." Martin also discussed focus group reactions to advertisements featuring the "French Camel," which was the precursor to the Joe Camel campaign: "These ads were well-received due to the fun/humor aspect of the cartoons. More than any other theme, the 'French Camels' appeared to attract the respondents' attention. **The main drawbacks of these executions were that: one, they may be appealing to an even younger age group**, and two, there was some confusion as to the meaning behind them (some focus group members were hard-pressed to explain the purpose of the ads)." 521895554-5555 (U.S. Ex. 52,788); 505248648-8862 (U.S. Ex. 87,822) (emphasis added).

3992. R.J. Reynolds continued to work towards launching its Joe Camel campaign, even though another company executive explicitly raised the issue of Joe Camel's appeal to youth. A March 5, 1985 memorandum from J.S. Carpenter, R.J. Reynolds Tobacco International employee, to John Winebrenner about the "Funny French Camel Design" described R.J. Reynolds's use of the "French camel" campaign to attract young smokers in France. Carpenter wrote: "I must caution that this design was used in France during a time when an attempt was being made to 'youthen' the brand; the entire advertising and promotional campaign used at the time was geared to this end, with the 'funny' Camel playing a key role in the advertising. Indeed the design did help to achieve this end." 506768857-8857 (U.S. Ex. 20,765).

3993.

503969238-9242 at 9238 (U.S. Ex. 79,096) (Confidential).

3994. In an August 14, 1987 report entitled "Camel General Market Campaign Focus Group Report – Tulsa," Frances V. Creighton discussed focus group reactions to "French Camel" advertisements: "The 'Camel, Never Ordinary' [advertisement], which portrays the 'French Camel' in various social situations, came perhaps the closest to meeting the objectives of Camel's advertising strategy." Creighton further stated that this advertisement was popular with the 18-24 age group. 521895431-5450 at 5434 (U.S. Ex. 20,898).

3995. In 1988, R.J. Reynolds launched the Joe Camel campaign with the "Camel's 75th Birthday Celebration," a year long print and billboard advertising, promotional, and point of sale campaign. Extensive evidence shows that the Joe Camel campaign was a major cause of the decisions of children and adolescents to smoke Camel cigarettes. Data, including official government survey data and data from surveys conducted by R.J. Reynolds itself, show that Camel's share of underage smokers increased dramatically after the Joe Camel campaign began. In fact, the growth in Camel's share of underage smokers increased more than its share of adult smokers, and even more than its share of R.J. Reynolds's internally stated supposed target

audience of 18 to 24 year old smokers. Joe Camel cartoon advertisements were far more successful at marketing Camel to children than to adults. Camel's share of the youth market increased from 0.5% in 1988 to 32.8% in 1991, representing sales estimated at $476 million per year. 506763382-3402 at 3383 (U.S. Ex. 22,231); Expert Report of Michael Eriksen, United States v. Philip Morris, et al. (R. 678; filed November 15, 2001); "R.J. Reynolds Nabisco's Cartoon Camel Promotes Camel Cigarettes to Children," J.R. DeFranza et al. 266 *Journal of the American Medical Association* 3149 (1991) (U.S. Ex. 86,684).

3996. R.J. Reynolds had extensively planned and researched the 75th Birthday Campaign before its launch in 1988. For example, in an August 21, 1987 R.J. Reynolds memorandum entitled "Camel's 75th Birthday Plan," Y.M. Jones stated that campaign promotional ideas "must appeal to the 18-24 year old mindset," and included an example of a "party animal" magazine pop-up insert. 521190415-0418 at 0416 (U.S. Ex. 20,895); 506885567-5603 (U.S. Ex. 87,823).

3997. A R.J. Reynolds August 24, 1987 inter-office memorandum planned for the Camel's 75th Birthday Campaign. Proposals ranged from having children or grandchildren of employees and retirees send in "renderings of Old Joe" to be featured in *Caravan*, to arranging for an R.J. Reynolds night at Barnum & Bailey Circus during which an employee would play ringmaster and "the leading act would be, you guessed it, the camels, all wearing Camel 75 blankets." 507843401-3401 (U.S. Ex. 20,791)

3998. R.J. Reynolds tested the promotions, advertisements, and other types of marketing that it intended to run as part of the Camel's 75th Birthday Campaign in which it launched Joe

Camel. For example, S.L. Snyder, R.J. Reynolds Marketing Development Department employee, wrote an August 27, 1987 "Promotion Research Report – Camel 75th Birthday Promotion Ideas" evaluating promotional ideas targeting 18 to 34 year old smokers as part of the 1988 campaign. 521895453-5465 (U.S. Ex. 21,759)

3999. An October 7, 1987 document entitled "Marketing Research Proposal: Camel 75th Birthday Hispanic Focus Groups" written by W.R. Penick, of R.J. Reynolds's Marketing Development Department, discussed focus groups responding to Joe Camel advertisements including groups composed only of males aged 18 to 24. 506877657-7658 (U.S. Ex. 20,769).

4000. In an October 14, 1987 internal memorandum entitled "Content Outline/Camel 75th Birthday Video," C.A. Williams, an R.J. Reynolds employee, indicated that Camel's target was young males who currently smoked Marlboro. Williams wrote that the Camel's 75th Birthday Campaign was intended to make "Camel more relevant to our target smokers 18-34 male non-menthol competitive smokers (primarily Marlboro)." 521893143-3145 at 3143 (U.S. Ex. 20,897).

4001. In another example of R.J. Reynolds's testing of its Camel's 75th Birthday Campaign, Frances V. Creighton prepared a November 1987 report entitled "Marketing Research Proposal - Camel Project Big Brand Perceptions Tracking Study." The report indicated that the planned market testing would "track target smoker perceptions, attitudes and advertising awareness before and after the launch of Camel's 75th Birthday advertising campaign" among a target audience of 18 to 34 year old males. 521895557-5559 at 5557 (U.S. Ex. 20,900).

4002. R.J. Reynolds's testing of the Camel's 75th Birthday Campaign marketing found a

positive response among the young male smokers it hoped to target. A December 4, 1987 memorandum from Creighton and Penick to E.J. Fackelman highlighted key findings and conclusions from the communications testing of the 75th Birthday advertising among male smokers ages 18 to 34: "75th birthday advertising generated a very strong and positive emotional response among 18-34 year old male target smokers." 506864599-4601 at 4600 (U.S. Ex. 20,768).

4003. A 1988 R.J. Reynolds document entitled "Camel Advertising Development White Paper" provided the roadmap for R.J. Reynolds's repositioning of Camel with the Joe Camel campaign in order to take away Marlboro's majority share of the young smoker market. The document showed R.J. Reynolds's awareness that smoking initiation and brand choice occur in the teenage years: "only about 5% of all smokers start smoking after the age of 24 . . . [and] the majority of younger adult smokers will stay loyal to their first brand choice." It stated that Camel's current image, conveyed through advertising, was too "old," and that advertising using younger models and themes that appealed to youth (independence, rebelliousness, etc.) could "contemporize" or make younger Camel's image:

> Camel's current existing market image (i.e., brand perceptions, not advertising perceptions) includes aspects that are highly consistent with the wants of younger adult males . . . including: independence, doesn't follow crowd, lives by own set of rules, stands up for beliefs, not afraid to express individuality, enjoys being different, won't settle for ordinary . . . . The major weakness in Camel's in-market image is that it is not considered by younger adult smokers to be contemporary, and thus is not relevant. Negative perceptions include: . . . a lot older than me . . . In an attempt to address Camel's weaknesses. . . an alternative campaign 'Share a New Adventure' was developed. This campaign used models that were not as old looking and used more relevant situations to

> address the brand's 'older' image weaknesses. . . . The advertising will position Camel as an authentic brand for smokers who are admired and respected by their peers because their attitudes and lifestyles distinguish them as individuals who challenge convention and stand tall . . . . In order to fully target the younger adult market, Camel must displace Marlboro as the younger adult brand. Simply speaking, Marlboro is the younger adult smoker market. . . . Marlboro's key strength relates to peer acceptability and belonging. . . . Marlboro is perceived by younger adult smokers as a brand which provides a sense of belonging to the peer group. A variety of research studies including the Segment Description Study, the Marlboro Vulnerability Analysis, in-market perception research, as well as in-depth qualitative all show this. . . . The [Camel] advertising should elicit an emotional response to positively motivate target smokers to rethink their brand choice. . . . In order to stimulate [youths] to think about brand alternatives, the advertising and brand personality must 'jolt' the target consumer. Since Camel does not have a demonstrably different or unique product (rational) benefit to sell, this jolt needs to be based on an emotional response and is unlikely to be accomplished with advertising which looks conventional or traditional. Studies have shown that the so-called 'hot buttons' for younger adults include some of the following themes: Escape into imagination. . . . Excitement/fun is success: Younger adults center their lives on having fun in every way possible and at every time possible. Their definition of success is 'enjoying today' which differentiates them from older smokers.

506768775-8784 at 8777, 8779-8783 (U.S. Ex. 20,764).

4004. In advertisements that featured the cartoon character Joe Camel, he was often shown engaging in "adult activities" that teenagers would aspire to do, including hanging out at bars, visiting casinos, riding motorcycles, or driving cars; Joe Camel was also portrayed as a cool, rebellious, and adventuresome character, all themes with great appeal to teenagers. For example, from about April 1, 1988 through about June 30, 1988, R.J. Reynolds placed an advertisement for Camel cigarettes in various print media, including the "Sporting News and

other Jumbo Jr. Size Magazines." This advertisement was captioned "Get On Track With Camel's 75th Birthday!" and depicted the Joe Camel character in a Formula One-type automobile racing suit, opening a bottle of champagne, with racing cars whizzing by in the background. As Edmund Conger Leary, Senior Vice President of Marketing and President of Sports Marketing for R.J. Reynolds, testified at his May 2, 2002 deposition in this case, R.J. Reynolds conducted research among 18 to 24 year old smokers about "every aspect" of Joe Camel "for its appeal and relevancy to the target." Leary further testified that R.J. Reynolds understood that "kids would like to be adults." 509131846-1847 (U.S. Ex. 20,823); 522668842-8856 (U.S. Ex. 88,160); 522445029-5041 (U.S. Ex. 88,153); Deposition of Edmund Conger Leary, United States v. Philip Morris, et al., May 2, 2002, 59:7-60:15.

4005. Joe Camel advertisements were often combined with coupons for free Camel cigarettes because R.J. Reynolds knew that coupons were effective means to encourage product trial by young people. At her June 27, 2001 deposition, Burrows testified that it is necessary to get a person to try an R.J. Reynolds brand before they will be loyal to it, and that methods to get someone to try an R.J. Reynolds brand include in-store promotions, e.g. free lighters with a certain number of packs purchased, or buy-one-get-one-free promotions. At his May 2, 2002 deposition in this case, Leary testified that advertising and promotion "can influence the behavior of purchasers" to try a brand, and that R.J. Reynolds uses "advertising and promotion to incent [sic] adult smokers of other brands to try our brands and hopefully to switch." As an example of this type of advertisement combined with a coupon, in 1988 R.J. Reynolds placed a multi-page advertisement for Camel cigarettes in various print media, including *Sports Illustrated*, a

magazine with a substantial youth readership. The advertisement depicted Joe Camel in the foreground, with a beautiful woman sitting on the hood of a convertible automobile in the background. The second page of the advertisement was captioned "Some have it. Most don't," and stated, "You can have it free!" The advertisement contained a coupon for a free pack of Camels. Deposition of Diane S. Burrows, United States v. Philip Morris, et al., June 27, 2001, 60:10-61:14; Deposition of Edmund Conger Leary, United States v. Philip Morris, et al., May 2, 2002, 45:2-11; 509131376-1378 (U.S. Ex. 20,822).

4006. Creighton prepared a January 27, 1988 "Marketing Research Proposal 'Heroic Camel' Advertising Test" recommending that R.J. Reynolds conduct market research to determine the effectiveness of the "Heroic Camel" advertising campaign, and assure that it was positively received by 18 to 30 year olds. The "Heroic Camel" campaign showed Joe Camel in a "series of 'heroic' situations drawn from bigger than life fictional characters," including as a fighter pilot, a foreign legionnaire, "Mr. Hollywood," and a detective. These advertisements were run in 1989. 521895566-5570 (U.S. Ex. 24,813)

4007. C. Rashti of McCann-Erickson wrote a Contact Report recording the February 25, 1988 meeting between McCann-Erickson and R.J. Reynolds regarding "Camel – High Impact OOH, Second Half 1988 Creative and Project Big Idea Concepts." OOH means "out of home," or billboard advertising. Participants at this meeting discussed the upcoming 'Heroic Camel' advertising campaign as well as the use of "Camel Cash" – coupons with the appearance of dollar bills – instead of traditional coupons. "Camel Cash" was inserted into packs of Camels and could be redeemed for t-shirts, mugs, jackets, and other promotional items. 521895803-5805

(U.S. Ex. 20,905).

4008. An R.J. Reynolds 1988 document entitled "Managing the 'Smooth Moves' Concept" spoke primarily to the lifestyle and social status of young adult smokers. The "Smooth Moves" creative program, as detailed in the document, had to "[d]irectly link this concept with the advertising campaign. . . . If you want to be a 'Smooth Character', you have to have 'Smooth Moves'." 506871767-1771 at 1767 (U.S. Ex. 22,449).

4009.

517161869-1876 at 1869 (U.S. Ex. 80,669) (Confidential).

4010.

517161877-1877 (U.S. Ex. 80,670) (Confidential).

4011. An R.J. Reynolds report dated July 6, 1989 discussing the "Smooth Moves" Camel campaign in the 1990s showed that the company deliberately used the advertising theme of sex appeal in order to appeal to young males. Listed in the report as "Consumer Target Hot Buttons" were "sex," "girls, women, sex," and "Playboy Magazine, Penthouse Magazine." The

"hot buttons" list, according to the author, "may serve as the theme or substance of promotions that will attract and appeal to the target. We are using this list as the starting point for developing promotions." The same report detailed a strategy for "smooth move" advertising, stating "good looking women are major hot buttons for the target." 507238911-8934 at 8915-16, 8926 (U.S. Ex. 22,451).

4012. In 1989, R.J. Reynolds placed Joe Camel advertisements in various media as part of "program 900162," which included "buy one, get one free coupons" and the following advertisements: (1) an advertisement with the words "Bored? Lonely? Restless? What you need is . . ." featuring the face of a beautiful woman gazing at the reader; (2) advertisements captioned "Camel Smooth Moves" including "Smooth Move #325 - Foolproof Dating Advice" which advised "[a]lways break the ice by offering her a Camel" and "Smooth Move #334 - How to impress someone at the beach" which advised that the reader "[r]un into the water, grab someone and drag her back to shore, as if you've saved her from drowning. The more she screams, the better" and "[a]lways have plenty of Camels ready when the beach party begins"; and (3) an advertisement captioned "Smooth Move #437 - How to get a FREE pack even if you don't like to redeem coupons." 513590183-0185 (U.S. Ex. 20,854).

4013. A 1989 R.J. Reynolds document entitled "Camel Y&R Orientation" discussed the "strategic importance" of younger adult smokers: "YAS are the only source of replacement smokers. Less than one-third of smokers start after age 18." The document further stated, "To stabilize R.J. Reynolds's share of total smokers, it must raise share among 18-20 from 13.8% to 40% ASAP." 507241613-1838 at 1617, 1620 (U.S. Ex. 20,774).

4014. A September 15, 1989 R.J. Reynolds document entitled "Diez Y Seis Fiesta Event Summary" reported on Camel marketing at the Denver Diez Y Sies Fiesta, a festival that offered "kiddy rides, vendor booths, and live entertainment on both stages." The document stated: "The Camel booth was the most popular and a constant line existed all day as people waited to play the basketball game. Samplers distributed 275 caps, 480 playing cards, and 596 mugs and prizes. Samplers collected 385 screener cards filled out by those waiting in line. The Camel booth was also the most visible with its banners and yellow flags clearly standing out in the crowd . . . . Camel was definitely the strongest presence at the event. Camel hats could be spotted everywhere throughout the crowd." Other 1989 R.J. Reynolds documents provided summaries of similar events in Corpus Christi and Dallas, Texas. The Dallas event included a midway area with carnival rides for the children: "Camel presence, as a major sponsor, was certainly realized by all those at the event. Twenty-five large banners were hung around the perimeter of the park. The Camel 3-foot inflatable giant pack was situated next to the main stage." A Camel basketball game in a "freestanding booth with banners, flags and giant packs" was located in the midway area with children's carnival rides which achieved "maximum brand impact." The documents indicated that 2,000, 5,000, and 28,000 free samples of cigarettes were distributed at these three events, respectively. 507525019-5023 (U.S. Ex. 20,778).

4015. Taylor-Hines, Young & Rubicam, New York, sent a November 27, 1989 memorandum regarding "Camel Creative Exploratory Focus Groups," which summarized Joe Camel's allure as discovered in focus group research: "Of all the executional approaches, 'Leader of the Pack,' was the consistent favorite across all groups. It combined the elements favored in

the current campaign – Camel as hero, bright colors, simple yet involving scenarios – but also added a stronger sense of Joe being more involved in the action/adventure. There was also an element of Joe as the rebel." 507257278-7281 at 7278 (U.S. Ex. 20,775).

4016. A May 4, 1990 R.J. Reynolds report entitled "Camel Brand Promotion Opportunities" discussed a number of promotional items geared directly at "young adult target smokers." The report described the "target smokers" as "approaching adulthood, hence they are sensitive to peer group perceptions regarding their maturity and masculinity. . . . [Y]oung adult target smokers are active, sociable and fun loving in nature. Their key interests include girls, cars, music, sports and dancing - all of which can include family and friends and can be accomplished on a limited budget." The promotional items suggested by this report included blank audio tapes with Camel logo, a Camel Walkman case and other "entertainment-oriented incentives." Other suggestions included the "Camel pocket game," which included chess, checkers, dominoes, or Parcheesi, all using Camel logos, graphics and visuals, or the idea that "Camel can even go so far as to design its own game to reinforce major marketing themes" such as "Camel sliders" in which the object was to slide a "slider" molded to look like Joe Camel across the tabletop and get closest to the target. 509216033-6056 (U.S. Ex. 20,826).

4017. In a November 28, 1990 memorandum to Juacane Reynolds, an employee of R.J. Reynolds, proposing Camel promotions, Edward Battle, of Total Marketing, stated that the objective of "[a] successful promotion effort is to: Develop a targeted promotion concept that:

- Increases trial/retrial/conversion rates among competitive smokers.
- Builds promotion equity.

- Provides a mechanism for measurement results.

- Supports the brand's personality and reinforces brand positioning.

- Provides smokers with a compelling reason to buy Camel cigarettes."

509216028-6032 at 6030 (U.S. Ex. 20,825).

4018. In a December 4, 1990 presentation entitled "Camel Advertising Overview," later made in a slightly shorter form on April 17, 1991, Young & Rubicam reported to R.J. Reynolds that the Joe Camel campaign had "set the stage for an exciting 1991," explaining: "Camel is the brand for the 1990s and, wherever Camel's message is, it is there in a big way. If a market is covered, it is covered ubiquitously. If we run a one-shot ad or a local promotion, the execution must be so provocative and unexpected that it transcends its medium." 507490339-0354 at 0346-0347 (U.S. Ex. 23,010); 522732100-2116 (U.S. Ex. 87,827).

4019. Joe Camel advertisements run in the 1990s used the same themes and techniques used in the advertisements run during the Camel's 75th Birthday Campaign in 1988. The 1990s advertisements continued to portray Joe Camel as cool, rebellious, and adventuresome, showed him engaged in adult activities, and offered "Camel Cash," which could be redeemed for promotional items such as t-shirts, lighters, and mugs. One such advertisement, which R.J. Reynolds placed in various print media in 1992, was captioned "Camel Lights." It depicted Joe Camel wearing sunglasses, a tee shirt, and blue jeans, with a pack of cigarettes rolled up in his sleeve and a lit cigarette hanging from his mouth, while casually leaning against a convertible car. 509131534-1534 (U.S. Ex. 21,717); 515123613-3634 (U.S. Ex. 87,828).

4020. An April 1991 R.J. Reynolds Executive Summary, entitled "Operating in a

Restricted Environment," predicted that greater future restrictions on R.J. Reynolds's marketing and advertising were a virtual certainty, and explored ways to continue to market R.J. Reynolds's brands if such restrictions were implemented. The summary stated that the Joe Camel cartoon campaign was particularly at risk, and suggested that R.J. Reynolds should "begin now to explore ways to transfer Old Joe's irreverent, fun-loving personality to other creative properties which do not rely on models or cartoon depictions." The summary also indicated that billboards exposed young people to cigarette advertising: "outdoor advertising continues to bear the brunt of anti-smoker criticism as regards unrestricted exposure to youth, and in fact, it is the medium that we are least able to defend in these terms." 507755082-5094 at 5085, 5091 (U.S. Ex. 20,787).

4021. In an October 1991 research summary entitled "A Qualitative Assessment of Camel Advertising Equity," Ellison Qualitative Research reported to R.J. Reynolds the findings of focus groups of young adult smokers, ages 18 to 34, which were conducted to measure consumer perceptions of Joe Camel advertising. The research study found that:

> By all indications, the repositioning of the Camel brand seems to be generating a sense of up-graded appeal and relevance among key smoker segments – particularly adult males 18-24. A principal part of the repositioning – the "Smooth Character" advertising and integrated communications programs – appear to be critical in helping make the recent Camel effort successful.

The 18 to 24 year olds mentioned as Camel smokers in 1991 were 15 to 21 years old when the Joe Camel campaign began in 1988. 507642890-2934 at 2892 (U.S. Ex. 22,055).

4022. In the 1991 Ellison report, the market researchers also enthusiastically noted the effectiveness of the Joe Camel advertising to allay consumer skepticism and create positive feeling and personal comfort with the brand: "This point seems particularly noteworthy, since

consumers are generally reluctant to overtly admit to being influenced by advertising. Generally speaking – in a focus group environment – whether for cigarettes or for other packaged goods – consumers are inclined either to be critical of advertising and/or deny that it plays any role in their choice of products." The researchers also stated that the respondents had strong positive responses to the Joe Camel advertisements, and were able to remember them in detail: "The details recalled and the strength of the favorable Camel advertising commentary were considerably beyond what is typically heard in focused groups . . . when awareness of/attitudes toward advertising – in the absence of stimuli – are explored." 507642890-2934 at 2906, 2910 (U.S. Ex. 22,055). This focus group research report indicates that R.J. Reynolds was well aware that images connecting sex appeal with smoking would be effective in influencing youth to buy Camels. The responses of focus groups on Joe Camel advertisements revealed that the advertisements clearly communicated this theme: "He's the type the babes love . . . You can tell." 509045372-5416 at 5392 (U.S. Ex. 22,441).

4023. Clare M. Smith, R.J. Reynolds Business Information and Analysis, wrote an October 18, 1991 memorandum entitled "Camel Campaign Equity Focus Group Final Report" regarding the Ellison Qualitative Research report. In it, Smith summarized the Ellison focus group findings, stating that "[o]verall, it appears to be the aspirational quality of Joe Camel that has fueled the popularity of the post-positioning campaign. Both competitive [Marlboro] male and female smokers commented on Joe Camel's ability to "do everything, go anywhere and be anything." Smith also pointed out that focus group respondents were unwilling to see Joe Camel in "ordinary" scenarios, preferring to see him in aspirational situations: "Smokers commented on

situations perceived to be inappropriate for Joe Camel, including Joe as a 'couch potato' or showing Joe Camel working in a blue collar occupation. These activities were perceived as too ordinary for Joe Camel as respondents did not want to see Joe Camel in situations that they do on a daily basis. Smokers expressed their desire to see Joe Camel in fantasy situations . . . being the center of attention among a group of friends, and always participating in cool activities." Smith recommended, based on this research, that "[f]uture [Joe Camel] campaign development should continue to avoid ordinary/boring activities and continue to focus on exciting and lively situations . . . [and] on variety, humor and surprise." 509045369-5371 at 5370 (U.S. Ex. 20,821).

4024. In a March 16, 1992 letter, Thomas C. Griscom, R.J. Reynolds's Executive Vice President, External Relations, forwarded to Preston Kirk a compilation of Camel market data that included data on 12 to 17 year olds. This data included "No. [number] of Smokers Underage (12-17). . . . Total Cigarettes Smoked Per Year - Underage. . . . Percentage of Total Cigarettes Accounted For by Underage Smoker. . . . Camel's Share-of-Market Among Underage Smokers. . . . Total Camels Purchased by Underage Smokers [and] Percentage of Camels Bought by Underage Smokers." 512027239-7240 at 7240 (U.S. Ex. 20,845).

4025. By 1992, it was clear that Joe Camel advertising had succeeded in reaching teenagers. A California Department of Health Services report estimated that Camel had achieved 96% of its total penetration among 13-year old teenagers, Marlboro had achieved 82%, and Virginia Slims 69%. 2025685890-6054 at 5997 (U.S. Ex. 20,418).

4026. A November 1993 Roper Starch report reported on an "Advertising Character and Slogan Survey" conducted with a "national sample of young persons, age 10 to 17 years" to track

awareness of the Joe Camel Campaign. The study found that 86% of the 10 to 17 year olds surveyed recognized Joe Camel. Joe Camel was identified correctly as advertising cigarettes by 95% of the 10 to 17 year olds who claimed awareness of the Joe Camel character. This percentage was higher than the percentage of children who knew that Ronald McDonald advertised McDonald's fast food and within 1% of the number of children who knew that the Keebler elves advertised for cookies. The top two responses of 10 to 17 year olds to the open ended question of "How would you describe Joe Camel"? were (1) he smokes, and (2) he is "really cool/acts cool/ thinks he's cool." R.J. Reynolds released the study in an attempt to deflect criticism that the Joe Camel campaign was directed at minors. 517145060-5108 at 5064, 5082 (U.S. Ex. 20,877).

4027. A 1994 R.J. Reynolds document entitled "Camel Crisis Vision" tracked smokers ages 18 to 34, showing a peak in this market of almost 13% in 1993. 521896268-6289 (U.S. Ex. 52,790).

4028. From 1995 until at least 1999, marketing agency Long Haymes Carr prepared a series of recommendations for placement of Camel advertisements in magazines and newspapers. Although these plans specifically referred to Camel's target as 21 to 24 year olds, the plans included strategies that clearly had great appeal to teenagers. For example, the "Camel 1994 Media Plan" suggested placement of advertisements in magazines including *Rolling Stone* and *Sports Illustrated* both of which had a high percentage of 12 to 17 year old readers, and also suggested advertisements to increase awareness of Camel's NASCAR, drag and bike racing programs. 513878927-8957 at 8929, 8942 (U.S. Ex. 87,829); 524723099-3123 (U.S. Ex.

87,830).

4029. The "Camel Cash 1995 Media Plan" recommended that R.J. Reynolds "heighten Camel's involvement at the Daytona NASCAR event with page insertions in broader appeal sports and/or automotive enthusiast publications." 514190393-0416 at 0399 (U.S. Ex. 20,856); 519579346-9444 (U.S. Ex. 87,831).

4030. Three cigarette advertisements used by R.J. Reynolds in 1996 included offers of Camel Cash. Two showed Joe Camel wearing sunglasses and a leather jacket and offered $25 savings on Ticketmaster tickets with 100 Camel Cash C-States; in one, Joe said "Wanna see a show?" and in the other, Joe said "Go ahead, it's on me." The third advertisement showed Joe Camel driving a car, saying "Take a Rockin' Road Trip" and included an offer of $25 savings on Ticketmaster tickets for "Camel Cash." 526310001-0015 at 0001 (U.S. Ex. 21,979); 526310001-0015 at 0004 (U.S. Ex. 21,979); 509137483-7486 at 7483 (U.S. Ex. 21,982).

4031. The December 10, 1996 "Camel Final 1996 Media Plan" suggested that R.J. Reynolds "Heavy-up [increase] Camel Motorcycle program support during key events in 1996: Daytona, Sturgis, and Laconia." 518117818-7841 at 7825 (U.S. Ex. 20,880); 524723230-3239 (U.S. Ex. 87,832).

4032.

518116832-7488 at 6855 (U.S. Ex. 21,821) (Confidential); 515129153-9177 (U.S. Ex. 87,833); 514872663-2709 (U.S. Ex. 87,834).

4033. The "Camel 1998 Media Recommendation Revision 5" recommended placing the "Biker" and "Billiards" series of Joe Camel advertisements. 522728834-8896 (U.S. Ex. 52,867);

522728897-8904 (U.S. Ex. 52,870); 522728905-8915 (U.S. Ex. 52,871).

4034. Even after Joe Camel was replaced with "Kamel" and other campaigns for Camel cigarettes in 1998, R.J. Reynolds continued to market the brand to young people, particularly through its media placements.

522668862-8890 at 8864 (U.S. Ex. 20,911) (Confidential). The

522669065-9093 at 9068 (U.S. Ex. 20,913) (Confidential).

4035.

522694030-4038 at 4030, 4307 (U.S . Ex. 20,914) (Confidential).

4036. The "Camel 1999 Final Media Recommendation" identified as its objective to "Solidify awareness of Camel brand identity among the target audience, adult smokers 21-24 (core target) . . . described as confident, fun-loving, adventurous, slightly irreverent, and having an individualistic attitude and outlook on life." 522728272-8320 at 8274 (U.S. Ex. 21,831).

4037. During his May 8, 2002 deposition, R.J. Reynolds Senior Vice President for Marketing, David Iauco, testified that R.J. Reynolds sought to make its Camel Brand "a relevant brand to younger adult smokers." Deposition of David Nicholas Iauco, United States v. Philip Morris, et al., May 8, 2002, 149:16 150:12.

(ii) Other R.J. Reynolds Campaigns

4038. R.J. Reynolds throughout the 1980s recognized the need to attract young smokers to its brands and conducted research on how to appeal to them. In a September 20, 1982 memorandum, Diane S. Burrows, R.J. Reynolds Marketing Development Department researcher, stated that, "if a man has never smoked by age 18, the odds are three-to-one he never will. By age 21, the odds are twenty-to-one." 500582269-2272 at 2270 (U.S. Ex. 20,641). R.J. Reynolds used the research it conducted on young males and the research it collected on teenagers as young as 12 to develop its Joe Camel campaign that was launched in 1988. The following paragraphs discuss this research as well as R.J. Reynolds's efforts to market its other brands – Winston, Salem, and Doral – to youth.

4039. In 1981, R.J. Reynolds developed a system called "AGEMIX," to determine smoking incidence and rates across demographic categories of sex and age for individuals as young as 12. A 1981 R.J. Reynolds document entitled "RJ Reynolds Cigarette Industry Volume Forecasting System" stated that the AGEMIX system allowed R.J. Reynolds to track the incidence and rates of smokers by sex and age. In a July 8, 1982 letter to Data Resources regarding the development of AGEMIX, Burrows wrote that AGEMIX allowed R.J. Reynolds to determine smoking incidence and smoking rates for individuals aged 12 and over, as the AGEMIX system included age breakdowns of 12 to 17, 18 to 24, etc. Burrows stated that, "[s]ince few people start smoking after age 24, we will assume that incidence remains fixed as a group ages past 24." 502661958-1963 (U.S. Ex. 20,704); 501291100-1101 (U.S. Ex. 85,234); 503011402-1403 (U.S. Ex. 50,279).

4040. A May 4, 1981 letter from Warren Cowan, President of the Beverly Hills public

relations firm Rogers & Cowan to Gerald Long, Executive Vice President of R.J. Reynolds, discussed Rogers & Cowan's past and continuing efforts on behalf of R.J. Reynolds to feature smoking favorably "in a prominent way" in movies, in celebrities' public appearances, on television, and in other arenas. Cowan stated, "[a]mong the films that met our criteria in which we were able to place products were: 'The Jazz Singer' with Neil Diamond. 'Backroads' with Sally Field. 'The Cannonball Run' with Burt Reynolds, Farah Fawcett and Roger Moore. 'Only When I Laugh' with Marsha Mason. 'Pennies From Heaven' with Steve Martin. 'Blowout' with John Travolta. 'Rich and Famous' with Candice Bergen and Jacqueline Bisset, and many, many others." The letter also discussed Paul Newman smoking R.J. Reynolds products in a recent spot on *Good Morning America* and placing stories about Mikhail Baryshnikov smoking four packs of cigarettes per day as part of his routine. 503579240-9244 at 9240-9241 (U.S. Ex. 20,718).

4041. In a December 8, 1981 letter to E.N. Monahan entitled "Aging 18 Year Old Smokers Into NFO [National Family Opinion] Panel Data," Midge Barnes, R.J. Reynolds Marketing Development Department, recommended "aging [i.e., counting] all known under 18 year old smokers into the NFO Panel Data at age 18 and classifying them as 'Continuing Smokers,' with only those smokers new to the business classified as 'new' smokers." 503412316-2318 at 2316 (U.S. Ex. 21,587).

4042. A January 28, 1982 letter from Thomas A. Trumbull at National Family Opinion to Linda Mabee in the R.J. Reynolds Marketing Development Department at R.J. Reynolds confirmed that the January wave of the Mass Smokers Screening study produced for the company would include "the name, address, telephone number, and age and sex of each family member 17

years and older." Midge Barnes, R.J. Reynolds Marketing Development Department, had previously written to Paul J. Cousino at National Family Opinion on July 28, 1981, with respect to the same study to express Reynolds desire "to address . . . any recommendations you have for introducing 17 year old smokers to the panel as they age in to 18+." 502992729-2730 at 2729 (U.S. Ex. 50,276); 503425601-5608 at 5602 (U.S. Ex. 50,372).

4043. Gerald Harold Long, former Chairman of R.J. Reynolds, testified that R.J. Reynolds received information about 14 to 17 year olds from National Family Opinion at the same time the company had a policy of not marketing its cigarette brands to anyone under 18. Deposition of Gerald Harold Long, United States v. Philip Morris, et al., October 18, 2001, 61:15-62:14.

4044. A March 22, 1982 document entitled "Export Family Strategy" discussed marketing strategy for Export cigarettes, R.J. Reynolds's leading Canadian brand:

> It is hypothesized that very young starter smokers choose Export 'A' because it provides them with an instant badge of masculinity, appeals to their rebellious nature and establishes their position amongst their peers. . . . It is at this transition point (ages 18-24) that Export 'A' is declining in its ability to hold the young adult males as they go through the maturing process, due to its out-dated irrelevant image. . . . Since we cannot direct our media or our creative to starter smokers, the optimal target group is young adult smokers between the ages of 18-24. . . . The key influencing factor to initial brand selection amongst new smokers appears to be conformity to what their friends smoke . . . . While Export 'A' appears to be chosen as a first brand, based on this key influencing factor, we must strive for peer group acceptability throughout the maturing process, for all the Export brands.

800057286-7321 at 7299 (U.S. Ex. 21,057).

4045. A September 27, 1982 R.J. Reynolds memorandum from Burrows to P.E. Galyan,

an employee in the Marketing Research Department, summarized the conclusions of the National Bureau of Economic Research on relative price sensitivity and stated that, "A key finding is that younger adult males are highly sensitive to price. This suggests that the steep rise in prices expected in the coming months could threaten the long term vitality of the industry, by drying up the supply of new/younger adult smokers entering the market. It could also undermine the long range growth potential of brands which rely on new/younger smokers, including Marlboro and Newport." 503011368-1369 at 1368 (U.S. Ex. 20,709) (emphasis in original).

4046. In a September 27, 1982 memorandum entitled "NBER Models of Price Sensitivity by Age/Sex" to Marketing Development Department employee Jerry R. Moore, Burrows summarized National Bureau of Economic Research findings on the relative price sensitivity of age and sex groups, including data on "teens 12-17." She discussed the NBER findings that "teenagers and younger adult males are highly price sensitive," and that "price affects incidence; rate per day is virtually unchanged," Burrows also noted that the NBER findings were "highly consistent" with internal R.J. Reynolds findings. Burrows' memorandum stated further that: "The loss of younger adult males and teenagers is more important to the long term, drying up the supply of new smokers to replace the old. This is not a fixed loss to the industry: its importance increases with time. In ten years, increased rate per day would have been expected to raise this group's consumption by more than 50%." On October 6, 1982, Burrows sent this memorandum to the Vice President of R.J. Reynolds Marketing Department, L.W. Hall, Jr. 503011370-1378 at 1371 (U.S. Ex. 22,347); 503011368-1369 (U.S. Ex. 20,709); 513318391-8392 (U.S. Ex. 20,851June 30, 2004).

4047. A 1983 document discussing "Project YAX," proposed that R.J. Reynolds develop a "young adult smoker brand" stated:

> Premise: A brand that helps provide the younger adult smoker with peace of mind and a sense of well-being by representing appealing forms of escape. . . . Positioning hypothesis . . . A brand that stands for the joy, closeness, and sense of belonging of male/female relationships via intimate and/or romantic situations will be perceived by younger adult smokers as contributing to their sense of well-being. A brand that stands for financial security via achievable wealth-oriented imagery will be perceived by young adults as contributing to their sense of well-being . . . . A brand that stands for good times and belonging via fun, group situations will be perceived by younger adult smokers as contributing to their sense of well-being.

502761709-1714 at 1709 (U.S. Ex. 78,810).

4048. Burrows testified at her June 27, 2001 deposition that, in the 1983-1984 time-frame, she recommended that R.J. Reynolds needed to increase its popularity among young adult smokers, possibly through development of a new brand. Deposition of Diane S. Burrows, United States v. Philip Morris, et al., June 27, 2001, 16:23-17:4.

4049. By at least 1983, and until at least 1986, R.J. Reynolds ran advertisements for Salem and Camel in *Moviegoer* magazine, a monthly publication distributed at selected movie theaters. In addition to the fact that the magazine and the cigarette advertisements it contained were available to any moviegoer, *Moviegoer* was published by the 13-30 Corporation, which went by this name to reflect the age range of its target audience. "Tailoring Medium to Marketers' Needs," G. Levin Advertising Age (Oct. 3, 1985) cited in 101st Cong, House, Committee on Energy and Commerce, Vol. 38, Page 54 (1989) (U.S. Ex. 87,836).

4050. A June 29, 1983 report entitled "13-30 Corporation/R.J. Reynolds" summarized a

meeting "to develop concepts/options for media vehicles for use in and around convenience stores which will satisfy the needs of convenience store customers, owners, and RJR Company." The report described convenience stores ("youth oriented," "hang-out" and "video games"), convenience store customers ("younger" "children with them "late at night-younger" and "kids on Friday night buying evening 6-packs"), and convenience store purchasers ("young, single" and "people with less spending money"). The report listed "beginning ideas" to be implemented at convenience stores to encourage purchase of R.J. Reynolds's cigarette brands, including "activity booklet appealing to young people – things to do," "develop a bike rack for kids with bikes – create ad space," "hook-up cigarettes with other youth purchases," "have a video game token given away with purchase," "create a music channel that is close-circuited into C.S. [convenience store] that is on-target to youth market," and "some kind of game or contest . . . via proof of purchase – with a weekly winner. Could be video game – high school sports quiz." The report considered ways to connect R.J. Reynolds marketing to dating: "facilitate boy meets girl at C.S.," and "how to legitimize the boy/girl encounter – e.g., movie schedules." 500863242-3272 (U.S. Ex. 20,654).

4051. In a 1984 R.J. Reynolds report entitled "Strategic Research Report Market Overview and Key Trends/Issues," Richard Nordine provided a "broad overview of the cigarette market" spanning the preceding 30 years. Nordine stated: "[T]here are clear differences between growing and declining brands. Those which have younger adult profiles are growing and those which show older are declining (except for Generics)." 517142223-2257 at 2224, 2330 (U.S. Ex. 21,764).

4052. On February 2, 1984, R.J. Harden of the R.J. Reynolds Marketing Development Department wrote a memorandum to A.M. Curry entitled "A Perspective on Appealing to Younger Adult Smokers" which stated: "A cigarette brand's (and the associated company's) long-term vitality is strongly influenced by its ability to attract young adult smokers." 502034940-4943 at 4940 (U.S. Ex. 20,695).

4053. In a February 29, 1984 memorandum entitled "Younger Adult Smokers: Strategies and Opportunities," Burrows stated:

> Younger adult smokers have been the critical factor in the growth and decline of every major brand and company over the last 50 years. They will continue to be just as important to brands/companies in the future for two simple reasons:
>
> 1) The renewal of the market stems almost entirely from 18-year old smokers. No more than 5% of smokers start after age 24; 2) The brand loyalty of 18-year old smokers far outweighs any tendency to switch with age. . . . Marlboro and Newport, the only true younger adult growth brands in the market, have no need for switching gains. All of their volume growth can be traced to younger adult smokers and the movement of the 18-year olds which they have previously attracted into older age brackets, where they pay a consumption dividend of up to 30%. A strategy which appealed to older smokers would not pay this dividend. . . . Younger adult smokers are the only source of replacement smokers. Repeated government studies have shown that: Less than one-third of smokers (31%) start after age 18. Thus, today's younger adult smoking behavior will largely determine the trend of Industry volume over the next several decades. If younger adults turn away from smoking, the Industry must decline, just as a population which does not give birth will eventually dwindle.

503049069-9072 at 9069 (U.S. Ex. 20,711); 501431517-1610 (U.S. Ex. 20,680); 506653291-337 (U.S. Ex. 85,235).

4054. In the same document, Burrows emphasized the importance of positive and

contemporary or modern marketing intended to attract young smokers: "The major younger adult brands have been succeeded by a brand which was positioned to be different from its predecessor and better 'in-touch' with the younger adult smokers of the time. . . . All of these successful brands have stressed positive product messages." Burrows also explained that young smokers were critical to R.J. Reynolds's long-term performance and profitability: "[RJR] should make a substantial long-term commitment of manpower and money dedicated to younger adult smoker programs. An unusually strong commitment from Executive management will be necessary, since major volume payoffs may lag several years behind the implementation of a successful younger adult smoker strategy." 503049069-9072 at 9070-9071 (U.S. Ex. 20,711).

4055. In an April 13, 1984 R.J. Reynolds letter, Nordine stated that "[i]t is relatively easy for a brand to retain eighteen-year-old smokers once it has attracted them. . . . Conversely, it is very difficult to attract a smoker that has already been won over by a different brand." 502033156-3157 at 3156 (U.S. Ex. 49,017).

4056. In an R.J. Reynolds document dated June 14, 1984 entitled "New Brands and Strategic Research Report: Project XG Qualitative Exploratory III MDD Topline Perspective," P.S. Cohen, an R.J. Reynolds employee, stated: "In recognition of the importance of younger adult smokers to R.J. Reynolds growth, Project Planning has been asked to develop a brand which appeals to the image and peer acceptance wants of 18-24 year old smokers." This effort was code-named "Project XG." Cohen further stated that, to appeal to the younger adult smoker, visuals would convey a sense of: "adventure/controllable risk, independence/freedom, honesty/straightforwardness, in control/'street-smart'/urban personality, spontaneity/lack of

inhibitions." 502034890-4895 at 4892, 4893 (U.S. Ex. 20,694).

4057. A July 9, 1984 R.J. Reynolds document entitled "Project XG Brand Review" described "Project XG" as R.J. Reynolds's effort to "[d]evelop a Brand to appeal to younger adult smokers," and "[r]eplace Marlboro as the key brand among younger adult smokers (18-24)." 502761453-1487 at 1455 (U.S. Ex. 20,705).

4058. In a July 16, 1984 memorandum entitled "Thoughts on Younger Adult Smoker Study," Nordine remarked that "[i]n the past, trends with the younger adult sector have led to growth brands," and therefore R.J. Reynolds must "understand the driving motives of younger adults and the way they express these motives in their lifestyle." Nordine listed as an issue to explore: "What 'rules of thumb' are there are [sic] developing effective younger adult smoker marketing programs?" 503517461-7462 (U.S. Ex. 20,716).

4059. In a September 17, 1984 memorandum, Burrows discussed Nordine's previously-stated hypothesis that, if schools permitted smoking, the effect would be to discourage student smoking. In response to Nordine's hypothesis, Burrows stated that prohibition of smoking may feed into teenagers' rebelliousness and actually encourage them to smoke as a form of rebellion and as a way to get positive support from other rebels in their peer group. Deposition of Diane S. Burrows, United States v. Philip Morris, et al., June 27, 2001, 53:14-54:17; 503571003-1003 (U.S. Ex. 20,717).

4060. In a January 28, 1986 document regarding Camel entitled "State of the Brand Report" Frances V. Creighton stated that "the trend among 18-24 year old males has exhibited growth throughout 1985 reflecting targeting promotional activities throughout most of the year. .

. . [S]hare among the 18-24 old male smokers is currently 5.75, up +1.3% versus November a year ago." 505736433-6454 at 6435 (U.S. Ex. 20,745).

4061. C.D. Greene, of R.J. Reynolds Camel Brand Team, wrote a February 11, 1986 memorandum entitled "Results of the Camel 1985 SDS Analysis." The purpose of this memorandum was to allow the Camel Brand Team to "gain a better understanding of Camel's target of male 18-24 year old smokers," whom Greene described as being "driven by a desire for social success." 514341837-1839 at 1837 (U.S. Ex. 51,847).

4062. A document entitled "Youth Target 1987" prepared by The Creative Research Group for R.J. Reynolds-Macdonald Inc., R.J. Reynolds's Canadian subsidiary, expressly studied smoking habits, lifestyles, and value systems of smokers ages 15 and older. 521893064-3142 at 3070 (U.S. Ex. 20,896).

4063. A June 8, 1987 document showed that R.J. Reynolds conducted a Canadian study allocating 17% of the interviews to 15 to 17 year olds. 512679728-9807 at 9732 (U.S. Ex. 20,848).

4064. An October 15, 1987 memorandum entitled "Project LF Potential Year 1 Marketing Strategy" from J.H. Miller to Emily C. Etzel and Ann E. Biswell, and copied to H.T. William C. Parks, discussed "introducing Project LF in 13 priority regions . . . . **Project LF is wider circumference non-menthol cigarette targeted at younger adult male smoker (primarily 13-24 year old male Marlboro smokers)** . . . . [W]e are assuming $100MM for a national launch and $70MM for a regional introduction." Miller attached a table showing "Priority Regions" and "Remaining Regions" by brand, Marlboro, Winston and Camel. This

document was contained in a file entitled "Youth Target." 505936377-6378 (U.S. Ex. 50,876) (emphasis added).

4065. A 1988 R.J. Reynolds document entitled "Strategic Overview" discussed Marlboro's success and advised that, in order to meet the goal of increasing R.J. Reynolds's market share, the company must target the "young adult" market. To meet this goal, "[s]everal research programs have been completed to increase understanding of YAS." 521895685-5732 at 5723 (U.S. Ex. 20,903).

4066. A 1988 R.J. Reynolds document entitled "Younger Adult Smokers Importance" stated that "younger adult smokers are virtually the only source of replacement smokers. Only 31% of smokers start after age 18" and "as a result of brand loyalty and the aging process, strength among younger adult smokers ultimately yields growth in the older age brackets." 521895733-5741 at 5734-5736 (U.S. Ex. 20,904).

4067. In a 1988 document entitled "Situation Analysis – YAS," R.J. Reynolds stated that "Since the cigarette market is extremely brand loyal, the brand that is chosen as FUB [First Usual Brand] has a long-term strategic edge." 517142216-2219 at 2216 (U.S. Ex. 20,875).

4068. A 1988 R.J. Reynolds document listed "increasing price sensitivity" among "Key Business Issues" and the resulting need to "[b]uild YAS share for [long]-term growth." 510495725-5729 at 5727 (U.S. Ex. 51,522); 508738213-8232 (U.S. Ex. 87,837).

4069. A 1988 research proposal from the files of R.J. Reynolds entitled "Identification of Premium Items and Assessment of Symbols of Refreshment for the Younger Adult Black Smoker Market" aimed to "assess relevant premium items for the younger adult black smokers

market." The proposal stated that "[t]he black smoker market is a key market for Salem . . . However, Salem continues declining among this group, especially the younger 18 to 24 year old black smokers who are key to Salem's future growth potential." 507119859-9860 at 9859 (U.S. Ex. 51,125).

4070. A March 1988 report entitled "Younger Adult Smoker Opportunity" discussed "R.J. Reynolds's most critical strategic need – Younger Adult Smokers." The report stated: "Improved younger adult development is a key corporate priority – Necessary for core brand revitalization (#1 corporate priority) – Lack of younger adults responsible for total company volume trend." It indicated that R.J. Reynolds's "[m]arketing department [was] refocusing efforts against younger adult smokers." The report indicated the importance of unrestricted advertising in reaching these younger smokers: regarding a possible advertising ban, it stated that, "[i]f enacted, [an] advertising ban would severely limit R.J. Reynolds's ability to introduce [a] new brand or attract younger adult smokers." The report also stated that "[y]ounger adult smokers drive the growth of two major competitors" – Marlboro and Newport – which were "capturing an ever increasing share of younger adult smokers." Finally, the report explained that young smokers were crucial to the continuing survival of R.J. Reynolds because teenagers remain loyal to their brand of choice as they age and because teenagers smoke an increasing volume of cigarettes as they become adults: "Younger adult smokers are the key to future growth for any company or brand for several reasons: (1) Aging explained 75% of SOM [Share of Market] growth. (2) Benefits of younger adult smokers compound over time as a result of brand loyalty and the increase in rate per day as smokers age." In summary, the report stated, "R.J. Reynolds

must begin now to capture younger adult smokers: – Volume decline inevitable without YAS – Potential for future advertising restrictions – Marketing department restructured to address the issue." 506664499-4558 at 4499-4500, 4506-4507, 4557 (U.S. Ex. 20,763).

4071. An August 1988 report entitled "Permanent Young Adult OOH (Out of Home) Plan" discussed R.J. Reynolds's OOH marketing ("out of home" primarily refers to billboards and other outdoor advertising) and made recommendations for targeting the younger adult smoker ("YAS") market. The overall plan for R.J. Reynolds's billboard efforts was described as "continuous, high impact visibility in the most YAS-oriented media available." The overall objective was to: "Assure continuous OOH presence for highest potential brands, utilizing locations, units and creative executions that are uniquely and single-mindedly relevant to younger adult smokers." The report recommended placing billboards in the areas most likely to be frequented by young adults, including:

> – Near venues where rock concerts are regularly held.
> – Along cruising strips/streets with heavy concentrations of fast food restaurants and convenience stores.
> – Near technical colleges, military bases, video game arcades, city basketball courts, motocross tracks, major record stores, etc.

The report stated that, with respect to marketing in such areas, "traditional OOH selection parameters do not necessarily apply! Highly 'daily effective circulation' not critical - maybe YAS only in area on weekends - that's OK!" 507286174-6181 at 6175, 6178 (U.S. Ex. 22,051).

4072. A September 9, 1988 R.J. Reynolds resource allocation document stated: "R.J. Reynolds's YAS brands should reach YAS with a dominant promotion voice in 1989, i.e., at least $48MM should reach General Market YAS." 507181787-1824 at 1799 (U.S. Ex. 20,772).

4073. A July 1989 internal R.J. Reynolds document entitled "Soundwaves Program Awareness and Perception Study" declared that the Soundwaves Program was:

> being developed to improve Salem's appeal, relevance, and share among younger adult smokers, the key subgroup fueling the brand's long-term decline. The program is signed to tie the Salem brand name with music, a very important d universal interest among younger adult smokers. The program will focus on the areas of music most meaningful to the 18-24 year old smoker target, new music, via various elements of the program-music magazine, record/tape offer, retail offers, media delivered offers, and local field marketing events – club nites and talent search.

514347738-7774 at 7738 (U.S. Ex. 51,850).

4074.

MBDOJ06953-6966 at 6955-6956 (U.S. Ex. 59,747) (Confidential); MBDOJ06967-7030 at 6969, 6993, 6996 (U.S. Ex. 59,747) (Confidential) (emphasis in original).

4075. In a letter dated October 12, 1989 entitled "Dollar Value of YAS Over Time,"

Burrows provided "estimates (attached) of the value of capturing Young Adult Smokers and holding them over time." The letter calculated the profits that R.J. Reynolds would gain "if an 18 year old adopts an R.J. Reynolds full price brand" for 3 years ($1,359), for 7 years ($3,710), for 10 years ($6,148), or for over 20 years ($18,794). Burrows concluded: "Our aggressive Plan calls for gains of about 5.5 share points of smokers 18-20 per year, 1990-93 (about 120,000 smokers per year). Achieving this goal would produce an incremental cash contribution of only about $442MM during the Plan period (excluding promotion response in other age groups and other side benefits). However, if we hold these YAS for the market average of 7 years, they would be worth over $2.1 billion in aggregate incremental profit. I certainly agree with you that this payout should be worth a decent sized investment." 507181261-1261 (U.S. Ex. 20,007).

4076. In an October 27, 1989 document, R.J. Reynolds Business Department employee L.B. Smith, requested in-house legal advice concerning cash offers for consumer survey participation to "younger" adult smokers "ages 18-24." The document indicated that "[t]he amount of the offer is intended to make it 'worthwhile' for younger adult smokers to respond" and that R.J. Reynolds did not require age information when respondents called the toll-free number. A copy was also sent to Douglas Weber, R.J. Reynolds's Director of New Products Development and Established Brands. 507187215-7215 (U.S. Ex. 20,773) (emphasis in original).

4077. An R.J. Reynolds document entitled "1990 Workplan Objectives" stated that "The number one priority for 1990 is to obtain younger adult smoker trial and grow younger adult smoker share of market." In addition, the document asked "Why target the YAS market?" and

answered:

> Each Year:
> - 800,000 new smokers (18+) enter the market
> - 1,500,000 smokers leave the market
>
> With about 50 million smokers, this means that each year there are:
> - 1.6 share points of new smokers
> - 3.0 share points of quitters
>
> At least 95% of all new smokers are 18-24. About 70% are exactly 18 (i.e., aged in the 18+ market).
>
> Each brand and company has a share of new smokers and quitters, which is reflected in their shares of YAS and older smokers. These shares drive long- term market performance.

513869196-9303 at 9198 (U.S. Ex. 30,058) (emphasis in original).

4078. In January 1990, R.J. Reynolds marketing documents describing the test marketing of its new Dakota brand to 18 to 24 year old so called "Virile" women, those without college educations or professional careers, were leaked to the press, causing a public furor. A January 1, 1990 R.J. Reynolds document indicated that Philip Morris had informed R.J. Reynolds that Philip Morris had not revealed that the marketing documents "leaked" to the *Washington Post* were indeed R.J. Reynolds documents: "they [Philip Morris] did not tell the Post reporter that materials cited in the story were theirs [R.J. Reynolds's]." 507301283-1298 at 1286, 1298 (U.S. Ex. 22,726).

4079. In a March 30, 1990 letter, R.J. Reynolds employee L.L. Bender described the press attention to R.J. Reynolds's Houston test marketing of Dakota cigarettes to the "Virile Female." Bender stated,

> I. LEARNING

> . . . Even with the tightest possible security, however, we must operate with the knowledge that anything we write, say, or do can become 'public knowledge overnight. . . . Fortunately, focus group learning suggests that exposure to the brands' advertising can quickly reorient brand perceptions/positioning. Surprisingly, focus group learning also indicates a straightforward "statement" ad or letter from the company would be less effective at reversing negative brand perceptions than advertising. In fact, detailed explanations of our position seemed to surface new issues and fuel the controversy.
> II. IMPLICATIONS FOR FUTURE [NEW BRAND] INTRODUCTIONS/ CONTROVERSY
> "Target" definitions should be broad and refer only to competitive brands. Proposals/recommendations that are not accepted should be discarded immediately. Out of date documents should be destroyed also. If anti's, the press, or government officials misrepresent the brand, advertising reflecting correct brand positioning should be run as soon as possible. However, this advertising should not be designed to refute claims directly.

507511965-1967 at 1195-1196 (U.S. Ex. 20,777) (emphasis in original).

4080. On January 10, 1990, J.P. McMahon, R.J. Reynolds Division Manager, sent a memorandum headed "VERY IMPORTANT, PLEASE READ CAREFULLY!!!" to all Division Sales Managers requesting that they identify stores frequented by "young adult shoppers" that were located near high schools, colleges or other areas frequented by such individuals. McMahon wrote: "I need all of you to study the attached scroll list of monthly accounts in your assignment that are presently doing more than 100 CPW [cases per week] for purposes of denoting stores that are heavily frequented by young adult shoppers. These stores can be in close proximity to colleges, high schools or areas where there are a large number of young adults frequent the store." Such stores were to be classified as "young adult" and singled out for special treatment, even if the stores were not otherwise considered "Preferred Presence units."

507341428-1430 at 1430 (U.S. Ex. 22,376) (emphasis in original); 509056992-6994 at 6992 (U.S. Ex. 22,378)

4081. Almost five months later, McMahon sent a May 3, 1990 letter to all sales representatives to "clarify" the language in his January 10 letter. In it, McMahon stated:

> In reviewing my files, I have noticed that I sent you a letter dated January 10th of this year, asking you to identify stores located in close proximity to high school and colleges for placement of our premium items. First of all, looking back on this letter, I realize I was wrong in identifying the specific age group of these young adults. It has always been this company's policy that we do not promote or sell our cigarettes to anyone under the age of 21.

The letter continued:

> [I]t was not my intention to recruit or promote smoking with high school or college aged students. I have never asked you to do anything different in gaining sales with this age group, but again I must say I was wrong with my reference to 'high school aged' young adults, and I deeply regret and apologize for this reference. In talking to most of you over the past three weeks, you have told me that you are not placing any special emphasis on stores located close to schools or colleges or that we are not promoting smoking, or even making consumer offers to anyone under the age of 21. We will continue to work with our pack promotions with special emphasis in higher volume C-stores, but we will not place additional emphasis, or additional premium items in any store where there is a large concentration of under 21 shoppers. Again, I must add, it is not my intention nor was it ever to persuade young people to smoke."

516018462-8462 (U.S. Ex. 51,982) (Confidential).

4082. In an April 5, 1990 R.J. Reynolds memorandum entitled, "Young Adult Market Account Grouping" R.G. Warlick, R.J. Reynolds Division Manager, requested that all sales representatives in Norman, Oklahoma provide him a list of their "Y.A.S. accounts" meaning

"[a]ll package action calls [locations which sell cigarettes by the pack rather than the carton, i.e., convenience stores] located across from, adjacent to are [sic] in the general vicinity of the High Schools or College Campus (under 30 years of age)." 89281671-1671 (U.S. Ex. 22,735).

4083. An R.J. Reynolds document dated June 21, 1990, entitled "US Cigarette Market in the 1990s" stated that the "majority [of smokers] become regular smokers before age 18. . . ." 507798137-8230 at 8142 (U.S. Ex. 20,789).

4084. In 1992, R.J. Reynolds supposedly adopted a policy which proscribed marketing to anyone under 21 years of age. When asked about this policy at his June 12, 2002 deposition in this case, CEO Andrew Schindler testified that the policy in fact meant that R.J. Reynolds would not use source data information gathered from research into the smoking preferences of 18 to 21 year olds. Schindler testified that ceasing to use such research meant that R.J. Reynolds was no longer marketing or "talking to" anyone under age 21. Deposition of Andrew Schindler, United States v. Philip Morris, et al., June 12, 2002, 108:3-109:20, 118:6-121:7; Deposition of Lynn Joann Beasley, United States v. Philip Morris, et al., June 25, 2002, 54:17-55:19; 77:19-78:4: Deposition of Diane Burrows, United States v. Philip Morris, et al., June 27, 2001, 14:5-7. In his May 2, 2002 deposition in this case, Edmund Conger Leary, Senior Vice President of Marketing and President of Sports Marketing for R.J. Reynolds, testified that R.J. Reynolds "marketed to adults 18 and up" prior to 1992. Deposition of Edmund Conger Leary, United States v. Philip Morris, et al., May 2, 2002, 19:13-18, 22:14-16, 30:3-33:12.

4085. A May 28, 1992 R.J. Reynolds internal memorandum entitled "Advertising Practices," from James C. Schroer, Executive Vice President of Marketing and Sales, to Lynn

Beasley and other marketing staff, set out R.J. Reynolds's supposed policy change to stop marketing to individuals younger than 21: ". . . it would be in our long-term best interests to join the ranks of our competitors and limit our advertising and marketing efforts to smokers 21 years of age and older." The memorandum recognized that all of R.J. Reynolds's competitors publically stated that they did not market to anyone under 21: "[n]one of our competitors in their public statements admit that they advertise or promote their products to anyone under 21." 513180912-0913 (U.S. Ex. 51,672); 511388874-8875 (U.S. Ex. 22,497); 513385651-5652 (U.S. Ex. 20,852); 507647460-7461 (U.S. Ex. 21,680) (U.S. Ex. 78,766); 522908112-8112 (U.S. Ex. 87,746).

4086. This May 28, 1992 memorandum reveals, however, that the motivation behind R.J. Reynolds's policy change was to "blunt attacks" by adversaries, rather than any desire to actually avoid marketing to youth:

> The fact that our public statements on this issue differ from our competitors' and, on the surface might appear inconsistent with elements of the Cigarette Advertising and Promotion Code, has not gone unnoticed by our adversaries . . . [w]e don't believe for a minute that this will silence our adversaries in their attempts to misrepresent our motives or the effect of advertising. We do feel that it will blunt this point of attack and provide us with a three-year "cushion" that can be used in response to claims that we're after the underage market . . . All brand positioning statements that currently reflect audiences below the age of 21 should be revised to reflect audiences which are 21 and older.

511388874-8875 (U.S. Ex. 22,497).

4087. Despite R.J. Reynolds's supposed post-1992 policy proscribing marketing to anyone under 21 years of age, R.J. Reynolds made no changes in its marketing efforts after

enacting this policy. For example, R.J. Reynolds did not restrict the locations of cigarette vending machines to only age 21-plus venues. Nor did R.J. Reynolds withdraw or change its "Joe Camel" campaign even though Andrew Schindler testified that the target group of this campaign was 18 to 24 year olds. Deposition of Andrew Schindler, United States v. Philip Morris, et al., June 12, 2002, 60-61; 46:8-48:2.

4088. Despite R.J. Reynolds's supposed policy, Schindler stated that the exposure of teenagers to R.J. Reynolds's advertisements could fairly be called "marketing" to these teenagers: "if you're running an ad and a twenty-year-old sees the ad and they smoke Camel and they're, you know, well within the legal age to buy the product, then I guess . . . somebody could say you're marketing to them." Schindler further testified that he saw no problem with R.J. Reynolds's advertisements appealing to any legal-age smokers: "if a twenty-year-old saw an ad and the ad appealed to them, I don't see what the problem would be, given that they're, you know, old enough to buy the product." Deposition of Andrew Schindler, United States v. Philip Morris, et al., June 12, 2002, 99:4-7, 15-16.

4089. In fact, after 1992, R.J. Reynolds continued to conduct market research on those under 21. In May 1994, R.J. Reynolds conducted a "Tracker Tag-On" among 300 smokers "age 18+" to determine whether these smokers would be interested in a cigarette without additives. 513823320-3325 at 3320 (U.S. Ex. 22,463).

4090. A survey dated November 28, 1995 bearing the legend "Property of RJRTC" on every page analyzed whether "Adolescents Will Not Be Predisposed to GTC." "GTC" was the in-house code name for R.J. Reynolds's tobacco heated products such as Eclipse. The survey

discussed reasons why an adolescent would be inclined to smoke GTC: "Less concern about the risks associated with smoking (minimize initial physical reaction to smoking). . . . More likely to experiment. . . . Less likely to quit smoking under a perception of lower risk associated with smoking and because smoking is seen as less objectionable among peers. . . . By influencing adult smoking incidence, impact is made on smoking by adolescents through parental example. . . . In fact, parents may be less forceful about their kids [not] smoking if they perceive the new product as having healthier benefits." 514510001-0015 at 0006 (U.S. Ex. 51,860).

(iii) R.J. Reynolds's Repositioning of Salem and Winston Towards The Youth Market

4091. In the mid 1990s, despite R.J. Reynolds's supposed 1992 policy of not marketing to those under 21, R.J. Reynolds repositioned its Winston and Salem brands to make them more appealing to younger smokers. Documents discussing these efforts specifically identify 18 to 24 year olds as R.J. Reynolds's target. For example, a 1996 R.J. Reynolds "Competitive Summary" discussed repositioning Salem. Identifying Salem's competitors as Newport and Marlboro Menthol, the document stated that it was "critical to get into the 18-24 group" in order to "ensure long term viability." 514200832-0889 at 0865-0867 (U.S. Ex. 20,857); 580057530-2042 (U.S. Ex. 87,838).

4092.

(Confidential); 700186252-6252 (U.S. Ex. 54,462) (Confidential); 700186253-6253 (U.S. Ex. 54,463) (Confidential); 700186254-6255 (U.S. Ex. 54,464) (Confidential); 700186256-6256 (U.S. Ex. 54,465) (Confidential).

4093. In a March 14, 1997 memorandum sent by Daniel Murphy at Diagnostic Research International to L.G. Dube, an R.J. Reynolds employee, Murphy indicated that his company was evaluating Salem's market share among 18 to 34 year old smokers in various markets. Similarly, the M/A/R/C Group performed research in 1997 on behalf of R.J. Reynolds to evaluate the awareness of the "SALEM MVP Proposition" and whether it "improves the overall brand perceptions and positively impacts brand buyer dynamics" on smokers as young as 18. 519941785-1786 at 1785 (U.S. Ex. 85,239); 516949904-9907 at 9905-9906 (U.S. Ex. 85,240).

4094.

519588649-8659 at 8649 (U.S. Ex. 22,465) (Confidential).

4095.

to monitor the awareness and penetration of the launch among [Hispanic] **smokers 18+**." 520650706-0727 at 0706-0707 (U.S. Ex. 52,621) (Confidential); 518090228-0255 at 0233, 0242, 0244-0249, 0251 (U.S. Ex. 52,152) (emphasis added); 518090256-0268 at 0260-0265, 0267 (U.S. Ex. 52,153) (Confidential); 520601649-1699 (U.S. Ex. 22,116) (Category I).

4096.

520650728-0755 at 0729, 0744-0749 (U.S. Ex. 22,468) (Confidential).

4097.

519921955-1983 at 1958 (U.S. Ex. 22,467) (Confidential).

4098. During her June 20, 2002 deposition, Frances Creighton, R.J. Reynolds Senior Vice President for Marketing, testified that R.J. Reynolds tracks brand performance and brand perception among smokers as young as 18. Deposition of Frances Virginia Creighton, United

States v. Philip Morris, et al., June 20, 2002, 54:5-57:7; 524668745-8754 (U.S. Ex. 87,841).

4099.

700034912-4914 at 4912 (U.S. Ex. 54,425) (Confidential).

4100.

RJR000000149900572470028611 0-6111 (U.S. Ex. 61,795) (Confidential).

4101.

RJR000000000800117870019055 1-0551 (U.S. Ex. 22,140) (Confidential) (emphasis added).

(5) Defendants Exploit Young People's Desires to Smoke "Popular" Brands Their Peers Smoke

4102. Defendants claim in public statements that young people begin to smoke due to peer pressure, rather than due to Defendants' marketing efforts. For example, in a May 24, 1979 letter to Joseph A. Califano, Jr., Secretary of the Department of Health, Education and Welfare, Horace R. Kornegay, President of the Tobacco Institute, stated that "your statements appear to reflect the erroneous view that brand advertising has an effect on the decision to begin smoking," and asserted that the 1978 Surgeon General's Report "suggested that the primary motivating factors in smoking by young people were the influence of peers, smoking parents, and older

siblings." TI05031337-1338 at 1338 (U.S. Ex. 21,245). See U.S. FPFF § IV.G(5), supra. Defendants fail to publically address the question of what factors encourage those "peers" to smoke, and how marketing may influence peer pressure.

4103. However, as Cigarette Company Defendants' internal documents and other evidence discussed above, as well as those examples listed below, establish, Cigarette Company Defendants purposefully have marketed their brands as "popular" or having peer appeal to encourage young people to smoke their brands. Cigarette Company Defendants researched what they deemed the "herd" instincts of young people – that young people would choose a cigarette brand that they perceived to be the most popular or "number one" among their peers – and attempted to harness these "herd" instincts in their marketing to encourage youth initiation and brand choice.

4104. Independent academic experts concur that marketing can harness peer pressure and group dynamics to stimulate smoking initiation and other behavior. Under "diffusion theory," individuals are broken up into "innovators," "early adopters," "late adopters" and "laggards." "Innovators" are risk takers, who seek out new products and services and serve as "opinion leaders," with others emulating their actions. Because cigarette marketing is directed at innovators, it stimulates and encourages their decision to begin smoking, and they in turn are emulated by the other groups. "Does Tobacco Marketing Undermine the Influence of Recommended Parenting in Discouraging Adolescents from Smoking?" J.P Pierce *et al* 23:2 *American Journal of Preventive Medicine* 73-81 (2002) (U.S. Ex. 74,025).

(a) Philip Morris

4105. In a December 12, 1984 Philip Morris report entitled "Cigarette Market History and Interpretation," John E. Tindall, Senior Scientist at Philip Morris, stated that, in order to discover why certain brands have captured the young smokers, "**[w]e need not try to understand why young people have a herd instinct. From their choices of food, clothes, transportation, entertainment, heroes, friends, hangouts, etc., it is clear that they do.** More important to us (and probably to many other product categories) is why they make certain choices instead of others." 2001265000-5045 at 5030 (U.S. Ex. 20,299) (emphasis added).

4106. An October 7, 1987 internal Philip Morris document containing plans for marketing Parliament in 1988 and 1989 stated: "To target the 18-24 males and females, our retail focus will be on pack outlets . . . and will be trial/conversion oriented. This younger age group is more likely to make decisions based on peer pressure. To convey the idea that everyone is smoking Parliament, the brand should have continuous high levels of visibility in as many pack outlets as possible." 2045287059-7067 at 7063 (U.S. Ex. 38,408).

4107. In a May 24, 1988 document, Carole Kuk, an employee at Philip Morris's advertising agency Leo Burnett U.S.A., discussed the Marlboro Reds Qualitative Study conducted by her Philip Morris team that explored 18-24 year old Marlboro Red smokers' perception of the Marlboro brand image. This study found that "Marlboro's brand stature is important to Reds smokers: they enjoy smoking the 'number one' brand." 2043087722-7732 at 7723 (U.S. Ex. 20,448).

4108. An August 7, 1990 report entitled "New Brand Opportunities in the Cigarette

Industry" written by Gibbons, Voyer & Associates for Philip Morris stated that 17 to 19 year olds comprise 18.9% of smokers; the report found that "**Marlboro dominates young adult smoker market: initial exposure, peer pressure, meets image wants**" and that "switching occurs as smokers enter their mid-20's." 2049397333-7369 at 7343, 7348 (U.S. Ex. 20,486) (emphasis added).

4109.

2071578268-8409 at 8276 (U.S. Ex. 40,488) (Confidential).

4110.

2048735500-5604 at 5544, 5546 (U.S. Ex. 21,971) (Confidential).

4111. At her June 27, 2002 deposition in this case, Nancy Lund, Philip Morris Senior Vice President of Marketing, testified that Philip Morris collected information on whether smokers perceive particular brands to be "popular" brands as part of its continuous consumer

tracking survey in order to help it to "understand if the brand is remaining new and relevant and growing in the marketplace or whether the consumers think that this brand [] is washed up." When asked why this information would be important in marketing Marlboro, Lund admitted that "at least what we know about young adult smokers, for some of them, **the fact that Marlboro is a popular brand may be a factor in why they choose Marlboro.**" Philip Morris interprets a high "popularity" rating for Marlboro as positive. When asked whether she was aware that there is internal Philip Morris data from the Youth Smoking Prevention Department that shows that children ages 12 to 17 choose to smoke Marlboro because of its popularity, Lund testified: "I certainly have heard and understand that Marlboro is a popular brand among that group [12 to 17 year olds]." Deposition of Nancy Lund, United States v. Philip Morris, et al., June 27, 2002, 137:17-140:13, 197:24-199:11.

4112. Philip Morris regularly tracks through its continuous consumer tracking survey whether 18 to 24 year old smokers report that Marlboro is "growing in popularity." As Suzanne LeVan, Vice President of Marlboro, testified at her June 25, 2002 deposition in this case, "if young adult smokers were saying that a brand was rapidly declining in popularity, then that might be something to be significantly -- to be concerned about." Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002, 246:23, 247:13-16.

4113.

2071580565-0566 at 0566 (U.S. Ex. 20,528) (Confidential).

4114.

Kool. 2045596130-6141 at 6133 (U.S. Ex. 20,462) (Confidential).

4115.

2040837079-7080 at 7079 (U.S. Ex. 23,898) (Confidential) (emphasis added).

4116. Philip Morris's marketing for its youth brand, Marlboro, is expressly designed to appeal to young smokers' desire for peer acceptance by emphasizing Marlboro's popularity and status as the "number one" brand. Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 107-09, 111-113, 158-59; 2071230813-0861 at 0820-0821 (U.S. Ex. 20,521) (Confidential); 2071230813-0888 at 0830-0832, 0838-0839, 0850, 0856, 0862, 0864 (U.S. Ex. 40,404) (Confidential); 2080499829-9896 at 9859 (U.S. Ex. 20,536) (Confidential).

4117.

LB0092389-2414 at 2391-2394, 2396 (U.S. Ex. 33,235) (Confidential); 2085298486-8512 (U.S.

Ex. 22,906) (Confidential) (emphasis added).

4118.

LB0092512-2522 at 2521-2522 (U.S. Ex. 58,941) (Confidential) (emphasis added).

4119.

2073785602-5662 at 5613, 5615 (U.S. Ex. 24,680) (Confidential).

4120. In contradiction Nancy Lund, Philip Morris Senior Vice President of Marketing, testified at her June 27, 2002 deposition that "smokers choose Marlboro because it's the most flavorful and probably the highest quality cigarette in the marketplace."

De position of Nancy Lund, United States v. Philip Morris, et al., June 27, 2002, 225:20-22; 2080310506-0566 (U.S. Ex. 21,836) (Confidential).

4121.

2085231312-1333 at 1333 (U.S. Ex. 25,208) (Confidential).

4122. At her April 16, 2002 deposition in this case, Shari Teitelbaum, Philip Morris Director of Marketing and Sales Decision Support, testified that Philip Morris has used the term "herd smoker" to refer to smokers of the most popular cigarette brands, like Marlboro, Camel, and Newport, because these brands attract the largest share of young adult smokers. Teitelbaum further testified that herd brands are "the most popular, it's for smokers that would be likely to kind of follow the herd, kind of more of a group mentality type of thing." Deposition of Shari Teitelbaum, United States v. Philip Morris, et al., April 16, 2002, 77:22-78:25.

(b) Lorillard

4123. A November 13, 1978 letter from Edward Ricci of MCA Graham Advertising to Robert W. Davis, Lorillard Advertising Brand Manager, summarized the results of focus group research in Charleston. The objective of the research was "to confirm the smoking patterns and

habits of young adult smokers." Ricci concluded: "In the Charleston Division, Newport is considered the second most popular brand among Black smokers. **The most positive factor influencing the growth among Blacks is the degree to which respondents claimed that 'many of their friends smoke Newport.'** Considering that Kool is the leading brand among Blacks, the perception of Newport as a popular, milder tasting, and refreshing alternative among Kool smokers is the primary factor influencing brand switching to Newport." 85072402-2407 at 2402 (U.S. Ex. 56,003) (emphasis added).

4124. A November 11, 1993 presentation by McCracken Brooks for Lorillard entitled "Newport Promotional Concepts" stated that one of the "objectives" was to "[s]trengthen Newport's competitive edge as the **peer brand** among young adult smokers." 91949806-9831 at 9808 (U.S. Ex. 57,155) (emphasis added).

4125. Newport's 1994 Brand Plan stated that "Newport is the leading menthol cigarette brand among younger adult smokers in the freshness segment, positioned to appeal primarily to general market/urban center adult smokers ages 18-24" and that "Newport's creative product must strengthen Newport's competitive edge as **the 'peer' brand** among younger adult smokers." 91945017-5124 at 5033, 5045 (U.S. Ex. 21,113) (emphasis added).

4126. A July 1994 report entitled "An Evaluation of the Newport 'Pleasure on Wheels' Promotion Tiers 1 and 2" prepared for Lorillard by Meyers Research Center stated that one of the "primary marketing objectives" of this promotion was to "[r]einforce Newport's image as **the 'peer brand'** among young adult smokers." This report was attached to a July 26, 1994 memorandum entitled "Final Report: Newport P.O.W. Promotion Evaluation in Tiers I and II –

MPID #5543/394" from Scott Benson, Lorillard Manager of Consumer Research, to Victor Lindsley, Lorillard Senior Group Brand Director. 91840214-0311 at 0218 (U.S. Ex. 74,415); 94291134-1139 at 1134 (U.S. Ex. 21,119) (emphasis added).

4127.

98196660-6681 at 6661, 6665, 6671 (U.S. Ex. 56,953) (Category I) (emphasis added).

4128.

99310880-0893 at 0884-0885 (U.S. Ex. 57,656) (Category I) (emphasis added).

4129. According to Victor Lindsley, Lorillard's senior group brand director for Newport cigarettes, the advertising theme of "pleasure" appeals to all ages, especially the advertised "pleasure" of hanging out with friends. Deposition of Victor Lindsley, United States v. Philip Morris, et al., May 5, 2002, 115:7-116:3.

(c) Brown & Williamson

4130. At her July 1, 2002 deposition in this case, Brennan Dawson, Vice President of External Affairs at Brown & Williamson, testified that she believes that, while influences other than advertising are the predominant reason why young people smoke, advertising is influential to some extent in young people's brand choices because "what you find is that youngsters, **children, teenagers tend to smoke the more popular brands, and that you can relate their popularity to their advertising**." Deposition of Brennan Dawson, United States v. Philip Morris, et al., July 1, 2002, 73:09-25 (emphasis added).

4131. Dawson further testified that peer popularity drives youth brand choices: "I think that youth who have already begun to smoke, a teenager, for example, is more likely to smoke what they perceive to be a popular brand." Deposition of Brennan Dawson, United States v.

Philip Morris, et al., July 1, 2002, 146:15 -147:07.

(d) R.J. Reynolds

4132. A handwritten document produced from the files of R.J. Reynolds addressed to "D. Nordine and D. Burroughs," presumably Diane Burrows of R.J. Reynolds, stated that "important needs to FUBYAS [First Usual Brand Young Adult Smokers]" included "belonging (fitting in) to the group." 517142220-2222 at 2220, 2222 (U.S. Ex. 20,876).

4133. In a February 2, 1973 R.J. Reynolds document entitled "Research Planning Memorandum On Some Thoughts About New Brands Of Cigarettes For The Youth Market," Claude E. Teague, Jr., Assistant Director of Research at R.J. Reynolds, set forth the following strategy for appealing to young people's desires to smoke popular and peer-approved brands:

> A. Group Identification- Pre-smokers learn to smoke to identify with and participate in shared experiences of a group of associates. **If the majority of one's closest associates smoke cigarettes, then there is strong psychological pressure, particularly on the young person, to identify with the group, follow the crowd,** and avoid being out of phase with the group's value system even though, paradoxically, the group value system may esteem individuality. **This provides a large incentive to begin smoking**. If this be true, then **the same effect strongly influences the brand chosen, it likely being the popular, "in" brand** used by ones [sic] close associates. **Thus a new brand aimed at the young smoker must somehow become the "in" brand and its promotion should emphasize togetherness, belonging andgroup acceptance, while at the same time emphasizing individuality and "doing ones [sic] own thing.**"

502987407-502987418 at 7413 (U.S. Ex. 20,708) (emphasis added).

4134.

503969238-9242 at 9238 (U.S. Ex. 79,096) (Confidential) (emphasis added).

4135. A 1988 R.J. Reynolds document entitled "Camel Advertising Development White Paper" discussed the importance of younger "adult" smokers and analyzed "[w]hy Camel has an opportunity to target younger adult smokers." The White Paper stated that "Marlboro's key strength relates to peer acceptability and belonging . . . . Marlboro is perceived by younger adult smokers as a brand which provides a sense of belonging to the peer group. A variety of research studies including the Segment Description Study, the Marlboro Vulnerability Analysis, in-market perception research, as well as in-depth qualitative [research] all show this." The White Paper then discussed how Camel could reconfigure its market image in order to appeal to the "peer acceptability and belonging" themes so effectively exploited by Marlboro's advertising. 506768775-8784 at 8776, 8781-8784 (U.S. Ex. 20,764).

4136. In the summer of 1999, R.J. Reynolds developed its Red Kamel campaign which it aimed at a young, hip audience.

RJR000000149903620577002867 79-6780 (U.S. Ex. 22,136) (Confidential); Deposition of Lynn J.Beasley, United States v. Philip Morris, et al., June 25, 2002; 523737919-7921 (U.S. Ex. 87,863); 524095489-5724 (U.S. Ex. 87,864).

4137. Through smoker research, R.J. Reynolds knows that first brand choice is largely based on brand popularity and "peer pressure" which can be affected and created by advertising and promotion. At his May 2, 2002 deposition in this case, Edmund Leary testified that "Just like any - any brand that's popular, people tend to pick a popular brand, and that's just the way people act . . . **I think advertising and promotion can influence an adult smoker's brand choice, and I think, you know, if it's your first brand choice, if the brand is popular, that has lot to do with it**, as well as what your friends smoke." Deposition of Edmund Conger Leary, United States v. Philip Morris, et al., May 2, 2002; 60:25-62:23 (emphasis added).

(6) Defendants Exploit Young People's Price Sensitivity

4138. Cigarette Company Defendants have long used price-based marketing efforts as a key marketing strategy, particularly for attracting young people. Defendant-initiated price reductions, such as the steep drop in the wholesale price of cigarettes most popular with young people that was led by Philip Morris on "Marlboro Friday," have reduced the rate of decline in overall cigarette smoking and contributed to the increases in youth smoking incidence and prevalence observed during much of the 1990s. Expert Report of Frank J. Chaloupka, United States v. Philip Morris, et al. (R. 679; filed November 15, 2001).

4139. Similarly, Cigarette Company Defendants' price-related marketing efforts, including coupons, multi-pack discounts, and other retail value added promotions, have partially

offset the impact of higher list prices for cigarettes, historically and currently, particularly with regard to young people. Expert Report of Frank J. Chaloupka, United States v. Philip Morris, et al. (R. 679; filed November 15, 2001).

4140. Cigarette Company Defendants' use of price promotions to reach young people and encourage trial and initiation has increased dramatically in recent years. The Federal Trade Commission reported that, in 1999 (the year after the MSA went into effect), $3.54 billion or 43% of the tobacco industry's advertising and promotion expenditures were devoted to trade promotions, up from $856 million in 1987. Expert Report of Frank J. Chaloupka, United States v. Philip Morris, et al. (R. 679; filed November 15, 2001); Federal Trade Commission, Cigarette Report for 1999 (2001), http://www.ftc.gov/reports/cigarettes/1999cigarettereport (U.S. Ex. 60,663) (U.S. Ex. 60,648).

4141. Independent research confirms Cigarette Company Defendants' knowledge, as stated in their internal documents and other evidence, that youth and young adults are more responsive to increases in cigarette and other tobacco prices, and will not try smoking or continue to smoke if cigarette prices are higher. Expert Report of Frank J. Chaloupka, United States v. Philip Morris, et al. (R. 679; filed November 15, 2001).

4142. Generally, young people are two to three times more sensitive to price than adults. Estimates from a recent published study of youth smoking initiation indicate that a 10% increase in cigarette prices would cause an additional 170,000 high school smokers to stop smoking and that such an increase would also reduce the number of youth who become daily smokers by more than 88,000 teens each year. Expert Report of Frank J. Chaloupka, United States v. Philip

Morris, et al. (R. 679; filed November 15, 2001).

4143. A June 1997 published article, "The Food and Drug Administration's Rule on Tobacco: Blending Science and Law," found that data has confirmed that children and teens are more price sensitive than adults and that pricing has an immediate and direct impact on cigarette sales to minors. "The Food and Drug Administration's Rule on Tobacco: Blending Science and Law," David Kessler et al. 99 Pediatrics 884 (June 1997) (U.S. Ex. 59,999).

4144. The following examples of internal company documents and deposition testimony establish that, as early as 1956, Cigarette Company Defendants were studying young people's price sensitivity and were offering lower priced cigarettes directly to the youth market to entice youth to start smoking and encourage them to continue smoking.

(a) Philip Morris

4145. A September 18, 1956 Philip Morris inter-office memorandum "re: College Survey" from George Weissman, Vice President of Philip Morris, to Dr. R.N. DuPuis, Philip Morris Scientific Research Director, described the results of a 1956 college survey conducted by Elmo Roper for Philip Morris. In a section of his memorandum entitled "The Economics of Cigarettes," Weissman stated: "Sixteen per cent of the students who never smoked gave 'too expensive' as a reason. Seventeen per cent who gave it up gave this as a reason. An even larger percentage suggested reduction in price. Again, this brings to mind the possibility of a less expensive unit of sale if such a unit can be controlled and strictly confined to the college market." 2022240073-0075 (U.S. Ex. 20,359).

4146. In a May 21, 1975 memorandum to Robert B. Seligman, Director of Commercial

Development, Tobacco Products at Philip Morris, entitled "the Decline in the Rate of Growth of Marlboro Red," Philip Morris Senior Economist Myron E. Johnston analyzed data on "younger teenagers" including 15-17 year olds. Johnston blamed price elasticity and young peoples' price sensitivity for Marlboro's decline in sales in 1974: "I think price elasticity, like income elasticity, has a greater effect on lower income people than on those with higher incomes. As mentioned above, **Marlboro smokers, being younger, tend to have lower incomes. Thus, Marlboro sales are probably more responsive to price changes than are the sales of brands which appeal to older segments of the population.**" Johnston postulated that, with any general increase in cigarette prices, "I would expect a disproportionately large number of Marlboro smokers to quit smoking or reduce daily consumption." 1003285497-5502 at 5497, 5500 (U.S. Ex. 20,160) (emphasis added).

4147. In a September 17, 1981 memorandum to Harry Daniel, a Philip Morris Research and Development employee, Johnston discussed the March 1981 National Bureau of Economic Research ("NBER") working paper entitled "The Effect of Government Regulation on Teenage Smoking" which examined "the impact on teenage smoking of: (a) the excise tax on cigarettes; (b) the FCC Fairness Doctrine (which mandated equal-time anti-smoking commercials for all cigarette commercials); and (c) the broadcast ban." Johnston stated that the NBER working paper

> [was] the only study I know of that attempts to determine the price elasticity of cigarettes among different groups. Because of the quality of the work, the prestige (and objectivity) of the NBER . . . I think we need to take seriously their statement that "if future reductions in youth smoking are desired, an increase in the Federal excise tax is a potent policy to accomplish this goal;" most

> researchers, myself included, have concluded that the best estimate of the price elasticity of cigarettes is about -0.4, i.e. that a ten percent increase in the retail price of cigarettes will cause a decline of about four percent in cigarette sales; . . . that the price increases would have less impact on the . . . older and therefore more habituated smokers, than on other smokers.

1003478193-8196 at 8193-8194 (U.S. Ex.20,175).

4148. In the September 17, 1981 memorandum referenced above, Johnston discussed findings by the NBER that teens and young adults are up to three times more sensitive to price increases and the inflationary loss of purchase power than are older smokers, stating that "it is clear that price has a pronounced effect on the smoking prevalence of teenagers." Anticipating a higher excise tax, Johnston predicted: "[G]iven the evidence that individuals are considerably less likely to initiate smoking after age 25, it is quite possible the cohort . . . who never begin to smoke as a result of the tax increase would never become regular smokers." 1003478193-8196 at 8195, 8196 (U.S. Ex. 20,175). On September 22, 1981, Harry Daniel, Planning Coordinator at Philip Morris, forwarded Johnston's September 17 memorandum. 2022249717-9721 at 9720 (U.S. Ex. 26,750). Testifying on March 4, 1998 in State of Minnesota v. Philip Morris Inc., et al., Geoffrey Bible affirmed that Myron Johnston had characterized the March 1981 NBER finding on the effect of price elasticity among teenagers as its "most important finding, and the one of greatest significance to the company." Testimony of Geoffrey Bible in State of Minnesota v. Philip Morris Inc., et al., March 4, 1998, 6166.

4149. In a January 5, 1982 memorandum to Harry Daniel entitled "Cigarette Price Elasticities and the Implications for [Philip] Morris," Johnston again analyzed the effect of excise tax increases on demand for cigarettes, especially among teenagers, and concluded that "any

increase in the price of cigarettes will have its greatest effect on the young, and, in particular, on young males." 2049456696-6702 at 6700 (U.S. Ex. 20,490); 2049456635-6650 at 6639 (U.S. Ex. 20,487).

4150. A December 6, 1982 Philip Morris report entitled "Price Elasticities, Excise Taxes, and Cigarette Sales" outlined Philip Morris's opposition to raising excise taxes on cigarettes despite studies showing that raising cigarette prices was the most effective way to reduce youth initiation and youth smoking. The report reflected Philip Morris's knowledge that "**the main effect of an excise tax increase will be to reduce the number of young people who begin to smoke.**" Nonetheless, Philip Morris continued to vigorously oppose all cigarette excise tax proposals. 2049456670-6694 at 6684 (U.S. Ex. 20,489) (emphasis added).

4151. In a September 3, 1987 Philip Morris memorandum to Jon Zoler and others entitled "Handling an Excise Tax Increase," Johnston stated that:

> You may recall . . . that Jeffrey Harris of MIT calculated on the basis of the Lewin and Coate data, that the 1982-83 round of price increases caused two million adults to quit smoking and prevented 600,000 teenagers from starting to smoke . . . this means that 700,000 of those adult quitters had been PM smokers and 420,000 of the non-starters would have been PM smokers. Thus, if Harris is right, we were hit disproportionately hard. We don't need to have this happen again.

Johnston then recommended passing on any future increase to smokers in "one fell swoop" to make it clear to smokers that the government is solely responsible for the price increase, encouraging smokers to stockpile so they will be less likely to remember what they last paid for cigarettes, and making sure the brands the retailers stockpile are Philip Morris brands. 2022216179-6180 (U.S. Ex. 76,177)

4152. An August 7, 1990 report entitled "New Brand Opportunities in the Cigarette Industry" written by Gibbons, Voyer & Associates for Philip Morris found that 17 to 19 year olds comprise 18.9% of smokers, and recommended that any marketing approach must "insure that Philip [Morris] has a brand entry to meet the various wants of young adult smokers: image, product, price." 2049397333-7369 at 7343, 7350 (U.S. Ex. 20,486).

4153. Philip Morris developed a plan to distribute coupons to counteract excise tax increases. A July 11, 1990 memorandum about the "New Jersey Tobacco Tax Plan" from Wanda Johnson of Leo Burnett U.S.A. to Sheila Spicehandler, Philip Morris Media Manager, stated: "The attached media plan provides a means of distributing coupons to P.M. smokers in the state, on an 'urgent' timetable, in order to counter any ill effects of that tax increase. The New Jersey plan is modeled after the California plan." 2060295219-5232 at 5219 (U.S. Ex. 20,502).

4154.

2048735500-5604 at 5561 (U.S. Ex. 21,971) (Confidential).

4155. In a 1994 speech, after "Marlboro Friday" had its intended effect of bringing

hundreds of thousands of young people back to the market, Philip Morris's Tina Walls congratulated company employees for defeating 27 of 37 government attempts to increase price through excise taxes, stating: "Your batting average on state excise taxes has been outstanding." 2024252441-2562 at 2441 (U.S. Ex. 21,984).

4156. On September 4, 1997, James J. Morgan, President and Chief Executive Officer of Philip Morris USA, testified that "I believe that . . . higher prices in the industry , whether by excise tax or manufacturer's price increases . . . affect industry consumption, and . . . they lower industry consumption. And I believe that there are two groups of people who are . . . impacted the most by higher prices . . . and . . . both [groups have] the least disposable income. One is what I would call young adult smokers . . . people who smoke who are arguably strapped of . . . cash, and the other [group] would be older people on fixed incomes who are also strapped of cash." Deposition of James J. Morgan, State of Minnesota v. Philip Morris Inc., et al., September 4, 1997 at 219:23-220:15.

4157. Susan Norris, a 15-year Philip Morris employee, testified at her July 31, 2003 deposition in this case that during her tenure as Associate Brand Manager for Discount Brands from 1994-1995, Philip Morris's premium brands including Marlboro were losing market share as smokers switched from brands like Marlboro to "lower priced alternatives." Norris testified that, for Philip Morris, "[t]o the extent that any of our premium brands were declining it was not good news," and that "given that Marlboro was our largest brand that people were generally concerned" about its loss of share. Norris testified that, in her experience, price was a "significant factor" in determining purchase interest between brands. Deposition of Susan

Norris, United States v. Philip Morris, et al., July 31, 2003, 38:5-45:9.

4158. At his July 1, 2002 deposition in this case, Robert L. Mikulay, a Senior Vice President for Marketing at Philip Morris, testified that Philip Morris relied much more heavily on retail promotions in the late 1990s than it did during the mid-1980s because of the increase in the price of cigarettes and the increased presence of discount brand cigarettes. Deposition of Robert Mikulay, United States v. Philip Morris, et al., July 1, 2002, 145:13-146:19.

4159. Philip Morris currently admits that increased cigarette price is a variable that would lower youth smoking rates. Carolyn Levy, Director of the Youth Smoking Prevention Department from its inception in April 1998 to approximately March 2002, testified in this case that Philip Morris was aware that "the price of cigarettes for some kids appears to be an important variable in preventing them from smoking . . . . [I]t's an important reason for at least a third of the kids" surveyed in the Philip Morris Teenage Attitudes and Behavior Study ("TABS"). When asked about the implications of these results from the TABS data, Levy testified: "I think these results, in combination with other findings in TABS, as well as the other reading [from outside authorities], led me to conclude that while the price of cigarettes was not the only variable that would keep kids from smoking, that it did play a role," and that "while it's appealing to think, well, most kids don't buy their own cigarettes, so price isn't a variable, I think price is a variable." Deposition of Carolyn Levy, United States v. Philip Morris, et al., April 26, 2002, 546:6-547:13.

4160. At his August 22, 2002 deposition in this case, Philip Morris Companies' CEO Geoffrey Bible testified that he "assumes that young people are sensitive to prices," so smoking

incidence would decrease due to price increases caused by the MSA. Deposition of Geoffrey Bible, United States v. Philip Morris, et al., August 22, 2002, 245:8-21.

(b) Liggett

4161. At the October 12, 2001 deposition of Harold Petch, Liggett's President of the Northern Strategic Business Unit, Petch testified that Liggett is aware that price affects consumption. Deposition of Harold Petch, United States v. Philip Morris, et al., October 12, 2001, 101:25-102:21.

4162. Petch further testified that Liggett spent $113 million on promotional programs for its discount brands, including point of sale materials, buy downs, marketing accruals and coupons. Deposition of Harold Petch, United States v. Philip Morris, et al., October 12, 2001, 65:12-66:16.

(c) Lorillard

4163. A September 1981 NBER report entitled "The Potential for Using Excise Taxes to Reduce Smoking" produced from the files of Lorillard examined the effect of teenagers' price sensitivity on their cigarette purchases and determined that "**price has its greatest effect on the smoking behavior of young males and that it operates primarily on the decision to begin smoking regularly** rather than via adjustments in the quantity of cigarettes smoked." 503482154-2201 at 2157 (U.S. Ex. 20,715) (emphasis added).

4164. A March 20, 1992 Lorillard memorandum from S.R. Benson to S.T. Jones, Director of Product Development and Marketing Research, regarding "price sensitivity by age" stated that "there is some evidence that the younger adult smokers currently smoking a full price

brand may be demonstrating a sensitivity towards price. . . it is clear that the younger adult, 18-24 smoker group, although still smoking a full price brand, 'claim' a greater sensitivity towards price than the older age groups." 82849666-9667 at 9666 (U.S. Ex. 55,569).

(d) Brown & Williamson

4165. In a May 10, 1983 internal memorandum to G.T. Reid, Brown & Williamson Senior Brand Manager, R.P. Medicus of Brown & Williamson's Brands Group discussed the impact of unemployment in 1974 and price increases on Kool's market share. Medicus wrote: "**Brands directed at segments most affected by economic adversity (youth and minorities) were affected disproportionately.** For four youth oriented brands/styles [Kool KS, Kool Milds, Kool Super Longs, and Marlboro], there was a share trend break in the latter part of 1974, which coincided with increased unemployment." 670579615-9625 at 9616 (U.S. Ex. 21,748) (emphasis added).

4166. Since approximately 2000, Brown & Williamson has spent more on discounting or reducing the price of Kool cigarettes than any of its other brands, according to Paul Wessel, the Current Divisional Vice President at Brown & Williamson in charge of value for money premium niche brand and new product development. Deposition of Paul Wessel, United States v. Philip Morris, et al., March 19, 2003, 28:17-29:1.

4167. Despite Brown & Williamson's claimed sensitivity to avoiding the marketing of its products to youth, Wessel testified that he was unaware whether youths were price sensitive and whether Brown & Williamson had ever taken a position on the price sensitivity of youth. Deposition of Paul Wessel, United States v. Philip Morris, et al., March 19, 2003, 36:23-37:12.

4168. Brennan Dawson, Brown & Williamson Vice President for External Affairs, testified at her May 16, 2002 deposition in this case that Brown & Williamson opposes increases in state cigarette excise taxes. Deposition of Brennan Dawson, United States v. Philip Morris, et al., May 16, 2002, 140:17-141:2.

(e) R.J. Reynolds

4169. In a September 20, 1982 memorandum entitled "Estimated Change In Industry Trend Following Federal Excise Tax Increase" to marketing employee P.E. Galyan, Diane Burrows estimated how the cigarette industry would be affected by a federal excise tax increase. The memorandum included data on "starting age patterns," "[s]tarting age," and "new smokers." Burrows estimated that an excise tax increase would result in 1,759,000 "new smokers" lost to the industry, whose potential consumption, if they had smoked 10 cigarettes a day, would amount to 605 million cigarettes, or .1% of the industry total. Burrows stated that: "Since the industry growth rate depends on new smokers, losses in these groups can change the direction of the industry trend." 501988846-8849 at 8846, 8846-8848 (U.S. Ex. 20,692); 504630598-0702 at 0701 (U.S. Ex. 20,731).

4170. In a September 20, 1982 internal memorandum to J.W. Johnston and H.J. Lees, Greg Novak, R.J. Reynolds Group Director of Marketing Services, stated: "**Our Forecasting Group has determined that younger adult smokers, particularly younger adult male smokers, tend to be very price sensitive. The effect of a price increase on younger adult male smokers could be three to four times greater than on smokers in general, in terms of negative impact on volume.**" 500151647-1647 (U.S. Ex. 21,785) (emphasis added).

4171. In a September 27, 1982 memorandum entitled "NBER Models of Price Sensitivity by Age/Sex" to Jerry R. Moore, R.J. Reynolds Marketing Development Department, Burrows summarized National Bureau of Economic Research findings on the relative price sensitivity of age and sex groups, including data on "teens 12-17." She discussed the NBER findings that "teenagers and younger adult males are highly price sensitive," and that "price affects incidence; rate per day is virtually unchanged," noting that the NBER findings were "highly consistent" with internal R.J. Reynolds findings. Burrows' memorandum further stated: "The loss of younger adult males and teenagers is more important to the long term, drying up the supply of new smokers to replace the old. This is not a fixed loss to the industry: its importance increases with time. In ten years, increased rate per day would have been expected to raise this group's consumption by more than 50%." On October 6, 1982, Burrows sent this memorandum to L.W. Hall, Jr. Vice President of R.J. Reynolds Marketing Department. 503011370-1378 at 1370-1371 (U.S. Ex. 22,347); 503011368-1369 (U.S. Ex. 20,709); 513318391-8392 (U.S. Ex. 20,851).

4172. In an August 1986 report entitled "RJ Reynolds Quarterly Industry Cigarette Demand Model," Data Resources updated R.J. Reynolds's earlier information regarding price elasticity. The report stated that: "The current research effort has endeavored to test the validity of the relative price elasticity estimates and to further develop some conclusions concerning the impact of the anti-smoking campaign and changes in real income." The report applied a model to determine price elasticity estimates: "The principle output of the model is weekly average cigarette volume. The forecast is driven by : 1) transaction cigarette prices per package; 2) count

of cigarette articles appearing in the New York Times; 3) real personal disposal income in 1982 dollars; 4) consumer price index for food, 1967 equal 1.0; and 5) population by 12 age/sex categories." An included chart entitled "1965 World Incidence" showed an age category of "12-17" year olds. 505611105-1138 at 1106,1124 (U.S. Ex. 20,744); 520658943-8959 (U.S. Ex. 87,843); 519498624-8749 (U.S. Ex. 87,844).

4173. In its Joe Camel campaign, which began in 1988, R.J. Reynolds relied heavily on price promotions such as coupons and "Camel Cash" to assure that teenagers would try and continue to smoke Camel cigarettes. Coupons were placed in magazines with large youth readership, such as *Rolling Stone* and *Sports Illustrated,* in order to achieve the maximum impact on the intended target of teenagers. As one example, on November 21, 1988, R.J. Reynolds placed Camel advertisements that included coupons for a free pack in *Sports Illustrated*. 509131376-1378 (U.S. Ex. 20,822).

(7) Defendants' Conduct Continues Today

4174. As set forth in U.S. FPFF § IV.G(2), supra, Defendants continue to deny that they market to youth. Despite Cigarette Company Defendants' public statements that they do not market to young people, and despite the prohibitions on targeting youth in the 1998 Master Settlement Agreement ("MSA"), in fact Cigarette Company Defendants have reshaped their marketing since the MSA so that they remain effective at reaching youth.

4175. As discussed in the introduction to U.S. FPFF § IV.G(4), supra, Cigarette Company Defendants continue to redirect their marketing activities when one form of media is disallowed. When Defendants could no longer market to youth on television, they turned to

billboards; when billboards were disallowed under the MSA, they turned to retail and magazines; and since recent pressure regarding their magazine advertising has caused a public furor, they have funneled even more resources into marketing at retail. See U.S. FPFF § IV.G(4)(a), supra. As the documents and other evidence provided above and below establish, when one medium is restricted or prohibited, Defendants harness other media to continue to effectively market to young people.

(a) Defendants' Marketing Expenditures Have Dramatically Increased

4176. Statistics recently released by the Federal Trade Commission ("FTC") in its Cigarette Report for 1999 (published 2001) show that Cigarette Company Defendants' advertising and promotional expenses rose significantly **after** the Cigarette Company Defendants signed the MSA in November 1998. Federal Trade Commission, Report to Congress for 1999, Pursuant to Federal Cigarette Labeling and Advertising Act, Washington, DC: Federal Trade Commission (2001) (U.S. Ex. 60,663).

4177. In fact, from 1998 to 1999, Defendants' total advertising and promotional expenditures rose 22.3% to $8.24 billion, the most ever reported to the FTC. Federal Trade Commission, Report to Congress for 1999, Pursuant to Federal Cigarette Labeling and Advertising Act, Washington, DC: Federal Trade Commission (2001) (U.S. Ex. 60,663).

4178. While Cigarette Company Defendants reported substantial decreases for outdoor advertising (down 81.7% from 1998 to 1999) and transit advertising (down 86.1%) due to the restrictions of the MSA, increases in expenditures for promotional allowances and retail "value added" account for virtually all of the overall rise in spending. Federal Trade Commission,

Report to Congress for 1999, Pursuant to Federal Cigarette Labeling and Advertising Act, Washington, DC: Federal Trade Commission (2001) (U.S. Ex. 60,663).

4179. Cigarette Company Defendants' expenditures on cigarette advertising and promotion, historically and currently, remain high on an absolute basis and relative to other industries. For example domestic cigarette advertising and promotion in 1999 totaled $8.2 billion, an increase of 22% over 1998, and a six-fold increase over 1963, after adjusting for inflation. In the nine-year period from 1991-1999, domestic cigarette advertising and promotional expenditures totaled $51.4 billion dollars (unadjusted for inflation). Promotional allowances have been the single largest category of expenditure each year since 1994. The Cigarette Company Defendants' expenditures are integrated marketing communications: they are inextricably linked and coordinated by the companies for maximum impact particularly upon young people. Federal Trade Commission, Report to Congress for 1999, Pursuant to Federal Cigarette Labeling and Advertising Act, Washington, DC: Federal Trade Commission (2001) (U.S. Ex. 60,663).

4180. Philip Morris's marketing spending increased significantly in every year from 1998 to 2002.

2085298135-8136 (U.S. Ex. 25,253) (Confidential); Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002, 73:4-75:1.

4181. At her June 25, 2002 deposition in this case, Suzanne LeVan stated that,

Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 25, 2002, 58:19-60:11, 63:14-64:12 (Confidential).

4182. According to May 16, 2002 testimony of Victor Lindsley, Lorillard's Senior Brand Manager, Lorillard has increased its marketing expenditures since Lorillard entered the MSA. Deposition of Victor Lindsley, United States v. Philip Morris, et al., May 16, 2002, 23:21-24:3

(b) Defendants Continue to Market to Youth at Retail

4183. The Cigarette Company Defendants have engaged in a large post-MSA spending increase on various forms of promotion at the retail level, including coupons, value-added, and trade deals, which has helped to create relatively lower and more varied real prices for cigarettes sold at retail stores. For example, FTC data indicates that "retail value added" spending on offers such as "buy one, get one free" or "buy one and get a free lighter" grew from $1.56 billion in 1998 to $2.56 billion in 1999, accounting for 31.1% of the industry's total advertising and promotion spending. Additionally, cents-off promotions increased in prevalence after the MSA from 32% to 41% of stores in the United States. Federal Trade Commission, Report to Congress for 1999, Pursuant to Federal Cigarette Labeling and Advertising Act, Washington, DC: Federal Trade Commission (2001) (U.S. Ex. 60,663); 2076887168-7169 (U.S. Ex. 87,846); 700813457-3457 (U.S. Ex. 87,847); 2076887174-7177 (U.S. Ex. 87,848).

4184. In 2000, tobacco companies spent $9.57 billion dollars to market their products the overwhelming majority was spent on marketing aimed at retail locations such as convenience stores. In those retail locations in 2000, tobacco companies spent $4.26 billion on point of sale advertising (e.g. in-store signs) and promotional allowances (payments to retailers for prime shelf space and in-store displays, as well as volume discounts and buydowns) and $3.52 billion on retail value added items such as gifts with purchase and multi-pack discounts. Combining the figures for point of sale advertising and promotional allowances, tobacco companies spent approximately 81.2% of their marketing expenditures at retail locations. Feighery et al., "How Tobacco Companies Ensure Prime Placement of Their Advertising and Products in Stores: Interviews with Retailers about Tobacco Company Incentive Programmes," Tobacco Control 12:184-188 (2003) (U.S. Ex. 65,231).

4185. Cigarette companies spend more on retailer incentive programs relative to other consumer companies that sell products in retail outlets. A recent study comparing the slotting allowances, point of purchase display allowances, or trade allowances paid to retailers in one California county by five types of companies (candy, snack foods, soft drinks, beer and wine, and cigarettes and tobacco) found that 62.4% of retailers received slotting/display allowances for tobacco. In contrast, only 16.5% of retailers reported receiving slotting/display allowances for soft drinks-the next highest behind tobacco. In addition, each store received on average $3,157 annually for slotting/display allowances and trade allowances for all five products, 78% of which was from the tobacco industry. Feighery et al., "Retail Trade Incentives: How Tobacco Industry Practices Compare With Those of Other Industries," *American Journal of Public Health*, Vol.

89, No. 10 (1999) (U.S. Ex. 64,628).

4186. Philip Morris's spending on Marlboro promotion at retail increased more than hundred-fold between 1987 and 1997, and then doubled again from 1997 to 2000. Philip Morris's retail promotions budget for Marlboro increased from $16.7 million in 1987 to $469.4 million in 1997. By 2000, the Marlboro retail promotions budget exceeded $1 billion. Due to increased focus on price promotion, which is very costly, Philip Morris's Marlboro continuity program budget increased from $8.5 million in 1987 to $268.8 million in 1997. 2085296400-6461 at 6412 (U.S. Ex. 45,702); Deposition of Michael Mahan, United States v. Philip Morris, et al., May 31, 2002, 145:22-154:25 (Confidential).

4187.

PM3000540103-540118 at 0111 (U.S. Ex. 88,649) (Category I) (emphasis added).

4188.

540118 at 0107, 0116 (U.S. Ex. 88,649) (Category I).

4189. Post-MSA, R.J. Reynolds has increased its promotional spending and discounting. Deposition of Edmund Conger Leary; United States v. Philip Morris, et al., May 2, 2002, 16:4-17:19, 25:7-27:15, 63:3-64:17.

4190. Edmund Leary, Senior Vice President of Marketing and President of Sports Marketing for R.J. Reynolds, testified that, since entering the MSA, R.J. Reynolds has redirected its marketing funds to promotional spending and discounting because these are marketing tools that allow R.J. Reynolds to "gain trial from other adult competitive smokers." Deposition of Edmund Leary, United States v. Philip Morris, et al., May 2, 2002, 25:7-27:15, 63:3-64:17 ; 526293849-0007 (U.S. Ex. 87,845).

4191. As of May 21, 2002, Liggett was still promoting its products with "buy one get one free" programs, as well as sampling. Deposition of Steven Shipe, United States v. Philip Morris, et al., May 21, 2002, 86:22-87:13.

4192. Robert Bexon, Brown & Williamson Senior Vice President of Marketing & Sales from 1995 until 1999, testified at his March 26, 2003 deposition that point of sale marketing was "very important to Brown & Williamson, because point of sale was where you could get your pricing message across . . . [and] it was critically important to have a good retail presentation." Bexon further testified that point of sale marketing "from a product an pricing point of view . . . [is] obviously crucial." Deposition of Robert Bexon, United States v. Philip Morris, et al., March 26, 2003, 189:10-190:25.

4193. The retail store has become the Defendants' central form of communication,

exposing smokers and non-smokers (regardless of age) to cigarette brand marketing. Feighery et al., "How Tobacco Companies Ensure Prime Placement of Their Advertising and Products in Stores: Interviews with Retailers about Tobacco Company Incentive Programmes," Tobacco Control 12:184-188 (2003) (U.S. Ex. 65,231).

4194. Cigarettes are widely available in convenience stores. FDA estimates based on 1987 Census Data indicate that, in that year, cigarettes were available in 96% of convenience stores. The practical impact of such extensive distribution with favorable display space and point of purchase support is that a consumer or potential consumer finds brands, signage and displays predominant throughout the market. Expert Report of Robert Dolan, United States v. Philip Morris, et al. (R. 671; filed November 15, 2001).

4195. A recent study evaluating the presence of point of purchase advertising at various types of retail stores including convenience stores, convenience/gas stores, liquor stores, tobacco stores, supermarkets, drug stores found that some type of point of purchase marketing such as interior or exterior advertising, self service pack placement, multi-pack discounts, tobacco branded functional objects, or vending machines was observed in 92.1% of retail stores. Interior or exterior tobacco advertising was observed in 84.1% of retail stores. Convenience/gas retail outlets were the most likely to have point of purchase marketing, followed by convenience and liquor stores. Teenagers are exposed to the high levels of point of purchase marketing at these type of retail outlets because 75% of teenagers shop at convenience or convenience/gas stores at least once a week. Chaloupka et al., "Point-of-Purchase Tobacco Environments and Variations by Store Type-United States, 1999," Morbidity and Mortality Weekly Report (MMWR) Vol. 5,

No. 9 (2002) (U.S. Ex. 64,234).

4196. In store placement and signs are key methods by which Defendants communicate brand information. Presence at the retail level in the form of displays and signs are employed to communicate a brand's central message or image. Brand information at the store is coordinated with other advertising to display consistent images. Because of these synergies, advertising and promotion messages in one medium reverberate in another medium. For example, storefront and in-store advertising can remind the consumer of an overall message or theme encountered in other media and stimulate purchase. Expert Report of Dean Krugman, United States v. Philip Morris, et al. (R. 665; filed November 15, 2001).

4197. A recent study assessed the effect of the MSA's ban on billboard tobacco advertising on the tobacco industry's point of purchase marketing strategies. The study found significant post-MSA increases in the presence of tobacco sales promotions, functional objects, and exterior and interior store advertising, as well as increases in the extensiveness of exterior store advertising. "Tobacco Industry Marketing at Point of Purchase After the 1998 MSA Billboard Advertising Ban," Melanie Wakfield, et al., *American Journal of Public Health*, Vol. 92, No. 6 (2002) (U.S. Ex. 87,850).

4198. Point of purchase advertising and promotions are also more prevalent in states with tobacco control programs, presumably because Defendants are more heavily marketing there to counter the effects of tobacco control programs. A recent study examining whether Marlboro point of purchase advertising and promotion are more prevalent in states with comprehensive tobacco control programs found that "a gift with purchase of Marlboro cigarettes" and interior

and exterior advertising for Marlboro were more common in states with tobacco control programs. "State Variations in Retail Promotions and Advertising for Marlboro Cigarettes," Sandy Slater, Frank Chaloupka, Melanie Wakefield, *Tobacco Control*, 10:337-339 (2001) (U.S. Ex. 73,410).

4199. Recent studies suggest that teenagers are more likely to smoke brands heavily promoted through point of sale marketing. A higher prevalence of brand promotions and brand share of advertising in convenience stores was found to be associated with the choice of usual brand by teenagers. A recent study aimed to determine the relationship between promotions and brand-specific advertising for Marlboro and Camel cigarettes in convenience stores and the choice of first usual brand among high school students. The results found a positive association between the presence of Marlboro promotions and advertising in convenience stores and the choice of Marlboro as a usual brand among high school students. "Association of Point of Purchase Tobacco Advertising and Promotions with Choice of Usual Brand Among Teenage Smokers," Melanie Wakefield, et al., *Journal of Health Communication*, Vol. 7, 113-121 (2002) (U.S. Ex. 22,290).

4200. Many retailers have contracts with tobacco companies that provide for volume discounts in return for meeting certain minimum sales volume standards. Specifically, the contracts provide for payments to be made to the retailer on a periodic basis based on sales volume (i.e. payments of 25-90 cents per carton sold in a quarter). In return for these payments, retailers are required to adhere to certain specifications on the placement of the product on shelves and displays. Tobacco companies also use buydowns as another incentive offered to

retailers. A buydown involves an agreement with the retailer to a price reduction for a particular product for a specified amount of time. At the conclusion of the specified time period, the tobacco company reimburses the retailer the difference between the inventory price and the reduced price. Retailers participating in buydowns must also agree to use special displays and signage provided by the tobacco companies. Feighery et al., "How Tobacco Companies Ensure Prime Placement of Their Advertising and Products in Stores: Interviews with Retailers about Tobacco Company Incentive Programmes," *Tobacco Control* 12:184-188 (2003) (U.S. Ex. 65,231).

4201.

432105508-5539 at 5511 (U.S. Ex. 22,225) (Category I).

4202. Defendants compete with one another to obtain prime placement of their products in retail stores in order to achieve high consumer visibility. To ensure prime placement of their products and advertising in retail stores, tobacco companies offer a variety of incentive programs (such as volume discounts and buydowns described above) to retailers. Feighery et al., "How Tobacco Companies Ensure Prime Placement of Their Advertising and Products in Stores: Interviews with Retailers about Tobacco Company Incentive Programmes," Tobacco Control 12:184-188 (2003) (U.S. Ex. 65,231).

4203. A September 1994 Philip Morris USA document entitled "POS Visibility

Strategy," produced from the files of Susan Norris, emphasized the importance of visibility at retail to drive Marlboro performance. The strategy's objective was: "To obtain & maintain leadership presence commensurate with Marlboro's market position. In other words, Marlboro should look like the 'BIGGEST BRAND' at retail on an ongoing basis." Further, "As we experienced with MAT, MLP, & PRP [3 Marlboro promotions], Marlboro's increased visibility drove the brand's performance and reinforced Marlboro as the most popular brand in the mind of the consumer." 2060124885-4908 at 4888, 4896 (U.S. Ex. 23,997).

4204. Using research from the 1994 "NACS State of the Industry Report" showing that tobacco accounted for 20.7% of convenience store profits, Philip Morris presented "What Does Tobacco Do For Your Store" to retailers, urging them to "[p]rominently display the leading brands . . . [and] [u]se cigarette promotions and advertising to build store traffic." 2077232243-2310 at 2250 (U.S. Ex. 70,700).

4205.

2072941996-2007 (U.S. Ex. 41,790) (Confidential); 2072942008-2009 at 2008, 2009 (U.S. Ex. 41,791) (Confidential).

4206.

2073970827-0848 at 0831, 0832, 0838 (U.S. Ex. 43,390) (Confidential) (emphasis added).

(c) Defendants Continue to Market to Youth Through Promotional Items, Events, and Sponsorships

(i) Promotional Items

4207. Defendants continue to market to youth by providing promotional items – gifts such as t-shirts, mugs, or lighters – at retail and via direct mail.

4208. A 1992 Gallup survey revealed that almost half of adolescent smokers and one quarter of nonsmoking adolescents had received promotion items from tobacco companies. Expert Report of Dean Krugman, United States v. Philip Morris, et al., (R. 665; filed November 15, 2001).

4209. Promotional items contribute to the initiation of smoking by adolescents. Three

recent longitudinal studies indicate that getting a promotional item enhances the likelihood of later taking up smoking. One of these studies found that youth who owned or were willing to own a promotional item were nearly three times more likely to experiment with smoking or become a regular smoker three years later. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R. 676; filed November 15, 2001); Pierce JP, Choi WS, Gilpin EA, Farkas AJ & Berry CC. "Tobacco industry promotion of cigarettes and adolescent smoking," *Journal of the American Medical Association* 279 (7): 511-515, (1998) (U.S. Ex. 20,515); Biener AL & Siegel M. "Tobacco marketing and adolescent smoking: more support for a causal inference," *Journal of Public Health* 90:407-411, (2000) (U.S. Ex. 77,118).

4210. Defendants currently continue to provide individuals with promotional items that appeal to youth. For example, on May 7, 2003, Brown & Williamson issued a press release entitled "Kool Connects Consumers with Free Motorola Pager Offer." The press release described an opportunity for consumers to purchase specially marked packs of Kool and receive coupons redeemable for a Motorola pager. The press release quoted Ledo Cremers, Divisional Vice President for Kool brand marketing, as stating: "Kool celebrates urban living . . . [t]he Motorola pager promotion fits into the lifestyle of Kool consumers who want to be connected." The press release indicated that the Motorola pager promotion would "be supported by advertising in newspapers, national magazines, and alternative media." http://www.bw.com (U.S. Ex. 86,668).

(ii) Events

4211. Defendants also continue to market to youth by holding and advertising events

such as "Bar Nights" that appeal to young people.

4212. The Cigarette Company Defendants have increased their event budgets since signing the MSA. For example, the Philip Morris events budget was $23.3 million in 1987 and increased almost three-fold between 1987 and 1997. 2085296400-6461 at 6412 (U.S. Ex. 45,702); Deposition of Michael Mahan, United States v. Philip Morris, et al., May 31, 2002, 148:12-149:3.

4213. Defendants often promote their events – and therefore their cigarette brands – in free newspapers available to anyone. For example, in 2002, Philip Morris continued to place advertisements for its events program Marlboro Bar Nights in "alternative" newspapers, such as the *Village Voice*, that are free and widely distributed. Deposition of Richard Camisa, United States v. Philip Morris, et al., July 11, 2003, 354:18-24, 356:7-18.

4214. Beginning in 1999, Brown & Williamson sponsored the Kool Mixx DJ Competition. The objective of the Competition was to "contemporize the Kool image by creating grassroots programs that fuses or mixes different elements of hip-hop that will showcase artists skills and stretch the brand muscles . . . [and] [b]uild awareness, trial and image of Kool among Urban ASU 26 year old smokers, both male and females for all cultures." Competition events were scheduled in major U.S. cities such as New York, Chicago, Detroit, and Los Angeles. "Communication Vehicles" used to publicize the Competition included an 800 number, radio spots, pack sleeves, and retail tie-ins. Brown & Williamson continued to sponsor the Kool Mixx DJ Competition in 2002 and 2003. 432210032-0067 at 0036, 0038, 0047 (U.S. Ex. 22,226); http://www.bw.com/Index_sub2.cfm?ID=6 (U.S. Ex. 78,275);

http://biz.yahoo.com/iw/030501/053377.html (U.S. Ex. 78,267).

4215. A June 7, 2000 press release entitled "Brown & Williamson Tobacco set to launch 'Band to Band' 2000 Music Competition—Over $100,000 in Cash and Prizes" described the Music Competition as a "rock-oriented, nationwide band-based talent search . . . [which] provides a unique platform for Brown & Williamson to promote one of its flagship brands, Lucky Strike." Brown & Williamson support for the program, which began in 1996, included "promotions, posters and media buys for the bands." In 2000, "Band to Band" program events were scheduled to take place in major cities such as Washington D.C., Chicago, Miami, Los Angeles, and Houston. 239040063-0065 (U.S. Ex. 22,201).

4216. Although Brown & Williamson claims to limit their event activities to "adult only establishments," internal industry documents reveal that age of individuals attending these events was not always verified. An internal Lorillard document describes how David Desandre, a Lorillard marketing employee, and Beth Crehan, an employee of a marketing promotion firm, were able to attend a Lucky Strike "Band to Band" event held at Park West Concert Hall on November 11, 2000 without being asked for any identification. Inside the Concert Hall were "pole banners with the Lucky Strike Band to Band tag-line" as well as additional banners and signs. Desandre described how, while he was filling out a form to receive a free CD, a Lucky Strike staff member "threw me a pack of Lucky Strike cigarettes . . . She did not ask me if I was 21 or a smoker. She also did not ask for my id. Beth Crenshaw was also not asked if she was 21 or a smoker. Beth was also not asked for id." 98600272-0273 (U.S. Ex. 22,212).

4217. Brown & Williamson created a website, Circuit Breaker, that provided

information on Lucky Strike bar events. Deposition of Robert Bexon, United States v. Philip Morris, et al., March 26, 2003, 203:20-204:22, 206:3-207:4.

(iii) Sponsorships

4218. Defendants also continue to market to youth through their sponsorships of racing events that they know are televised to millions of viewers, and have great appeal to young people.

4219. The Cigarette Company Defendants have increased their sponsorship budgets since signing the MSA. In 1999, Defendants spent $267.4 million on sponsorships, an increase of 7.6 % from 1998. Federal Trade Commission, Report to Congress for 1999, Pursuant to Federal Cigarette Labeling and Advertising Act, Washington, DC: Federal Trade Commission (2001) at 5 (U.S. Ex. 60,663).

4220. The Cigarette Company Defendants specifically increased their budgets for auto-racing sponsorships after the MSA.

2064925336-5398 at 5336 (U.S. Ex. 88,736) (Confidential).

520674446-4490 at 4485 (U.S. Ex. 88,737) (Confidential).

4221. Sponsorships allowed the Cigarette Company Defendants to garner national television exposure, despite the broadcast ban on televised cigarette advertising. Races are broadcast on television and radio, and are covered in newspapers and magazines; each of these types of media coverage mention the cigarette brand that sponsors the race itself or the racecar.

For example, the Winston Cup NASCAR race series of over 30 races annually was broadcast on radio and television; race highlights were also shown on television news programs and in newspaper and were featured in magazine sports columns. 507424927-4929 (U.S. Ex. 24,261). The broadcast coverage of Defendant-sponsored races that featured cigarette brands was no accident: often it was required under the broadcast contract. For example, in connection with the May 21, 1989 Winston NASCAR race in Charlotte, North Carolina, the broadcast contract called for "a 'mid-race recap' which will air immediately after the second race segment. . . . a [60 second] length [recap] with a superslide of the Winston race logo at the top of the screen with the Nabisco logo displayed below and to the left." 507424864-4864 (U.S. Ex. 22,895).

4222. Races are preceded by run-up events, including qualifying and announcement of pole positions, and followed by highlight footage or the announcement of awards, such as the Winston "No Bull" race awards. In connection with the 1989 Winston NASCAR race in Charlotte, North Carolina, R.J. Reynolds, through its parent RJR Nabisco and Charlotte Motor Speedway, provided pre-race events for broadcast to target markets. For example, these companies prepared six to eight driver's columns, video and audio news releases, video feed of open practice sessions, radio promotions and giveaways where "the grand prize will be a first rate weekend at The Winston," wire service stories and photographs of practice sessions and color slides of the drivers with The Winston logo, pre-race tours by drivers, as well as post-race coverage of the Winston Million. 507424862-4863 (U.S. Ex. 51,200). 507424872-4874 (U.S. Ex. 51,201). In the winter of 1990, Winston Cup NASCAR shows were held across the nation, including in Winston-Salem where children under 12 were admitted free. 507424910-4910 (U.S.

Ex. 51,202).

4223. In addition, cigarette brand names are reinforced not only on the race cars themselves, but also on drivers' uniforms, team uniforms, hats, and the large transporters used to move cars from event to event. The events themselves offer marketing opportunities for trackside billboards, sampling, hospitality tents, and promotional giveaways, like hats, sunglasses, and programs. 2072964196-4199 (U.S. Ex. 42,756); 2072516263-6267 (U.S. Ex. 41,558); 526310352-0365 (U.S. Ex. 24,845); 520809149-9152 (U.S. Ex. 52,643).

4224. Defendants falsely deny that the television exposure their cigarette brands garner does not motivate their continued sponsorship of racing events. As R.J. Reynolds asserted in its August 1994 statement before the U.S. House of Representatives Committee on Energy and Commerce, Subcommittee on Health and Environment: "radio and television exposure is not a motivating consideration for Reynolds in deciding whether to sponsor an event or a vehicle participating in an event." (U.S. Ex. 21,993).

4225. The television exposure garnered by Defendants' sponsorship of racing events is very valuable. For example, in 1999, for the three main tobacco-sponsored auto racing series – NASCAR Winston Cup, CART FedEx Championship (where Marlboro and Kool sponsor racing teams and Philip Morris offers the Marlboro Pole Award), and NHRA Winston Drag Racing – the tobacco industry realized over $120 million of television exposure in the United States alone. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 5-6, ¶ 15-18, Exhibit C (U.S. Ex. 75,942).

4226. Joyce Julius and Associates provides measurement and estimates monetary values

of cigarette brand exposures in independent sports and special event programs. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 5, ¶ 15 (U.S. Ex. 75,942).

4227. According to Joyce Julius data, Defendants' cigarette brands continue to receive considerable television coverage. For instance, in 2002 alone, across all airings of the measured televised racing events, 533,301,591 television viewers tuned in to shows where Defendants' cigarette brands were mentioned or exposed (this is a count of viewing instances and not of unique viewers). Over 11 million people attended these same races. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 6, ¶ 18, Exhibit C2 (U.S. Ex. 75,942).

4228. Joyce Julius values the total exposure received by Philip Morris of its cigarette brands at televised racing events during 2002 to be $197 million. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, Exhibit C1 (U.S. Ex. 75,942). The Marlboro cigarette brand was exposed or mentioned to approximately 54 million television viewers and 2.4 million racing event attendees in 2002. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, Exhibit C2 (U.S. Ex. 75,942); 2041208038-8040 (U.S. Ex. 23,903).

4229. Joyce Julius values the total exposure received by Brown & Williamson of its cigarette brands at televised racing events during 2002 to be $44 million. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, Exhibit C1 (U.S. Ex. 75,942). The Kool cigarette brand was exposed or mentioned to approximately 136

million television viewers and over 5 million racing event attendees in 2002. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 24, 2003, Exhibit C2 (U.S. Ex. 75,942).

4230. Joyce Julius data values the total exposure received by R.J. Reynolds of its cigarette brands at televised racing events during 2002 to be $1.2 billion. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, Exhibit C1 (U.S. Ex. 75,942). The Winston cigarette brand was mentioned or exposed at every one of the televised racing events in 2002, reaching over 533 million television viewers and 11 million race attendees. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, Exhibit C2 (U.S. Ex. 75,942).

4231. Millions of young people under the age of 18 watch Defendants' racing events. In 1989, the WINSTON Cup Daytona 500 NASCAR race had the largest single event television viewership; over 1.8 million persons under 18 years of age viewed this CBS broadcast nationwide. Letter of Beth W. Bressan, Vice President, CBS/BROADCAST GROUP, CBS, Inc., to Chairman Thomas A. Lukens (June 22, 1990) in Committee on Energy and Commerce, House of Representatives, 101st Cong., Hearings, Tobacco Issues (Part 3), Vol. 38 at 71-77 (U.S. Ex. 88,739).

4232. On May, 20, 1990, according to the Nielsen Television Index, the ABC television broadcast of the WINSTON NASCAR race from Charlotte, North Carolina, was viewed by 720,000 persons under the age of 18 nationwide. Letter of Alfred R. Schneider, Vice President, Policy and Standards, Capital Cities/ABC, Inc. to Chairman Thomas A. Lukens (June 12, 1990)

in Committee on Energy and Commerce, House of Representatives, 101st Cong., Hearings, Tobacco Issues (Part 3), Vol. 38 at 64-66. (U.S. Ex. 88,740)

4233. Races continue to be very popular televised programs, viewed by millions of people. In April 2000, NASCAR television ratings were double those of an NBA playoff game in a competing time slot. King, Bill "Industry News," Speedvision.com (Apr. 26, 2000). (U.S. Ex. 88,741).

4234. As well as broadcast exposure, Defendants use their race sponsorships to promote their cigarette brands at retail. In 1996, R.J. Reynolds displayed at retail locations such as grocery or convenience stores: the Winston Motorsports simulator; the Winston or Camel show car; "well known Winston Cup or Smokin' Joe driver, surrounded by a small army of fans . . . . complete with autograph session;" extensive signage; and an inflatable Winston or Camel cigarette pack that was "an awe-inspiring 15 feet tall." 514238599-8634 at 8604 (U.S. Ex. 51,832). For example, R.J. Reynolds was able to attract Kroger, which had 50% of the grocery business in Louisville, Kentucky, to join in sponsoring a three race series at the Louisville Speedway during the summer of 1996. As a result, "RJR racing theme in-store promotions [took place] during June, July and August." 514238612-8615 at 8612 (U.S. Ex. 88,742).

4235. Similarly, Philip Morris' Marlboro Racing Program included various magazine, newspaper, billboard, and retail advertising components with broad reach.

2060138575-8585 at 8577, 8580, 8581 (U.S. Ex. 24,004) (Confidential).

4236. BATCo displayed the Lucky Strike brand on one Formula One racing car. Formula One races that take place throughout the world are broadcast on television in the United States. A document produced from BATCo's files entitled "British-American Tobacco-Sponsorships-Motor racing" stated, "Ever-increasing limitation of advertising opportunities and the continued appeal of Formula One motor racing in communicating brand awareness and image through the medium of television indicate that British American Tobacco cannot afford a continued detachment from this channel." 321771459-1499 at 1468 (U.S. Ex. 46,993); 320006657-6659 at 6657 (U.S. Ex. 46,644).

4237. A September 21, 1998 document written by BATCo employee Jan Verlinden stated that: "PR exploitation of a [Formula One racing] team is the crucial element for generating return on investment. The value of free publicity and free media coverage has to be at least 80% of the [Formula One] overall investment budget. This yield ratio played a major role in the decision to enter the [Formula one] competition." 321463617-3618 at 3617 (U.S. Ex. 24,083); 320006657-6659 (U.S. Ex. 46,644).

(d) Defendants Continue to Market to Youth Through Magazine Advertising and Direct Mail Marketing

4238. After the MSA, Cigarette Company Defendants reported to the FTC significant

increases in spending for newspapers (up 73%), magazines (up 34.2%), sampling – distributing free cigarette samples (up 133.5%) and direct mail (up 63.8%). Federal Trade Commission, Report to Congress for 1999, Pursuant to Federal Cigarette Labeling and Advertising Act, Washington, DC: Federal Trade Commission (2001) (U.S. Ex. 60,663).

4239. A study published on May 15, 2002 documents the increase in the placement of Defendant Cigarette Companies' advertisements in magazines aimed at youth since the signing of the MSA in November 1998. Entitled "Cigarette Advertising Expenditures Before and After the Master Settlement Agreement: Preliminary Findings," the study found that "Cigarette advertising expenditures in magazines with more than 15 percent youth readership increased $30 million after the MSA." 2085629316-9339 at 9328 (U.S. Ex. 21,859); 2064968835-8838 (U.S. Ex. 20,516).

4240. Another 2002 study, conducted by scientists from the University of Chicago's Department of Pediatrics and Medicine, documented violations of the MSA's youth-targeting ban in magazine advertisements by Philip Morris, R.J. Reynolds, and Brown & Williamson. The study analyzed magazine readership and cigarette advertisements in United States magazines from 1997 to 2000 and found that all three of these Cigarette Company Defendants failed to comply with the MSA's youth-targeting ban by selectively increasing their youth targeting. "Youth Targeting By Tobacco Manufacturers Since the Master Settlement Agreement," Paul J. Chung, Craig F. Garfield, et al. 21:2 *Health Affairs* 254 (March/April 2002) (U.S. Ex. 73,362).

4241. Mediamark Research Inc. ("MRI") is a leading United States supplier of multimedia audience research, which offers comprehensive demographic data, lifestyle data,

product usage data and data that measures exposure of people sampled to all forms of traditional media, including magazines, radio, and television. Currently, MRI measures the readership of over 300 national magazines. The sample data can be generalized to the entire population of the United States age 12 years and above. MRI's national syndicated data are widely used by advertising agencies as the basis for media and marketing plans that are written for advertised brands in the United States, particularly those that advertise in magazines. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 3, ¶¶ 3-5 (U.S. Ex. 75,942).

4242. TNS Media Intelligence/CMR ("CMR") is a leading provider of marketing communication and advertising expenditure information to advertising agencies, advertisers, broadcasters and publishers. CMR measures advertising expenditures by national or regional advertisers in approximately 700 magazines. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 4, ¶¶ 10 (U.S. Ex. 75,942).

4243. As set forth below, each Defendant has adopted and publicized a magazine policy that it claims prevents it from marketing to youth. Moreover, Defendants claim to follow the industry's Advertising Code which states that "[c]igarette advertising shall not appear . . . in publications directed primarily to those under 21 years of age." 2070557699-7702 (U.S. Ex. 20,519). Over time, these policies have changed. However, the policies have been largely ineffective: Defendants have and continue to market to youth through magazine advertisements. As detailed below, MRI and CMR data over the last decade demonstrate that the Defendants continue to advertise heavily in magazines that have either, on average, over two million teen

readers ages 12 to 17 per issue or over 15% of total readership, per issue, ages 12 to 17 years, hereinafter referred to as "substantial youth readership." Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 4, ¶¶ 10 (U.S. Ex. 75,942).

(i) Philip Morris's Advertising

4244. Prior to 1990 and during the early 1990s, Philip Morris's stated media policy was to place cigarette advertisements in publications where 80% or more of a magazine's readership was 21 years and older. Philip Morris's evaluation process was not quantitative, but rather was a subjective determination by Philip Morris employees. The Philip Morris Media Department along with legal counsel made subjective determinations and recommendations for publication placements based upon their personal review of the "content" of the publication, including looking at whether the publication's editorial content was directed towards adults and whether other products advertised in the publication were adult products. Through this subjective determination process, Philip Morris's media employees and attorneys would decide whether a publication passed muster under the advertising guidelines as set forth in the industry's Cigarette Advertising and Promotion Code. **Virtually no magazines failed to qualify for placement of Philip Morris cigarette advertisements under Philip Morris's subjective review process during this period**. Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 24:23-27-10, 32:19-33:11, 51:19-52:4, 81:14-82:16.

4245. In approximately 1995 or 1996, Philip Morris's stated media policy changed: cigarette advertisements were to be placed only in publications where 85% or more of a magazine's readership was 21 years and older. However, Philip Morris's evaluation process was

still subjective and not quantitative, although it had some quantitative data upon which to base its decisions. At this time, Philip Morris continued to advertise in many magazines with high youth readership such as *Rolling Stone*. Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 24:23-27-24, 51:19-52:8, 81:14-82:16.

4246.

Deposition of Richard Camisa, United States v. Philip Morris, et al., July 11, 2003, 243:17-244:23, 310:8-15, 2071239702-9705 (U.S. Ex. 40,405) (Confidential)

4247. Beginning in 1998, Philip Morris initiated a new media placement policy that required publishers to provide a signed statement that its magazine was "primarily directed at adults" and to provide data of the percentages of adult (greater than or equal to 21 years old) plus subscription, circulation or readership as measured by the publisher's own research or by the MRI adult study. This information would determine if a magazine would be eligible for highly lucrative advertising contracts; yet it was sought from the magazine publishers themselves, who unarguably have a financial interest in maintaining their advertising sponsorships with cigarette companies. Moreover, Philip Morris accepted subscription numbers as a sole source of data providing eligibility for magazines without regard to how many magazines were sold through

subscriptions as opposed to sold at newsstands. For instance, even if only 20% of a magazine's issues were sold through subscriptions, as opposed to at newsstands, Philip Morris would accept subscription data as evidence that the publication was "primarily directed at adults." With certification and publisher data in hand, Philip Morris again conducted its own "subjective review" of the publication content before determining whether to approve the placement of advertising in certain publications. Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 29:4-30:19; Deposition of Richard Camisa, United States v. Philip Morris, et al., July 11, 2003, 266:10-67:13; 270:23-272:14.

4248. Although Philip Morris had been aware since at least 1998 that relying only on subscription data, instead of total circulation or readership data, would provide limited information about the audience of a magazine, it did not change its policies until 2000. In 2000, it adopted the policy that, if a magazine's subscriptions made up less than 60% of its total circulation, then the publisher must provide a combination of subscription and newsstand data. Deposition of Richard Camisa, United States v. Philip Morris, et al., July 11, 2003, 270:23-272:14; 288:8-289:5; 2071228372-8378 (U.S. Ex. 22,199).

4249.

Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 107:6-115:11; 2071230813-0888 (U.S. Ex. 40,404) (Confidential).

4250. Philip Morris developed a "Print Leadership Initiative" for execution in 1999 in an effort to maintain Marlboro's leadership position in magazines when billboards were not permitted after the MSA. The purpose of the initiative was to project Marlboro as being the number one brand (knowing full well that peer popularity drives youth brand choices, as discussed above). Richard Camisa, Philip Morris's Director of Media, testified that the initiative was intended to "showcase Marlboro's leadership position in print" by placing Marlboro advertisements in key locations in magazines, such as the back cover, the inside cover and the centerfold. These placements would communicate that Marlboro was "the number one brand." As Camisa described the initiative, "in a very cluttered environment where you have so many advertisers vying for presence in a magazine, are there things that you can do that could help your ad stand out versus others . . . not just be wallpaper and just be one ad after ad which people see."

Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 113:6-114:24; 2080499829-9896 (U.S. Ex. 20,536) (Confidential).

4251. Camisa further explained Philip Morris's print leadership initiative as follows:

> [L]eadership position is really, as it pertains to Marlboro, what we like to do is we like to see when we advertise in print, for example, that being the number one brand, we like to have Marlboro in the first tobacco position, which essentially is when you start reading a magazine, that of all the tobacco brands that may be advertised in that publication, we would like to have the first position. Because we think that is reflective of the brand's leadership position in the marketplace . . . showcase [Marlboro] as the first ad as you open the magazine.

Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 111:22-113:5; 2071230813-0888 (U.S. Ex. 40,404).

4252.

After the MSA, Camisa testified, Philip Morris developed the 1999 Print Leadership Initiative in order to "try and enhance that whole leadership position for Marlboro using the only vehicle that [Philip Morris] had left at this time, which was print, given that . . . Philip Morris was exiting out-of-home [billboards] in compliance with the Master Settlement Agreement." Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 114:25-117:2; 2080499829-9896 (U.S. Ex. 20,536) (Confidential).

4253. Under the Print Leadership Initiative, Philip Morris advertised Marlboro in leadership positions and competed for advertising with Marlboro's competitive youth brand, Camel

Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 149:2-152:14; 2080499829-9896 at 9837 (U.S. Ex. 20,536) (Confidential).

4254. Even publishers of youth magazines pointed out that Philip Morris's advertisement placements in magazines such as *Rolling Stone* were aimed at teenagers. In a November 5, 1999 letter to Ellen Merlo, Senior Vice President at Philip Morris, *Spin* Publisher Malcolm Campbell questioned Philip Morris's decision (in fact due to external pressure) to pull advertisements from *Spin*:

> From a couple of terse phone conversations, I think our demise is based on a perception that *Spin* is too youthful. I respect your right to subjectively critique publications, however, to single *Spin* out for being too young, while continuing to support magazines, such as Rolling Stone or Details is ludicrous. I find an inconsistency in the logic that you cannot use Spin, but **you will run a centerspread in the current Rolling Stone with a 10 page cover line feature on "The Secret Life of Teenage Girls.**" Only Rolling Stone has put teen phenoms Britney [Spears], Ricky Martin, The Back Street Boys and Jar Jar Binks on their cover this year, and all with pull-out posters for nifty bedroom collages. **These edit packages are clearly targeted at teens**, so comparatively, Spin's edit looks quite sophisticated.

2070748847-8852 at 8847 (U.S. Ex. 21,819) (emphasis added).

4255. Moreover, Philip Morris places its cigarette brand advertisements where they will reach the maximum number of people. Richard Camisa, Director of Media and Compliance for Philip Morris, testified in his July 11, 2003 deposition in this case that Philip Morris advertised its Marlboro brand cigarettes on the back covers and inside front covers of magazines because

"the ad awareness is much higher on a back cover as it is on the second cover page one versus any interior position. . . . So more of the readers of the publication are going to see an ad on the back cover or second cover versus inside the publication." When its advertisements were placed inside the magazine, Philip Morris sought other positioning designed to enhance awareness, such as running an advertisement adjacent to a horoscope page. Deposition of Richard Camisa, United States v. Philip Morris, et al., July 11, 2003, 219:23-221:5, 242:2-243:5.

4256. A document itemizing 1999 Philip Morris back covers, produced from the files of Richard Camisa, demonstrated that Philip Morris placed numerous back cover advertisements in magazines with substantial youth readership. For example: in 1999, Philip Morris had 8 (or 67%) of *Car Craft*'s back covers; 6 (or 50%) of *Hot Rod*'s back covers; 8 (or 33%) of *Rolling Stone*'s back covers; 11 (or 22%) of *Sports Illustrated*'s back covers; and 21 (or 40%) of *TV Guide*'s back covers. Advertisements that appear on the back covers of magazines are highly priced by magazines and valued by advertisers because they reach many more individuals than those placed inside magazines. 2085313542-3545 (U.S. Ex. 88,803).

4257. On May 16, 2000, Howard Koh, Commissioner of the Massachusetts Department of Health, wrote to William Campbell, former CEO and President of Philip Morris, expressing concern that there was "a sharp increase in advertising in magazines popular with youth" following the signing of the MSA. 98303544-3545 (U.S. Ex. 21,837); 522048075-8076 (U.S. Ex. 21,842).

4258. In May 2000, Philip Morris once again changed its magazine policy to "voluntarily" incorporate a definition of "adult-oriented publication" that had been included in

proposed regulation of tobacco advertising promulgated by the FDA in 1996. Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 52:9-55:25 ; 2085314209-4215 (U.S. Ex. 45,714); 2085314271-4271 (U.S. Ex. 45,716). The definition described an "adult-oriented publication as follows:

> (i) Whose readers younger than 18 years of age constitute 15 percent or less of the total readership as measured by competent and reliable survey evidence; and
> (ii) That is read by fewer than 2 million persons younger than 18 years of age as measured by competent and reliable survey evidence.

2085314271-4271 (U.S. Ex. 45,716).

4259. In May 2000, when Philip Morris applied the new limit of 15% readership ages 12 to17 or more than 2 million age 12 to 17 readers, it ceased advertising in *Sports Illustrated* because the magazine failed this standard. As Richard Camisa wrote in a May 19, 2000 letter to Fabio Freyre, the publisher of *Sports Illustrated*, "The 1999 MRI 12 Plus Study reports reach for your publication of 21.4% for persons below the age of 18 and reports readership of 17% for persons below the age of 18." 2085314266-4267 at 4267 (U.S. Ex. 25,275).

4260. Similarly, application of this new standard forced Philip Morris to stop advertising in *Rolling Stone*. Application of the 1999 MRI (12+) study reported for *Rolling Stone* a "reach" of 11.1% for persons below the age of 18, and readership of 24% for persons below the age of 18. Prior to information from the MRI study confirming *Rolling Stone*'s high teen readership, Philip Morris had determined through its subjective, internal review process that *Rolling Stone* passed Philip Morris's internal requirements based upon the magazine's provision of a certification that its readership was primarily directed at individuals 21 plus, as well as its

readership data. Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 153:8-156:5; 2085314264-4265 at 4265 (U.S. Ex. 45,715).

4261.

2085152525-2525 (U.S. Ex. 25,190) (Confidential).

4262. Upon applying the 15% or 2 million readership standard using MRI and Simmons data in June 2000, forty of the publications in which Philip Morris had placed advertisements did not meet the standard, including *Sports Illustrated*, *Rolling Stone*, and *Entertainment Weekly*. Between June 2000 and June 2002, the date of Camisa's deposition, another five to ten publications in which Philip Morris advertised cigarettes have failed the FDA standards. These are the same publications in which Philip Morris had continuously placed its cigarette advertisements notwithstanding its public statements – since the mid-1960s – that its cigarette advertisements "shall not appear [] in publications directed primarily to those under 21 years of age." Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 62:16-76:23; 2085139972-9972 (U.S. Ex. 25,149); 285139647-9649 (U.S. Ex. 25,118) (Confidential).

4263. Camisa stated at his deposition in this case that prior to Philip Morris's adoption of its 2000 FDA standard for advertising in publications, he was not aware of the number of teens who were being reached by Philip Morris's advertisements in publications notwithstanding his position as Director of Media. However, other testimony Camisa gave suggested his

department had access to, and utilized such data. According to Camisa, the Media Department created binders of "cheat sheets," similar to "Cliff Notes," for the Philip Morris Brand Groups that contained synopses of each magazine in which Philip Morris cigarette advertisements could be published that included basic readership demographic information for the various publications in which Philip Morris cigarettes were advertised, including information on a magazine's age of readers, theme, and target audience. Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 85:20-87:2, 92:2-93:15.

4264.

2071294033-4042 (U.S. Ex. 20,525); 2070354075-4088 (U.S. Ex. 21,930) (Confidential).

4265. A March 1998 draft letter from the files of Philip Morris USA, written by Corinne A. Goldstein, an attorney at Covington & Burling, to Judy Wilkenfeld, Special Advisor for Advertising Initiatives at the FDA, demonstrates that at that time Philip Morris had access to 1997 Mediamark Research Incorporated ("MRI") data showing that magazines in which Philip Morris advertised had substantial youth readership of above 2 million and/or 15% of total readership aged 12 to 17. 2069603598-3600 (U.S. Ex. 27252); 2069603601-3602 (U.S. Ex. 27,253).

4266. In 1997 and 1998, Leo Burnett, Philip Morris's advertising agency, sent at least seven faxed reports to Philip Morris's Marketing Department and Media Department employees containing information derived from the MRI 12+ Studies (including data on 12 to 17 year olds) and the Simmons Studies. For example, on March 13, 1997, Leo Burnett faxed Philip Morris a report entitled "Magazines for MRI 12+ Study that Accept Tobacco Advertising." On January 23, 1998, Andrea Starshak, Account Manager for the Simmons Market Research Bureau, faxed a report which contained "horizontal percentage reflect[ing] the portion of each magazine that is comprised of teens age 12-17" from STARS+ 1996 data. 2071294089-4090 (U.S. Ex. 21,945); 2071294011-4032 (U.S. Ex. 20,524); 2071294007-4009 (U.S. Ex. 21,946); 2071294086-4088 (U.S. Ex. 20,523); 2071294061-4063 (U.S. Ex. 21,948); 2071294004-4005 (U.S. Ex. 20,522); 20071294001-4002 (U.S. Ex. 21,951); 2071294006-4006 (U.S. Ex. 21,952).

4267. As recently as June 2002, Philip Morris maintained a total "consideration set" of approximately 100 publications in which it may choose to advertise its cigarettes. As of June 2002, of those 100 publications, Philip Morris was currently placing cigarette advertisements in 15 to 20 because only they had passed muster under the proposed FDA guidelines as measured by the MRI or Simmons studies. The remaining 80 to 85 publications are not measured by the MRI or Simmons studies; according to Camisa, therefore, the FDA guidelines cannot be applied against them. Those approximately 80 publications would be measured against Philip Morris's "print certification" process which states that 85% or more of the subscription or circulation must be 21-plus. Philip Morris may in the future continue to advertise in those 80 publications, particularly for new product introductions, based upon its internal subjective review process.

Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 72:7-73:15, 76:24-81:4.

4268. MRI and CMR data for the years 1993 to 2003 demonstrate that Philip Morris spent almost $600 million advertising its cigarette brands in magazines with substantial youth readership, meaning that the magazines on average have either over two million readers ages 12 to 17 per issue or over 15% of total readership ages 12 to 17 years old per issue. Philip Morris's largest annual expenditure for advertising its cigarette brands in these publications was over $96 million, occurring in 1999, the first year after the MSA. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 2, ¶ 5, Exhibit B1 (U.S. Ex. 75,942).

4269. Philip Morris advertised in *Sports Illustrated*, a magazine that the MRI data indicates averaged more than 4,700,000 readers ages 12 to 17 for each issue published during the time period from 1992-2002. In fact, from January 1993 to May 2003, Philip Morris USA spent a total of $133,727,300 on cigarette brand advertising in *Sports Illustrated*. In 1993 alone, Philip Morris USA spent $10,883,500 on cigarette brand advertising in *Sports Illustrated*; the MRI data indicates that, in 1993, on average more than 17% of the total readers of *Sports Illustrated* were teenagers ages 12 to 17 years old. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 5, ¶ 13, Exhibits A, B1 (U.S. Ex. 75,942).

4270. Although Philip Morris has reduced its print media profile as recently as June 2002, it has chosen to shift its spending to retail marketing which has extraordinarily broad reach. The reduction in print media advertising, and concomitant increase in retail and other

promotional spending, is entirely consistent with Philip Morris's overall marketing strategy in recent years, and is not based on a decision to stop targeting youth. Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 87:3-89:13; 522642421-2433 (U.S. Ex. 87,852).

4271. To this day, Philip Morris denies that it **ever** targeted youth in its advertisements. Furthermore, as of June 2002, Philip Morris was still placing cigarette advertisements in magazines with high youth readership, including *Outdoor Life* and *GQ*. Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 87-91, 95-96.

(ii) Philip Morris's Direct Mail Marketing

4272. Philip Morris has stated that its policy is not to send any mailings to individuals on its Direct Mail Marketing Database who are under the age of 21. At her February 28, 2002 deposition, Jeanne Bonhomme, Philip Morris Director of Database Management and Direct Marketing Operations from 1998 to 2000, in response to the question "Does Philip Morris send mailings to persons who are listed in the database as between the ages of 18 and 21?" testified: "No. . . . [M]ailings go to people who are 21 years of age or older." Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al., February 28, 2002, 91:15-22.

4273. *Marlboro Unlimited* is a glossy, color magazine created by Philip Morris and sent to individuals on Philip Morris's Direct Mail Marketing Database. It contains full color, glossy Marlboro advertisements which are either identical to, or are very similiar to, those that Philip Morris has placed in magazines such as *Rolling Stone* and *Sports Illustrated*. During his August 26, 2003 deposition, Leo Burnett U.S.A. corporate designee Thomas Dudreck testified on behalf

of Leo Burnett that *Marlboro Unlimited* was routinely sent through the United States mail to approximately 750,000 to 800,000 people on Philip Morris's Database four times each year. Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 458:21-460:2.

4274. Susan Norris, a 15 year Philip Morris employee and former Marlboro Brand Manager from 1995-1999, testified at her July 31, 2003 deposition in this case that Philip Morris first began distributing *Marlboro Unlimited* magazine in late 1998 or early 1999 and that it is distributed quarterly. Norris further testified that during her tenure as a Brand Manager for Marlboro, *Marlboro Unlimited* was mailed to an audience of approximately two million smokers.

Deposition of Susan Norris, United States v. Philip Morris, et al., July 31, 2003, 211:12-218:2, 218:25-220:12; 2064933423-3425, at 3423 (U.S. Ex. 39,975) (Confidential).

4275.

PM3000196011-6025 at 6013 (U.S. Ex. 23,056) (Confidential) (U.S. Ex. 23,059) (Confidential).

4276.

PM3000196011-6025 at 6013 (U.S. Ex. 23,056) (Confidential) (U.S. Ex. 23,059) (Confidential).

4277.

PM3000196011-6025 at 6016 (U.S. Ex. 23,056) (Confidential) (U.S. Ex. 23,059) (Confidential).

4278.

PM3000196011-6025 at 6011 (U.S. Ex. 23,056) (Confidential) (U.S. Ex. 23,059) (Confidential).

4279.

3000196011-6025 at 6012 (U.S. Ex. 23,056) (Confidential) (U.S. Ex. 23,059) (Confidential).

4280.

PM3000196011-6025 at 6013 (U.S. Ex. 23,056) (Confidential) (U.S. Ex. 23,059) (Confidential).

4281.

3000196011-6025 at 6014 (U.S. Ex. 23,056) (Confidential) (U.S. Ex. 23,059) (Confidential).

3000196011-6025 at 6016 (U.S. Ex. 23,056) (Confidential) (U.S. Ex. 23,059) (Confidential).

4282.

3000196011-6025 at 6016-6018 (U.S. Ex. 23,056) (Confidential) (U.S. Ex. 23,059) (Confidential).

4283.

3000196023-6025 at 6023 (U.S. Ex. 61,452) (Confidential).

4284. Philip Morris continues to mail Marlboro, Parliament, Virginia Slims, Merit and Accord coupons, magazines, brochures, and other mailings directly to customers whose records are maintained on Philip Morris's Direct Mail Database. 2061162074-2077 (U.S. Ex. 39,166); 2061162078-2087 (U.S. Ex. 39,167); 2061162182-2187 (U.S. Ex. 39,168); 2061162512-2519 (U.S. Ex. 39,184); 2061162965-2968 (U.S. Ex. 39,189); 2061163206-3215 (U.S. Ex. 39,196); 2061163610-3614 (U.S. Ex. 39,200); 2061163783-3789 (U.S. Ex. 39,213); 2061163832-3838 (U.S. Ex. 39,214); 2061163996-3999 (U.S. Ex. 39,215); 2061164303-4305 (U.S. Ex. 39,223); 2061164581-4582 (U.S. Ex. 39,226); 2061164605-4614 (U.S. Ex. 39,232); 2061165008-5009 (U.S. Ex. 39,247); 2061165295-5300 (U.S. Ex. 39,264); 2061165311-5342 (U.S. Ex. 39,269); 2061165494-5502 (U.S. Ex. 39,290); 2061165503-5510 (U.S. Ex. 39,293); 2061165564-5568

(U.S. Ex. 39,297); 2061165569-5574 (U.S. Ex. 39,299); 2061166050-6059 (U.S. Ex. 39,323); 2061166097-6100 (U.S. Ex. 39,335); 2061166101-6108 (U.S. Ex. 39,336); 2061166109-6114 (U.S. Ex. 39.337); 2061166121-6133 (U.S. Ex. 39,339); 2061166134-6141 (U.S. Ex. 39,340); 2061166142-6149 (U.S. Ex. 39,341); 2061166275-6275 (U.S. Ex. 39,352); 2061166278-6289 (U.S. Ex. 39,354); 2061166301-6307 (U.S. Ex. 39,355).

4285

PM3000540103-540118 at 0107, 0116 (U.S. Ex. 88,649) (Category I).

PM3000548778-548786 at 8786. (U.S. Ex. 88,648) (Category I).

PM3000613782-3913 at 3790, 3801, 3804, 3887 (U.S. Ex. 88,647) (Category I).

(iii) Liggett's Advertising

4286. At his June 14, 2002 deposition in this case, James Taylor testified that Liggett Vector Brands's current print advertising policy is not to advertise in any publications with over 15% under 18 readership. Deposition of James Taylor, United States v. Philip Morris, et al., June 14, 2002, 95:8-99:21.

4287. An examination of MRI and CMR data for the years 1993 to 2003 in magazines with substantial youth readership demonstrates that Liggett began advertising its cigarette brands in publications with a substantial youth readership for the first time in 2001, and that it has increased its expenditures on such advertisements in both 2002 and 2003. Since 2001, Liggett has spent over $6 million advertising its cigarette brands in magazines with substantial youth readership. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 2, ¶ 5, Exhibit B5 (U.S. Ex. 75,942).

4288. The majority of Liggett's expenditures on its cigarette brand advertisements in magazines with substantial youth readership has been spent on advertisements in *People*, a magazine which had, on average, more than three million readers ages 12 to 17 years old per issue from 1992 through 2002. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, Exhibits A, B5 (U.S. Ex. 75,942).

(iv) Lorillard's Advertising

4289. As of June 1998, it was Lorillard's policy not to advertise in publications that were

primarily subscribed to by minors or distributed to minors. Lorillard's Media Services Department relied on a computer program designed by an independent outside service to identify the magazines in which it was not appropriate to place Lorillard advertisements. However, Lorillard only looked at readership information of people 18 years old and older in making its determination. Lorillard would then use its "best judgment" based on the information provided by the publications about the readership of people 18 years of age and older to make a recommendation as to whether to advertise in a particular publication or not. The recommendations were made by Lorillard's media department in conjunction with its outside advertising agency. The recommendation was then reviewed and considered by Lorillard's brand group. Deposition of Victor Lindsley, Massachusetts v. Philip Morris, June 8, 1998, 65:13-70:17; Deposition of Victor Lindsley, California v. Philip Morris, June 9, 1998, 164:17-171:6.

4290. A document dated Fall 1999 entitled "Lorillard Marketing Regulation Manual (A Guide From Counsel)" stated: "Lorillard does not and will not advertise its products in publications directed primarily to persons under 21 years of age, including school, college or university media (such as athletic, theatrical or other programs), comic books or comic supplements." 83675546-5629 at 5591 (U.S. Ex. 67,506).

4291. Lorillard's magazine advertising policy as of June 2002 was not to advertise in magazines that have greater than 18% youth readership (12 to 17 year olds). This advertising policy was based on the percentage, not the total number, of youth readers; therefore Lorillard can and does place advertisements in magazines which have millions of young readers ages 12 to 17. Two syndicated services, MRI and Simmons, provided information to Lorillard on the

percentage and total number of youth readership. Deposition of Victor Lindsley, United States v. Philip Morris, et al., May 16, 2002, 83:6-84:19 ; Deposition of George Telford, United States v. Philip Morris, et al., June 26, 2002, 34:8-35:4.

4292. It was also Lorillard's policy to place Newport and other brand advertisements in magazines for which there was no youth readership information available from these syndicated services. For example, Lorillard has placed its cigarettes advertisements in *ESPN* magazine although MRI and Simmons data subsequently indicated that there was greater than 18% youth readership. Deposition of Victor Lindsley, United States v. Philip Morris, et al., May 16, 2002, 81:2-81:13; Deposition of George Telford, United States v. Philip Morris, et al., June 26, 2002, 35:5-35:8, 36:21-36:25. Lorillard did not make an effort to determine the youth readership level of magazines in which it placed advertisements if MRI or Simmons did not have youth readership information. For magazines that lacked MRI or Simmons youth readership data, Lorillard made its decision to place advertisements based on Lorillard's consideration of the editorial content of the magazines. Deposition of George Telford, United States v. Philip Morris, et al., June 26, 2002, 35:9-35:14.

4293. Victor Lindsley testified that Lorillard places advertisements in magazines to reach the respective brands' targeted consumers who were defined by brand marketing plans and that, in making a decision to place Newport advertisements in magazines, Lorillard considers the readership age of the magazine. Deposition of Victor Lindsley, United States v. Philip Morris, et al., May 16, 2002, 53:24-54:19. George Telford similarly testified that Lorillard tailors its advertising placement for different brands based on the desired demographic profile of those

brands. For example, Lorillard advertises for Newport in younger publications like *Sports Illustrated*, *Playboy*, and *Penthouse*. Lorillard continues to place advertisements in these magazines: Lorillard's September 7, 2001 "Newport Brand Plan" for 2002 suggests targeting the young "adult" market through print media "to increase brand awareness and reinforce brand image." Deposition of George Telford, United States v. Philip Morris, et al., June 26, 2002, 61:9-63:1; 92278882-8951 at 8898 (U.S. Ex. 21,114).

4294. MRI and CMR data for the years 1993 to 2003 demonstrate that Lorillard spent over $60 million advertising its cigarette brands in magazines with substantial youth readership, meaning that the magazines have on average either over two million teen readers ages 12 to 17 per issue or over 15% of total readership, per issue, are ages 12 to 17 years. Lorillard's expenditures for cigarette brand advertisements in these publications almost doubled from 1997 through 2000, rising from $4.2 million in 1997 to $7.8 million in 2000, even though the MSA was enacted in 1998. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 2, ¶ 5, Exhibit B4 (U.S. Ex. 75,942).

(v) Brown & Williamson's Advertising

4295. On September 1, 1998, Brown & Williamson conducted a review of its marketing policies and guidelines. Instead of increasing the age of its models in advertisements, Brown & Williamson lowered the age of models in its advertisements from 30 to 25 years of age. Deposition of Susan Ivey, United States v. Philip Morris, et al., June 20, 2002, 148:9-150:24.

4296. Brown & Williamson publicly claims that, starting in December 1999, it only advertised in magazines where: (1) the publisher had stated that the under 21 readership does not

exceed 15%; and (2) the 12 to 17 year old readership as measured by MRI or Simmons did not exceed 15%. In two instances in this case, high level Brown & Williamson executives, Sharon Smith and Susan Ivey, testified that Brown & Williamson voluntarily adopted the 15% readership rule in December 1999, and implemented it before the calendar year 2000 magazine placements were made. According to Sharon Smith, the 15% policy was put into place at the recommendation of the Attorneys General. According to Susan Ivey, the policy was adopted after Brown & Williamson received a complaint from the National Association of Attorneys General ("NAAG") concerning advertisements of their "B Kool" campaign. Deposition of Susan Ivey, United States v. Philip Morris, et al., June 20, 2002, 132:13-133:15; 137:13-139:15; Deposition of Sharon Smith, United States v. Philip Morris, et al., February 22, 2002, 68:11-69:24 129:1-132:20; 134:5-134:19.

4297. In fact, contrary to Ivey's testimony, Brown & Williamson continued its "B Kool" campaign in magazines exceeding the 15% threshold into 2000. For example, Brown & Williamson continued to run "B Kool" advertising in *Rolling Stone* through April 2000. Deposition of Sharon Smith, United States v. Philip Morris, et al., February 22, 2002, 131:16-138:1, 163:3-163:12, 213:19-215:12; 282300241-0250 (U.S. Ex. 87,854); 282300205-0207 (U.S. Ex. 20,574); DXA0031418-1423 (U.S. Ex. 87,812).

4298. Contrary to the testimony of Sharon Smith and Susan Ivey, Claudia Newton testified at her May 15, 2002 deposition that Brown & Williamson did not initially rely on the MRI and Simmons data in implementing its December 1999 magazine policy but rather on statements from the magazines themselves attesting that their youth readership did not exceed

15%. Brown & Williamson took no steps to verify the accuracy of the information provided by the magazines on their percentage of youth readership. According to Claudia Newton, Brown & Williamson did not begin relying on the Simmons and MRI readership data until the latter part of 2000. Deposition of Claudia Newton, United States v. Philip Morris, et al., May 15, 2002, 96:12-97:7; 99:14-100:1, 103:15-108:3; 282300241-0250 at 0244 (U.S. Ex. 87,854).

4299. As early as 1996, Brown & Williamson had magazine readership data from the Simmons Market Research Bureau including demographic groups of 12 to 17, 18+, 12-20 and 21+. 210210020-0022 (U.S. Ex. 20,540); 2071238055-8057 (U.S. Ex. 21,817).

4300. In a press release issued on August 15, 2001, Brown & Williamson stated that "the company does not advertise in youth-oriented publications," and that, "beginning shortly, Brown & Williamson ads will be carried only in those publications that are mailed to adults 21 years of age and older." The press release further stated that all Brown & Williamson advertising would not appear in newsstand issues of those publications. 525022464-2464 (U.S. Ex. 20,918).

4301. In 2002, Brown & Williamson instituted a program whereby they agreed to place advertisements in certain magazines that segregate their subscription lists. The magazines certify that cigarette advertising only appears in editions sent to subscribers whom the magazines can verify are 21 or over. NAAG requested additional information on this program, specifically readership data for those households. Brown & Williamson was not able to provide NAAG with the data it requested. Susan Ivey testified at her June 20, 2002 deposition that, "We believe that if we advertise to the 21-year old in that household, that beyond that the readership of that book, I think, is the responsibility of that household." Deposition of Brennan Dawson, United States v.

Philip Morris, et al., May 16, 2002, 84:9-88:4, 92:11-92:16. Deposition of Susan Ivey, United States v. Philip Morris, et al., June 20, 2002, 139:16-140:13.

4302. Brown & Williamson does not consider the absolute number of readers under age 21. Sharon Smith testified at her March 22, 2002 deposition that she was unaware of whether the company had ever asked either the magazines, Simmons or MRI for information on the absolute number of youth readers. Deposition of Sharon Smith, United States v. Philip Morris, et al., March 22, 2002, 291:14-292:12. Claudia Newton testified at her May 15, 2002 deposition that "an absolute readership rule was unnecessary." Deposition of Claudia Newton, United States v. Philip Morris, et al., May 15, 2002, 128:12-129:20.

4303. At her June 20, 2002 deposition in this case, Susan Ivey, President and Chief Executive Officer of Brown & Williamson, testified that Brown & Williamson does not "have any research ourselves on anybody under 21, on readership or otherwise." When asked why Brown & Williamson chose 21 rather than 18, she testified that "by selecting 21, [Brown & Williamson is] further trying to create the buffer so that it does not go below that." She further testified that, regarding Brown & Williamson advertisements placed in magazines, Brown & Williamson "used publisher's data and made sure that the editorial content of the magazine . . . was certainly targeted toward adults, and we had numerous procedures in-house to verify this appeal to the twenty-one-plus age group." Deposition of Susan Ivey, United States v. Philip Morris, et al., June 20, 2002, 132:19-20, 133:4-8 134:17-19, 144:20-22, 147:11-13.

4304. Paul Wessel, Brown & Williamson Divisional Vice President, testified at his March 19, 2003 deposition that it is the policy of Brown & Williamson only to advertise in

magazines where 85% of the readership is over the age of 21, and that the company does not "use any celebrities, any cartoons, any characters that would have specific appeal to youth." Additionally, he testified that models appearing in any advertising must be, and appear to be, 25 or older. Deposition of Paul Wessel, United States v. Philip Morris, et al., March 19, 2003, 57:20-58:18.

4305. Yet Brown and Williamson continues to advertise its brands in general circulation magazines that it knows reach over 2 million readers under the age of 18. Deposition of Claudia Newton, United States v. Philip Morris, et al., May 15, 2002, 138:25-146:18. In fact, Brown & Williamson itself, in a July 9, 1985 document, described *Rolling Stone*, *Record*, and *Spin* as "young targeted music books." 670661599-1665 at 1628 (U.S. Ex. 23,054).

4306. MRI and CMR data for the years 1993 to 2003 demonstrate that Brown & Williamson spent $223 million advertising its cigarette brands in magazines with substantial youth readership, meaning that the magazines have on average either over two million teen readers ages 12 to 17 per issue or over 15% of total readership, per issue, ages 12 to 17 years old. Brown & Williamson's largest annual expenditure for advertising its cigarette brands in these publications was over $38 million, occurring in 1999, the first year after the enactment of the MSA. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 2, ¶ 5, Exhibit B3 (U.S. Ex. 75,942).

4307. Brown & Williamson placed advertisements for its GPC brand of cigarettes in at least five separate issues of *Hot Rod* magazine during 1999. According to MRI data, nearly 27% of readers of *Hot Rod* were between the ages of 12 and 17 in 1999. (U.S. Ex.14,542); (U.S.

Ex.14,548); (U.S. Ex.14,558); (U.S. Ex.14,562); (U.S. Ex.14,566); Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 2, ¶ 5, Exhibit A (U.S. Ex. 75,942).

4308. In 1999, Brown & Williamson placed in newspapers and magazines nationwide th "B Kool" advertising campaign for Kool cigarettes captioned "B Kool." In one "B Kool" advertisement, an attractive young woman gazed longingly back at a partially visible man in the foreground holding a lighted cigarette and a pack of Kools. (U.S. Ex. 11,642); (U.S. Ex. 11,662); (U.S. Ex. 14,522); (U.S. Ex. 14,526); (U.S. Ex. 14,533); (U.S. Ex. 14,540); (U.S. Ex. 14,553).

4309. In 2000, Brown & Williamson placed advertisements for Lucky Strike in *InStyle* and *Spin* magazines. MRI data indicates that in 2000 over 22% of the readers of *InStyle* were between the ages of 12 and 17, and 24% of the readers of *Spin* were between the ages of 12 and 17. (U.S. Ex. 14,659); (U.S. Ex. 14,670); (U.S. Ex. 12,225); (U.S. Ex. 12,233); (U.S. Ex. 12,235); (U.S. Ex. 12,239); (U.S. Ex. 12,245); (U.S. Ex. 12,249); (U.S. Ex. 12,255); (U.S. Ex. 12,262); (U.S. Ex. 12,266); Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 2, ¶ 5, Exhibit A (U.S. Ex. 75,942).

4310. Currently, Brown & Williamson continues to advertise in well known youth magazines such as *Rolling Stone* and *Sports Illustrated*. Moreover, Brown & Williamson itself recognizes the power and influence of such advertising. At her deposition in this case, Claudia Newton, Brown & Williamson Vice President for Corporate Responsibility and Youth Smoking Prevention from November 1997 to January 2001, and who was experienced in media placement,

stated that advertising is effective through repetitive viewing and that effective campaigns can be had by placing numerous advertisements in several small circulation magazines where it is cheaper to advertise. Deposition of Claudia Newton, United States v. Philip Morris, et al., May 15, 2002, 127:25-128:11, 139:25-146:18.

4311. Numerous public officials, including the former Governor of Florida and several State Attorney Generals, have expressed their dismay at Brown & Williamson's "B Kool" advertising campaign because of its appeal to youth. On October 22, 1997, Governor Lawton Chiles of Florida wrote to Brown & Williamson regarding its "B Kool" advertising campaign. Governor Chiles stated in his letter that "I am very disturbed by Brown & Williamson's most recent advertising campaign for Kool menthol cigarettes. This so-called "B Kool" campaign appears to be yet another flagrant attempt by Big Tobacco to hook another generation of teens. In addition, it clearly violates the spirit of the settlement agreement reached between the State of Florida and Big Tobacco." The letter criticized the use of a young female model in the campaign who "looks like a teenager from head to toe" and the use of billboards. The Governor concluded his letter by requesting that Brown & Williamson remove "these offensive billboards immediately . . . and immediately halt this campaign." 282208267-8268 (U.S. Ex. 22,099).

4312. On October 22, 1999 Attorney General of Indiana Jeffrey Modisett wrote a letter to Brown & Williamson summarizing his impressions of a meeting he attended with the company on October 4, 1999. In response to representations made at the meeting that Brown & Williamson only intended to target smokers between the ages of 21 and 30 with its "B Kool" campaign, Attorney General Modisett stated that "While your intentions have been clearly stated,

to outside observers it is hard to believe that your company does not use advertising to entice non-smokers to begin smoking your products." He also stated that, "I find it amazing that no one would agree that kids age 10-14 are more interested in 'being cool' than the older, more mature 21-30 age group. So, while your intentions with the 'B Kool' advertising campaign seem clear internally, you have a long way to go to convince outside observers that this advertising campaign does not have an undesired impact on both younger smoking an non-smoking teens." 282204359-4361 at 4349-4360 (U.S. Ex. 22,211).

4313. On December 3, 1999, the Attorney General of Oklahoma, Drew Edmonson, wrote to Brown & Williamson on behalf of the NAAG Tobacco Enforcement Committee to express the Committee's concerns about the content of the "B Kool" advertising campaign and the placement of "B Kool" advertisements in magazines with significant youth readership according to data contained in the 1999 MRI Twelve Plus Study. Brown and Williamson had placed "B Kool" advertisements in such magazines as *Vibe* and *Sport*, which had youth readership (readers between the ages of 12 and 17) above 35% based on the 1999 MRI Twelve Plus Study. Edmonson wrote that "[t]he placement of ads in magazines with a significant youth readership is especially problematic because the content of the B Kool ads has such high youth appeal." Attorney General Edmonson expressed concern that "the content of the B Kool ads has such a high youth appeal. Research over many years has shown that adolescents emulate youth adults who strongly desire to be seen as 'cool' in the eyes of their peers." He noted that "[s]ome of the ads include visual cues, e.g. tattoos which are currently in vogue among teens. This imagery is likely to appeal to male adolescents." Edmonson also stated that the "B Kool" slogan

was more likely to "resonate" with young adolescents than with smokers 21 to 30 years old. In response to Brown & Williamson's contention that the advertising campaign was intended to target 21 to 30 year olds, Edmonson stated "it is foreseeable and inevitable that a marketing strategy directed at young adults which employs themes with particular appeal to adolescents (e.g. independence, desire to appear older, desire to be cool), . . . will, in fact, both appeal to and reach a large number of youth." 282300205-0207 at 0205-0206 (U.S. Ex. 20,574).

4314. According to Sharon Smith, Brown & Williamson was "quite surprised" about the readership data in the 1999 MRI Twelve Plus Study mentioned in the December 3, 1999 letter from Edmonson referenced above "because what publishers had told us was that their magazines were definitely skewed 21 and older." Deposition of Sharon Smith, United States v. Philip Morris, et al., February 22, 2002, 148:10-148:18.

4315. A series of advertisements for Brown & Williamson's Kool cigarettes entitled "Kool Mixx" appeared in the April 2004 edition of Rolling Stone Magazine. Between 1992 and 2002, a yearly average of 19.8% of Rolling Stone readers were ages 12 to 17 and Rolling Stone had an average of 2,091,770 readers ages 12 to 17. The advertisements featured cartoon like images of DJs spinning CDs and young people dancing. The text of the advertisements included statements that "Kool recognizes DJs as the center of Hip Hop, inspired by the real feel and energy of the streets . . . DJ's are the Masters of the Hip Hop like Kool is the Master of Menthol. Kool Mixx special Edition Packs are our mark of respect for these Hip Hop Players." The special edition packs referenced in the advertisements featured the same images of DJs and young people dancing. Also included in the April 2004 edition of Rolling Stone was a Kool

Mixx CD/CD-Rom, described in the advertisements as "Your way to experience the sights and sounds of the Soundtrack to the Streets." The CD-Rom contained, among other things, interviews with DJs and information on the history of Hip Hop, as well as information on how to participate in the 2004 Kool Mixx DJ Competition. April 20004 *Rolling Stone* magazine with Kool Mixx CD, ADV1150001-0117 (U.S. Ex. 88,094); Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 5, ¶ 13, Exhibit A (U.S. Ex. 75,942).

4316. On March 25, 2004, G. Steven Rowe, Attorney General of Maine and the Chair of the Tobacco Enforcement Committee, wrote to Neil Mellon, Senior Counsel at Brown & Williamson, regarding the "Kool Mixx" advertising and marketing campaign. Attorney General Rowe wrote that "The advertising images used in this campaign [hip-hop artists, DJ's, art, and culture] appear to us to hold particular appeal for teenagers." He also noted the presence of "Kool Mixx" displays in numerous convenience stores in urban areas and wrote that "such marketing is especially effective with youth, as three out of four teenagers shop at convenience stores at least once a week." In addition, he expressed his concern about the placement of "Kool Mixx" advertising and "Kool Mixx CDs" in "magazines with very high youth readership, including *Vibe*, *Rolling Stone*, and *Entertainment Weekly*. . . . While your press release states that distribution will be in magazines whose subscribers are age 21 or older, we have received reports from parents who receive the magazines in their names for their children." (U.S. Ex. 86,683).

4317. From January 2002 to June 2003, Brown & Williamson, along with Philip Morris USA Inc., R.J. Reynolds, and U.S. Smokeless Tobacco placed approximately 120 cigarette and

other tobacco product brand advertisements in editions of *Time*, *Newsweek*, and *U.S. News and World Report* sent to middle and high schools as part of the magazines' school programs. "Hundreds of thousands of copies of the magazines" were distributed to classrooms in the United States each week. Only in November 2003, after receiving a request from the Chair of the National Association of Attorneys General Tobacco Committee, did Brown & Williamson and the three other tobacco companies agree to cease advertising in editions of these magazines sent to schools. http://www.atg.state.vt.us/display.php?pubsec=4&curdoc=471 (U.S. Ex. 86,686).

(vi) R.J. Reynolds's Advertising

4318. Between the 1998 execution of the MSA and June 2000, R.J. Reynolds's print policy did not change. Deposition of Lynn J. Beasley, United States v. Philip Morris, et al., June 25, 2002, 42:8-15. In the years preceding 2000, R.J. Reynolds's print placement policy reflected its interpretation of the Cigarette Advertising Code that prohibited cigarette advertising in any magazine that was primarily directed to underage people. R.J. Reynolds limited its advertising to magazines whose readership was at least 50% adult, adult being defined as 18 or 21 depending on whether it was before or after May 1992, if it had 18 plus readership data available. Deposition of Lynn J. Beasley, United States v. Philip Morris, et al., June 25, 2002, 55:20-58:3.

4319. According to R.J. Reynolds's Media Director, Patti Ittermann, R.J. Reynolds did not look at data that measured youth readership under 18 years (or 12+ "teen data") in magazines until after January 2000, and the only reason it started to review the youth readership data for magazines was the concerns raised by the public and the government. Deposition of Patricia

Ittermann, United States v. Philip Morris, et al., May 17, 2001, 52:19-25, 53:1-14, 58:20-22 .

4320. In June 2000, R.J. Reynolds revised its advertising policy

Deposition of Patti Ittermann, United States v. Philip Morris, et al., May 17, 2001, 34:2-35:19, 43:9-44:15, 58:10-58:18, 81:1-82:18; Deposition of Andrew Schindler, United States v. Philip Morris, et al., June 12, 2002, 27:7-28:5; 522040903-0903 (U.S. Ex. 20,907) (Confidential); 522041399-1402 at 1399 (U.S. Ex. 52,796) (Confidential).

4321. Prior to the written June 2000 print placement policy, Itterman was not sure whether there was a written policy regarding advertising placement. She testified that she was involved in formulating the prior policy, but could not specifically remember whether it was written. Deposition of Patricia F. Itterman, United States v. Philip Morris, et al., May 17, 2001, 76:25-77:14.

4322.

522765629-5634

(U.S. Ex. 22,141) (Confidential); 522642422-2433 (U.S. Ex. 88,035); Deposition of Patti Ittermann, United States v. Philip Morris, et al., May 17, 2001, 95:21-102:23; 522041457-1460 (U.S. Ex. 20,908) (Confidential).

4323. After R.J. Reynolds modified its magazine placement policy, its corporate website still contained the old policy. Rather than immediately changing the website to reflect the change in policy, R.J. Reynolds executives debated whether the shift had to be noted. Patricia Itterman sent an email to Jan Fulton Smith on June 21, 2000 inquiring: "[d]o we need to amend this (what is out there on the web site), given our 2/3 over 18 policy? Are we sending mixed signals? Seems that we need to be consistent . . ." Smith replied that "I've been waiting for the 'dust to settle' on [R.J. Reynolds's position on advertising issues]." 522041369-1369. (U.S. Ex. 87,865).

4324. As of March 2001, R.J. Reynolds's stated new youth magazine policy was that 75% of the readership of a given magazine must be 18 years old or older, for publications in which audience measurement data existed for total readership ages 12 years and older. As of June 2002, this was still the current print placement policy. Deposition of Lynn J. Beasley, United States v. Philip Morris, et al., June 25, 2002, 42:4-6, 44:9-15. R.J. Reynolds used both Simmons and MRI data to evaluate magazine placement. Additionally, it considered other factors, specifically editorial content, the other categories of products advertised, and distribution. Deposition of Charles A. Blixt, United States v. Philip Morris, et al., October 31,

2002, 131:24-132:10, 137:7-15.

4325. Andrew Schindler, CEO of R.J. Reynolds, testified that he made the decision to shift from a two-thirds 18 plus standard to a 75% 18 plus standard during the same time frame in which R.J. Reynolds was being sued by the State of California for MSA violations. Schindler further testified that, had R.J. Reynolds adopted Philip Morris's standard of 85% 18 plus, it would have eliminated too many magazines and compromised R.J. Reynolds's ability to communicate with adult smokers and compete in the market. Deposition of Andrew J. Schindler, United States v. Philip Morris, et al., June 12, 2002, 37:20-40:4, 41:10-43:3.

4326. R.J. Reynolds asserts on its website that, "Reynolds Tobacco does not and will not advertise in publications for youth. And, that's why we adhere to a policy that restricts placement of our ads to publications that are predominately adult-oriented." http://www.rjrt.com /IN/COHowWeThink_smokinghealth.asp#Pageaddress (U.S. Ex. 78,283).

4327. Despite all these policies discussed above, R.J. Reynolds magazine advertisements reached millions of young people ages 12 to 17. MRI and CMR data for the years 1993 to 2003 demonstrate that R.J. Reynolds spent $423 million advertising its cigarette brands in magazines with substantial youth readership, meaning that the magazines have on average either over two million teen readers ages 12 to 17 per issue or over 15% of total readership, per issue, ages 12 to 17 years old. R.J. Reynolds's largest annual expenditure for advertising its cigarette brands in these publications was over $80 million, occurring in 1999, the first year after the enactment of the MSA. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 2, ¶ 5, Exhibit B2 (U.S. Ex. 75,942).

4328. As an example of the extraordinary number of youth reached by R.J. Reynolds advertising, according to CMR and MRI data, R.J. Reynolds spent $1,816,400 on cigarette brand advertising in *Rolling Stone* during 1993, during a year in which more than 20% of the readers of *Rolling Stone* were ages 12 to 17. Cumulatively, R.J. Reynolds spent $37,195,500 on cigarette brand advertising in *Rolling Stone* from January 1993 to May 2003, a magazine which had, on average, more than two million readers ages 12 to 17 years old per issue from 1992 through 2002. Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., September 26, 2003, at 5, ¶ 14, Exhibits A, B2 (U.S. Ex. 75,942).

4329. R.J. Reynolds has continued to create advertisements directed at youth as shown by the following examples:

(1) A 1999 advertising campaign for Camel cigarettes captioned "Viewer Discretion Advised." Among several treatments, advertisements depicted a "farmer's daughter" scene that included a young man being run off by the irate father of an attractive blond female. The caption reads "Viewer Discretion Advised." This ad contains content "ratings" that lampoon movie or TV rating codes: "SS. . . Satisfied Smoking FV. . . Farm Violence AN. . . Animal Nudity. Mighty Tasty!;"

(2) A 2001 advertising campaign for Camel cigarettes captioned "Pleasure to Burn." Among several treatments, "Pleasure to Burn" advertising depicted attractive young men and young women smoking cigarettes or offering cigarettes, including series that are entitled "7 Pleasures of the Casbah," "Turkish Jade," "Flavors of the Exotic" and "Turkish Gold."

(3) A 2001 advertising campaign for Winston cigarettes captioned "No Bull." Among several treatments, "No Bull" advertising depicted attractive young men and young women smoking cigarettes or offering cigarettes often in

(4)

Deposition of Patricia Ittermann, United States v. Philip Morris, et al., May 17, 2001, 17:2-17:18, 28:8-28:14; 522678810-8810 (U.S. Ex. 20,008) (Confidential); 520577527-7590 (U.S. Ex. 87,859); 526196441-6512 (U.S. Ex. 87,860); 524721458-1462 (U.S. Ex. 87,861); 524723562-3564 (U.S. Ex. 87,862).

4330.

522694030- 4038 at 4037 (U.S. Ex. 20,914) (Confidential); 524726445-6455 (U.S. Ex. 88,161); 524722990-3002 (U.S. Ex. 87,858).

4331.

522668813-8821 at 8816 (U.S. Ex. 20,910) (Confidential).

4332.

520417937-7939 (U.S. Ex. 20,883) (Confidential); 524723156-3167 (U.S. Ex. 87,866); 524723279-3280 (U.S. Ex. 87,867).

4333.

522669001-9002 at 9002 (U.S. Ex. 20,912) (Confidential).

4334. As of May 17, 2001, R.J. Reynolds was still advertising in approximately 100 publications, many of which have significant youth readership, as shown by the MRI and Simmons' studies. Deposition of Patricia Ittermann, United States v. Philip Morris, et al., May 17, 2001, 46:1-48:24.

4335. While R.J. Reynolds publicly states that its advertising it targeted at "adults," the company knows that its advertisements continue to have broad reach. In this case, Diane Burrows testified that if an advertisement is targeted to 18 to 20 year olds, it will likely do well among 21 to 24 year olds. She testified that the reverse is also true because there is only a few years' difference in the smokers' ages. Deposition of Diane Burrows, United States v. Philip Morris, et al., June 27, 2001, 31:5-32:9.

4336. R.J. Reynolds also has continued to use cartoons in advertisements to appeal to youth even after agreeing to cease the "Joe Camel" campaign under the terms of the MSA. In around March of 1999, R.J. Reynolds used a magazine advertisement for Doral, containing a dog with comically exaggerated features, contrary to the MSA's youth marketing prohibitions on

around March of 1999, R.J. Reynolds used a magazine advertisement for Doral, containing a dog with comically exaggerated features, contrary to the MSA's youth marketing prohibitions on cartoons. 517508852-8855 (U.S. Ex. 20,878).

4337. An April 13, 2003 R.J. Reynolds Doral advertisement appearing in the *Washington Post's Parade* magazine featured a youthful looking person whose head and neck were obscured by an oversized blue cartoon mask and who was wearing a colorful yellow print short-sleeve shirt, denim short pants and sandals, and playing a miniature guitar. The advertisement offered collector cards with packs of Doral, and contained the following subscript: "I've got my mojo going, but all I really want is card #8 and my pack of Doral." The advertisement appeared opposite a page containing an advertisement for a Harry Potter movie, and a comic strip. (U.S. Ex. 88,162).

4338. In a June 15, 1999 letter, the Oklahoma Attorney General requested that R.J. Reynolds stop running four Doral "Imagine Getting More" advertisements which the NAAG Tobacco Enforcement Committee believed violated the MSA's prohibition against cartoons. In his July 1999 response, Guy Blynn, Vice President of R.J. Reynolds, argued that the advertisements were not cartoons and flatly denied that the advertisements violated the MSA. Blynn's letter indicated that, because the advertisements were merely "whimsy or fancifulness," but not "exaggerations" or total inversions under the dictionary definitions, the advertisements could not be considered "cartoons." 522609676-9677 (U.S. Ex. 22,234). In response to an inquiry by the Attorney General of Ohio complaining of the Doral brand advertisements showing comically exaggerated dogs, R.J. Reynolds represented that "the 'Imagine Getting More'

campaign in no way violates the MSA and that newspaper bags most assuredly are not a medium of outdoor advertising." 522371133-1136 at 1134 (U.S. Ex. 20,909).

4339. In June 2002, R.J. Reynolds was fined $20 million for violating the MSA by targeting youths in a magazine advertising campaign. People ex rel. Lockyer v. R.J. Reynolds Tobacco Co., 2002 WL 1292994 (Cal. Superior June 06, 2002). The Attorney General action alleged that R.J. Reynolds was violating the MSA by indirectly targeting youth in its advertising campaigns. In finding against R.J. Reynolds, the court analyzed the provisions of the MSA regarding youth targeting, as well as data on the reach and frequency of R.J. Reynolds's advertising: "The MRI data convincingly establishes that even though R.JR advertising for the most part targeted young adult smokers for the years from 1998 through 2001, Youth were reached as often and with about the same frequency as young adult smokers. Thus, although Youth may not have been directly targeted, the empirical data established that R.J. Reynolds indirectly targeted Youth, thereby violating the MSA." 2002 WL 1292994 (Cal. Superior) at *9. The California court also observed that R.J. Reynolds had taken no steps to reduce youth exposure to cigarette advertising in the wake of the MSA:

> After it entered into the MSA, RJR made absolutely no changes to its advertising campaigns, failed to includethe goal of reducing Youth exposure to tobacco advertising in its marketing plans and failed to take any actions to track whether or not it was meeting its professed goal of reducing Youth smoking. Further, while RJR made some changes to its marketing strategies in subsequent years, the changes were minimal and had little, if any, impact in reducing Youth exposure to its tobacco advertising. As a result, since the M.S.A. was signed, RJR has exposed Youth to its tobacco advertising at levels very similar to those of targeted groups of adult smokers.

2002 WL 1292994 (Cal. Superior) at *1. The court further observed that "RJR did nothing in 1999 and 2000 to reduce Youth exposure, and did very little in 2001. Further, it did so only after being given notice of the intent to file this action, and worse still, R.J. Reynolds actually waited until the very day the action was filed to take insufficient remedial action." 2002 WL 1292994 (Cal. Superior) at *8.

4340. Another court in California found that R.J. Reynolds had violated the advertising provisions of the MSA by posting outdoor advertising (billboards for the Winston racing series) beyond the maximum time limitations. State of California v. R.J. Reynolds Tobacco Co., 107 Cal. App 4th 516, 132 Cal. Rptr. 2d 151, March 27, 2003.

4341. A court in Arizona found that R.J. Reynolds had violated the advertising provisions of the MSA by posting outdoor advertising, namely billboards for the Winston racing series, beyond the maximum time limitations. State of Arizona v. R.J. Reynolds Tobacco Co., 2003 WL 22076645 (Ariz. App. Div. 1), September 9, 2003.

(8) Defendants' Youth Smoking Prevention Efforts Are Ineffective

4342. Cigarette Company Defendants' "youth programs" and so-called youth smoking prevention efforts fall far short of what they could be. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 1.

4343. Evidence indicates four strategies that have proven effective in preventing adolescent smoking: a) increase the cost of cigarettes; b) eliminate marketing practices that make smoking appealing; c) implement empirically validated school-based prevention programs; and d) conduct media campaigns directed at youth, using spots that have been shown to influence

adolescent smoking. Defendants have not effectively implemented any of these four strategies. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 3, 29-30.

4344. Cigarette Company Defendants could significantly reduce adolescent smoking by withdrawing their opposition to tax increases and stopping all price related marketing (i.e. discounting and value added offers of cigarettes), especially in convenience stores, where their offers are concentrated and where young people are more likely to purchase cigarettes. 250025505 (U.S. Ex. 25,343); 2041787758-7815 at 7795 (U.S. Ex. 38,236). Indeed, when she was head of Philip Morris's Youth Smoking Prevention, Carolyn Levy testified that she took the position that the company should not oppose taxes on cigarettes because she had concluded that young people were price sensitive. Deposition of Carolyn Levy, United States v. Philip Morris, et al. April 26, 2002, 542:2-549:10; Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 5.

4345. Defendants have not increased the price of their cigarettes; instead Defendants continue to oppose cigarette taxes that would raise cigarette prices and deny that such increases will affect youth initiation. VXA181 0352-0353 (U.S. Ex. 73,261); VXA181 0350-0351 (U.S. Ex. 73,260); VXA181 0347-0349 (U.S. Ex. 73,259); 2082981588D-1589 (U.S. Ex. 88,154); http://www.rjrt.com/TI2/Pages/TI_TaxesPayments.asp (U.S. Ex. 87,868); http://www.brownandwilliamson.com/Index_sub2.cfm?ID=16 (U.S. Ex. 78,271); 2069550926-0939 at 0931 (U.S. Ex. 24,492); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 5-6. In fact, the tobacco companies have

significantly *increased* expenditures on discounts and value added offers since the Master Settlement Agreement (MSA). According to the Federal Trade Commission 2001 Report, in the year after the MSA was implemented, spending on retail value added offers (e.g., buy one, get one free) rose 64.6% to $2.56 billion. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R. 1136; filed May 13, 2002) at 5-6.

4346. Cigarette Company Defendants continue to market to young people. According to their representatives' testimony in this case, Cigarette Company Defendants have not even considered the role of advertising in smoking initiation or the smoking behavior of teenagers. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 6. For example, in her deposition in this case, Brown & Williamson's Claudia Newton described a meeting of those responsible for prevention from each company and indicated that "it was the agreed belief among all the task force members that cigarette advertising was not a significant factor in influencing kids to smoke." Deposition of Claudia Newton, United States v. Philip Morris, et al. April 17, 2002, 147: 20-23.

4347. By failing to identify marketing as a factor that influences the decision of young people to smoke and falsely stating to the public that marketing does not play a role in the decision of young people to smoke, the Cigarette Company Defendants imply that there is no need for them to modify their marketing practices, thereby deceiving the public. http://www.philipmorrisusa.com/DisplayPageWithTopic.asp?ID=80 (U.S. Ex. 87,869); http://www.lorillard.net/corp.html (U.S. Ex. 86,695); http://www.rightdecisionsrightnow.com (U.S. Ex. 87,870); http://www.brownandwilliamson.com/Index_sub2.cfm?ID=2 (U.S. Ex.

87,871); Response of Defendant Philip Morris to Plaintiff's Specific Interrogatories to Defendants Philip Morris, Inc. and Philip Morris Companies, Inc., United States v. Philip Morris, et al. (served March 15, 2002), at 10, #3 (U.S. Ex. 88,163); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 6.

4348. Philip Morris continues to increase its marketing expenditures in grossly disproportionate amounts to its spending on youth smoking prevention.

PM3000172220-2256, 2234-2235, 2242 (U.S. Ex. 88,646) (Category I).

PM3000613782-3913 at 3788, 3789 (U.S. Ex. 88,647) (Category I).

4349. Although Philip Morris and Brown & Williamson have each supported the implementation of a school-based youth program, dissemination of an empirically-supported program does not guarantee that it will be effective because the program is often not implemented as carefully or completely as it was in the research study. While Philip Morris is studying the implementation of the school-based program they support, the Philip Morris study

as designed and implemented will not provide interpretable information about the effects of the program. Moreover, R.J. Reynolds has promoted a school-based program for which there is no evidence and little reason to believe that it will be effective in preventing youth smoking. Lorillard's program, "Making it H.I.P. Not to Smoke" consists of scholarship programs and other cash awards. www.2take10.com/youth/reaching-kids.html (U.S. Ex. 87,872). There is no empirical evidence that contests of this sort contribute to reducing the prevalence of adolescent smoking. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R. 1136; filed May 13, 2002) at 8-11.

4350. Philip Morris, R.J. Reynolds, Lorillard, and Brown & Williamson direct their youth smoking prevention efforts towards early adolescents and ignore older adolescents. The Philip Morris media campaign targets youth 10 to 14 years old. Deposition of Jeanne Bonhomme, United States v. Philip Morris, et al. February 28, 2002, 300:4-301:3. Lorillard targets 10 to 15 year olds. Deposition of Steven Watson, United States v. Philip Morris, et al. April 2, 2002, 160:22-162:11. R.J. Reynolds targets 12 to 15 year olds. www.rightdecisionsrightnow.com/facttex.htm (U.S. Ex. 87,873). Several of B&W's activities target children and early adolescents. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 16-17.

4351. Gilpin, Choi, Berry, and Pierce estimate that each day more than 1,600 young people ages 15 through 17 begin experimenting with cigarettes and that about 3,158 begin experimenting between the ages 11 and 14. Thus, about a third of experimentation begins during these later years. Expert Report of Anthony Biglan, United States v. Philip Morris, et al.

(R.1136; filed May 13, 2002) at 17.

4352. About 1,250 young people become established smokers (more than 100 cigarettes lifetime) at ages 15 through 17, while about 725 become established smokers at ages 11 through 14. Thus, nearly two thirds of adolescents who smoke become established smokers in the later age range. These numbers are far from insignificant. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 17.

4353. The Cigarette Company Defendants' failure to direct their youth smoking prevention programs and media campaigns to teenagers ages 15 to 17 misses a huge opportunity to prevent adolescent smoking. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. R.1136; filed May 13, 2002) at 17.

4354. Anti-smoking media campaigns are potentially effective: academics found a 49% reduction in smoking among 16 to 17 year olds who reported exposure to anti-smoking TV, radio, and billboard campaigns at ages 12 to 13. Seigel, et al. "The impact of an anti-smoking media campaign on progression to established smoking: Results of a longitudinal youth study" 90 *Journal of American Public Health* 380 (2000) (U.S. Ex. 77,350).

4355. Lorillard and Philip Morris have run national youth smoking prevention media campaigns. Both Lorillard and Philip Morris' media campaigns promote the message that smoking is an adult decision. Emphasizing that smoking is an adult activity underscores the desirability of an adult behavior for adolescents who are particularly motivated to appear mature. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 16.

4356. Cigarette Company Defendants have not evaluated whether their media campaigns are effective in reducing adolescent smoking and most of their youth smoking prevention advertisements do not promote the social disapproval of youthful smoking, which available evidence indicates is critical to their effectiveness. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 1.

4357. NBC television executives offered this comment regarding the Philip Morris "Think, Don't Smoke" media advertisements they had reviewed: ". . . implicit in each of the spots is the message that it's okay to smoke when one reaches adulthood. Additionally, the spots are misleading since they do not communicate the dire health consequences associated with smoking." 2069528591-8591 (U.S. Ex. 66,887); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 14.

4358. Lorillard utilized the slogan "Tobacco Is Whacko–If You're a Teen" in its youth smoking prevention media campaign. According to a February 2000 Lorillard report on the results of focus groups that were done with 10-15 year olds to get their reactions to Lorillard's youth smoking prevention advertisements:

- Respondents remembered the tag line, but had negative responses to it.
- They complained that it was very young (younger than they are) and 'cheesy.'
- They particularly disliked the if you're a teen part of 'Tobacco is Whacko–If You're a Teen.' They complained that this singled them out and that they believe it should apply to all ages.

94691840-1858 (U.S. Ex. 87,874); 94691822-1825 (U.S. Ex. 87,875); GTS061 0028-

0041 (U.S. Ex. 87,876); 99386467-6467 (U.S. Ex. 88,036); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 16.

4359. Rather than using techniques to reduce youth smoking that might be effective, Defendants have chosen to direct most of their efforts and spending towards campaigns to reduce adolescent access to tobacco and to media campaigns aimed at parents. All of the companies support the *We Card* program to reduce illegal sales of tobacco to young people at the retail level, but there is no evidence that such an education campaign can bring about reductions in illegal sales that might affect adolescent smoking prevalence, and recent evidence calls into question whether reducing sales will reduce adolescent smoking prevalence. In any case, no evidence could be found that the companies are evaluating the effectiveness of the program in reducing the sale of cigarettes at the retail level, or reducing the overall adolescent smoking prevalence rate. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 2.

4360. The Cigarette Company Defendants have directed a variety of communications concerning youth smoking prevention to parents including television advertisements, brochures, and workshops. There is currently no evidence that these efforts will result in reduced rates of adolescent smoking and no evidence could be found that the Cigarette Company Defendants are evaluating the effectiveness of their youth smoking prevention efforts directed to parents. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 1-2.

4361. Philip Morris has distributed youth smoking prevention brochures to

approximately one million parents who were on the Philip Morris mailing list. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 18-19; Deposition of Carolyn Levy, United States v. Philip Morris, et al. April 26, 2002, 584:14-585:19. The R.J. Reynolds website describes, and includes the text of, three youth smoking prevention brochures intended for parents. http://www.rightdecisionsrightnow.com/facttex.htm (U.S. Ex. 87,873). The B&W website provides information and a video for parents on youth smoking prevention http://www.brownandwilliamson.com/index_sub2.cfm?ID=2 (U.S. Ex. 87,871); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 19-20. Lorillard has placed youth smoking prevention print advertisements directed at parents in a number of magazines. The advertisements emphasize that by the teenage years young people are alienated from their parents and encourage parents to talk to their children. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 21-22.

4362. No evidence currently exists to suggest that such efforts to mobilize parents actually affect adolescent smoking prevalence. For example, one study randomly assigned parents to receive or not receive a set of four messages designed to encourage parents to set rules about tobacco use. There was no evidence that the messages deterred smoking. Biglan, et al. "How generizable are the effects of smoking prevention programs? Refusal skills training and parent messages in a teacher-administered program." *Journal of Behavioral Medicine,* 18(4), 315-30. (1987) (U.S. Ex. 73,222). Moreover, research has found that flooding a community with pamphlets urging parents to talk to their children about not using tobacco had no discernible

effect. Biglan, et al. "Experimental evaluation of a modular approach to mobilizing antitobacco influences of peers and parents." *American Journal of Community Psychology, 24*(3), 311-39. (1996) (U.S. Ex. 73,220); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 18.

4363. Advertisements directed at parents are unlikely to prompt them to talk to their children about not smoking and should not be assumed to be effective in preventing smoking. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 18.

4364. Youth smoking prevention campaigns targeting parents should be routinely evaluated in terms of: (a) their efficacy in getting parents to talk to their children about not using tobacco or otherwise set limits around smoking; and (b) their actual impact on youth smoking. Defendants have not done so. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 18.

4365. Carolyn Levy, former Director of Youth Smoking Prevention at Philip Morris, had no experience or background in prevention or youth smoking or youth issues and was unaware of even the basic prevention journals relied upon by prevention experts. Deposition of Carolyn Levy, United States v. Philip Morris, et al. May 21, 2002, 42:19-51:8. Neither Claudia Newton, Brown & Williamson Tobacco Corporation's Vice President, Corporate Responsibility and Youth Smoking Prevention, nor Theresa Burch, the head of Brown & Williamson Tobacco Corporation's youth smoking prevention programs, had any background in youth smoking prevention. Deposition of Claudia Newton, United States v. Philip Morris, et al. April 17, 2002,

70:23-71:2, 78:10-81:12, 192:24-193:9. Since January 2, 2001, Brennan Dawson has been Brown & Williamson's Vice President for External Affairs and MSA Section III(1) designee, taking over from Newton. Dawson had no prior training or experience in youth smoking prevention. Deposition of Brennan Dawson, United States v. Philip Morris, et al. May 16, 2002, 26:7-16, 82:17-22, 156:15-16.

4366. Cigarette Company Defendants' youth smoking prevention efforts should be evaluated in the context of their long history of extensive public relations efforts to convince the public that they do not market to young people. As internal documents show, Cigarette Company Defendants' supposed youth smoking prevention efforts and public statements that they do not market to youth enable them to give the appearance of being concerned about young people, improve their public images, and prevent the imposition of restrictions on their marketing practices. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 25-26; MNAT00280070-0070 (U.S. Ex. 21,724); TIMN333436-3436 (U.S. Ex. 67,293); 500798668-8670 (U.S. Ex. 21,521).

4367. Defendants have long treated youth smoking as a public relations issue and have publically disseminated materials boasting of their policies not to market to youth and their supposed concerns about youth smoking. 3651952-1953 (U.S. Ex. 22,018); TIMN0053906-3907 (U.S. Ex. 62,700); TIMN0053890 (U.S. Ex. 62,697); TIMN0053884 (U.S. Ex. 62,694) ; TIMN0053886 (U.S. Ex. 62,696); TIMN201581 (U.S. Ex. 23,016); TIMN0000202301-2302 (U.S. Ex. 21,346); 515831148-1154 (U.S. Ex. 30,240).

4368. A 1991 discussion paper from the Tobacco Institute explained why a "youth

program" is important to the industry and described precisely the things that the tobacco company defendants have been doing. According to this paper, a youth program will: "support the Institute's objective of discouraging unfair and counterproductive federal, state, and local restrictions on cigarette advertising, by: (1) providing on-going and persuasive evidence that the industry is actively discouraging youth smoking and independent verification that the industry's efforts are valid. (2) Reinforcing the belief that peer pressure–not advertising–is the cause of youth smoking [and] (3) Seizing the political center and forcing the anti-smokers to an extreme. . ." TIMN0164422-4424 at 4423 (U.S. Ex. 34,445); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 26.

4369. The Tobacco Institute 1991 discussion paper further stated that the strategy will involve heavily promoting industry opposition to youth smoking and aligning the industry with a "broader, more sophisticated view of the problem, i.e., parental inability to offset peer pressure." The strategy also involved working "with and through credible child welfare professionals and educators . . ." The paper also recommended that the industry "bait anti-tobacco forces to criticize industry efforts" and "establish the sense of a growing, well-accepted program by encouraging a proliferation of small, local projects; and appropriate co-ventures with other TI allies." TIMN0164422-4424 at 4422 (U.S. Ex. 34,445); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 26.

4370. A 1993 R.J. Reynolds Media Overview discussed the ability of R.J. Reynolds to "serve as [a] corporate media resource," by using "external relations/public issues [like] support the law, youth no smoking," etc. 5224144540-4563 at 522414547 (U.S. Ex. 87,877).

4371. A 1995 Philip Morris document stated: "If we can frame proactive legislation or other kinds of action on the Youth Access issue. . . we will be protecting our industry on into the future." Additionally, the document stated: ". . . if we don't do something fast to project the sense of industry responsibility regarding the youth access issue, we are going to be looking at severe marketing restrictions in a very short time. Those restrictions will pave the way for equally severe legislation or regulation on where adults are allowed to smoke." 2044046017-22 at 6021-6022 (U.S. Ex. 66,716).

4372. Defendants have done exactly what the 1991 Tobacco Institute document recommended. They are using youth prevention activities to give the appearance of concern about youth smoking in order to prevent further restrictions on their marketing activities. The strategy was not new in 1991. It could be seen in their creation of the advertising code in 1964 and it was clearly articulated in a Tobacco Institute strategy document created around 1981. TIMN0333451-56 (U.S. Ex. 67,284); 2024956653-6698 (U.S. Ex. 87,878); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 27; TIMN0021071-75 (U.S. Ex. 67,264); TIMN0004274-4274 (U.S. Ex. 67,255); 2023587951-7951 (U.S. Ex. 66,642); 2040236685-6706 (U.S. Ex. 66,674); 2041183751-3788 (U.S. Ex. 37,924); 2041183751-3790 at 3789 (U.S. Ex. 37,924); 2044046017-22 (U.S. 66,716); 2046829061-9062 (U.S. Ex. 88,845).

4373. The tobacco company youth smoking prevention activities since 1998 benefit the Cigarette Company Defendants in ways that have nothing to do with preventing youth smoking. Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13,

2002) at 28.

4374. Cigarette Company Defendants' supposed youth smoking prevention efforts also serve to reposition the public perception of smoking as something less dangerous than it actually is. For example, despite the fact that most smokers want to quit, R.J. Reynolds advises parents who smoke that, "If you are like most smokers, you smoke because you enjoy it." http://www.rightdecisionsrightnow.com/booklets/talk.asp (U.S. Ex. 87,879). The Brown & Williamson website advises, "Tell your children that laws exist to enforce smoking as a choice made by informed adults." http://www.brownandwilliamson.com/index_sub2.cfm?Page=/YSPC/Index.cfm%3FID%3D29%26Sect%3D3 (U.S. Ex. 87,880). Defendants never recommend that parents inform their children that smoking kills more than 400,000 people each year, involves an addiction that most smokers desire to end, and will harm those around the smoker. (U.S. Ex. 73,257); (U.S. Ex. 64,316); Expert Report of Anthony Biglan, United States v. Philip Morris, et al. (R.1136; filed May 13, 2002) at 28-29.

(9) Conclusion

4375. The actions of Defendants substantially contributed to widespread initiation of smoking behavior among children and adolescents and to the persistence of cigarette smoking among adolescents and adults in the United States.

H. Suppression and Concealment of Information; Destruction of Documents

(1) Introduction

4376. From at least 1954 to the present, Defendants engaged in parallel efforts to destroy and conceal documents and information in furtherance of the Enterprise's goals of (1) preventing the public from learning the truth about smoking's adverse impact on health; (2) preventing the public from learning the truth about the addictiveness of nicotine; (3) avoiding or, at a minimum, limiting liability for smoking and health related claims in litigation; and (4) avoiding statutory and regulatory limitations on the cigarette industry, including limitations on advertising. These activities occurred despite the promises of the Cigarette Company Defendants that (a) they did not conceal, suppress or destroy evidence, and that (b) they shared with the American people all pertinent information regarding the true health effects of smoking, including research findings related to smoking and health.

(a) Promises to Share Smoking and Health Information with the American People

4377. As detailed in U.S. FPFF § IV.A., supra., Defendants have maintained that there is an "open question" as to whether smoking cigarettes causes disease and other adverse effects. Because of this alleged "open question," Defendants pledged an obligation to fund independent research on the issues of smoking and health and to share the results of that research with the public.

4378. As recently as 1996, Martin Broughton, Chief Executive of BAT Industries, the then ultimate parent company of BATCo and Brown & Williamson, made a statement to the *Wall Street Journal* denying that BAT Industries and its subsidiaries had concealed research

linking smoking and disease. Broughton stated: "We haven't concealed, we do not conceal and we will never conceal. We have no internal research which proves that smoking causes lung cancer or other diseases or, indeed, that smoking is addictive." 321224327 (U.S. Ex. 88,680); see also, 322269293-9296 (U.S. Ex. 88,331); 321677122-7133 at 7124 (U.S. Ex. 88,332); 700351757-1758 (U.S. Ex. 88,681); 800113810-3812 (U.S. Ex. 85,343).

(b) Ongoing Litigation

4379. Defendants' destruction of documents, and suppression and concealment of information was driven, in part, by their objective to avoid disclosure of information in ongoing litigation and thereby avoid liability for smoking and health related claims.

4380. Litigation involving the Cigarette Company Defendants began in March, 1954 when the smoking and health lawsuit, Lowe v. R.J. Reynolds, et al., Docket No. 9673 (E.D. Mo. Mar. 10, 1954) was filed. Affidavit of James W. Dobbins, State of Minnesota v. Philip Morris, No. C1-94-8565, June 20, 1996, at 8 (U.S. Ex. 86,987).

4381. In 1964, the first smoking and health lawsuit involving CTR and the Tobacco Institute as co-defendants, Fine v. Philip Morris Inc., et al., (M.D. Pa. Feb. 3, 1964), was filed. Affidavit of Lawrence E. Savell, State of Minnesota v. Philip Morris, No. C1-94-8565, June 20, 1996, at 13 (U.S. Ex. 86,988).

4382. Since 1954, smoking and health litigation has been pending continuously against one or more of the Defendants. Such litigation has raised recurring factual and legal issues common to Defendants, including allegations of injury from smoking and the use of false statements in cigarette advertising, among others. See, Table, "List of Smoking and Health

Cases in Which One or More Defendants was a Party," attached as Appendix Table F to United States' Preliminary Proposed Findings of Fact, United States v. Philip Morris, (R. 1959; filed January 29, 2003) ARU600 1205-1363 (U.S. Ex. 88,759); Affidavit of Lawrence E. Savell, State of Minnesota v. Philip Morris, No. C1-94-8565, June 20, 1996, at 9 (U.S. Ex. 86,988); Affidavit of James W. Dobbins, State of Minnesota v. Philip Morris, No. C1-94-8565, June 20, 1996, at 8 (U.S. Ex. 86,987); Affidavit of Ronald F. Bianchi, State of Minnesota v. Philip Morris, No. C1-94-8565, April 7, 1997, at 8 (U.S. Ex. 86,989); Affidavit of Arthur J. Stevens, State of Minnesota v. Philip Morris, No. C1-94-8565, April 30, 1996, at 8 (U.S. Ex. 86,990); Declaration of Alexander Holtzman, State of Minnesota v. Philip Morris, No. C1-94-8565, April 5, 1997 (U.S. Ex. 86,991); Declaration of Philip H. Cohen, State of Minnesota v. Philip Morris, No. C1-94-8565, May 23, 1997 (U.S. Ex. 86,992).

(c) Statutory and Regulatory Oversight

4383. Defendants' destruction of documents, and suppression and concealment of information was also driven, in part, by their objective to avoid statutory and regulatory limitations on the cigarette industry.

4384. In the 1950s, regulatory activities (apart from continuing antitrust scrutiny) affecting the cigarette industry as a whole began to accelerate and have continued to the present on federal, state, local and international levels. These activities have involved a wide variety of federal regulatory agencies including the Federal Trade Commission ("FTC"), the Federal Communications Commission ("FCC"), the Food and Drug Administration ("FDA"), the Civil Aeronautics Board ("CAB"), and the Environmental Protection Agency ("EPA"), among others.

The activities have covered a wide range of issues, including cigarette advertising; placement and use of health warning notices on cigarette packages and in cigarette advertising; placement and use of tar and nicotine yields on cigarette packages and in cigarette advertising; testing of cigarettes for tar, nicotine and carbon monoxide yields; excise taxes; reporting of ingredients used in cigarette manufacturing; restriction and prohibition of smoking aboard commercial aircraft, interstate buses and interstate trains; and smoking in public places, among others.

4385. Legislative activities on the federal level affecting Defendants began in at least 1957 with the "Blatnik hearings," which addressed the disclosure of tar and nicotine yields in advertising and raised issues of common interest to Defendants. Representatives of Defendants have attended and testified at hearings regarding a wide variety of proposed and existing legislation.

(2) Destruction, Suppression, and Concealment of Information

4386. Defendants R.J. Reynolds, Philip Morris, BATCo, Brown & Williamson, Liggett, Lorillard, and CTR worked both collectively and individually to destroy, suppress, and conceal information to further the goals of the Enterprise of limiting liability in lawsuits, avoiding statutory and regulatory limitations, and suppressing evidence of the truth about the adverse health effects of smoking and its addictiveness.

(a) Defendants' Collective Efforts to Destroy, Suppress, and Conceal Information

4387. On July 3, 1963, Addison Yeaman, Brown & Williamson in-house counsel, sent a wire cable to A.D. McCormick, a lawyer for BATCo, regarding his attempt to keep the results of

legitimate research projects, Project Hippo and the Griffith Filter, from the Surgeon General despite his knowledge that the Surgeon General was preparing the first comprehensive report on smoking and health. Yeaman informed McCormick that "Hoyt of TIRC agreed to withhold disclosure Battelle report to TIRC or SAB until further notice from me. Finch agrees submission Battelle or Griffith developments to Surgeon General undesirable and we agree continuance of Battelle work useful but disturbed at its implications re cardiovascular disorders. . . . We believe combination Battelle work and Griffith's developments have implication which increase desirability reevaluation TIRC and reassessment fundamental policy re health." 689636015 (U.S. Ex. 22,734), (U.S. Ex. 86,879); Deposition of Nicholas Brookes, United States v. Philip Morris, May 2, 2002, 167:13-22, 171:25-173:4.

4388. On May 23, 1964 Abe Kresh, a tobacco industry lawyer at what was then Arnold, Portas & Porter, sent a letter to the members of the Committee of Counsel following up on the committee's previous discussion regarding a possible survey to determine the level of public awareness of the health issue related to smoking. In an attached memorandum prepared by Mr. Kresh's colleague, the law firm discussed the Committee's concern regarding adverse use of the results if the survey was not favorable:

> The question has been raised of possible use of a survey. Specifically, Mr. Austern [attorney with Covington & Burling] has suggested that should the results of the survey prove unfavorable, they may be subpoenaed or otherwise fall into the hands of the FTC, a Congressional Committee, or a plaintiff in pending cancer litigation. There is no question that some risk exists. We have been assured by both Elrich & Lavidge [the proposed survey firm] and by Professor Steiner [a University of Chicago marketing professor who was to lead the survey] that they would transmit to us every interview and every copy of the analysis. Thus, when it is

> completed, there will be nothing in the records of Elrich & Lavidge or Professor Steiner to subpoena. The danger of a successful subpoena would be reduced (though not entirely eliminated) if the survey were in an attorney's files. In any event, if the returns were unfavorable they could be destroyed and there would be no record in any office of the nature of the returns. The possibility of compelling oral testimony from Steiner, of course, always exists.

The lawyers at Arnold, Portas & Porter also assured the Committee of Counsel members that "[t]he questionnaire [for the survey] has been revised to eliminate questions that might upset an otherwise favorable return." LG 2006318-6330 (U.S. Ex. 21,203) (U.S. Ex. 36,274).

4389. Notes of a November 5, 1975 CTR "group meeting" of a subcommittee of the Research Liaison Committee detail that Ed Jacobs of Jacobs & Medinger stated that "no further formal minute be made - also all should remove notes and previous minutes from corporate files." 1003294811-4811 (U.S. Ex. 20,171).

4390. In a February 9, 1978 letter to the Committee of Counsel, William W. Shinn of Shook, Hardy & Bacon, wrote that he enclosed with the letter a memo and report regarding the funding of projects through Special Account No. 4, and that "[t]here is probably no need for you to retain those notes once you have satisfied yourself of the current situation." 503655086-88 (U.S. Ex. 20,720).

4391. During a December 13, 1978 meeting at Chadbourne & Parke's offices in New York City of the Research Liaison Committee, the committee members discussed industry organization and the relationship of the industry to the CTR. In discussing the industry needs, it was determined to "send a few written ideas through lawyers to committee." "No titles/simply a piece of paper. Colorless & non attributable." 1000041870-76 (U.S. Ex. 35,102).

4392. In the 1980s, as the tobacco companies prepared to disclose internal documents for the first time in Cipollone v. Liggett, et al., Docket No. 83-CV-2864 (D.N.J.), a subcommittee of litigation lawyers from the law firms of Arnold & Porter and Shook, Hardy & Bacon – who combined have represented the Tobacco Institute, Philip Morris, Lorillard, R.J. Reynolds, and Brown & Williamson (see U.S. FPFF § I.B., supra.) and have acted on behalf of all Defendants – met to discuss the import of the documents that might be released to the public. The lawyers realized that the documents would disclose that the Cigarette Company Defendants employed document destruction programs used to prevent production of adverse documents to potential plaintiffs. Because of this, as they prepared to produce documents, the Defendants' lawyers drafted responses to anticipated press inquiries such as "Is it true that formal document destruction programs were instituted to cover up potentially damaging information?" 536510396-0399 (U.S. Ex. 20,931); 536510400-0405 (U.S. Ex. 20,932).

4393. As presaged by the lawyers' preparations for adverse press inquiries, the Defendants did indeed collectively work to suppress or otherwise conceal harmful documents and information from disclosure. In 1981, Robert Northrip, a Shook, Hardy & Bacon attorney who at various times represented Philip Morris and Brown & Williamson, explained at a Committee of Counsel meeting that lawyers' special project funding was used to allow adverse research findings to be hidden from the public. In a 1981 memorandum Kendrick Wells, Assistant General Counsel for Defendant Brown & Williamson, quotes Northrip as having said: "[i]f company testing began to show adverse results pertaining to a particular additive, the company control would enable the company to terminate the research, remove the additive, and

destroy the data." 521038287-8291 (U.S. Ex. 30,481); 682764441-4461 at 4458 (U.S. Ex. 21,030).

4394. On December 8, 1982, representatives from BAT, Philip Morris, and R.J. Reynolds attended a meeting of the VdC Scientific Commission in Hamburg, Germany. Among the issues discussed was research related to passive smoking. It was stated that "it is sometimes important to do projects 'under the table,' otherwise an uncontrollable situation like in the U.S. could occur." 503246354-6358 (U.S. Ex. 86,993); 503246354-6358 (U.S. Ex. 88,333).

4395. On November 22, 1988, the National Public Relations Subcommittee met to discuss "proactive" public relations projects that could be implemented. One project discussed was publicly refuting the claim that tobacco litigation was similar to asbestos litigation. A reason given to explain the difference between tobacco and asbestos litigation was "there are no smoking guns in the [tobacco] documents." Allen Purvis, an attorney from Shook, Hardy & Bacon in attendance at this meeting, cautioned the group "about emphasizing the absence of a 'smoking gun' in the documents since the second wave of litigation may require the production of additional documents that might not be helpful." Purvis noted that "this topic was not pushed as one of the primary projects." 92347613-7621 (U.S. Ex. 88,334).

4396. A November 21, 1991 e-mail regarding the International Committee of Counsel demonstrates that the Cigarette Company Defendants sought to agree on a common position regarding the primary issue of whether smoking causes disease. The email inquiries as to whether the companies would agree to take the position taken by BAT and Rothmans -- that there is a "statistical association" between smoking and disease, but that causation had not be

established. The email also raises the concern that the companies are memorializing too much information, advocating "**the need for prudent document creation and retention procedures among all the companies.**" The email noted that "**people in the U.K. companies put too much on paper and then copy too many people.**" 2023237575 (U.S. Ex. 23,048) (emphasis added); Deposition of Geoffrey Bible, U.S. v. Philip Morris, et al., August 22, 2002, 256:17-268:4.

4397. Following a meeting with TI's counsel, Bill Adams, TI's controller, drafted a May 22, 1995 memorandum to the file noting that with respect to purging emails, "If you keep old Email files

4398. They are subject to discovery and therefore can get you into trouble." TI1380-1721 (U.S. Ex. 87,020).

4399. In a September 25, 1998 letter to Dr. Marion Funck, general counsel for Reemtsma GmbH, Ron Tully, former Documentation Manager of Information Services for the Tobacco Documentation Centre ("TDC") (formerly INFOTAB), admitted that he "authorized the destruction of close to 1 million individual pages in my seven years at TDC." As Mr. Tully explained:

> I was requested by three of the largest Board Members to prepare a Board paper, which could be used as the justification for the systematic destruction of pertinent documentation (from Infotab and the TDC). The aim of the document destruction exercise was to identify and remove all documents which could be viewed as "problematic," damaging, or useful to plaintiffs in an ongoing industry litigation. . . . As you are aware, such document destruction is a serious matter for the courts. . . .

2070478711-8715 (U.S. Ex. 40,333).

4400. Shook, Hardy & Bacon attorney Donald Hoel testified at his deposition that correspondence with "an institute or an individual" regarding special projects was not turned over to CTR, but was instead kept at the law firm. Hoel further testified that he believes that such correspondence was never provided to CTR nor produced in any litigation. Deposition of Donald K. Hoel, United States v. Philip Morris, et al., June 27, 2002, 81:5-82:10.

(b) R.J. Reynolds

(i) Document Destruction

4401. Defendant R.J. Reynolds destroyed documents, including scientific research documents, to prevent the disclosure of documents which it believed would likely be sought in litigation and in federal regulatory proceedings and would provide information to the public on the adverse impact of smoking on health.

4402.

526527231-7235 (U.S. Ex. 86,994) (Confidential).

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4402. In 1963 alone, R.J. Reynolds destroyed 94 memoranda. The memoranda involved, inter alia, smoke analyses and the nicotine content of cigarettes, and included such titles as "Analysis of the Smoke of Competitive Brands Cigarettes;" "Addition of Sodium Glycinate to Filter Tips. Effect on Aldehyde and Nicotine Content of Smoke;" "Study of Methods for the Determination of Nicotine and Particulate Matter in Cigarette Smoke;" and "Nicotine (Mg./Cigarette) in the Smoke of Competitive Brand Cigarettes - 1963." 526527231-7235 (U.S. Ex. 86,994) (Confidential). In 1966, R.J. Reynolds destroyed additional memoranda, including "Components Reported In Tobacco Smoke, Supplement I Components Reported From May 1962 to April 1963." 526527231-7235 (U.S. Ex. 86,994) (Confidential).

4403. On October 17, 1968, while federal litigation was anticipated and, in fact, pending

against R.J. Reynolds, company representatives destroyed numerous Special Reports written by Alan Rodgman, one of R.J. Reynolds's chief scientists. Most of these documents concerned smoking and cancer causation, the very subject of the pending litigation. 501650169-0169 (U.S. Ex. 22,228).

4404. In 1969, R.J. Reynolds's research department confirmed to the legal department that it would destroy documents to protect the company's position in smoking and health litigation. The research department indicated that it did "not foresee any difficulty in the event a decision is reached to remove certain reports from Research files. Once it becomes clear that such action is necessary for the successful defense of our present and future suits, we will promptly remove all such reports from our files . . . ." 500284499-4499 (U.S. Ex. 21,677).

4405. This R.J. Reynolds document also describes an alternative effort to "invalidate" harmful records. The document, entitled "Invalidation of Some Reports in the Research Department" states:

> As to reports which you are recommending be invalidated, we can cite misinterpreting of data as reason for invalidation. A further reason is that many of these are needless repetitions and are being removed to alleviate overcrowding of our files.
>
> As an alternative to invalidation, we can have the authors rewrite those sections of the reports which appear objectionable.

500284499-4499 (U.S. Ex. 21,677).

4406. An August 14, 1979 memorandum notes that "RJR material which should be shredded per A. Rodgman. 8/14/79:

Quarterly Reports

Performance Plans

Drafts of RDR, RDM, CIM"

503558840 (U.S. Ex. 88,336).

4407. In 1991, at the same time or shortly before the FTC initiated proceedings against R.J. Reynolds's Joe Camel advertising campaign, R.J. Reynolds persuaded employees of the advertising agency of Young & Rubicam to destroy documents concerning the Joe Camel advertising campaign with the intent to prevent the documents from being available for use in the FTC's proceedings. This plan was confirmed in a November 1, 1991 facsimile cover sheet and letter sent from Young & Rubicam to R.J. Reynolds stating "[a]s we discussed . . . [t]his is what I'm going to destroy. . . . Also, under our current scrutiny, a wise move to rid ourselves of developmental work!!" The letter set forth a list of documents related to the Joe Camel campaign which were destroyed. 507647971-7975 (U.S. Ex. 51,232).

(ii) Information Suppression and Concealment

4408. R.J. Reynolds suppressed scientific research pertaining to smoking and health and distribution of documents related to such research. Indeed, there was a "general informal policy" at R.J. Reynolds against the "publication of anything that bears on the smoking and health issue." 515873805-3929 (U.S. Ex. 21,922).

4409. In 1970, R.J. Reynolds suppressed research by shutting down its biological research division, also known as the "mouse house." The mouse house, opened by R.J. Reynolds in 1967, was a sophisticated in-house lab for conducting biological research - including inhalation tests - on animals, including mice, rabbits, gerbils and rats. Prior to its closure, mouse

inhalation tests in the "mouse house" demonstrated a "diffuse, marked emphysema throughout the lungs." 515596267-6273 (U.S. Ex. 21,672). In 1970, R.J. Reynolds abruptly closed the "mouse house" and fired 26 scientists. RJR 503950747 (U.S. Ex. 86,996). The closure of the "mouse house" was related to the tobacco industry's "tacit agreement between the heads of the US companies" not to conduct "in-house biological research." 110315968-5971 (U.S. Ex. 26,379).

4410. R.J. Reynolds's efforts to prevent the disclosure of potentially damaging information in the United States included conducting the research overseas. The 1977 performance evaluation of Frank Colby, manager of R.J. Reynolds's Research Science Information Division, demonstrates that the company was conducting research overseas to prevent it from being available in the United States. The evaluation states that:

> In the spring of 1974 the incumbent [Colby] was asked to assist the Legal Department to set up contacts with medical authorities abroad. . . . This is described in some detail in my MBO previous report dated December 10, 1974. These efforts were continued during 1975, 1976 and 1977. Furthermore, a special confidential effort, related to the research efforts of the German Cigarette Industry, and to the competitive position on [sic] RJR in Europe, with special reference to smoking and health – mentioned in my June 1976 MBO – was continued. In relation with these activities I made a recommendation to the Company's top management to authorize substantial funding by this Company through their German subsidiary, RJR Tobacco GmbH for smoking and health research projects to be carried out in Germany. This was authorized and preliminary negotiations with a series of outstanding German researchers were successfully completed. These projects must be kept CONFIDENTIAL even within the Tobacco Company. One major project in Heidelberg was commissioned, several other projects are under negotiation.

50028 4015-4047 at 4024 (U.S. Ex. 29,451) (U.S. Ex. 29,452).

(c) Philip Morris

(i) Suppression and Concealment of Smoking and Health Research

4411. Defendant Philip Morris concealed documents, including scientific research documents, by secreting the documents at a foreign affiliate in order to prevent the disclosure of documents which it believed would likely be sought in litigation and in federal regulatory proceedings, and would provide information to the public on the adverse impact of smoking on health.

4412. In 1970, Helmut Wakeham, Philip Morris's Vice President for Research & Development, recommended that Philip Morris purchase INBIFO, a research facility in Cologne Germany, arguing that Germany "is a locale where we might do some of the things which we are reluctant to do in this country." 2022244451-4453. (U.S. Ex. 20,361).

4413. Philip Morris did in fact purchase INBIFO to conduct its smoking and health research. A 1970 memorandum from Joseph Cullman, President of Philip Morris, discusses the benefits of conducting research overseas: "The possibility of getting answers to certain problems on a contractual basis in Europe appeals to me and I feel presents an opportunity that is relatively lacking in risk and unattractive repercussions in this country." 1000216742-6742. (U.S. Ex. 20,081).

4414. One perceived value of INBIFO was that Philip Morris could control the results: "Experiments can be terminated at will as required without delay." 1003123055-3094 at 3058 (U.S. Ex. 20,154).

4415. After acquiring INBIFO, Philip Morris tried to avoid any direct contact with the

research results that emanated from this research facility. To prevent documents housed at INBIFO from being produced in litigation in the United States, Philip Morris attempted to eliminate written contact between INBIFO and Philip Morris in the United States. Handwritten notes of Thomas Osdene, a senior Philip Morris research official who acted as a primary conduit for information from INBIFO, laid out the method for handling documents related to health and smoking, going as far as to direct that sensitive information be sent to his home where he would review and destroy it. His notes state as follows:

> (1) Ship all documents to Cologne . . .
> (2) Keep in Cologne.
> (3) OK to phone & telex (these will be destroyed).
> (4) Please make available file cabinet. Jim will put into shape by end of August or beginning of Sept.
> (5) We will monitor in person every 2-3 months.
> (6) If important letters have to be sent please send to home – I will act on them and destroy.

1000130803 (U.S. Ex. 34,424) (U.S. Ex. 35,160).

4416. The "Jim" referenced in the above document was James Charles, another Philip Morris scientist. In sworn testimony on May 14, 1997, in State of Minnesota v. Philip Morris, No. Cl-94-8565 (Dist. Ct. 2d Judicial Dist.), Charles confirmed that Philip Morris received, but did not retain, INBIFO research results in its files.

> Q. Philip Morris didn't retain its own study–retain its own copies of the INBIFO studies?
> A. Philip Morris U.S.A. would receive from INBIFO reports of work they conducted for us at our direction. We - - we gave them guidance with what - - respect to what kind of a study we wanted them to do. They conducted the studies. They would send us the results. We evaluated the results and return the document to INBIFO.

> Q. Wouldn't it have been easier to just simply keep the documents in a file cabinet in an office - - in a room in Richmond, Virginia, instead of sending them back to Cologne?
> A. Yes, it probably would have been easier.
> Q. Did you ever express that to anyone?
> A. I don't remember.

Deposition of James L. Charles, State of Minnesota v. Philip Morris, No. C1-94-8565, May 14, 1997, 48:1-60:1.

4417. In 1977, in a letter to Max Hausermann, a Philip Morris Research & Development Vice President in Switzerland, Robert Seligman, a Philip Morris Vice President of Research & Development in the United States, confirmed Philip Morris's company policy of prohibiting direct contact between INBIFO and Philip Morris in the United States. Seligman wrote:

> We have gone to great pains to eliminate any written contact with INBIFO and I would like to maintain that structure.
> . . .
> Therefore, I am advising Jerry Osmalov to continue sending samples to Neuchatel for transshipment to INBIFO. If this procedure is unacceptable to you, perhaps we should consider a "dummy" mailing address in Koln for the receipt of samples. The written analytical data will still have to be routed through FTR if we are to avoid direct contact with INBIFO and Philip Morris U.S.A.

2000512794-2795 (U.S. Ex. 20,295) (U.S. Ex. 20,296).

4418. In 1977, Robert Seligman, a Vice President of Research & Development, wrote to Max Hausermann, another Research & Development Vice President in Switzerland, describing a company process for the exchange of information between INBIFO, Philip Morris's research center in Cologne, Germany, and Philip Morris that would hide any direct contact between INBIFO and Philip Morris. Related to a letter that breached that policy, Seligman suggested to

Hausermann that he "retrieve [and presumably destroy] the March 24 letter Helmut Gaisch sent to Jerry, including all copies. My copy is returned herewith." 2000512794-2795 (U.S. Ex. 20,295) (U.S. Ex. 20,296).

4419. In a December 12, 1978 memorandum from J. M. Hartogh to A. E. Bellot regarding Philip Morris's involvement in ICOSI, Hartogh stated that, with respect to the "very important" SAWP Social Acceptibility Working Party, "the show is being run by Reynolds/Jacobs who, in my opinion, tend to steer a very dangerous course (see verbal explanation Social Acceptability 11 country study which has to be locked-up. Unusable, we have to hide)." 2501018326-27 (U.S. Ex. 21,505).

4420. In a February 12, 1981 memorandum from Robert B. Seligman, Philip Morris's Vice President of Research and Development to Philip Morris's President, another Vice President, the Assistant General Counsel and several high-level Philip Morris scientists, Seligman concludes that as a result of recent Surgeon Generals' reports, the tobacco industry needs to begin supporting and publishing studies that would "reverse the ground swell of public opinion which has emerged as a result of antismoking activity." Seligman suggests that the studies would be best conducted overseas away from the fray of American litigation. Specifically, Seligman stated:

> ". . . It is our opinion that Philip Morris (or the tobacco industry) take a more aggressive posture to counterattack the antismoking movement. We're suggesting funding studies (primarily outside the United States) with the intent to publish data which refutes specific assertions by the antismoking forces. . . ."

1003658637-8642 at 8638 (U.S. Ex. 86,998).

4421. Between May 1, 1984 and March 24, 1994, Philip Morris or its affiliates wholly-funded 42 nicotine-related research projects that were conducted outside the United States. Of these projects, 33 of them were conducted by INBIFO. 2048326340-6344 (U.S. Ex. 86,999).

4422. As recently as 1993, Philip Morris maintained a system whereby research documents are "sent to Richmond for a review and are then returned to INBIFO" with all "[s]upporting data and documents . . . kept at INBIFO." 2043725390-5391 (U.S. Ex. 20,449).

4423. In State of Minnesota v. Philip Morris, et al., Court Files No. C1-94-8565 (Dist. Ct. 2nd Judicial Dist.), Judge Fitzpatrick ruled that these unusual arrangements for handling scientific research at INBIFO had an effect in thwarting the discovery proceedings in that case. The judge concluded that Philip Morris's failure to search the files of Philip Morris International, Inc. and other subsidiaries (which included INBIFO) was "an egregious attempt to hide information relevant to this action . . . ." Judge Fitzpatrick further stated that Philip Morris's "attempts at hiding documents in the morass of interlocking related organizations shall not be tolerated by this court." Order Granting Plaintiffs' Motion to Compel Regarding Philip Morris International, State of Minnesota v. Philip Morris, No. C1-94-8565, filed March 25, 1997, at 9 and 16 (U.S. Ex. 22,238).

(ii) Suppression and Concealment of Information

4424. To prevent potentially damaging information from becoming publicly available, Philip Morris also suppressed and concealed information by (1) limiting the number of copies of memoranda that discussed the destruction or concealment of documents or information, thereby enhancing Defendants' ability to destroy any incriminating evidence of destruction plans, and (2)

instituting a company policy that encouraged employees not to create documents.

4425. Philip Morris limited the number and circulation of documents containing harmful information so they could be easily destroyed if necessary. In 1970, William Dunn, Philip Morris Principal Scientist, wrote to Thomas Osdene, Director of Research for Philip Morris, indicating that he had approved research by a subordinate named Carolyn Levy. Dunn wrote:

> I have given Carolyn approval to proceed with this study. If she is able to demonstrate, as she anticipates, no withdrawal effect of nicotine, we will want to pursue this avenue with some vigor. If, however, the results with nicotine are similar to those gotten with morphine and caffeine, **we will want to bury it. Accordingly, there are only two copies of this memo, the one attached and the original which I have**.

1003293588-3588 (U.S. Ex. 20,168) (emphasis added); 1003293589-3591 (U.S. Ex. 21,421).

4426. In 1991, Philip Morris further attempted to prevent the creation of any documentation that could be adverse to any position they took in litigation. Matthew Winokur, Philip Morris's Director of Regulatory Affairs, complained to Charles Wall, a Philip Morris Companies in-house attorney, that tobacco industry "people in the U.K. companies put too much on paper and then copy too many people." He suggested that Wall raise this issue at the International Committee of Counsel and "reiterate the need for prudent document creation and retention procedures among all the companies." Wall responded by confirming that he would raise the issue of document creation and retention at the next meeting, apparently in an attempt to convince the foreign corporations to alter their ways. 2023237575-7575 (U.S. Ex. 23,048); 2023237574-7574 (U.S. Ex. 20,385).

4427. As part of its efforts to prevent disclosure of potentially damaging documents,

Philip Morris repeatedly preached to its employees that they should refrain from creating documents unless "you really need to do so." 2076724992-4997 (U.S. Ex. 87,000). As part of this company-wide effort, Philip Morris instructed employees that "matters can often be handled more efficiently by telephone," 2082451924-1964 (U.S. Ex. 87,001); and to "get rid of rough drafts after the final version in prepared." 2082451796-1797 (U.S. Ex. 87,002). Philip Morris employees were also instructed to "avoid excess distribution of documents." 2082451799-1813 (U.S. Ex. 87,003).

4428. Philip Morris's concern was not related to document management, but was instead focused on preventing the creation of documents potentially harmful to Philip Morris in litigation. During a "Records/Information Management" seminar, Philip Morris advised that the purpose of such programs was to "reduce risk" in litigation. 2078265241-5278 (U.S. Ex. 87,004).

4429. In his "Legal and Practical Aspects of Records and Information Management," William A. Brandt, Jr., Philip Morris's Director of Worldwide Records Management and Senior Counsel, noted that a risk to companies with "uncontrolled information" is that "damaging information will be unearthed in litigation." 2077609734-9756 (U.S. Ex. 87,006).

4430. In its oft-published "A Guide to Effective Information Management," Philip Morris implored its employees to recognize that "any communication other than a private face-to-face conversation may create a record." 2082454076-4106 (U.S. Ex. 45,485); 2077609734-9756 (U.S. Ex. 87,006); 2082453958-3987 (U.S. Ex. 45,483); 2078264719-4741 (U.S. Ex. 87,007).

4431. Philip Morris repeatedly instructed its employees to not create documents that could damage Philip Morris if disclosed during litigation:

- In its June 20, 1995 manual entitled "Documents: Creation and Retention," Philip Morris instructed its employees to not create documents that would be damaging to the company if shown to a newspaper or competitor, or if later shown to the employee "while sitting in a witness chair in a court room in a lawsuit." 2082451799-1813 (U.S. Ex. 87,003).
- In its document entitled "Why You Should Care About the 'Documents' You Create," Philip Morris cautioned its employees that "almost every bit of information you record on the job can become evidence in a legal proceeding," and that if careless, an employee could "expose the company to needless liability." Philip Morris therefore instructed its employees to ask, before sending a document "would you be comfortable reading it in a courtroom from a witness chair." 2082451796-1797 (U.S. Ex. 87,002).
- During a records management presentation, Philip Morris again warned that every employee should assume that an adversary will obtain the documents they create, and that each employee should therefore ask before drafting a document whether that employee would send it to the company president or a competitor, and whether that employee would "feel comfortable reading it, in full, while sitting in a witness chair in a court room." 2082451814-1816 (U.S. Ex. 87,008); 2082451818-1841 (U.S. Ex. 87,009).

4432. Philip Morris instructed its employees that if documents had to be created, they should avoid discussing "potentially damaging statements of fact and exaggeration," "incriminating or adverse" opinions or conclusions, and legal matters or conclusions. 2082451799-1813 (U.S. Ex. 87,003). Employees were also instructed to avoid drafting documents containing "an evil motive or intent," "damaging statements of fact," and "negative or incriminating conclusions or opinions." 2082451796-1797 (U.S. Ex. 87,002).

4433. In a December 14, 1995 slide presentation entitled "Document Management: Document Retention, Document Creation," Philip Morris encouraged its employees to "think before writing - every document is fair game," and that "when you memorialize anything, you choose your words carefully in accordance with our suggestions." 2070691815-1829 (U.S. Ex. 87,010). Through presentations prepared for Philip Morris by attorneys at Shook, Hardy & Bacon, these instructions to avoid document creation had been preached to employees beginning in at least the early 1990s. 2046753055 (U.S. Ex.88,786); 2046753056-3069 (U.S. Ex.88,787); 2046753038-3053 (U.S. Ex. 88,788); 2046753054 (U.S. Ex. 88,789); 2046753005 (U.S. Ex. 88,790); 2075731554-1557 (U.S. Ex. 88,791).

4434. In its "Records Management Program," Philip Morris stated that before creating any document, "ask yourself if you really need to do so . . . . Do not create unnecessary records." "Think before writing because every document is fair game." 2074823275-3293 at 3292 (U.S. Ex. 87,011).

4435. On June 17, 2003, William Brandt testified that document retention policies for all Philip Morris/Altria components, including Philip Morris USA, were controlled by PMNC

personnel and signed off by Altria officials, including former CEO Geoffrey Bible. Deposition of William Brandt, U.S. v. Philip Morris, et al., June 17, 2003, 258:4-259:14.

4436. In connection with a discussion regarding record retention, handwritten notes produced by Philip Morris that mirror typewritten guidelines for retaining, generating and distributing documents caution employees: "Do not retain info that is inaccurate, contains opinions or could leave you or the company culpable." 2051711415-1416 (U.S. Ex. 88,337).

(d) The BAT Group: BATCo, Brown & Williamson and Their Affiliates

4437. BAT Industries was the parent company of Defendant Brown & Williamson in the United States and Defendant BATCo in the United Kingdom throughout the 1980s and most of the 1990s. BATCo is the former parent of Brown & Williamson and is now a sister corporation. BATUS is also a former parent company of Brown & Williamson. These companies along with numerous other operating companies owned by BAT Industries, including British American Tobacco Australia Services Limited ("BATAS"), operated together to prevent documents from being discovered in litigation in the United States and in federal regulatory proceedings, and from being disclosed to the American public.

4438. BATAS was formerly known as W.D. & H.O. Wills (Australia) Limited ("Wills"). "Prior to August 23, 1999, BATCo, through intermediate holding companies, held approximately 67% of the shares of W.D. & H.O. Wills Holdings Limited ("Wills"). The remaining shares were publicly traded." R &R # 102 at 25, citing to Affidavit of BATCo Assistant Company Secretary, Geoffrey C.W. Cunnington at ¶ 2. "In 1999, the British American Tobacco Group merged with Rothmans, another international cigarette manufacturer. . . . On or about August 23, 1999, . . .

Wills in a 'buy back' acquired the shares held ultimately by BATCo (67%) and Rothmans Holdings Limited then acquired the 33% of the Wills shares that had been publicly traded." Id at 26. "A subsidiary of Wills, WD & HO Wills (Australia) Limited was renamed British American Tobacco (Australia) Services Limited ("BATAS")." Id. "In the spring of 2001, a new intermediate holding company was created called British American Tobacco (Australasia Holdings) Pty Limited ("Australasia Holdings"), which acquired all outstanding shares of British American Tobacco Australasia Limited and thus became the Australasian resident holding company of BATAS. Australasia Holdings is owned 68.06% by BAT Holdings (Australia) BV (formerly known as Rothmans Australia BV) and 31.94% by BATCo through another holding company." Id.

(i) BATCo and Brown & Williamson Were Motivated to Implement Suppressive Document Management Policies by Their Concern Over Production of Documents in Smoking and Health Litigation in the United States

4439. As the result of BATCo's and Brown & Williamson's knowledge of the danger facing their industry from company documents, these Defendants pursued tactics to prevent the disclosure of damaging information. As early as July 21, 1970, in a letter to DeBaun Bryant, Brown & Williamson General Counsel, from outside counsel David R. Hardy of Shook, Hardy, Ottman, Mitchell & Bacon, Hardy discussed "our opinion with respect to health litigation risk exposure of British-American Tobacco Company Limited [(BATCo)] and Brown & Williamson Tobacco Corporation (B&W)." In that letter, Hardy wrote that "a plaintiff would be greatly benefitted by evidence which tended to establish actual knowledge on the part of the defendant that smoking is generally dangerous to health, that certain ingredients are dangerous and should

removed, or that smoking causes a particular disease." Such evidence would not only entitle a plaintiff to compensatory damages, wrote Hardy, "but could well be considered as evidence of willfulness or recklessness sufficient to support a claim for punitive damages," and would have a "psychological effect . . . devastating to the defendant." Ultimately, Hardy concluded that "the effect of testimony or documentary evidence that cigarettes cause cancer or other diseases, coming from a cigarette company's own people **(or those of its parent corporation and research collaborator)** would likely be fatal to the defense." At the time of this document BATCo was Brown & Williamson's parent corporation. 681805313-5319 (U.S. Ex. 30,935) (emphasis added). See also *Journal of the American Medical Association*, "Lawyer Control of Internal Scientific Research to Protect Against Products Liability Lawsuits, Vol. 274, No. 3 July 19, 1995, 219-258, 700588527-8567 (U.S. Ex. 88,359).

4440. BAT Group documents demonstrate that the document management policies throughout the BAT Group were motivated, in part, by this concern that BATCo and other BAT Group research might be attributed to Brown & Williamson in smoking and health litigation in the United States. As early as 1970, attorneys at Shook, Hardy & Bacon wrote a seven page letter to Brown & Williamson's general counsel expressing concern that BAT Group research documents would be subject to discovery under the 1970 amendments to Rule 26, and that these documents "would be damaging to defendant's position in a smoking and health case." 301097079-7085 (U.S. Ex. 46,580).

4441. From the mid-1980s onwards, Brown & Williamson became increasingly concerned that BAT Group research could be discovered in American litigation in which Brown

& Williamson might be a defendant, and that, once produced, the material in such research documents could be attributed to Brown & Williamson. 685092872-2875 (U.S. Ex. 88,339); Deposition of J. Kendrick Wells, United States v. Philip Morris, July 1, 2002, 69:3-71:1, 77:22-78:2, 78:9-17, 79:9-14, 80:1-22, 83:10-18 (Confidential), 680800858-0865 (U.S. Ex. 30,917).

4442. As a result of this concern, in February 1985, BAT Industries directed BATUS general counsel David Schechter to investigate the "attribution issue." Late that month, Brown & Williamson and BATCo's outside counsel at Simpson, Thatcher & Bartlett explored at length the legal bases by which BAT Group research could be discovered in litigation in the United States against Brown & Williamson, and by which knowledge of such research could be attributed to Brown & Williamson. 680582454-2460 (U.S. Ex. 54,049); 301060827-0855 (U.S. Ex. 28,152); Deposition of David Schechter, United States v. Philip Morris, June 18, 2002, 81:16-17, 82:3-84:12, 85:6-9, 86:15-87:1, 90:25-91:19.

4443. Later that year, Schechter also asked the New York law firm Paul Weiss to "consider hypothetically whether documents in the possession of B.A.T. Industries or its United Kingdom subsidiary, BATCo, could be discovered by a plaintiff in a lawsuit in the United States against Brown & Williamson." 521015579-5582 (U.S. Ex. 52,686); 521015578 (U.S. Ex.52,685); Deposition of David Schechter, United States v. Philip Morris, June 18, 2002, 64:1-66:22, 67:3-6, 67:20-71:12, 72:11-23, 73:18-74:5, 76:13-77:5, 80:8-16.

4444. In a February 26, 1986 document entitled "Litigation Against BAT Companies: Research," BATUS General Counsel David Schechter confirmed his understanding that one of

the purposes behind BATCo's document management policies was the concern that documents would end up in the hands of a plaintiff in the United States. 109870594-0596 (U.S. Ex. 34,873).

4445. Jeffrey Wigand, Brown & Williamson's Vice President of Research and Development from 1989 to 1993, confirmed that avoidance of production of damaging information in litigation remained a concern in the 1990s. Dr. Wigand testified as follows:

> Q. Doctor, were you aware of the views of the legal department as to why they wanted to vet documents before th[ey] went into your files?
> . . .
> A. Yes.
> Q. What was the concern?
> A. The concern was having documents around that would be discovered during litigation that would be contrary to the smoking and health literature that the company wanted to promulgate outside versus what was inside and they were directly opposite.

Trial Testimony of Jeffrey Wigand, Falise v. American Tobacco Co., et al., December 11, 2000, 1409:20-1413:18.

(ii) Document Destruction

4446. Defendants BATCo and Brown & Williamson established and implemented policies to destroy documents to prevent the disclosure of information that they believed would likely be sought in smoking and health litigation and in federal regulatory proceedings, and would provide information to the public on the adverse impact of smoking on health.

4447. On October 9, 1964, Charles Ellis, BATCo's Director of Research, wrote to Addison Yeaman, General Counsel at Brown & Williamson, for advice on what files he could

keep and, presumably, what files he needed to destroy. "I have made an attempt to write out my version of our discussion yesterday. I would be most grateful if you would consider this and let me know whether this is accurate. In view of the confidential nature of these matters, I have kept no manuscript notes myself; and no copies are being made of this note. I will be grateful if you would let me know what records it would be permissible to keep in my files." 680227245-7245 (U.S. Ex. 86,880).

4448. In a memorandum summarizing his January 18, 1972 meeting with Dr. Gio Gori regarding experiments on smoking and health, Wally Hughes, Brown & Williamson's R&D Director, noted that "Gori appreciated our comments, but thought that we (company scientists) wouldn't be half so worried if it was someone else doing the experiment." Hughes also noted that "if [Gori] is able to accommodate our criticisms, the experiment is not likely to show any significant differences, since most of our criticisms will tend to dilute the experiment, whereas, the present protocol exaggerates it." At the top of the memo was typed "Note to be destroyed after reading." 680231776-1777 (U.S. Ex. 86,471).

4449. On May 15, 1986, at a meeting at its research facility in Millbank, England, BATCo legal personnel instructed the leadership of the Group Research & Development Centre ("GR&DC") to dispose of documents under the rubric of "spring cleaning" before the GR&DC files were copied for possible production in health and smoking litigation in the United States.

> [N.B. Cannar of the BAT legal department] said that Mr. [Patrick] Sheehy [Chairman of BAT Industries] did not wish it to be seen that BATCO had instituted a destruction policy only when the possibility of their being involved in litigation became real and after they had instructed solicitors. Thus, it was decided that no destruction policy should be adopted, rather that R&DC [Research

> & Development Centre] would tidy up the loose papers held by individuals, which "spring clean" could involve the destruction of documents such as previous drafts.
> . . .
> It was agreed that such a "spring clean" of all of the loose papers held outside the official filing systems is essential to enable L.W.&K.'s [BATCo's lawyers Lovell, White & King] "task force" to carry out stages I and III (the listing and reviewing of the files).

107443680-3689 (U.S. Ex. 34,839).

4450. In a 1990 memorandum to Jeffrey Wigand, Brown & Williamson's then Vice President of Research and Development, from Kendrick Wells, a Brown & Williamson product liability litigation lawyer, Mr. Wells wrote, "Tommy asked me to collect this memo when read, so I would appreciate it if you returned it to me at your convenience. It should not be distributed. . . ." When asked about this comment Dr. Wigand indicated that it was an instruction from Brown & Williamson CEO Tommy Sandefur and that:

> A. Well, this is one of the usual ways of circulating documents, retrieving them and sequestering them and/or destroying them, particularly if the attachment had any smoking and health controversial issues in it. It was one way of managing documents.
>
> Q. Dr. Wigand, were you told, in fact, that documents were destroyed?
>
> A. Yes.

Trial Testimony of Jeffrey Wigand, Falise v. American Tobacco Co., et al., December 11, 2000, 1122:22-1123:17.

4451. In January, 1990, at a meeting of representatives from various BAT Group components, including Brown & Williamson and BATCo, the participants were encouraged to

establish document retention policies that would purge company files of any documents not currently subject to a document request in ongoing litigation because of the "[d]ifficulties faced by author company in explaining documents in a foreign court. . . ." Each company was expected to "[t]ighten the document retention policy . . . to the extent permitted by current litigation/discovery requests." 681511202-1203 (U.S. Ex. 21,018); 202347085-7086 (U.S. Ex. 20,391) (U.S. Ex. 22,032). See also Deposition of Sharon Blackie (Boyse), United States v. Philip Morris, April 29, 2002, 245:24-246:13 (testifying that B&W consultants were not subject to hold orders) and 252:7-21 (drafted document requesting destruction of all prior copies of Smoking Issues claims and responses file).

4452. Lawrence Savell, a Chadbourne & Parke attorney who represents BATCo, was offered as a fact witness for the defense and a corporate designee of the now-defunct American Tobacco Company, which merged with Brown & Williamson in 1994, in the Minnesota v. Philip Morris case. Savell admitted that, immediately after the merger with Brown & Williamson, some American Tobacco Company documents which Brown & Williamson lawyers felt were not pertinent to the ongoing litigation were destroyed, despite a court order that no American Tobacco Company documents of any kind could be destroyed. Deposition of Lawrence Savell April 14, 1997, Minnesota v. Philip Morris Inc., 377.

4453. On June 29, 1992, Dr. Sharon Boyse, a BATCo scientist, sent a facsimile to Jorge Basso Dastugue, a manager at BATCo's Argentine company Nobleza-Piccardo. The facsimile included a price quote from Healthy Buildings International ("HBI") to prepare information and materials for a public relations program on Indoor Air Quality in Buenos Aires, which was

intended to encourage continued smoking in office buildings. In the facsimile cover sheet, Boyse instructed Dastugue to keep HBI's involvement in the project quiet:

> Please also note, more importantly, that this an extremely sensitive document! HBI are currently under a considerable amount of investigation in the US about their connections with the industry. All references to companies in the quote has [sic] therefore been removed. **Please do not copy or circulate this in any way and please destroy this fax cover sheet after reading!** I know this sounds a little like James Bond, but this is an extremely serious issue for HBI.

304058260-8263 at 8260 (emphasis in original) (U.S. Ex. 85,632).

4454. In the summer of 1992 Simon V. Potter, an attorney with the law firm Ogilvy Renault in Montreal, which represented BAT's Canadian affiliate, Imperial Tobacco Limited, sent a letter to Stuart Chalfen, Solicitor of BAT Industries [the equivalent of General Counsel]; David Schechter, General Counsel of BATUS, parent company of Brown & Williamson; and John Meltzer a lawyer at BAT's solicitors Lovell, White, Durrant. The letter indicates that unless he received instructions to the contrary, Imperial Tobacco Limited, planned to destroy 60 documents including scientific studies. The letter includes a list of documents to be destroyed, including one document with the notation "not destroyed because never received by Imperial." Listing a document that the company never had received on a list of documents to be destroyed indicates that Imperial had been instructed to destroy specific documents. 203313423-3425 (U.S. Ex. 88,340).

4455. In an August 7, 1992 letter again to Chalfen, Schechter, and Meltzer, Simmon Potter confirmed that "the documents mentioned in my letter of July 30 have indeed been destroyed." 202313429-3429 (U.S. Ex. 20,378).

4456. David Schechter, BATUS General Counsel, believed that Imperial Tobacco Limited (Brown & Williamson's sister company in Canada) destroyed scientific documents in part to protect Brown & Williamson in litigation. 202313423-3425 (U.S. Ex. 20,377); 202313429-3429 (U.S. Ex. 20,378).

4457. Following the summer 1992 purge of scientific records at Imperial Tobacco Limited, Graham Read, Head of Research and Development at BATCo reported to Peter Clarke, BATCo's solicitor on "Imperial's access to R&D reports." Read stated that "[w]hether a requested report is faxed or couriered [from BATCo to Imperial], we attach an accompanying form seeking confirmation that it has been destroyed after use." 600232153-2154 (U.S. Ex. 53,322); Deposition of Graham Read, United States v. Philip Morris, June 13, 2002, 59:14-67:11.

4458. A March 4, 1996 memorandum from Paul Adams to Mr. B.C. Barrow denominated as "SECRET" attaches the draft Wills financials for 1995. Mr. Adams directs Mr. Barrows to "[p]lease note that the documents are secret and should not be copied or distributed. Please would you return them to Jean for shredding." 800045784-5784 (U.S. Ex. 31,619).

4459. On September 4, 1998, British-American Tobacco (Holdings) Limited held a management board meeting. The extract from that meeting was labeled "CONFIDENTIAL - PLEASE DESTROY BY 22ND OCTOBER 1998," and contained reference to scientific position papers "noted by the Board," including papers on "Smoking and Lung Cancer," "Environmental Tobacco Smoke," "Smoking and Addiction," "British American Tobacco Research and the 'Safer Cigarette,'" "Cigarette Tobacco Ingredients," "Smoking and Coronary Heart Disease," and

"Smoking and Respiratory Disease." 321144744-4746 (U.S. Ex. 88,342); see also 321215567-5568 (U.S. Ex. 88,343).

(iii) Early Attempts by BATCo and Brown & Williamson to Suppress and Conceal Information

4460. Beginning in at least 1979, Brown & Williamson and BATCo began their efforts to conceal information. One of the first maneuvers to conceal information relied on attempts to improperly cloak scientific research in the attorney client privilege. See U.S. FPFF § IV.H.(3)(b), infra.

4461. BATCO and Brown & Williamson, with the assistance of other BAT Group companies, also concealed documents, including scientific research documents, by secreting documents outside the United States at foreign affiliates to prevent the disclosure of the documents which they believed would likely be sought in the United States in litigation and in federal regulatory proceedings, and would provide information to the public on the adverse impact of smoking on health. The affiliates were also instructed to destroy or "spring clean" the documents to prevent the disclosure of the documents in the United States.

4462. At a BAT research conference in Montebello, Canada from August 30 - September 3, 1982, the conference members discussed Human Smoking Behavior, Smoke Quality/Activity, Environmental (Ambient/Sidestream) Smoke, Tobacco Breeding and Processing, and Flavour Research. These discussions helped form the basis for determining BAT's 3-year R&D program for 1983-1985. In their discussion of Environmental Smoke, the group decided that "we must get hard data both to help counter anti-smoking attacks, and to support the design of future products." The group further decided to "keep within BAT" the

following:

i) animal results on sidestream activity

ii) thoughts on the biological activity of sidestream

iii) research findings on the consumer annoyance aspects of environmental smoke - since these have potential commercial value

401089049-9070 (U.S. Ex. 88,341).

4463. In a January 17, 1985 memorandum entitled, "Document Retention," Brown & Williamson Associate General Counsel J. Kendrick Wells directed members of the Research & Development Center to collect certain documents he had identified on an attached list relating to the behavioral and biological studies area for shipment to BATCo once all such documents had been gathered. Wells directed Earl Kohnhorst, Vice President of Research, Development and Engineering, to tell the research personnel that the removal of the documents "was part of an effort to remove deadwood from the files and that neither he nor anyone else in the department should make notes, memos, or lists." Wells specifically explained to Kohnhorst that "the B series are 'Janus' series studies [a secret program of biological research on the effects of smoking, which showed tumor growth in animals] and should also be considered deadwood." 680530888-0890 at 0889 (U.S. Ex. 21,772) (U.S. Ex. 76,193); 100436696-6703 at 6699 (U.S. Ex. 67,692).

4464. On February 17, 1986, Wells again authored a memorandum related to the concealment of BATCo scientific information, this time to Ernest Pepples, the Brown & Williamson General Counsel. The memorandum established procedures to limit records relating to health and science research conducted by Brown & Williamson's sister companies from

entering the country despite the fact that the BAT Group operating companies, including Defendants Brown & Williamson and BATCo, were part of a cost-sharing agreement that funded the research. The established policy limited the documentation sent to the United States to "concise reports, estimated to be about one-half page in length, twice each year. . . . [T]he brevity of the reports will reduce the potential for receipt by B&W of information useful to a plaintiff. . . . " This memorandum indicated that the Brown & Williamson lawyers did a detailed analysis of each of the projects and ultimately either approved or disapproved of receipt of information related to each project. Whenever the lawyers feared that the project might result in information that may be "helpful to plaintiffs" they either dissuaded or precluded Research, Development & Engineering from receiving information related to that project. 680582253-2257 at 2253 (U.S. Ex. 21,004).

4465. At the same time as Wells was chronicling Brown & Williamson's efforts to limit sensitive BAT research materials from coming to the United States, Anne Johnson and Nicholas Cannar were reporting the same sensitive issues to Eric Bruell, [title]. In a February 26, 1986 memorandum to Bruell, Johnson and Cannar noted Brown & Williamson urged BATCo to adopt its position that "decisions to undertake research should be managerial decisions not scientific decisions;" that "smoking and health research should not be undertaken" (with and exception that is not written out); and that "information/document management distribution should be kept to a minimum to avoid documents becoming available to [a] plaintiff in litigation." 109870594-0596 (U.S. Ex. 34,873); see also 682003345-3360 (U.S. Ex. 88,344).

4466. On May 15, 1986, at a meeting at its research facility in Millbank, England,

BATCo legal personnel instructed the leadership of the GR&DC to dispose of documents under the rubric of "spring clean[ing]" before the GR&DC files were copied for possible production in health and smoking litigation in the United States. 107443680-3689 at 3682 (U.S. Ex. 34,839).

(iv) The BAT Group Implements a Worldwide "Document Management Programme"

4467. Brown & Williamson with the assistance of BATCo and the BAT Group began an elaborate plan of document management and control to prevent adverse scientific documents from coming to this country or to otherwise control the documents so as to prevent discovery of the documents in ongoing litigation. First, the companies used the law firm of Lovell, White and King and Kay Comer (later Kinnard), a long-time BATCo addiction scientist, to catalogue BAT Group smoking and health documents located at BATCo's Southampton, England research and development facility. Then, beginning in the late 1980s, BAT Group added a series of document management policies in response to the concerns that BAT Group research might be used in litigation against BAT or Brown & Williamson in the United States. 202347085-7086 (U.S. Ex. 20,391) (U.S. Ex. 22,032); Deposition of David Schechter, United States v. Philip Morris, August 13, 2002, 174-175; Deposition of David Schechter, United States v. Philip Morris, August 14, 2002, 66, 89-91; 100190907-0909 (U.S. Ex. 34,623); Deposition of Kay Kinnard, United States v. Philip Morris, May 31, 2002, 81:14-82:11, 86:3-89:16.

4468. In the early 1990s, David Schechter was directed by Stuart Chalfen, the General Counsel of BAT Industries, the then-ultimate parent company of Brown & Williamson and BATCo, to devise a BATCo document management program and train BATCo operating company "record managers" to implement the policy. During his deposition in this action,

Schechter admitted that, pursuant to the policy, numerous categories of documents, including documents related to research and development, were discarded by BATCo. When asked about the benefits of such destruction, as well as the "mental copy rule" which was designed to limit the generation of documents as much as possible, Schechter revealed the true intent of the policy:

> Q. And one of the benefits of limiting such retention was that documents would not fall into the hands of plaintiffs or the public or the newspapers, right?
>
> MR. KOTELLY: Objection.
>
> MR. NYHAN: Objection.
>
> A. That was the -- that was the purpose of both the mental copy rule and the program as a whole.

Deposition of David Schechter, United States v. Philip Morris, August 13, 2002, 103:20-104:18, 183-185, 209-219; Deposition of David Schechter, United States v. Philip Morris, August 14, 2002, 61:24-62:4, 62:17-24, 64:21-66:24, 76:2-15, 139:23-143:20, 150:24-151:22; 402184157-4192 (U.S. Ex. 67, 858); 202313146-3416 (U.S. Ex. 66,585).

4469. In January 1990, representatives from various BAT Group components, including Brown & Williamson and BATCo, held a meeting in which the policy against widespread distribution of scientific records was reiterated. Issues discussed at the meeting included:

> 1. Identification of documents currently sent offshore by Group companies with research centers.
> . . .
> 2. Identification of each company's 'research mission.' Should this be defined by reference to its current research programme? How can this be defined to include research material from overseas which is useful and uncontroversial whilst excluding material which is irrelevant to the receiving company's research activity and may have health sensitivity.

The need for limited distribution was driven by document discovery and the "[d]ifficulties faced by the author company in explaining documents in a foreign court . . . ." The BAT Group companies' cost-sharing agreements were also to be re-written to "recognize such company's claim to ownership/confidentiality of its research reports and which provides for return of **all copies of these documents upon demand**" (emphasis added). 681511202-1203 (U.S. Ex. 21,018); 202347085-7086 (U.S. Ex. 20,391) (U.S. Ex. 22,032); Trial testimony of Jeffrey Wigand, Falise v. American Tobacco Co., et al., December 11, 2000, 1131:3-1133:12; Deposition of J. Kendrick Wells, Estate of Butler v. Philip Morris, et al., July 10, 1996, 503:12-506:12.

4470. Beginning in the 1980s Kay Kinnard (previously Kay Comer) became involved in the design and management of BATCo's worldwide document management programs, which was designed and continues to be used as a method for destroying documents in countries in which BAT is operating before the documents can be discovered in both domestic and international litigation. 325351561-1562 (U.S. Ex. 29,245).

4471. Kay Kinnard received input from individuals at Brown & Williamson, including individuals in Brown & Williamson's legal department, who assisted her in developing BATCo's document management program. Deposition of Alison Kinnard, United States v. Philip Morris, et al., May 31, 2002, 90:20-91:1.

(v) The Mental Copy Rule is Implemented as Part of the BAT Group Document Management Programme to Prevent Creation of Documents

4472. As part of its efforts to conceal information and reduce its litigation exposure,

BATCo sought to reduce the amount of documents its employees generated. As described in its "Records Management: Creation Retention," BATCo repeatedly preached to its employees to use the "mental copy" rule. The "mental copy" rule asks employees to "imagine that the memo, note or letter you are about to write will be seen by the person that you would least like to read it." The employee is then to "send a 'mental copy' of your document to a newspaper, one of your competitors, a government agency, or potential plaintiff. Now: would you still write the memo? If so - would you still write it in the same way?" 325274431-4448 at 4434 (U.S. Ex. 87,012). That same document asked employees to "Think *before* you write," and to question "does it *really* need to be in writing to do the job?" 325274431-4448 at 4432 (emphasis in original) (U.S. Ex. 87,012); see also 321667716-7716 (U.S. Ex. 88,345). "Memos and notes can be barriers to effective communications and often need additional verbal explanation. Talking to someone face-to-face or on the phone is often the better way." 325274431-4448 at 4433 (U.S. Ex. 87,012). "Remember that verbal communication is best if you are dealing with a sensitive subject." Of course "this doesn't mean you should never write anything down ... it just means that in some cases writing is not advisable." 325274431-4448 at 4435 (U.S. Ex. 87,012).

4473. In a presentation to "No.1/Senior Executives," BATCo cautioned that employees should "think before you write," and that "oral communication is best if the subject is sensitive." Employees were also cautioned: "document creation - write less, talk more," because such a practice "reduce[s] potential for legal, pr problems." BATCo noted that there were "legal benefits" to such an approach, as an "opposing party in lawsuit obtains company documents through 'discovery' process," and the creation of documents could lead to "documents taken out

of context," "potential adverse judgment," and "potential adverse precedent," and could also result in "damage to company reputation," and "governmental investigations." 402156731-6784 (U.S. Ex. 87,013); see also, 682513781-3782 (U.S. Ex. 88,346), 682511731-1732 (U.S. Ex. 88,347).

4474. In response to the question whether BATCO wants its employees to "cut out all memos?" BATCo replied "of course not," but to "be careful." 325274392-4422 at 4393 (U.S. Ex. 87,014). In extolling its employees to "write less, talk more," BATCo stated that a benefit from such an approach was to "reduce potential for legal, pr problems." 325274392-4422 at 4406 (U.S. Ex. 87,014). BATCo noted that the "types of cases where documents can be a problem" include product liability cases and governmental investigations." 325274392-4422 at 4412 (U.S. Ex. 87,014).

4475. In a 1990 Brown & Williamson records management video, Tommy Sandefur states that before writing a memo or letter, an employee should ask "is it necessary," "where will that piece of paper end up? Would you feel comfortable if a competitor, the government or the news media saw a copy of your document?" and "does it really need to be in writing? A phone call or face-to-face meting is usually more effective." "Verbal communication is also the best way to share sensitive or confidential information." 632150212-0222 at 0214-0215 (U.S. Ex. 87,019).

4476. In relation to the training sessions that were mandated for employees by Mr. Sandefur in 1990, Jeffrey Wigand, Vice President of Research and Development at Brown & Williamson, stated that "[t]he dominant message [at the training sessions] was don't writ[e]

anything that would become contentious or controversial as it relates to smoking and health in the public domain or through litigation." Trial Testimony of Jeffrey Wigand, Falise v. American Tobacco Co., et al., December 11, 2000, 1121:16-1122:21, 1124:14-1126:2; 681000002 (U.S. Ex. 88,651).

4477. In BATCo's September 1991 R&D Records Management Process document, which was marked as "privileged and confidential attorney work product," BATCo again expressed that its employees should "Think before you write. . . . If you must write, consider whether you would feel comfortable if a competitor, the government, or the news media saw a copy of your document. . . . If you don't create a document, you don't have to deal with it later." 196010284-0299 at 0285 (U.S. Ex. 87,018).

4478. In January 1994, W.L. Coffer, an attorney at Shook, Hardy & Bacon prepared a presentation including overheads for BATCo personnel on document management. The final overhead which concluded the presentation reminded BATCo personnel to avoid creating sensitive documents and confirmed that the document management programme's true purpose was to destroy sensitive documents before they could become subject to production in litigation: "REMEMBER: Embarrassing documents have a tendency of remaining forever. **No matter how good the retention system is** there's always the possibility, even probability, that at least one copy will survive. So let's make sure that they don't get produced in the first place." 503119213-9241 at 9241 (U.S. Ex. 29,647) (emphasis added). In the course of the presentation, Mr. Coffer had prepared text that reinforced this position:

> Having to explain this sort of document [including excerpts of company documents relied upon by Plaintiffs in the Cipillone case]

> in court can be not only costly and time-consuming but may also damage the Company's reputation. But it is not only legal reasons which are important. If we can all write less and ensure that what we do write is clear and concise we should all benefit.

503119213-9241 at 9215 (U.S. Ex. 29,647).

4479. In its November 27, 1995 Records Management Programme Staff Handbook, BATCo wrote that benefits of the records program included "reductions in the quantity of long-term records and improvement in the quality of those produced will mean there is a lower risk that records, which may have to be produced during a court case or which may fall into the hands of the press, will cause problems for the Company." 325110343-0363 at 0347 (U.S. Ex. 87,017). This document again asked employees to "Think before you write," "ask yourself if it really needs to be in writing to do the job," and "remember the mental copy rule. Always ask yourself if you would be happy to see your document copied to the news media, a competitor, the Government, or an opponent in a court case." 325110343-0363 at 0349 (U.S. Ex. 87,017).

(vi) The BAT Group Document Management Programme is Employed to Destroy Documents in Australia

4480. In March 1990, a memorandum written by Andrew Foyle, a solicitor with the United Kingdom firm of Lovell White Durrant, acting for BATCo, was transmitted to counsel for W.D. & H.O. Wills (Australia) Limited ("Wills"), now known as BATAS, a subsidiary of both BAT plc and BATCo. McCabe v. British American Tobacco Australia (Services) Ltd., [2002] VSC 73 (Supr. Ct. of Victoria at Melbourne Mar. 22, 2002) (Austl.), reversed on appeal; subsequent history omitted ("McCabe"). ARU517 1794-1928 at ¶ 22 (U.S. Ex. 75,779).

4481. The Foyle Memorandum discussed the review of Wills' Document Retention

Policy with respect to ongoing product liability litigation. The Foyle Memorandum was transmitted to Clayton Utz for answers to the questions raised in the Memorandum regarding the use and implementation of the Document Retention Policy. ARU517 1794-1928 at ¶ 22 (U.S. Ex. 75,779).

4482. The Foyle Memorandum provided that:

> Wills current document retention policy was introduced on the 30th December 1985 at a time when the tobacco companies in Australia anticipated the possibility of product liability litigation, although no case had actually been brought against any company. Clayton Utz [Wills' counsel] had previously been instructed to take steps to prepare the Industry, and Wills in particular, for litigation. One of their first actions was to review the document retention policy of the Company, hence the new policy.

ARU517 1794-1928 at ¶ 23 (U.S. Ex. 75,779). Foyle wrote that what was required from Clayton Utz was "a strategy for handling the documents issue in litigation." ARU517 1794-1928 at ¶ 23 (U.S. Ex. 75,779).

4483. As Foyle noted in the Memorandum, this "new" document retention policy had already been implemented:

> Details of how the policy was implemented by the Research Department are given in the note of AWF's meeting (ie Foyle's) with Graham McGregor and Tas Wilson on 17 November 1989. The note also describes the type of research undertaken by Wills, the documents which they have received from BATCO and the information which their employees have about the BATCO research. A copy of that note is attached.

ARU517 1794-1928 at ¶ 25 (U.S. Ex. 75,779).

4484. Foyle also expressed BATCo's concern that "because Wills had had access to sensitive BATCO research documents, through a computer link to England, that might lead to the

discovery of the BATCO documents in any Australia proceedings." ARU517 1794-1928 at ¶ 26 (U.S. Ex. 75,779).

4485. In his memorandum, Foyle expressed numerous problems with Wills's "new" document retention policy:

(a) The wording of policy (coupled with timing of its introduction) might lead to the inference that the real purpose of the policy was to destroy sensitive smoking and health documents.

(b) Aspects of the implementation of the policy might support that inference, for example the immediate destruction of the unpublished enclosures to the SRG (Wills' Scientific Research Group) letters.

(c) The retention of a set of the BATCO research reports means that a plaintiff will have access to much sensitive BATCO research. The information in the reports is enough to prompt searching questions about the underlying research policy and also questions about what follow up action was taken by BATCO in the light of the research results.

(d) The retention of the BATCO reports might encourage a plaintiff to seek discovery of BATCO's documents, either by asserting that Wills has control over documents in the possession of BATCO, or by using the Hague Convention. The research reports might enable a plaintiff to frame a Hague Convention request for documents with the requisite degree of specificity and/or to identify the BATCO employee from whom oral testimony is required.

(e) Wills access to the BATCO computer gives them the de facto right to details of results of BATCO's research. The summaries of the reports which are on the database are sufficiently informative to be of real interest to a plaintiff's lawyer.

(f) The knowledge that Wills' senior scientists have of BATCO research could rule them out as a witness at any trial in Australia.

ARU517 1794-1928 at ¶ 27 (U.S. Ex. 75,779).

4486. Foyle also made the following observations:

1. It is understood that the destruction of documents now or in the past by Wills contravenes no law or rule in Australia and that, in that sense, Wills can do what it likes with its documents. Presumably, if a court disapproved strongly of the destruction of the documents, then it might draw adverse inferences from that fact.

2. It should be assumed that Wills' documents (what is in them and what has happened to them) will be a matter of great interest to a plaintiff's lawyer in a product liability action. How Wills responds to questions about its documents will require careful thought, especially because of the implications which the answers may have for the BAT group as a whole. It would be sensible, therefore, to assess the nature and extent of any problems which the current document retention policy may pose and to take appropriate remedial action now, rather than wait for the litigation to begin. Generally, what is needed is a strategy for handling the documents issue in litigation.

ARU517 1794-1928 at ¶ 28 (U.S. Ex. 75,779).

4487. Foyle then asked Clayton Utz:

1. To what extent is there a risk that the destruction of documents in accordance with the 1985 retention policy will cause the Court to apply the adverse inference principle, taking into account:

(a) the wording of the policy,

(b) the circumstances prevailing at the time it was introduced (e.g. whether product liability actions had been threatened against Wills or the industry generally),

(c) the extent to which Wills will need to claim privilege for documents produced in 1985 and later, on the grounds that the documents were produced in contemplation of anticipated proceedings.

ARU517 1794-1928 at ¶ 29 (U.S. Ex. 75,779).

4488. Foyle also sought advise as to whether Clayton Utz's advice as to "whether certain types of documents should be retained or destroyed" might also be discovered. ARU517 1794-1928 at ¶¶ 20, 201 (U.S. Ex. 75,779).

4489. Foyle also was concerned about BATCo research destroyed by Wills: "Might BATCO's documents be more at risk? For example might the Court order Wills to retrieve from BATCO copies of the BATCO documents destroyed by Wills?" ARU517 1794-1928 at ¶ 31 (U.S. Ex. 75,779).

4490. Foyle then asked:

3. Should changes be made to the way in which the policy is currently being applied, for example, in relation to the SRG documents?

4. What should be done about the copies of the BATCO research reports held by Wills? In this connection:

(a) Would the continued retention of these reports compromise Wills position via a vis the destruction of its other documents?
This question should be answered on the basis of the information given in this memorandum on the content of the reports. If more information is

needed it can be supplied by LWD. It would be undesirable for Clayton UTZ to seek information from Wills about the reports.

(b) Is there any reason why Wills should not now destroy its copies of most of the reports, if the motive for doing so were that the information in the reports is not relevant to Wills' Current "research mission"?

(c) Would the termination, or the restriction, of Wills' access to the reports database on the BATCO computer cause any problems?

(d) Does the Caudwell threat affect the position?

5. Would implementation of the proposed new retention policy hinder or help Will's position on the documents issue?

ARU517 1794-1928 at ¶ 32 (U.S. Ex. 75,779).

4491. Foyle also wrote in the Memorandum that:

> For purposes of this exercise it can be assumed that, over the years, Wills has received copies of most of the sensitive documents generated by BATCO **but that most of these** (with the exception of the research reports) **will have been destroyed as a result of the new retention policy**. It should also be assumed that a number of Wills employees have a detailed knowledge of the subjects to which many of the sensitive documents referred.

ARU517 1794-1928 at ¶ 98 (U.S. Ex. 75,779) (emphasis added).

4492. Foyle also expressed that "The terms of the retention policy and the manner in which it has been implemented might cause problems for Wills in a product liability action."

ARU517 1794-1928 at ¶ 99 (U.S. Ex. 75,779).

4493. In a March 29, 1990 letter responding to the questions raised in the Foyle

Memorandum, Clayton Utz attorney Brian Wilson wrote to F.T. Gulson, Legal Counsel and secretary for Wills, that "[t]he destruction [of documents] has occurred, instead, in a situation where litigation has been, and still is, contemplated. But it can be said that [the document destruction] has not occurred only because of that fact and in order adversely to affect the litigation." ARU517 1794-1928 at ¶ 38 (U.S. Ex. 75,779). In fact, because of the motivations for the document retention policy – cost efficiency, litigation support, and sabotage prevention – as described in the document retention policy handbook, these motivations "are clear evidence of an intention which is the complete opposite of an intention 'to do something likely to interfere with the course of justice.' This positive intention cancels out the negative impression created by destruction per se." ARU517 1794-1928 at ¶ 38 (U.S. Ex. 75,779).

4494. Beginning in 1991 and lasting until his retirement, David Schechter, General Counsel of BATUS, was sent to Australia where he implemented the document destruction program that was instituted throughout the BAT Group of companies. The trips were paid for by BATCo. BATCo also paid for lawyers from Shook, Hardy & Bacon to accompany Schechter to Australia. Deposition of David Schechter, United States v. Philip Morris, et al., June 18, 2002, 55:8-14; Deposition of David Schechter, United States v. Philip Morris, et al., August 13, 2002, 120:8-126:14, 102-104, 183-185, 209-219; 503113107-3107 (U.S. Ex. 66,408); 503089307-9308 (U.S. Ex. 66,406).

4495. Frederick Gulson was in-house counsel and company secretary of W.D. & H.O. Wills (Australia) Limited ("Wills"), now known as BATAS, a subsidiary of both BAT plc and BATCo, from 1989-90. Gulson states that the strategy in place for dealing with sensitive

documents "involved the large scale destruction of documents under the guise of a 'Document Retention Policy.'" Gulson Aff. ¶ 12 (U.S. Ex. 65,085).

4496. Gulson further states that the purpose of the Document Retention Policy "**was to 'sanitise' the company's files. This could include their destruction, 'privileging them' (i.e. endorsing them in such a way that legal privilege could be asserted over them;) or putting them beyond the legal control of the company**." Gulson Aff. ¶ 14 (U.S. Ex. 65,085) (emphasis added).

4497. Gulson confirms that David Schechter, counsel for Brown & Williamson's immediate holding company, BATUS, played an important role in monitoring Wills's document retention policy on behalf of Brown & Williamson and other BAT Group entities. Gulson specifically states that "the purpose of the Document Retention Policy was twofold, to protect the litigation position of Wills, and to protect the legal positions of other BAT group companies, especially [its] U.S. affiliate Brown & Williamson." Gulson Aff. ¶ 17-18 (U.S. Ex. 65,085).

4498. Philip Morris, R.J. Reynolds, and BATCo developed a "document retention policy" for all of their Australian interests through the Tobacco Institute of Australia to ensure that sensitive documents were destroyed. Gulson Aff. ¶ 13 (U.S. Ex. 65,085).

4499. The concern over documents in Australia stemmed from the fact that "Wills had copies of many BATCo and Brown & Williamson documents, and access to many more through the use of the inter-company computer linking the Wills research library with the BATCo research library in the UK." Gulson Aff. ¶ 18 (U.S. Ex. 65,085).

4500. The purpose of the document retention policy was "to get rid of all the sensitive

documents, but do so under the guise of an innocent house keeping arrangement and to ensure that all relevant documents that were not destroyed or removed from the jurisdiction were properly privileged. In all cases the purposes was [sic] to ensure that the documents were not discoverable." Gulson Aff. ¶ 21 (U.S. Ex. 65,085).

4501. "Steps were taken to destroy, create privilege over, or remove from the company's control, documents belonging to our overseas affiliates. It was important to ensure that there was no cross contamination of documents which would render these documents discoverable in another jurisdiction, in particular in proceedings against Brown & Williamson in the United States." Gulson Aff. ¶ 25 (U.S. Ex. 65,085).

4502. John Welch, chief executive officer of the Tobacco Institute of Australia - the Australian corollary to the Tobacco Institute - from 1991 to 1992, confirms Mr. Gulson's recollection of events. In an interview with an Australian news program Welch stated that:

> there was a policy of document retention, but it was a misnomer. The policy was more document destruction than it was retention and it was a very thought-out, very concise policy that anything that was potentially dangerous should be read, consumed, and destroyed.

Tr. Interview of John Welch, Australian Broadcasting Company, July 23, 2003 (U.S. Ex. 86,892).

4503. Welch's salary was paid by the tobacco companies and he worked “very closely” with them on the document retention policy. Welch explained the industry’s actions by saying “Only a fool negotiates with the opposition, leaving a loaded gun on the negotiating table. So quite simply you destroyed things that were potentially dangerous to you.” Tr. Interview of John

Welch, Australian Broadcasting Company, July 23, 2003 (U.S. Ex. 86,892).

4504. Mr. Welch further disclosed that the documents destroyed were principally, "overseas and Australian-based studies which were not favourable to the industry, addressing issues such as children smoking, passive smoking, the impacts of sponsorship in sport and the like." Tr. Interview of John Welch, Australian Broadcasting Company, July 23, 2003 (U.S. Ex. 86,892).

4505. Consistent with BATCo's attempts to protect documents from its Australian subsidiary BATAS from being made available for litigation in the United States, on August 30, 2000, Kristina Whiteman [title] sent a memorandum to Mal Nicholson [title] and copied the note to Kay Kinnard of BATCo who was responsible for directing BATCo's worldwide document destruction program. The memorandum indicates that BATAS was waiting for litigation to cease so that "we can apply the Document Retention Policy." 325351264-1267 at 1267 (U.S. Ex. 29,241).

(vii) BATAS's Efforts to Purge Its Files of Potentially Damaging Documents Led to the Destruction of a Database of Thousands of Documents

4506. From 1990 to 1996, a number of plaintiffs brought proceedings against Wills, the last being Phyllis Cremona in 1996. In conjunction with this litigation, Wills undertook a review of its scientific documents in 1995 that eventually lead to the creation (and destruction) of the "Cremona database" that is described in McCabe v. British American Tobacco Australia (Services) Ltd., [2002] VSC 73 (Supr. Ct. of Victoria at Melbourne Mar. 22, 2002) (Austl.), reversed on appeal; subsequent history omitted ("McCabe"). ARU517 1794-1928 at ¶ 59 (U.S.

Ex. 75,779).

4507. The review that led to the creation of the "Cremona database" began in 1995. McCabe at ¶ 116 (U.S. Ex. 75,779). The starting point was the 23,000 smoking and health documents located at Wills's research facility. McCabe at ¶ 117 (U.S. Ex. 75,779). In August 1995, Alex Kinross, a solicitor with an outside law firm, Mallesons, took charge of the review process, providing Nicholas Cannar, counsel for BATCo, and Mary Weir, counsel for Wills, with a detailed protocol for the collation and analysis of documents for the purpose of discovery. ARU517 1794-1928 at ¶ 116 (U.S. Ex. 75,779).

4508. Graham Maher, also an attorney with the Australian law firm Mallesons, began in 1996 "to review documents which might become relevant in any future litigation… [t]ogether with others, he summarized documents and had them scanned." ARU517 1794-1928 at ¶ 109 (U.S. Ex. 75,779).; Affidavit of Graham Franklin Maher, Jan. 28, 2002 at ¶ 2 (U.S. Ex.88,749). In July 1996, Maher left Mallesons to join Wills's legal department, continuing his work on the document review. ARU517 1794-1928 at ¶ 111 (U.S. Ex. 75,779). Virtually all of the 30,000 documents identified by Wills as being potentially responsive to the Cremona litigation were imaged on computer discs, indexed, and summarized. ARU517 1794-1928 at ¶ 112 (U.S. Ex. 75,779).; Maher Affidavit at ¶ 11 (U.S. Ex. 88,749). The document review also entailed attorneys rating each document on a scale of 1 to 5, according to how damaging each was likely to be to the company in any litigation, with a rating of 5 meaning the document was a "knockout" blow against the company. ARU517 1794-1928 at ¶ 114 (U.S. Ex. 75,779). The end product of the review was a database that came to be known as "the Cremona database." ARU517 1794-

1928 at ¶ 121 (U.S. Ex. 75,779).

4509. After Cremona and Harrison (another pending case) were discontinued in March 1998, an existing litigation hold order requiring the preservation of documents was revoked. ARU517 1794-1928 at ¶ 128 (U.S. Ex. 75,779); March 9, 1998 W.D. & H.O. Wills (Australia) Limited Inter-Office Memorandum from Mal Nicholson to Department Managers/Workgroup departments TIMS00026152-6153 (U.S. Ex. 88,451); March 11, 1998 Group Internal Audit Department memo from Mal Nicholson to departments (U.S. Ex. 88,752). Following the revocation of the hold order, Mr. Cannar concluded that "now is a good opportunity to dispose of documents if we no longer need to keep them. That should be done outside the legal department." ARU517 1794-1928 at ¶ 128 (U.S. Ex. 75,779).; Affidavit of Malcolm Nicholas Nicholson, January 29, 2002 at ¶ 36, (U.S. Ex. 88,750). Cannar instructed longtime Wills employee Mal Nicholson to take the position of Records Manager and entrusted him with responsibility for implementation of the policy. ARU517 1794-1928 at ¶ 128 (U.S. Ex. 75,779); Nicholson Affidavit at ¶ 36 (U.S. Ex. 88,750). "For the next three months, Nicholson was engaged in the implementation process. The process did, in fact, involve lawyers, but they were lawyers from Mallesons, who reviewed all documents which had been collected for Cremona and Harrison, and once they confirmed that documents had passed the retention dates then they were destroyed." ARU517 1794-1928 at ¶ 129 (U.S. Ex. 75,779).

4510. During this time, Robyn Chalmers, outside counsel for Wills with the firm Mallesons, advised Wills:

> I confirm that there is no specific obligation of you to retain documents for the purposes of legal proceedings where no such

> proceedings have been commenced. You are entitled to destroy any documents subject to the legislative requirements but as you have been advised previously, the court may draw an adverse inference from the destruction of such documents, depending on the circumstances of the destruction. Moreover, you may be required to produce any copies retained where originals are destroyed or to give oral evidence regarding the nature and content of the original documents. Arguments in your defence where records have been destroyed would include compliance with the legislative retention periods and a necessity to maintain your archives within responsible limits, given the administrative and storage costs of keeping a large quantity of data."

ARU517 1794-1928 at ¶ 137 (U.S. Ex. 75,779). March 19, 1998 letter from Robyn Chalmers to Graham Maher at 2, (U.S. Ex. 88,753). Despite Chalmers's advice, the document destruction went forward. ARU517 1794-1928 at ¶ 139 (U.S. Ex. 75,779).

4511. Testifying in McCabe, Maher admitted that the effect of the policy was not only to get rid of the documents but to obliterate knowledge of the fact of the existence of the documents. ARU517 1794-1928 at ¶ 160 (U.S. Ex. 75,779). According to McCabe, Maher's testimony confirmed that "[t]here was a sense of urgency" and that "the department managers were told they had to confirm compliance with the policy by 15 April 1998." ARU517 1794-1928 at ¶ 154 (U.S. Ex. 75,779); March 9, 1998 Nicholson memo **BATES #** (U.S. Ex. 88,751); March 11, 1998 Nicholson memo (U.S. Ex. 88,752). "The process of destruction of documents in which the defendant engaged included destruction of CD Roms on which they were all imaged." ARU517 1794-1928 at ¶ 160 (U.S. Ex. 75,779).; Maher Affidavit at ¶ 23 **BATES #** (U.S. Ex. 88,749). Chalmers confirmed that the only copies of the Cremona database (one held at Wills and one at Mallesons) were destroyed." ARU517 1794-1928 at ¶ 163 (U.S. Ex. 75,779).

4512. As a result of this document destruction, thousands of potentially relevant smoking and health documents were kept from the courts and the public. Maher Affidavit at ¶¶ 22-24, (U.S. Ex. 88,749). By way of example, one document indicates that a search of the Cremona database for "Wills knowledge of the risks of lung cancer" during the period from 1962 to 1988 identified 949 relevant documents. ARU5171794-1928 at ¶ 121 (U.S. Ex. 75,779).

(viii) Brown & Williamson Continues to Instruct Affiliate Companies to Keep Scientific Research Documents Out of the United States

4513. In 1992, while Brown & Williamson was a party to a BAT Group cost-sharing agreement that funded BAT Group research, Brown & Williamson telegraphed to other BAT Group companies that it did not want to receive any research documentation that might be damaging in ongoing litigation. Brown & Williamson only accepted scientific research documents from other BAT Group companies "to the extent [it was] able to do so consistent with the status of pending litigation in the United States." 682508295-8295 (U.S. Ex. 21,689); 201069744-9744 (U.S. Ex. 22,152), (U.S. Ex. 36,386).

4514. Indeed, in the few instances when "sensitive" scientific reports were sent to Jeffrey Wigand, Vice President of Research and Development at Brown & Williamson, from other BAT research facilities, "before [he] could receive them [they] had to be reviewed by Kendrick Wells [Associate General Counsel]." In some cases, Mr. Wells would return them to England without allowing Dr. Wigand to see them. Ultimately, some scientists at the BAT research facility in Southampton resorted to faxing reports to Dr. Wigand at his home to try to circumvent the company's attempt to control scientific work by lawyers. Deposition of Jeffrey Wigand, In re Mike Moore, November 29, 1995, 91:16-92:3; 98:18-101:19.

4515. Dr. Wigand understood that the scientific research reports from BAT's research facility in Southampton, "were sent back to. . . . Back to BAT, South Hampton [sic], so they would not be discoverable." Deposition of Jeffrey Wigand, In re Mike Moore, November 29, 1995, 92:7-92:15.

4516. In 1994 and 1995, at the direction of Brown & Williamson CEO Tommy Sandefur, Brown & Williamson again directed BATCo and other BAT Group companies not to send documents to Brown & Williamson so that Brown & Williamson could avoid being called upon to explain the documents in court, in Congressional testimony, or otherwise. In a September 15, 1994 memorandum summarizing a meeting of the BAT Group research heads in Rio de Janiero, Graham Read, head of BATCo research, recorded that "B&W have instructed Group members not to undertake written communication with them until further notice. Alternative communication vehicles are being considered." When asked about this instruction in his deposition in this case, Read explained as follows:

> Q. Who instructed the group members on behalf of B&W?
>
> Mr. Browdy: Objection.
>
> A. Well, it's clearly with the summary points that I created, as a consequence it could only have come from Tilford Real [sic] who's the only member of B&W to the best of my knowledge who was in attendance at this meeting, the head of R&D for B&W at that time.
> . . .
>
> Q. In what context did he give this instruction?
>
> Mr. Browdy: Objection.
>
> A. Again, my best recall, Tilford was an excellent scientist, and certainly was not giving legal opinion, **it would have been**

> **somewhere in the consideration of production of documents into some litigation**, and simply suggesting here that a written communication would fall into that category but still requiring to find some means of communication such that they are kept informed of group activities. That's the best guess I can overlay on that.

Deposition of Graham Read, United States v. Philip Morris, May 1, 2002, 178:5-16, 179:2-181:4 (emphasis added); 403680929-0930 (U.S. Ex. 47,616) (U.S. Ex. 47,618); Deposition of Graham Read, United States v. Philip Morris, July 25, 2003, 178:5-16, 179:2-181:4.

4517. This policy of not sending research documents to Brown & Williamson was confirmed by Brown & Williamson research librarian and document custodian Carol Lincoln who explained that Brown & Williamson CEO Tommy Sandefur created the policy to prevent having to explain adverse documents in litigation. In her deposition testimony in this action, Lincoln testified as follows:

> Q. To your knowledge, did Brown & Williamson during the 1980s ever request other British American Tobacco companies not to send copies of final reports to the library?
>
> A. Not during the '80s, no.
>
> Q. More recently?
>
> A. During the '90s, yes.
>
> Q. When was that?
>
> A. '94, '95, I believe.
>
> Q. Do you know the reason for that?
>
> A. I have been told a reason.
>
> Q. What is that?

> A. That Tommy Sandifer [sic] was in court being grilled over these documents, hundreds of documents, that he had never seen. You know, he couldn't be expected to see all of them, but here he's trying to explain these documents he's never seen. And so he said, "all right, then we won't receive them." So, you know, our – we were – the companies apparently were told not to send those things to us for a couple of years. And after he died and, you know, the CEO changed, that changed, too, and we asked Brown & – or BAT for the ones we were missing. As far as I know, we got them.

Deposition of Carol Lincoln, United States v. Philip Morris, June 27, 2002, 42:5-43:2.

4518. Brown & Williamson employee Larry Herzberg explained that the policy of BAT Group companies not transmitting documents to Brown & Williamson in 1994 and 1995 came from the very top of the company from then Brown & Williamson CEO Tommy Sandefur. Herzberg further stated that senior Brown & Williamson scientist Hugh Honeycutt was also involved in developing and disseminating the policy "directive" set by Sandefur. With respect to whether Brown & Williamson was "aware of any instances where scientists from B&W have instructed individuals at other BAT Group companies not to transport research and development related documents to [B&W]," Herzberg testified that:

> A. . . . I know of one situation where that was the case. I believe it was in mid to late 1994. Hugh Honeycutt communicated to – I believe it's a Richard Baker at BATCo to discontinue sending research reports. And my understanding of that is that near or around that time it was a situation where Brown & Williamson documents had been made public. Specifically – I actually asked him about this specifically. [ ] And the decision was taken to not bring documents in from other BAT companies for a period of time with concerns about what was being disclosed and how it may jeopardize the company's position. That continued through '95, and then ultimately the company began receiving research reports again.[ ]
>
> Q. By your statement "jeopardize the company's position," do you

> mean with respect to smoking and health litigation?
>
> A. You know, different positions. It could have been competitive position; it could have been public relations position if documents weren't worded in a manner consistent with – English is different in the U.S. and, you know, people in their sort of interpretation of things are different. I don't know that I had any specific – it could have been litigation. It could have been public relations. It could have been competitive.

Deposition of Lawrence Herzberg, United States v. Philip Morris, June 26, 2002, 90:2-95:21, 118; 403680929-0930 (U.S. Ex. 47,616) (U.S. Ex. 47,618).

4519. On September 21, 1994, BATCo attorney H.A. Morini sent a note to L.C.F. Blackman, Director of Research at BATCo, regarding a conversation with Ernest Pepples about the procedure for communications between Brown & Williamson and the BATCo research department. Morini instructed Blackman that "'[c]ontentious' items emanating from GR&DC, particularly in regard to biological activity should be given legal clearance before dissemination" and that "transmission to B&W should be through me to Pepples thus maintaining the legal privilege - 'attorney work product.'" Morini also advised that "'[n]on contentious' issues can be sent direct from GR&DC to B&W care of Gil Esterle." Esterle was a Brown & Williamson scientist. 503114322-4322 (U.S. Ex. 21,695).

4520. In April 1995, BAT was instructed by Paul Bingham, Brown & Williamson Information Director, to no longer send the text of business analytical reports directly to the United States company and vice versa; only numbers would be sent.

> The legal situation in the US has resulted in the following situation:
> B&W will not longer send any documents to BATCo which relate to the analysis of their business in the US, Japan and export

> markets. Numbers will flow but no words.
> B&W do [sic] not want BATCo to send any analyses to them because their policy is to immediately destroy them. Please therefore cease sending any analyses to B&W apart from numbers. This includes all ad hoc and regular reports.

700354194-4194 (U.S. Ex. 54,511); see also 700354195-4195 (U.S. Ex. 54,512).

(ix) Intentional Discovery Avoidance and Delay

4521. Defendants BATCo and Brown & Williamson, jointly and individually, concealed documents, including scientific research documents, by establishing company policies of avoidance and delay of production of documents to prevent the disclosure of documents that they believed would likely be sought in litigation.

4522. In 1985, BATCo began a practice of delaying production of documents to keep them from jeopardizing the Enterprise. In a September 10, 1985 memorandum to the BATCo Chairman E.A.A. Bruell, from Nick Cannar, BATCo Solicitor [the equivalent of the General Counsel] and Anne Johnson, entitled "Smoking Issues," Cannar and Johnson contemplated that "BATCo may be able to delay the production of such [scientific] documents through UK legal procedures" despite the fact that they had determined that the documents were discoverable. 107333990-3991 at 3990 (U.S. Ex. 34,833).

4523. BATCo's practice of delaying production of scientific documents was further developed in May 1986. As BATCo was becoming increasingly involved in health and smoking litigation in the United States, BATCo in-house counsel requested that lawyers at the British law firm Lovell, White and King provide guidance on "delaying tactics." BATCo counsel specifically requested a memorandum on "how BATCo may be able to delay and deny"

production of documents. 107443680-3689 (U.S. Ex. 34,839).

4524. In 1989, Brown & Williamson corporate counsel authored a memorandum to R.J. Pritchard, Director of BATCo, discussing the "import[ance] to avoid production of documents as long as possible" and citing Brown & Williamson's success in avoiding document production in litigation thus far. 682004589-4590 (U.S. Ex. 54,116).

(x) Scientific Efforts Driven By Legal Concerns and Controlled by Company Lawyers

4525. In 1984 Kendrick Wells, a B&W in-house lawyer, wrote to H.A. Morini, BATCo's corporate counsel, regarding an article proposed by BATCo scientist Lionel Blackman. Wells's letter instructed that all references or citations to scientists who had concluded that smoking caused disease, including lung cancer and heart disease, or articles that referred to cigarettes as a drug be removed from the article. The references to be removed included references to a publication by Doll and Peto, who Wells admits were "two of the most highly respected and widely published and widely regarded researchers on the cause of smoking and health. . . ." Deposition of J. Kendrick Wells, United States v. Philip Morris, July 1, 2002, 263:23-264:19; 680582499-2507 at 2500 (U.S. Ex. 54,052).

4526. When asked whether "lawyers for [Brown & Williamson] involve[d] themselves in the type of research you were doing," former Vice President of Research and Development for B&W from 1989 to 1993, Jeffrey Wigand stated "I would say there was direct lawyer intervention in numerous research projects, review of research documents." Deposition of Jeffrey Wigand, In re Mike Moore, November 29, 1995, 41:10-41:19.

4527. Graham Read, head of research and development at BATCo from 1992 to 1998

and employed by BATCo in its research area since 1976, testified that at least twice during his tenure with the company, scientists were required to clear their documents through the legal function before the documents could be circulated or distributed. Deposition of Graham Read, United States v. Philip Morris, August 21, 2002, 192:8-193:21; 109879157-9158 (U.S. Ex. 34,922). According to Read, the reason for the clearance process was the "clearly very substantial legal environment, legal issues occurring in the US." Deposition of Graham Read, United States v. Philip Morris, July 25, 2003, 82:19-88:2, 93:21-95:1, 103:9-106:4, 107:20-108:10; 109870722-0723 (U.S. Ex. 34,874); 516003171-3171 (U.S. Ex. 20,872); 516003172-3172 (U.S. Ex. 21,732); 516003173-3174 (U.S. Ex. 22,076).

4528. This process of legal clearance of scientific documents was confirmed in a March 5, 1985 memorandum from Anne Johnson, a BATCo in-house lawyer, to Eric Bruell and Ray Pritchard, two of the top executives at BATCo at the time. 503128498-8499 (U.S. Ex.50,315); Deposition of Graham Read, United States v. Philip Morris, July 25, 2003, 146:16-157:2.

4529. Indeed, Richard Binns, the former Manager of BATCo's Group Research & Development Centre at Southampton complained of the expansive role of lawyers in BATCO's science, writing that:

> I am being asked to make significant and sometimes swingeing changes in documents produced recently by R&D staff. It is suggested that this must be done by finding a "managerial explanation" for the changes, without reference to the involvement of Legal Department. I will find this impossible to do. Senior R&D staff will not be so easily deceived. Personally, I am not prepared to lie to staff for very doubtful reasons. Therefore, the current lack of clarity about the relationship between R&D and Legal Dept. has raised questions which for me are ethically disturbing, particularly if extended beyond the present localized

situation.

109878083-8089 at 8089 (U.S. Ex. 21,767); Deposition of Graham Read, United States v. Philip Morris, July 25, 2003, 157:20-159:3.

4530. Dr. Wigand has provided testimony related to a specific instance of lawyer control of scientific activity and reporting emanating from a meeting in the fall of 1989 of the leading scientists for all of the BAT companies, including Brown & Williamson and BATCo. The meeting was held in Vancouver, British Columbia. The meeting was not called to discuss or prepare for any lawsuit or even the threat of litigation, but was instead for the scientists to discuss topics such as nicotine analogues, biological assays and biological testing methodologies, how to selectively reduce particular noxae (i.e. poisonous substances) from cigarette smoke, and how to fund various scientific research group studies. According to Wigand who was a participant, the meeting was memorialized in a 14 to 15 page set of minutes prepared by Dr. Ray Thornton of BATCo. Dr. Wigand circulated the minutes to top Brown & Williamson management including then Chief Executive Officer, Tommy Sandefur. After the minutes were circulated, "there was significant objection to the content of the meeting, particularly since the meeting referred to non-addictive nicotine analogues. It talked about safer cigarettes. It talked about biological testing." Because of the objections, Kendrick Wells, an in-house smoking and health litigation attorney called a meeting that included Sandefur and Ray Pritchard, Chairman of the Board of Brown & Williamson. As a result of the meeting, the minutes were substantially revised by the Brown & Williamson lawyers to remove roughly 12 pages of the minutes. As Dr. Wigand testified, "[t]hey eliminated all references to anything that could be discovered during any kind of liability action

in reference to a safer cigarette. Statements were made that anything that eludes to a safer cigarette clearly indicates that other cigarettes are unsafe, and it furthermore, would acknowledge that nicotine is addictive." Deposition of Jeffrey Wigand, In re Mike Moore, November 29, 1995, 41:17-45:17, 47:20-48:3, 54:16-55:5; Trial testimony of Jeffrey Wigand, Falise v. American Tobacco Co., et al., December 11, 2000, 1126:3-1131:2; Deposition of J. Kendrick Wells, United States v. Philip Morris, et al., July 1, 2002, 133:13-25, 136:24-137:1.

4531. Dr. Wigand further testified that when he joined Brown & Williamson as Vice President of Research and Development in 1989, as part of his orientation he was required to go to Kansas City, Missouri to meet with lawyers from the law firm Shook Hardy and Bacon. Deposition of Jeffrey Wigand, In re Mike Moore, November 29, 1995, 62:2-7.

4532. Jeffrey Wigand, Vice President of Research and Development for B&W from 1989 to 1993, complained to Chief Executive Officer Tommy Sandefur, Executive Vice President Earl Kohnhorst, and Associate General Counsel Kendrick Wells that Wells' suppression of information and editing of scientific documents was unethical. Wigand testified that scientific documents were routinely edited to "remov[e] any reference that would be discoverable during any kind of liability action." Deposition of Jeffrey Wigand, In re Mike Moore, November 29, 1995, 69:7-22.

4533. Wigand's complaints were of no avail because, according to Wigand, Chief Executive Officer Tommy Sandefur had "a position that if science affected sales, the science would take the back door." Indeed, this was the policy of Brown & Williamson. Deposition of Jeffrey Wigand, In re Mike Moore, November 29, 1995, 70:2-71:4.

4534. On September 18, 1991, Sharon Boyse, a senior scientist at BATCo, wrote to G. Symmes of W.D. & H.O. Wills in Australia instructing him that until he made changes to the scientific content of a document prepared by the Tobacco Institute of Australia the document was "NOT acceptable to BAT until those changes are made!" The letter demonstrates BATCo's control over public statements and document production by its sister companies, and that it suppressed knowledge related to the true health effects of cigarette smoke from being made available to the public. In the letter, Boyse instructed scientists at W.D. & H.O. Wills, to remove any suggestion from a document that scientific articles had "claimed a statistical association between ETS exposure and the development of lung cancer." The letter went on to require removal of any suggestion that tobacco smoke contained carcinogens because the studies that suggested that tobacco smoked contained carcinogens "are animal studies . . ." Deposition of Ulrich Herter, United States v. Philip Morris, et al., May 28, 2002, 195:4-196:14 and 197:1-197:6; 304002839-2840 at 2839 (U.S. Ex. 46,611).

(xi) Continuing Efforts to Thwart Public Access To The Guildford Depository

4535. The 1998 settlement of the Minnesota case required that, for ten years, the tobacco companies provide public access to the millions of pages of their documents housed in two document depositories that were set up during the Minnesota case. The U.S.-based defendants - Philip Morris, RJ Reynolds, Brown and Williamson, Lorillard, the Tobacco Institute, and CTR - have their document depository administered by an independent third-party in Minneapolis, Minnesota. In contrast, BATCo itself runs its depository, located near Guildford, UK (the "Guildford depository").

4536. On February 22, 1999 – almost a year after the Minnesota depository was opened to the public – the Guildford depository opened. Despite this additional time, the Guildford depository has encountered numerous problems with access.

4537. Most critically, while the United States-based defendants put the majority of their documents online, BATCo has not. In fact, BATCo will not produce documents electronically. BATCo's former chairman, Martin Broughton, told the United Kingdom's House of Commons Health Select Committee that BATCo managed to scan 350,000 pages out of 8 million pages in the depository, and that imaging any more documents would be a waste: "the other seven and half [million] would just be filling up the Internet to no purpose." UK House of Commons Health Select Committee minutes of evidence: examination of witnesses, Jan. 27, 2000 at Q. 969. http://www.parliament.the-stationery-office.co.uk/pa/cm199900/cmselect/cmhealth/27/0012717.htm. (U.S. Ex. 88,348). BATCo's explanation for scanning so few documents is that documents are scanned only as they are selected by visitors for copying. The reason for this practice is because, despite having access to the entire collection for years during the Minnesota case and the life of the Guildford depository, the scanning occurs as part of ongoing BATCo attorney reviews of documents for privilege, trade secret, or personal material. Letter from Stuart Chalfen, BATCo's Legal Director & General Counsel, to Dr. John Benger, UK Select Health Committee, dated February 22, 2000. 325122469-2470 (U.S. Ex. 88,349).

4538. In addition to the inability to receive documents electronically, the BATCo documents are indexed and searchable only by file rather than by document, making it impossible

to undertake a computer search for individual documents within the depository. BATCO's Supplementary Memorandum to the UK Select Committee on Health, http://www.parliament.the-stationery-office.co.uk/pa/cm199900/cmselect/cmhealth/27/0012702.htm ("[t]here is no document by document index to the Depository") (U.S. Ex. 88,348).

4539. BATCo imposed further restrictions on access to the Guildford depository. The depository is open to the public only from 10 a.m. to 4 p.m. BATCo restricts access to "one organization at a time," and from that single organization, a maximum of six visitors are permitted. House of Commons Health Select Committee's second report on the tobacco industry and the health risks of smoking, June 5, 2000; http://www.parliament.the-stationery-office.co.uk/pa/cm199900/cmselect/cmhealth/27/2702.htm. (U.S. Ex. 88,348).

4540. BATCo documents reveal the high level of surveillance BATCo engages in at the Guildford depository, including tracking the physical movements of visitors and observing and noting their personal mobile phone use within the depository. See Email dated Feb. 21, 2000 from Sandra Charman to Erika Reid re PMG Visit, 321660343 (U.S. Ex. 88,350) ("My security man in the foyer overheard Judith Watt telephoning and speaking to The Health Select Committee, The Daily Mail and Channel 4 News"); Email dated Nov. 4, 2000 from Sandra Charman to Ben Regnard-Weinrabe, 321652338 (U.S. Ex. 88,351) (noting the times in and out of Guildford for an Eric LeGresley, who visited from Oct. 30 - Nov. 4, 2000, and noting that the times out were for making "phone calls in private"). BATCo also tracked visitor database searches of the file index to the publicly available documents at Guildford. See BATCo

Depository Report No. 162, dated Nov. 4, 1999, 321672134-36 (U.S. Ex. 88,352) ("The files selected for review today were identified by searching for 'Morini' (a past legal director of BATCo) as the file owner.").

4541. BATCo's chairman Martin Broughton tacitly acknowledged the breadth of information – including occupation, affiliation, and nationality – BATCo compiled on each Guildford visitor when he testified to the UK Select Committee on Health that "in the time it has been open we have not had one single scientist go, one single academic go. The kind of people who might be looking for research have not attended at all, not once. The only people who have attended have been lawyers for prospective litigants and public advocacy groups. We have only had one party in the entire year, 1999, ASH, which is a UK based party which has attended to my recollection." UK House of Commons Health Select Committee's minutes of evidence: examination of witnesses dated Jan. 27, 2000, Q. 938 (U.S. Ex. 88,743).

4542. As part of BATCo's efforts to use Guildford to its advantage, Lovells, BATCo's outside legal counsel, generates daily "Depository Reports" summarizing the public visits made to Guildford. See, e.g., Depository Report No. 250 dated Feb. 29, 2000, 321669531-9533 (U.S. Ex. 88,353 (CF)); Depository Report No. 106 dated Sept. 1, 1999, 321672350-2354 (U.S. Ex. 88,354); Depository Report No. 162 dated Nov. 4, 1999, 321672134-2136 (U.S. Ex. 88,352). In each report, a BATCo attorney "gives general guidance as to issues visitors appear to be interested in, and warns of any particularly sensitive files called up for review." Depository Report No. 250, (U.S. Ex. 88,353 (CF)). The topics contained in a report include the visitors for the day, files reviewed, photocopies requested, and "hot docs." Depository Report No. 250 (U.S.

Ex. 88,353 (CF)).

4543. Depository Report No. 250 described the visit of Judith Watt of Protocol Management Group ("PMG"). The report noted that 106 files were selected for review on Feb. 29, and PMG made four copy requests. Of the documents reviewed, one – a brand position memo for Player's Gold Leaf – was described as "sensitive," in that is discussed BATCo's marketing to "low income low literacy" 16 year olds in the middle east, although the references to "16 year olds" throughout the document were changed to "18 year olds." Depository Report No. 250 (U.S. Ex. 88,353 (CF)); BATCo PGL Positioning Statement, March 6, 1992, 500302242-2250 (U.S. Ex. 88,355).

4544. Once the visitor's requests were processed, "end market lawyers" and BATCo's "CORA (Corporate and Regulatory Affairs) personnel" were alerted of visitor document selections "to deal with any issues raised publicly in relation to those documents." CORA Role Profile, 321925006-5008 (U.S. Ex. 88,682). In one case, BATCO's counsel prepared a lengthy memorandum detailing documents selected by the World Health Organization, noting that, "despite the existence of some documents that are not "politically correct," that is, supportive of an anti-tobacco agenda, these documents so far selected by visitors to the Guildford Depository do not support allegations of corporate misconduct on the part of BAT (or B&W?)." 322254294-4381 at IX (U.S. Ex. 88,356). In another case, involving "Africa documents requested by Duncan Campbell on 15 February 2000," Ruth Grant of Lovells provided BATCo with "a first stab at what might be said." Letter from Ruth Grant of Lovells to Peter Godby of BATCo, dated June 8, 2000, 321930241 (U.S. Ex. 88,357).

4545. During the course of discovery in U.S. v. Philip Morris, et al, and in connection with Order #38, BATCo provided the United States with computerized indices of the documents contained in the Guildford Depository. The "documents and other materials contained in the Guildford Depository are copies of documents as they were maintained in the ordinary course of business from BATCo, B.A.T. Industries p.l.c., and B.A.T. (U.K. and Export) Limited ("BATUKE")." Order #38 at page 1 of Guildford Protocols. In the Fall of 2000, BATCo provided the United States with an index that included a total of 40,603 files contained within 6,023 boxes. This index categorized certain files contained in the Guildford Depository in several fields, including Guildford box number, file number, first bates page, last bates page, title, file owner, and file user. The index was originally provided to the United States in the form of a .DAT file. A CD Rom containing the .DAT file and copies of this data, converted into Excel and Quattro Pro format, are attached. These conversions were made for convenience in viewing. This index provides contextual information about many of the parties' trial exhibits that may be probative on issues of authenticity and admissibility. (U.S. Ex. 75,733) (U.S. Ex. 88,846).

(e) Lorillard

4546. In 1977, Alexander Spears of Lorillard advised a scientist who was to deliver a research paper that he must delete data from a study related to human smoking habits or he would not be permitted to deliver the paper. 516967038-7038 (U.S. Ex. 22,232) (Confidential), 01416267-6267 (U.S. Ex. 20,287) (U.S. Ex. 34,560); Deposition of Alexander Spears, State of Texas v. American Tobacco Co., No. 5:96CV91, July 24, 1997, 216:11-218:23.

(3) Improper Use of Attorney-Client Privilege

4547. One method by which the Defendants, through their lawyers, concealed research is through maneuvers intended to artificially and improperly "create" privileges and other legal protections. These maneuvers were intended to and did further the enterprise's goals of (1) avoiding or, at a minimum, limiting liability for smoking and health related claims in litigation; (2) avoiding statutory and regulatory limitations on the cigarette industry, including limitations on advertising; and (3) preventing the public from learning the truth about smoking's adverse impact on health.

4548. In this and other litigation, Defendants have claimed attorney-client privilege for, and refused to produce thousands of, documents which appear to be scientific in nature and specifically relate to health issues. Affidavit of Tara Sutton, State of Minnesota v. Philip Morris, No. C1-94-8565, April 8, 1997, ¶ 2-3 (U.S. Ex. 88,652).

4549. During the period in which litigation and federal regulatory activities were pending, Defendants destroyed and sequestered documents, and improperly sought to conceal research material behind the attorney-client privilege and the work product doctrine so as to avoid discovery. An element of the Defendants' scheme to "create" attorney-client privilege or work product protection was the near complete control that Defendants' lawyers exerted over joint industry and individual company scientific research. See U.S. FPFF § IV.D., supra.

(a) Findings of Abuse of "Privilege"

4550. Several courts, including the Special Master in this case, have ruled that Defendants have attempted to designate documents as privileged despite a complete lack of a

valid basis for privilege, that the claimed privilege is inapplicable due to the crime-fraud exception, or that the claimed privilege has been lost as a result of abuse of the privilege.

4551. In United States v. Philip Morris et al., in Report & Recommendation #114, Special Master Richard Levie found that the United States had proven a prima facie case of crime fraud against BATCo sufficient to warrant an *in camera* review of documents and ultimately recommended that the Court apply the crime fraud exception to the attorney-client privilege. While the Court ultimately overruled the Special Master's finding that the "documents were created in furtherance of the fraud alleged," the Court implicitly accepted that there was a prima facie showing of crime fraud by progressing from the prima facie showing, which is the first prong of the crime-fraud test, to the second prong: the question of whether the challenged document was in furtherance of a crime, fraud, or other misconduct. Order #397, Mem. Op at 8, R&R #114.

4552. Also, in United States v. Philip Morris et al., in Order #499, the Court adopted in its entirety the findings of Report & Recommendation #146, in which the Special Master found that "Brown & Williamson made efforts not to physically receive smoking and health research of which it was otherwise aware in order not to have to disclose such information and threaten its litigation." The Special Master further noted BATCo's participation in this fraud by routing documents to Brown & Williamson through outside attorneys rather than to Brown & Williamson itself. R&R #146 at 79.

4553. Finally, in United States v. Philip Morris et al., in Report & Recommendation #155, the Special Master again concluded that there was a prima facie showing of crime-fraud

with respect to the Foyle Memorandum. The Special Master concluded that:

> legal advice was sought ("Foyle . . . wrote a memorandum about the Document Retention Policy describing what he found, and effectively inviting Clayton Utz to go back to the drawing board and destroy more documents"), legal advice was given ("Wilson . . . proposed a strategy for handling the documents issue . . . its purpose was to get rid of all the sensitive documents, but do so under the guise of an innocent house keeping arrangement . . ."), and legal advice was followed ("Cannar ordered that Wills adopt the strategy proposed by Wilson").

R&R #155 at 40-41, quoting Gulson Aff. at ¶¶ 20, 21, 27. The Special Master further concluded that there was "credible evidence to show that counsel was consulted with the intent 'to destroy, create privilege over, or remove from the company's control, documents belonging to [Wills'] overseas affiliates' in order 'to get rid of everything that was damaging in a way that would not rebound on the company or the BAT group as a whole.'" R&R #155 at 41, quoting Gulson Aff. at ¶¶ 24, 25.

4554. Other courts have repeatedly found that Brown & Williamson's and BATCo's conduct regarding smoking and health research documents was designed to suppress information from the American public including cigarette consumers. In adopting the Report and Recommendation of the Minnesota Special Master, Judge Kenneth J. Fitzpatrick ruled that BATCo and Brown & Williamson (among other defendants) "have been found to have committed numerous abuses of privilege and certain violations of Court Orders and the Rules of Court. . . . The record supports the factual findings of the Special Master. Application of the law of privilege, and the crime-fraud exception were properly applied by the Special Master." State of Minnesota v. Philip Morris Inc., No. C1-94-8565, 1998 WL 257214, at *9 (Minn. Dist. Ct.

Mar. 7, 1998), mandamus denied sub nom., State by Humphrey v. Philip Morris, Inc., No. CX-98-414 (Minn. App. Mar. 17, 1998), petitions for further review denied sub nom., State v. Philip Morris Inc., Nos. CX-98-414, CX-98-431, 1998 WL 154543 (Minn. Mar. 27, 1998), stay denied, 523 U.S. 1056 (1998). Similarly, in the Florida litigation, in findings adopted by the trial court and affirmed on appeal, "[t]he special master found that there was evidence that the defendants [including B&W] **hid from and misrepresented to the public the health risks of smoking and that their conduct constituted fraud on the public**." American Tobacco Co. v. State of Florida, 697 So. 2d 1249, 1257 (Fla. Dist. Ct. App. 1997) (emphasis added).

4555. In State of Minnesota v. Philip Morris Inc., the court found that Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, BATCo, American, Lorillard, CTR, and the Tobacco Institute "claimed privilege for documents which are clearly and inarguably not entitled to protections of privilege;" "that many documents examined contained nothing of a privileged nature, establishing a pattern of abuse;" and that these Defendants "have been found to have committed numerous abuses of privilege." Based upon the "intentional and repeated misuse of claims of privilege [which are] intolerable in a court of law," the court found that "an appropriate sanction for such abuse is release of all documents for which privilege is improperly claimed." The court also adopted the special master's findings that for several categories of documents, including scientific reports, the crime-fraud exception to the attorney-client privilege applied. State of Minnesota v. Philip Morris Inc., No. C1-94-8565, 1998 WL 257214, at *9 (Minn. Dist. Ct. Mar. 7, 1998), mandamus denied sub nom., State of Minnesota v. Philip Morris, Inc., No. CX-98-414 (Minn. App. Mar. 17, 1998), petitions for further review denied sub nom., State of

Minnesota v. Philip Morris Inc., Nos. CX-98-414, CX-98-431, 1998 WL 154543 (Minn. Mar. 27, 1998), stay denied, 523 U.S. 1056 (1998).

4556. In April 1997, the Florida Circuit Court upheld a special master's ruling that lawyers for Defendants American, R.J. Reynolds, Brown & Williamson, BATCo, Philip Morris, Liggett, Lorillard, CTR, and the Tobacco Institute "undertook to misuse the attorney/client relationship to keep secret research and other activities related to the true health dangers of smoking." State of Florida v. American Tobacco Co., Civ. Action No. CL 95-1466 AH (Palm Beach Cty., Fla., filed Feb. 21, 1995).

4557. In State of Minnesota v. Philip Morris Inc. et al., the court struck claims of attorney-client privilege as a result of continued and blatant disregard of court orders, the authority of the court, and the judicial process by Brown & Williamson and American. State of Minnesota v. Philip Morris, No. C1-94-8565 (Minn. Dist. Ct. Dec. 30, 1997).

4558. In State of Washington v. American Tobacco Co., Inc., the court issued several rulings in which it determined that numerous documents for which Defendants American, Brown & Williamson, Liggett, Lorillard, Philip Morris, R.J. Reynolds, CTR, and the Tobacco Institute had asserted privilege were subject to the crime/fraud exception and were therefore "de-privileged." The bases for the findings included "that defendants attempted to misuse legal privileges to hide research documents;" "that attorneys controlled corporate research and/or supported the results of research regarding smoking and health;" "that the industry, contrary to its public statements, was suppressing information about smoking and health;" "that CTR was neither created nor used to discover and disseminate the 'truth,' contrary to defendants'

representations to the public;" "that Special Account #4 was used to conceal problematic research;" and "that CTR and the SAB [Scientific Advisory Board] were not independent and that the industry's use of CTR was misleading to the public." State of Washington v. American Tobacco Co., Inc., No. 96-2-15056-8 SEA (King Cty. Sup. Ct. 1998).

4559. In Sackman v. Liggett Group, Inc., the court found that attempts by Liggett, Philip Morris, Brown & Williamson, R.J. Reynolds, Lorillard, and CTR to designate CTR Special Project documents as privileged was inappropriate. 173 F.R.D. 358, 362-364 (E.D.N.Y. 1997). The court concluded that, despite lawyer involvement in Special Projects, the documents were not privileged because they were prepared to further the public relations position of the tobacco manufacturers and that any usefulness in litigation "was merely an incidental benefit." 173 F.R.D. 358, 363.

4560. The court in Burton v. R.J.Reynolds Tobacco Co., found that plaintiffs had made a prima facie showing that the crime-fraud exception applied to documents withheld by R.J. Reynolds and American. 167 F.R.D. 134, 142 (D. Kan. 1996). In a separate later opinion, the court found that numerous documents identified as privileged by R.J. Reynolds and American were in fact not privileged, including memoranda relating to research and development, letters from outside counsel on scientific research, literature reviews prepared by scientists at the direction of counsel, minutes of research-related meeting, and notes made by employees at industry meetings on smoking and health research. 170 F.R.D. 481, 490 (D. Kan. 1997). Burton v. R.J. Reynolds Tobacco Co., 167 F.R.D. 134, 142 (D. Kan. 1996); Burton v. R.J.Reynolds Tobacco Co., 170 F.R.D. 481, 490 (D. Kan. 1997).

4561. In Carter v. Brown & Williamson Tobacco Corporation, the court found that even if a privilege existed, an issue which the court did not reach, the crime-fraud exception applied to certain Brown & Williamson documents (the Merrell Williams documents). Carter v. Brown & Williamson, Case No. 95-00934 CA (Duval Cty. Cir. Ct., Fla., Transcript July 26, 1996, at 1329-1332).

4562. In Haines v. Liggett Group, Inc., et al. 140 F.R.D. 681, 689 (D.N.J. 1992), (vacated on procedural grounds), 975 F.2d 81 (3rd Cir. 1992), the court, following an in camera review of 1,500 documents, confirmed "plaintiff's contentions of the explicit and pervasive nature of the alleged fraud by defendants [Liggett, Lorillard, R.J. Reynolds, Philip Morris, and the Tobacco Institute] and defendants' abuse of the attorney-client privilege as a means of effectuating that fraud." Specifically, the court found "that the attorney-client privilege was intentionally employed to guard against . . . unwanted disclosure." 140 F.R.D. 681, 684. Finally, the court stated that defendants and their lawyers "abused the attorney-client privilege in their efforts to effectuate their allegedly fraudulent schemes." 140 F.R.D. 681, 695.

(b) Brown & Williamson and BATCo

4563. Defendants Brown & Williamson and BATCo, jointly and individually, created mechanisms by which improper and false attorney-client privilege or work product protection were invoked for non-privileged documents not created in anticipation of litigation, including scientific and research documents, in order to prevent the disclosure of documents which they believed would likely be sought in litigation and in federal regulatory proceedings, and would provide information to the public on the adverse impact of smoking on health.

4564. Brown & Williamson and BATCo attempted to create the improper attorney-client privilege or work product protection over documents through various means including routing them through lawyers, maintaining scientific materials in lawyer's files, and indiscriminately marking them as "privileged and confidential" or other such designations.

4565. In 1975, BATCo Secretary P.J. Ricketts issued a document encouraging employees to give documents and information to attorneys in an attempt to create privilege where none exists. Ricketts advised:

> In most cases information which has been given and papers and documents which have been physically handed over to the Company Solicitor will be privileged: a result of which he will not be forced to disclose any documents etc., to these authorities unless in exceptional circumstances, he is required to do so by Court Order. Privilege extends only to the documents, papers etc., actually in the possession of the Solicitor and not to any copies.
> . . .
> Legal Department should, therefore, be informed and <u>all</u> relevant papers handed over to the Company Solicitor immediately if interest is shown by an outside authority in any matter which has been the subject of these special procedures.

Documents subject to these "special procedures" included "questions of product liability." 107468159-8160 (U.S. Ex. 34,847).

4566. In the late 1970s, Brown & Williamson developed a mechanism to prevent smoking and health documents from its research facility in Southampton, England from becoming discoverable in litigation in the United States. The mechanism involved utilizing a blanket designation that all scientific documents were created "for defense of potential litigation"; maintaining control of the documents by the legal department; and disseminating the documents to scientists only after prior approval by the legal department. Brown & Williamson

in-house counsel Kendrick Wells stated that "[c]ontinued Law Department control is essential for the best argument for privilege. . . . The general policy should be clearly stated that access to the documents and storage of the documents is under control of the Law Department and access is granted only upon approval of request." 680585391-5392 (U.S. Ex. 21,526).

4567. In 1979, Brown & Williamson developed a plan to "afford protection against discovery" of scientific documents that demonstrated a link between smoking and health problems by falsely designating them as work product prepared in anticipation of litigation. In a memorandum from Brown & Williamson corporate counsel J. Kendrick Wells to Ernest Pepples, Brown & Williamson's Vice President of Law, Wells outlined a plan for routing all scientific documents from BATCo through a Brown & Williamson scientist designated as an agent of the general counsel. The scientist would "separate reports which were relevant to smoking and health, or otherwise sensitive for special handling" and the documents "designated as sensitive" would be "sequestered." Moreover, the plan specifically provided that "in the operational context BAT would send documents without attempting to distinguish which were and which were not litigation documents." 521016231-6232 (U.S. Ex. 20,886), 680585389-5392 (U.S. Ex. 21,008).

4568. In September 1984, BATCo personnel were instructed to route "contentious" items from the research department through counsel "thus maintaining the legal privilege – 'attorney work product'." 503114322-4322 (U.S. Ex. 21,695).

4569. In January 1985, at the request of Pepples, BATCo instituted a new policy that incorporated the use of external lawyers in an attempt to further enhance the attempt to "create" privilege protection for sensitive scientific documents. The policy required that BATCo send

"contentious" research and development reports to Robert Maddox, an attorney in private practice in Louisville, Kentucky, where Brown & Williamson's headquarters is located, rather than to scientists at Brown & Williamson. The instructions indicated that "[t]he recipient list must not contain the name of any B&W person, not that of Maddox or of his company." The process was instituted to attempt to have attorney-client or work product privilege improperly attach to documents that were prepared in the normal course of BATCo's research and development activities, not in anticipation of litigation. A draft legal opinion from March 1985 by Brown & Williamson's counsel Simpson Thacher & Bartlett, confirmed that this arrangement had been put in place. As the Simpson Thacher lawyers stated: "We understand that some months ago, an interim system was placed in effect whereby Southampton [the location of the GR&DC facility] ceased forwarding the underlying research reports directly to B&W. An agenda listing the reports generated is, however, periodically forwarded to an attorney in Louisville, Kentucky, who reviews the agenda with representatives of B&W." 107444869-4869 (U.S. Ex. 34,840); 107444871-4871 (U.S. Ex. 20002); 109162728-2729 (U.S. Ex. 34,860); 503128498-8499 (U.S. Ex. 50,315); 521014969-5003 (U.S. Ex. 20,885); 109745204-5206 at 5206 (U.S. Ex. 26,342) 109745207 (U.S. Ex. 26,343); 109745208 (U.S. Ex. 26,344); 109745209-5210 (U.S. Ex. 26,341); 109745211-5212 (U.S. Ex. 26,345); 109745213 (U.S. Ex. 26,346); 109745214-5215 (U.S. Ex. 26,347); Deposition of Nicholas Brookes, United States v. Philip Morris, May 2, 2002, 120:12-121:7; Deposition of J. Kendrick Wells, United States v. Philip Morris, July 1, 2002, 58: 25-60:1; 685092972-2974 (U.S. Ex. 31,031); 521015673-5675 (U.S. Ex. 52,687); 107620309-0310 (U.S. Ex. 34,853).

4570. This procedure – designed to keep scientific evidence and information away from the public and out of the courts – has also been confirmed by a document released by BATCo for the first time in this case and only after the Untied States filed its Third Motion to Compel BATCo to Produce Documents Withheld Based on Assertions of Privilege or Protection. One of the documents produced was part of a handwritten letter attributed to Richard Binns, the former Manager of BATCo's Group Research & Development Centre at Southampton. The letter discusses BATCo's practice of routing scientific research to Brown & Williamson through attorney Robert Maddox: "Report – stopped sending direct to B&W in Jan. Maddox farce. B&W withdrawn from circulation lists (but get 2 copies)." 109878083-8089 (U.S. Ex. 21,767); Deposition of Graham Read, United States v. Philip Morris, July 25, 2003, 181:22-184:11, 186:8-189:21. Another document – from a Research & Development file used by Dr. Binns at the Southampton facility – addresses document circulation and states that:

> 2) Circulation of documents
> . . .
> B&W – Specific
> . . .
> Generally, during the Barclay investigation some years age we sent all correspondence to E. Pepples marked "attorney privileged" Today, we seem to have a "mail drop" which is only slightly less obvious than Russians leaving microdots in matchboxes on Hampstead Heath. Why not continue the "Attorney privileged" route.

102880241-0259 at 0253 (U.S. Ex. 26,242); 102880241-0259 at 0255 to 0259 (U.S. Ex. 26,242).

4571. In 1988, Andrew Foyle of the law firm Lovell, White & King wrote to a BATCo scientist at the Southampton facility and instructed the scientists to create a "modus operandi to ensure that legal professional privilege is not lost with respect to scientific documents related to

Brueger's disease." The scientists were instructed to attempt to create a legal privilege by routing scientific documents through lawyers. Foyle wrote that "[b]ecause correspondence on the subject of Brueger's disease exchanged between you and your colleagues in other companies might not be privileged, it is important that contact between the scientists should be routed through the lawyers. In addition you should ensure that any internal memoranda written on the subject of Buerger's disease in relation to the current investigations should be captioned 'Privileged and Confidential'." 300517039-7040. (U.S. Ex. 46,569); Deposition of David Schechter, United States v. Philip Morris, August 13, 2002, 117:20-120:1.

4572. From 1989 to 1993, when Jeffrey Wigand was Vice President of Research and Development at Brown & Williamson, a number of scientific reports that were not prepared for litigation were nonetheless stamped with designations such as attorney/client work product or privileged. Deposition of Jeffrey Wigand, In re Mike Moore, November 29, 1995, 93:2-94:13.

4573. In a March 16, 1996 handwritten note on a document designated as privileged by BATCo [300519690-9694 (U.S. Ex. 87,021)] in this case, [someone] indicated that the BATCo lawyers "think some issues are better discussed under privilege!" including several proposals involving Ray Thornton, a research scientist at BATCo's Group Research & Development Center in Southampton, England. 300519689 (U.S. Ex. 87,022).

(c) R.J. Reynolds

4574. Defendant R.J. Reynolds created mechanisms by which improper and false attorney-client privilege or work product protection were invoked for non-privileged documents not created in anticipation of litigation, including scientific and research documents, to prevent

the disclosure of documents which it believed would likely be sought in litigation and in federal regulatory proceedings, and would provide information to the public on the adverse impact of smoking on health.

4575. By 1965, Frank Colby had assumed the responsibility at R.J. Reynolds for analyzing smoking and health research. Colby has admitted that these purely scientific literature analyses were "channeled through lawyers. The smoking and health analysis was channeled through the lawyers mostly." Deposition of Frank Colby, State of Minnesota v. Philip Morris, No. C1-94-8565, December 17, 1997, 242-245.

4576. Roy Morse, a former research chief at R.J. Reynolds from 1981-1983 has stated that when a scientific study was funded by R.J. Reynolds's counsel Edwin Jacob, "it was a privileged relationship and it couldn't come into court" because of legal rules protecting attorney-client communications. "So they could do projects that they could bury if they chose." 536300352-0365 (U.S. Ex. 20,927).

4577. In an attempt to create attorney-client privilege over records received by R.J. Reynolds from CTR in the normal course of its business, in 1983, R.J. Reynolds decided to "remove CTR related smoking and health materials from our premises for legal reasons." They were sent to the law firm of Jacob, Medinger & Finnegan via a former R.J. Reynolds scientist Frank Colby, who was leaving the company to work at the law firm. Deposition of Edward Horrigan, United States v. Philip Morris, October 25, 2001, 36:11-40:13; Deposition of Gerald Long, United States v. Philip Morris, October 18, 2001, 46:6-47:19; 506050931-0935. (U.S. Ex. 20,750) (U.S. Ex. 77,438).

4578. R.J. Reynolds lawyers also concealed unfavorable scientific research. A "fact memorandum" from R.J. Reynolds's outside counsel, Jones, Day, Reavis & Pogue, described R.J. Reynolds's research and development activities:

> The Law Department or R&D Department exerted "control" to "prevent the distribution or production of certain reports," including a 1953 literature survey by Dr. Claude Teague that "indicted" cigarette smoking. 515873896-97 (U.S. Ex. 21,922). Another company scientist, Jim Fredrickson, who was working on identifying nitrosamines (carcinogens) in smoke in approximately 1965-67, was told "not to prepare a final report on his research but merely to record the work in his laboratory notebook."

515873805-3929 (U.S. Ex. 21,922).

(d) Liggett

4579. Liggett created mechanisms by which improper and false attorney-client privilege or work product protection were invoked for non-privileged documents not created in anticipation of litigation, including scientific and research documents, to prevent the disclosure of documents which it believed would likely be sought in litigation and in federal regulatory proceedings and would provide information to the public on the adverse impact of smoking on health.

4580. In 1978, Liggett first began its efforts to hide documents, including scientific documents, related to Project XA behind the attorney-client privilege. Project XA is an important less hazardous scientific research project. Despite the scientific nature of the project and the fact that the project was "under the direct responsibility of the President's Office," Joseph H. Greer, Liggett's General Counsel, ordered that all documents regarding the project be sent to him or a legal department staff member. To enhance the potential for hiding the documents

behind the attorney-client privilege, the project was put under the control of the Legal Department. LG2001538-1538 (U.S. Ex. 21,481).

4581. In 1979, Liggett's attempt to hide documents related to the XA project behind the attorney-client privilege became even more clear when a Liggett Vice President, R.B. Seidensticker, followed up on Greer's earlier directive related to Project XA. By this time the project had become formally known as the "Law Department's XA Project." Seidensticker asked Greer to "please issue a memorandum to those concerned requesting that any materials which have not already been turned over to the Law Department related to XA, be it financial, scientific, production or marketing, should be transferred to the Law Department no later than Thursday, June 28." LG2005942-5942 (U.S. Ex. 21,527).

4582. During the 1990s, Liggett scientists were directed to label their work as privileged and confidential in order to prevent its discovery in civil litigation. As stated by Liggett's Manager of Science Issues, "we had become sensitized to labeling a lot of documents privileged and confidence [sic] without thinking[,] it was kind of just a matter of fact thing to do. . . . [M]ost of the documents that we put out, I think, are always subject to discovery. And not knowing exactly where – where this was gonna go, it was just considered almost standard practice to do that." Deposition of Dennis Dietz, United States v. Philip Morris, July 1, 2002, 150:3-155:12; LWDOJ9290576-0582 (U.S. Ex. 21,217) (Confidential). See also, Deposition of Dennis Dietz, United States v. Philip Morris, May 29, 2003, 96:24-107:16.

4583. Bennett LeBow, Vector's CEO, discussed that documents were automatically labeled "Privileged and Confidential" whether they were or not: "You know, we – we had

become sensitized to labeling a lot of documents privileged and confidential without thinking it was kind of just a matter of fact thing to do." When asked what he meant by that, LeBow responded: "Well, it became – most of the documents that we put out, I think, are always subject to discovery. And not knowing exactly where – where this was gonna go, it was just considered just almost standard practice to do that." Deposition of Bennett LeBow, U.S. v. Philip Morris, et al., June 21, 2002, 151:8-12; 152:1-5.

(e) Lawyer Involvement in Science to Attempt to Create Privilege

4584. Attorneys for the tobacco industry, not scientists, directed the scientific research and other scientific matters of the industry. Defendants' lawyers were the driving force behind both the direction and suppression of scientific research. Lawyer control was used in large part in an improper attempt to "create" attorney-client privilege or work product protection for scientific documents and information where none existed.

4585. In 1964, after an extensive examination of the United States tobacco industry regarding the issue of smoking and health, a group of British scientists reported that a committee of lawyers (the Committee of Counsel) was given the authority for "clearing papers (e.g. Dr. Little's annual report)." Clarence Cook Little was the first Scientific Director of TIRC/CTR. Thus, lawyers had the responsibility for "clearing" CTR's annual reports on scientific research. For a discussion of TIRC/CTR Annual Reports, see U.S. FPFF § I.B., supra.; 1003119099-9135. (U.S. Ex. 20,152) (U.S. Ex. 35,649).

4586. In a letter dated March 5, 1975, from David Hardy, a lawyer at the firm Shook, Hardy & Bacon, to Cyril F. Hetsko, Vice President and General Counsel for American Brands,

Hardy explains that Hetsko hasn't received written annual reports related to Gary Huber's work at Harvard because the Committee of Counsel had instructed scientists to forego written reports which are discoverable and instead had been scheduled to meet with industry representatives to provide oral presentations. Hardy explained that the Committee of Counsel agreed to avoid having "the independent scientists" submit written reports, in part because:

> As you know, it is our constant concern in grants such as this that the cigarette industry exercise no control over the work of the independent scientists. . . . Likewise, if there are undesirable results, we would be free to have them checked by others and to raise any legitimate questions that might exist as to their authenticity.
>
> As you also know, quite often **the scientist who has no legal training and who does not fully understand some of our problems and concerns, exercises little care in his form of expression in written communications.** For this reason, it was decided by counsel that **site visits and oral reports at such site visits** would be preferable to written reports in satisfying the requirement of an annual report. It was felt that such site visits would be more informative and **would involve far fewer problems.**

961016507-6508 (U.S. Ex. 25,854) (emphasis added).

4587. In the late 1980s, as the Defendants prepared to disclose documents for the first time in the Cipollone case, the Defendants realized that their documents would disclose the inappropriate control of science by lawyers when it drafted anticipated press inquiries such as the following:

> 6. Is it true that trial attorneys were involved in research funding decisions?
>
> . . .

> 8. If CTR was formed to conduct independent research, why were trial attorneys involved in the organization? What do trial attorneys contribute to independent scientific research?
>
> . . .
>
> 6. The companies have maintained that one of their goals is to advance knowledge on smoking and health and yet there is evidence that attorneys for the companies review and revise prior to publication research findings and public statements concerning smoking and health. How do attorneys contribute to the goal of advancing knowledge on smoking and health?

536510400-0405 (U.S. Ex. 20,932).

4588. In fact, the research jointly funded by the Defendants through CTR Special Projects and lawyers' special accounts was admittedly not intended to get to the truth about smoking and health. As explained by Lorillard's Research Director in a 1974 memorandum to Curtis H. Judge, Lorillard's Chief Executive Officer:

> Historically, the joint industry funded smoking and health research programs have not been selected against specific scientific goals, but rather for purposes such as public relations, political relations, <u>position for litigation</u>, etc. . . . In general, these programs have provided some buffer to public and political attack of the industry, as well as <u>background for litigious strategy</u> (emphasis added).

01421596-1600 at 1598 (U.S. Ex. 20,049).

4589. During the mid-1960s, Defendants' lawyers became increasingly interested in controlling sensitive industry research related to smoking and health, but wanted to avoid any exposure of adverse research. Thus, the Defendants' lawyers created an unpublicized category within CTR called Special Projects. CTR Special Projects were selected by Defendants' lawyers to provide research favorable to the industry for purposes including litigation and public

relations. 536300352-0365 (U.S. Ex. 20,927).

4590. As explained in notes of a Committee of Counsel meeting in 1981, Special Projects were used to allow Defendants' lawyers to categorize research depending on whether the outcome was or might be adverse to the Defendants, allowing the lawyers to prevent publication of adverse scientific findings. The minutes of this meeting discuss the distinction between CTR Special Projects and Lawyers' Special Projects, which furthered Defendants' improper attempts to hide adverse findings behind the attorney-client privilege where the lawyers "were afraid of discovery." The notes reflect a discussion at the meeting between Arthur Stevens, Lorillard General Counsel, and Ed Jacob, outside counsel to the industry:

Stevens:	I need to know what the historical reasons were for the difference between the criteria for lawyers' special projects and CTR special projects. . . .
Jacob:	When we started the CTR Special Projects, the idea was that the scientific director of CTR would review a project. If he liked it, it was a CTR Special Project. If he did not like it, then it became a lawyers' special project.
Stevens:	He took offense re scientific embarrassment to us, but not to CTR.
Jacobs:	With Spielberger, we were afraid of discovery for FTC and Aviado, we wanted to protect it under the lawyers. We did not want it out in the open.

LG 2000741-0750 (U.S. Ex. 36,269) (U.S. Ex. 34,075).

4591. Defendants' lawyers had exclusive control over funding decisions related to the Special Projects. See U.S. FPFF §§ I.D. and IV.D., supra., for a discussion of some of the documents evidencing the control that Defendants' lawyers had regarding the funding decisions regarding CTR Special Projects.

4592. One important reason for the existence of Special Projects was Defendants' belief that such projects could be protected through the attorney-client privilege and work product doctrine. Special Projects were sponsored and approved by the Defendants' attorneys. Attorneys would approve the Defendants' funding of specific Special Projects, monitor the project, and request that CTR assign each project a number. As explained by one internal document discussing a lawsuit in which "Special Projects" were "at issue," "[l]awyer involvement cannot be denied or minimized, it was simply too pervasive." 504480626-0629 (U.S. Ex. 20,730); 512678701-8710 (U.S. Ex. 20,847); CTR98CONG 0058-0058 (U.S. Ex. 22,955); http://energycommerce.gov/tobacco/docs/bw/0012695353.tif. (U.S. Ex. 87,024).

4593. In the late 1980s, as the public was becoming aware of the improper use of CTR to conduct research for use in support of litigation, Defendants' lawyers merely moved the most egregious of this activity from CTR to Defendants' lawyers Shook, Hardy & Bacon. 512678701-8710. (U.S. Ex. 20,847).

4594. On July 20, 1987 AJ Stevens, Senior Vice President and General Counsel for Lorillard wrote to the generals counsel of B&W, Philip Morris, R.J.Reynolds, Liggett and lawyers at Shook, Hardy & Bacon advising them that Burson-Marsteller, a public relations firm, "is to be engaged for PM, RJR, B&W and Lorillard" for litigation public relations. . . . [D]iscretion by Burston-Marsteller is of the essence and they are not to announce or otherwise allow to be published or known that they are acting for us. That may have to change, but I see no purpose in them disclosing themselves at this time as our agents. I have also told them that they are being hired, not by a company, but by litigating counsel and that they have a dual reporting

responsibility. . . . [I] believe that we ought to get Burson-Marsteller coached and humming well before the Horton and Cipollone trials are upon us." 92347154-7157 (U.S. Ex. 87,037).

(4) Lawyer Control of Scientific Affairs

(a) Lawyer Control of American and International Research Efforts

4595. On February 14, 1967, A.W.H. Stewart-Moore – managing director of Gallaher Ltd. and a member of the U.K.'s Tobacco Research Council's (TRC) Executive Committee – sent a letter to Virgil D. Heger, executive vice president of American Tobacco, notifying him that the following month the TRC would be sending a delegation of scientists to the U.S. to discuss nicotine with scientists designated by CTR. Despite the purely scientific nature of the meetings, Mr. Stewart-Moore indicated that the meetings would include "the lawyers from the major American tobacco manufacturers." 0060293378 (U.S. Ex. 85,326).

4596. In the summer of 1973, Ragnar Rylander, M.D., a German researcher who oversaw the biological laboratory work at INBIFO through a contract with Philip Morris, sought to hold a "Workshop on Effects of Tobacco Smoke on Nonsmokers." Approval for the scientific workshop was controlled by industry lawyers, particularly David Hardy, a long time industry lawyer with Shook, Hardy & Bacon. In a letter on August 10, 1973, Helmut Wakeham, Philip Morris's Vice President and Director of Research, reported to Rylander that Hardy had concluded "that there were sufficient publications to support the industry position that smoking is harmless to nonsmokers. He argued that there was no need for additional support, so why should the industry run the risk of sponsoring a workshop which might find that there is a hazard to the nonsmoker. Not everyone agrees with this position so there is hope of convincing Mr. Hardy, as

an influential advocate among the industry lawyers, of the potential benefits from holding the workshop as you proposed. That is what we will try to do on the 29th." 1000259790-9790 (U.S. Ex. 87,036).

4597. Ragnar Rylander, a paid consultant of Philip Morris, organized a symposium on the effects of tobacco smoke on non-smokers in Bermuda from March, 27 to 29, 1974. Prior to the symposium, Rylander met with a lawyer from the Tobacco Institute who represented the tobacco industry in lawsuits dealing with smoking and health. Rylander was of the opinion that there were sufficient elements to support the view that smoke was harmless to non-smokers; the lawyer was worried that the proposed conference might present a risk to the tobacco industry. As required by the industry, in September 1973, Rylander submitted a preliminary list of participants to Donald Hoel, a long time industry lawyer at Shook, Hardy & Bacon, for his comments and proposals concerning new participants. Finally, in an October 5, 1973 letter, Rylander asked Hoel whether a Dr. Dublin would be a suitable participant, stating however that although the person in question appeared to be somewhat biased, it was advisable to balance the list of participants so as not to be accused of having selected only one category of people. http://www.prevention.ch/ryjueng130103.htm (U.S. Ex. 88,744).

4598. Following the Bermuda symposium, on April 1, 1974 Ragnar Rylander wrote to Donald Hoel, submitting the table of contents, the conclusions and recommendations, and a draft report on the criteria determining the effects of environmental tobacco smoke for discussion and approval. http://www.prevention.ch/ryjueng130103.htm (U.S. Ex. 88,744).

4599. In 1981 Ragnar Rylander was put in charge of organizing a second conference on

environmental tobacco smoke. In a memorandum of 31 August 1981 Donald Hoel reported on a discussion with Rylander who was of the opinion that the seminar would not be able to give environmental tobacco smoke "a clean bill of health." Rylander had prepared a memorandum strictly for internal use but was going to work on it further in order to provide a global overview of the subject that could be used as the introduction to the conference. The prospective sponsor proposed by him was the Council for Tobacco Research (CTR), which could not be suspected of having made prior arrangements relating to any research proposals resulting from the symposium. On 27 January 1982 Hoel wrote to Thomas Osdene, director of Research for Philip Morris, informing him of his meeting with Rylander two weeks previously. On May 25 and again on August 13, 1982, Rylander wrote to Osdene regarding the conference. In the first letter he submitted the list of topics to be discussed at the symposium, mentioning that he had already sent them to Donald Hoel and was awaiting his comments. In the second, he explained that he had established the plans for the conference and received the **go-ahead from Donald Hoel**. The symposium was held in Geneva from March 15 to 17, 1983. Rylander later met with Donald Hoel on several occasions to discuss the conference proceedings.
http://www.prevention.ch/ryjueng130103.htm (U.S. Ex. 88,744).

4600. On January 15, 2003, in an appeal from a criminal defamation conviction, a Swiss court sustained two allegations of fraud against Ragnar Rylander, based upon the above facts and concluded that he was a covert consultant for Philip Morris and that he had suppressed research findings that were adverse to the tobacco industry related to the detrimental effects of smoking on nonsmokers. In its findings, the court stated:

Concerning the allegation that the respondent was "secretly employed by Philip Morris", exhibits show that he had entered into a consulting agreement with Philip Morris in 1972 and that he had not made this fact public. Indeed, the "Thorn" episode, which took place in 1977, shows that the respondent did everything not to let his ties to Philip Morris become publicly known in order to, in his own words, "retain as far as possible the image as an independent scientist". In addition, following the publication of an article in the "European Journal of Public Health", he attempted to conceal the existence of a formal contract with Philip Morris, and this led the journal's Committee on Publication Ethics to take an unfavourable decision in his regard.

The Tribunal de police therefore rightly considered this fact as proven.

As regards the allegation that the respondent was "one of Philip Morris's most highly paid consultants", it should not be forgotten that the work he carried out in connection with smoking represented only 10% of his research and publications; this is important in determining whether the amounts he received from the tobacco industry are high. Several documents show the respondent to be among Philip Morris's most highly paid consultants, not counting FTR, a subsidiary of Philip Morris, the American Health Foundation and HRW Associates, none of them physical persons. It is therefore true that the respondent was one of Philip Morris's most highly paid consultants. The sums he received – fees amounting sometimes to USD 85,000 a year, plus the funds received for various research activities – were substantial, especially in view of the fact that the respondent devoted no more than 10% of his activities to research dealing with the effects of smoking.

The fact that the respondent was one of Philip Morris's most highly paid consultants has therefore been proven.

Finally, as regards the allegation that the respondent is responsible for an "unprecedented scientific fraud", the Court wishes to point out first of all that the press release at issue does not use the term "responsibility" as such. It merely highlights the respondent's conduct as being part of the unprecedented scientific fraud described by the appellants.

> The respondent has had frequent contacts with Philip Morris for many years. These contacts are troubling for several reasons. In 1991, within the framework of a study on respiratory diseases in children, the respondent modified a data base so that no link could be made between passive smoking and the frequency of respiratory infections. At an international conference in May 1992 he affirmed that no relation had been found between respiratory infections in children and their exposure to smoke but that there was a strong negative correlation with the consumption of eggs and chicken meat; two months earlier, however, he had agreed to have his name on a document distributed to participants in a meeting of epidemiologists and indicating that a correlation had been found between passive smoking and the frequency of bronchitis in children. In 1997, the respondent expressed his unease about meeting a scientist together with FTR representatives, for until then he had made every effort not to be seen by people from outside Philip Morris in the presence of the latter's executives so as to "retain as far as possible the image as an independent scientist"; such a remark implies that the respondent was precisely not an independent scientist. Moreover, the correspondence exchanged by Philip Morris representatives and the respondent before and after the conferences he organised, notably on the subject of invitations, reports to be submitted to participants and summaries to be published, seriously calls into question his independence vis-à- vis Philip Morris. In this respect, the testimony of Richard Carchman, vice-president of the Philip Morris research centre in Richmond, should be treated with circumspection, given his ties with the tobacco industry. Finally, the conviction expressed by the president of Reynolds Tobacco in 1984 that the "Rylander symposium" was a useful tool for combating the recognition of the harmfulness of passive smoking, is troubling to say the least; indeed, it implies that the "Rylander symposium" was favourable to the tobacco industry.

http://www.prevention.ch/ryjueng130103.htm (U.S. Ex. 88,744).

4601. At the July 28, 1976 meeting of the Research Liaison Committee, in connection with a discussion of whether to approve studies relating to the benefits of smoking, it was noted that the "[d]ecision for action [on the study] should be made by lawyers, not CTR or Organizing

Committee," and it was suggested that "Dr. Gardner present his program for review by all the lawyers. No records of such a review are to be kept." 1000255997-6001 (U.S. Ex. 20,086)(U.S. Ex. 25,506)(U.S. Ex. 34,283).

4602. Philip Morris' lawyers exerted control over research into nicotine. William L. Dunn, a Philip Morris scientist, wrote in a 1980 document entitled "The Nicotine Receptor Program" that while the "psychopharmacology of nicotine" is "where the action is for those doing fundamental research on smoking," and where "most likely will come significant scientific developments profoundly influencing the industry," "it is where our attorneys least want us to be." According to Dunn, there were two reasons why Philip Morris' lawyers did not want nicotine research conducted. The first reason was so the tobacco companies could claim ignorance "of any relationship between smoking and disease." Such an approach was "implicit in the legal strategy employed over the years in defending corporations within the industry from the claims of heirs and estates of deceased smokers." The second reason for not engaging in nicotine research was that any action by the tobacco industry, including research, that treated nicotine as a drug "could well be viewed as a tacit acknowledgment that nicotine is a drug," which could impact any future regulation of tobacco by the government. PM 1000127789 (U.S. Ex. 34,422) (U.S. Ex. 35,151). While nicotine research was permitted, "we must not be visible about it." Id. Because of the commercial necessity of research into nicotine, Dunn acknowledged that "our attorneys ... will likely continue to insist upon a clandestine effort in order to keep nicotine the drug in low profile." PM 1000127790 (U.S. Ex. 3,422) (U.S. Ex. 35,151).

4603. In 1984, Philip Morris attorneys shut down its Nicotine Program. Patrick Sirridge

of Shook, Hardy & Bacon wrote to Philip Morris' Assistant General Counsel Fredric Newman transmitting an analysis of Dr. Victor J. DeNoble's published literature, unpublished manuscripts, and in-press manuscripts. Dr. DeNoble researched nicotine and nicotine analogues at Philip Morris. The analysis concluded that "research engaged in, as well as some possibly under consideration, by Philip Morris has undesirable and dangerous implications for litigation positions the industry takes in regards to smoking behavior ... In the final analysis, the performing and publishing of nicotine related research seems ill-advised from a litigation point of view ..." PM 2021423422 (U.S. Ex. 87,038). The Nicotine Program was discontinued and DeNoble was terminated. See also Deposition of Robert Northrip, U.S. v. Philip Morris, January 9, 2004, 263:21-264:10 (counsel reviewed scientific documents prior to circulation "to insure that they were accurate").

4604. A December 31, 1985 memo from Jones Day Womble Carlyle, RJ Reynolds' outside legal counsel, describes the extent to which RJ Reynolds' lawyers – both inside and outside – influenced research conducted by that company:

- After the 1964 Surgeon General's report came out, the Law Department, according to Ralph Rowland, did influence research objectives to a degree, because the lawyers did not want anyone performing research that would appear to acknowledge that cigarettes or cigarette smoke contained harmful constituents or posed a health problem.
- the Law Department did participate in setting the guidelines for testing of additives.

- Since Sam Witt became General Counsel of RJRT in 1981, the Company lawyers have played a major role in reviewing research protocols relating to smoking and health and drafting R&D mission statements. ... it was understood that the lawyers controlled things in this area.
- the Law Department through the years has had a great deal of influence over RJRT-sponsored outside research.
- Jacob, Medinger has played a major role in reviewing and choosing foreign research projects to be funded by RJRT.
- Peter Van Every, an attorney in the Law Department, had a "New York Times principle," by which he meant that "things should not be written that could not be published in the New York Times."

515873805-3929 (U.S. Ex. 21,922).

4605. B&W intervened to edit adverse references to addiction out of a BAT report, entitled "The Controversy on Smoking and Health - Some Facts and Anomalies" by BAT scientist Dr. L.C.F. Blackman. By letter dated October 25, 1984, B&W attorney J. Kendrick Wells wrote BAT counsel Alec Morini that "review" of BAT publications by B&W was necessary in light of ongoing smoking and health litigation; Wells went on to provide 45 paragraphs of revisions to Dr. Blackman's draft report and a marked-up report, including:

> 2. Delete Donald Gould reference. The article identifies cigarettes as a drug.
> 3. Delete reference to Dr. W.S. Cain. The article identifies short terms and longer term pharmacological and physiological factors as important in the derivation of "habitual cigarette smoking" ...

> 5. Delete. The point made her might be said to run counter to arguments that cigarette smoking is not addictive ...

680582499-2507 (U.S. Ex. 54,052).

4606. Wells attached a marked-up copy of Blackman's report to his October 25 cover letter, where he indicated his edits and the corresponding paragraph numbers from his letter. The marked-up report was produced by BATCo in this litigation, with additional comments and markings from BATCo showing that BATCo acted on Well's letter. Specifically, the three paragraphs quoted above bearing adversely on the company's position on addiction were ultimately stricken from the report. 107332541-2574 at 2545 (U.S. Ex. 26,281); compare to 680582512-2512 (U.S. Ex. 85,396).

4607. On October 5, 1984, BAT scientist Dr. L.C.F. Blackman advised BAT Group Leaders that "Until further notice all communications i.e., reports, letters, memos, telexes etc. to Brown & Williamson Tobacco Corp., must be transmitted via your Research Manager to [Blackman] for forwarding to Louisville." 107444882 (U.S. Ex. 87,039). See also JAMA article 700588527-8567 (U.S. Ex. 88,359).

4608. On May 29 and 30, 1984, attorneys from Brown & Williamson and BATCo held a conference on U.S. products liability litigation. During the course of that conference, "Project Rio," a biological testing program to develop cigarettes with less "biological activity," was discussed. According to a memo authored by Kendrick Wells, in-house counsel for Brown & Williamson, the attorneys "were able to hold significant discussions about implications for U.S. products liability litigation ... regarding Project Rio. BAT Legal acknowledged the needs for lawyer involvement in the project and for possible restructuring, but there was not enough time

to plot a course of action." Wells considered follow-up and further summarized the meetings in a June 12, 1984 file note:

> we should arrange a meeting in London with BAT Legal ... to delineate more specific counsel to the BAT, including proposals for the structure and organization of BAT programs and statements which would hold to the minimum feasible level their potential impact upon U.S. products liability litigation. Topics would include proposals for organizing programs already on the table and general procedural guides for lawyer counseling of ongoing and future programs. For example, if Project Rio must continue, restructuring probably will be required to control the risk of generating adverse evidence admissible in U.S. lawsuits.
> ...
> Direct lawyer involvement is needed on all BAT activities pertaining to smoking and health from conception through every step of the activity.
>
> The problem posed by BAT scientists and frequently used consultants, who believe cause is proven [ie, that smoking causes disease] is difficult.

685092972-2974 (U.S. Ex. 31,031).

4609. From October 23 to 25, 1986, the German Society of Occupational Medicine hosted a scientific symposium in Essen, Germany run by Professor Karl Norpoth of the Institute of Hygiene and Occupational Medicine at the University of Essen (the "Essen symposium"). Researchers for Philip Morris sought approval to present research findings regarding environmental tobacco smoke at the Essen symposium, but ultimately lawyer review and opposition prevented their attempts to publicly present their findings. A leading board of German physicians, the German Society for Smoking and Health, ultimately concluded that the Essen symposium was so attached to the tobacco manufacturers that the proceedings were irretrievably tainted. In a formal statement, the German Society stated: "Apparently the

symposium in Essen will once again serve as an organ for marketing manipulation by the tobacco industry. This conclusion is in no way minimized by the fact that a handful of eminent, independent scientists have also been invited to participate; In public they shall serve as an alibi." 2025989595-9596 at 9595 (U.S. Ex. 22,833).

4610. Beginning in February, 1986, prior to the Essen symposium, scientists at INBIFO, Philip Morris's research facility in Cologne Germany, requested approval from Philip Morris to present three studies at the Essen symposium related to environmental tobacco smoke. 2501666835-6837 at 6835 (U.S. Ex. 87,027). Among other findings the studies found that "sidestream condensate is slightly (1.4-fold) more mutagenic than mainstream condensate . . . ." 2001225910-5910 (U.S. Ex. 87,028); see also 2001225909-5909 (U.S. Ex. 87,029); 2001225911 (U.S. Ex. 87,030); 2501659066 (U.S. Ex.87,031). On May 6, 1986, at least one of the studies was forwarded by Phillip Morris scientist Robert Pages to Donald Hoel, an industry lawyer at Shook, Hardy & Bacon for review and approval to present the paper. 2021654043-4045 at 4045 (U.S. Ex. 87,032). On May 20, 1986, Thomas Osdene, Director of Research for Philip Morris, sought approval from Philip Morris management to present the three studies at the Essen symposium. 2001225907-5908 at 5907 (U.S. Ex. 87,033). On May 28, 1986, Robert Pages reported back to the INBIFO scientists that, despite his efforts and the efforts of Dr. Osdene to gain approval, Philip Morris management would not allow the studies to be presented because a Philip Morris in-house lawyer, Frederic Newman, "said no." According to Pages, "that was the end of that." 2501459823-9823 (U.S. Ex. 87,034); see also, 2501459834-9834 (U.S. 87,035).

4611. In 1991, the Board of INFOTAB and CECCM, European cigarette trade

associations, retained Lovell, White, Durrant to provide legal clearance for all documents related to "smoking and health matters." Chadbourne and Parke was also retained to review the documents with an eye toward making sure that "due consideration is given to the legal position in the United States," even though these trade associations allegedly had no connection to the United States, thus demonstrating the international nature of Defendants' enterprise. 2023237649-7650 at 7649 (U.S. Ex. 87,025).

4612. In November 1997, the Tobacco Manufacturers Association, a British trade group, prepared commentaries for several studies published the previous month in the journal Nature on ETS's relation to lung cancer and heart disease. A November 20, 1997 e-mail from BATCo's Adrian Payne to scientists and executives at BATCo, with a copy to Stewart Massey, a scientist at Imperial Tobacco Ltd., stated that the TMA's comments would be sent to the UK Department of Health only "[f]ollowing legal clearance (Lovell White Durant)." 3215100040-0040 (U.S. Ex. 87,026).

(b) Admissions and Internal Complaints Regarding Lawyer Involvement in and Manipulation of Research

4613. During the 1970s, an Industry Research Committee – comprised of attorneys and public relations employees of the Cigarette Company Defendants – considered what type of research CTR should conduct and helped develop these projects. A memorandum dated November 4, 1978, from Janet C. Brown, an attorney for American Tobacco, explained "the industry thus moved closer to becoming the arbiter of the amount of CTR research done (by reason of its control of CTR's budget) and the type of research done (by reason of the changes in scope and direction of research, as dictated by Yeaman's [a lawyer's] letter)."

http://energycommerce.house.gov/tobacco/docs/bw/0012690844.tif. (U.S. Ex. 36,238).

4614. As early as 1969, Defendants' scientists began complaining that Defendant-funded science had become compromised because of the use of science to support litigation. In a Philip Morris memorandum, Helmut Wakeham, Philip Morris's Vice President and Director of Research, lamented the fact that despite the scientific expertise of the tobacco industry to conduct smoking and health research, this expertise was not being utilized because of the legal situation: "Unfortunately . . . the scientific expertise of the industry, because of the liability suit situation, has not been permitted to make a contribution to the problem, a contribution which I believe was and is vital . . . ." 1001609594-9595 (U.S. Ex. 21,437) (U.S. Ex. 76,162).

4615. In a meeting in 1970, Wakeham, again complaining about the litigation and lawyer control of science, told D.G. Felton, BATCo's then Manager of Research Planning and later Manager of Smoking & Health Issues, "that the replacement for Dr. Little as Scientific Director of CTR is being sought by the lawyers committee and the Tobacco Institute without reference to the scientists." 110315968-5971 (U.S. Ex. 26,378) (U.S. Ex. 26,379) (U.S. Ex. 63,573).

4616. In the same 1970 document, Felton noted how he explained to Wakeham that lawyer control of science was the reason why TRC, the British counterpart to CTR, was unwilling to cooperate with and include among its ranks American scientists. Felton stated that TRC members feared "scientific co-operation [with American scientists] as the thin end of a wedge which might lead to undue influence in TRC affairs by American lawyers." 110315968-5971 (U.S. Ex. 26,378) (U.S. Ex. 26,379) (U.S. Ex. 63,573).

4617. A June 24, 1974 Lorillard memorandum explained how CTR was used by lawyers not for scientific research but for litigation ends:

> Historically, the joint industry funded smoking and health research programs have not been selected against specific scientific goals, but rather for various purposes such as public relations, political relations, position for litigation, etc. Thus, it seems obvious that reviews of such programs for scientific relevance and merit in the smoking and health field are not likely to produce high ratings. In general, these programs have provided some buffer to public and political attack of the industry, as well as background for litigious strategy.

01421596-1600 at 1598 (U.S. Ex. 20,049).

4618. In 1978, Sheldon Sommers, Chairman of the CTR Scientific Advisory Board, complained to William Gardner, the Scientific Directorof CTR, that he (Sommers) was unable to understand the legal counsel he was being given. The clear import of Sommers' letter was that the CTR lawyers were controlling tobacco research by CTR based upon legal considerations. Sommers stated: "I think CTR should be renamed Council for Legally Permitted Tobacco Research, CLIPT for short." Indeed, the lawyer control of CTR had become so pervasive that Sommers concluded that "[m]y considered opinion is that the time for me to sever connections with CTR is near." 11319256-9256 (U.S. Ex. 20,281).

4619. Sommers's sentiment that CTR was being used to further the legal interests of the company is confirmed by the Brown & Williamson general counsel who explained in 1978 that "CTR helps protect the industry from potential 'smoking pistol(s) in a lawsuit' should research go wrong," and a later analysis of Defendants' documents by their lawyers in which they concluded that numerous internal company documents discussed "ways in which CTR can be used to

protect the industry through defensive research." 680260940-0941 (U.S. Ex. 20,995); 682764441-4461 (U.S. Ex. 21,030).

4620. In a May 11, 1993 letter from K. Wells, B&W's associate general counsel, to S.P. Chalfen, BAT Industries solicitor, Peter L. Clarke, BATCO general counsel, and Andrew Foyle of Lovell, Durant, Wells stated that while the "CTR story, including SP [special project] grants, is a positive story which can be told and defended," "it should not be told to the public during the pendency of litigation in the U.S. involving assertions of fraud in connection with CTR's operations." 536300013-0014 (U.S. Ex. 53,132).

4621. In a 1978 handwritten note related to the industry's Scientific Liaison Research Committee, Curtis Judge, Lorillard's Chief Executive Officer, complained that "[w]e have again abdicated the scientific research directional management of the Industry to the 'lawyers' with virtually no involvement on the part of the scientific or business management side of the business" (emphasis in original). The note further argued that a reconstituted scientific and policy leadership committee should not "report to the Committee of Counsel." 01346204-6205 (U.S. Ex. 34,532).

V
DEFENDANTS CAUSED THE CHARGED MAILINGS AND WIRE TRANSMISSIONS IN FURTHERANCE OF THE SCHEME TO DEFRAUD

A. The Charged Defendants Caused the Mailings and Wire Transmissions

1. The Court finds that, consistent with the allegations set forth in the descriptions of the Racketeering Acts below, the charged Defendants performed or caused the mailings or wire transmissions described in each of those respective Racketeering Acts to be sent, delivered, or received by the requisite means of transmission consistent with 18 U.S.C. §§ 1341 and 1343.

2. Brown & Williamson has stipulated that the requirements of 18 U.S.C. § 1341 or § 1343 have been met for the following Racketeering Acts: 8, 17, 31-32, 38, 44-45, 50-52, 54, 57, 60, 63, 66-67, 77, 88, 98, 103, 106, 115-116, 118, 124-125, 127, 129, and 144.

3. BATCo has stipulated that the requirements of 18 U.S.C. § 1341 or § 1343 have been met for the following Racketeering Acts: 11, 30, 50, 51, 53, 54, 57, 60, 63, 103, and 108.

4. In their responses to Requests for Admission, various Defendants have admitted that certain of the Racketeering Acts were transmitted by the requisite means of transmission (mail or wire), including the following Racketeering Acts: 11, 26, 30, 32, 38, 44-46, 50-55, 57, 60, 63, 66-67, 70, 73, 77, 79, 81-82, 86, 88-90, 94, 96, 98-99, 103-106, 108-110, 114, and 116. Response of Brown & Williamson to the United States' First Set of Requests for Admission to All Defendants, United States v. Philip Morris, et al., April 19, 2002 (U.S. Ex. 77,410); Philip Morris USA's Responses to Plaintiff's First Requests for Admission to All Defendants, United States v. Philip Morris, et al., April 19, 2002 (U.S. Ex. 77,533); Defendant R.J. Reynolds's Responses to Plaintiff's First Set of Requests for Admission to All Defendants, United States v.

Philip Morris, et al., April 19, 2002 (U.S. 77,413); Response of Defendant Tobacco Institute to Plaintiff's First Set of Requests for Admission Amended Pursuant to Order #119, United States v. Philip Morris, et al., April 19, 2002 (U.S. Ex. 87,227).

5. In their Opposition to the United States' Motion For Partial Summary Judgment On Element That Defendants Have Caused Mailings And Wire Transmissions, Defendants admitted that the mailings and wire transmissions underlying Racketeering Acts 3-7, 10, 12, 18, 21, 23-25, 27, 33-35, 46, 49, 79, 81, 117, 121-122, 132-133, 143, and 145-146 have been established. See JD. Rule 7.1/56.1 Statement Mailings ¶¶ 120-124, 127, 129, 135, 138, 140-142, 144, 150-152, 163, 166, 194, 196, 231, 235-236, 246-247, 257 and 259-260.

6. Thirty-three of the forty-one Racketeering Acts that Defendants challenged in their Opposition involve correspondence mailed from one city to another. They are Racketeering Acts 2-3, 6-7, 9-10, 12-16, 19-22, 27, 33, 40-41, 58, 62, 69, 71-72, 74-75, 79-81, 85, 117 and 132-133.

7. Twenty of the forty-one Racketeering Acts that Defendants challenged in their Opposition involve mailings prior to September 14, 1974, during the period that the United States Mails were virtually the only authorized means of mailing. They are Racketeering Acts 2-3, 6-7, 9-10, 12-16, 19-22, 27-29, 33, and 117. Based upon the aforementioned mailings from one city to another, and the aforementioned mailings that preceded September 14, 1974, the Court finds that such mailings more likely than not occurred via the United States Mails.

8. Prior to 1974, private carrier mailing was permissible only by "opinion letter" permission of the Postal Department. In 1974, the United States Postal Service (previously

Postal Department) set forth most of 39 C.F.R. Part 310, which dealt with enforcement of the Private Express statutes (39 U.S.C. § 601 et seq.). Section 310.3 of 39 C.F.R., promulgated September 14, 1974, set forth certain exceptions, but the largest exception, which listed various suspensions of the Private Express statute, occurred in 1979. That exception included, on October 24, 1979, the "extremely urgent letter" suspension (39 C.F.R. § 320.6), under which most courier services now operate. 18 U.S.C. §§ 1341, 1343; 39 C.F.R. Part 310 and Part 320; 39 U.S.C. § 601 et seq.

9. No Defendant has indicated in written or documentary discovery, or otherwise indicated to the Court, that it possessed such "opinion letter" permission. Therefore, because of the virtual "Postal monopoly" that existed prior to October 1979, Racketeering Acts 1 through 43 were almost certainly sent by the United States Mails.

10. The Court takes judicial notice that since 1954, newspapers and magazines have been routinely sent to subscribers via the United States Mails, and that this practice was reasonably foreseeable to each Defendant.

11. The Court finds the following carrier services to be "private or commercial interstate carriers": Fedex (formerly Federal Express); DHL; United Parcel Service; and Airborne Express.

12. Most of Defendants claim that they have not retained logs or other data which record the method of transmission or receipt of a document. Similarly, Defendants claim that they have not retained items, such as postmarks, envelopes, airbills, or routing slips that might evince the means of delivery. Deposition of John Long, United States v. Philip Morris, et al.,

June 25, 2002, 22:16-23:02; Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 19:09-21:13, 24:21-25:18; Deposition of William Adams, United States v. Philip Morris, et al., June 19, 2002, 440:05-441:11.

13. Certain documents, on their face, indicate that they have been transmitted by the United States Mails. For instance, in Racketeering Act 74, Altria's in-house counsel, Eric A. Taussig, sent a letter to Paul Mele, which alleged that Mele had violated his confidentiality agreement with Philip Morris and stated that "The Company cannot tolerate this kind of conduct. . . . Any further breach of your agreement will result in action being taken." Racketeering Act 75 is an identical letter to Victor DeNoble from Taussig. Across the top of the letter is the legend "CERTIFIED MAIL RETURN RECEIPT REQUESTED," indicating Post Office delivery. 2043724074-4075 (U.S. Ex. 21,916).

14. Similarly, where a letter or other mailing has been sent to a post office box, such indication provides sufficient evidence that the mailing was sent by United States Mails, as private courier services cannot deliver to post office boxes. See, e.g., Racketeering Acts 11, 30, 41, 50- 51, 55, 57, 60, and 63. 680204115-4117 (U.S. Ex. 20,990); 680248768-8769 (U.S. Ex. 20,993); 2000512794-2795 (U.S. Ex. 20,295); (U.S. Ex. 20,296) ; 680585135-5135 (U.S. Ex. 22,976); 680584974-4985 (U.S. Ex. 21,382); 680585231-5330 (U.S. Ex. 22,764); 680583674-3674 (U.S. Ex. 21,383); 103498901-8902 (U.S. Ex. 21, 384); 521016787-6788 (U.S. Ex. 22,129).

15. Certain Racketeering Acts, on their face, have been transmitted by wires and radio and television signals. For instance, various statements from Defendants' internet websites are or

were published on the worldwide web, a global network of computers which employ telephone, fiberoptic, and other wire and wireless infrastructures. Similarly, telephone communications, telexes, cable letters, telegrams, e-mails, facsimile transmissions, and television and radio involve the use of wire and radio/television signals in interstate and/or foreign commerce. Therefore, Racketeering Acts 103-116, 130, 134, 137, and 143-147 were transmitted by use of the wires, radio, and television signals in interstate and/or foreign commerce. 689033421-3421 (U.S. Ex. 31,045); 508293416-3416 (U.S. Ex. 21,514); 1002605545-5564 (U.S. Ex. 35,622); 680273641-3643 (U.S. Ex. 20,998); 504331775-1776 (U.S. Ex. 22,738); 301030943-0944 (U.S. Ex. 46,577); IRA0011429-1435 (U.S. Ex. 33,063); IRA0011510-1517 (U.S. Ex. 33,064); IRA0011518-1522 (U.S. Ex. 33,065); 2029200293-0294 (U.S. Ex. 21,537); 450010016-0016 (U.S. Ex. 21,539); IRA0011575-1596 (U.S. Ex. 33,076; 690149518-9531 at 9520 (U.S. Ex. 21,046); (U.S. Ex. 78,732); 507834616-4616 (U.S. Ex. 21,540); 86067870-7871 (U.S. Ex. 56,095); http://www.lorillard.net/corp.html (U.S. Ex. 86,695); http://www.brownandwilliamson.com/Index_sub2.cfm?ID=12 (U.S. Ex. 86,656); http://www.philipmorrisusa.com/DisplayPageWithTopic917.asp (U.S. Ex. 86,697); http://www.rjrt.com/IN/COHowWeThink_smokinghealth.asp (U.S. Ex. 72,410); 86067870-7871 (U.S. Ex. 56,095)

16. Furthermore, various Defendants' routine business practices demonstrate sufficient use of the mails and/or wires. For instance, the Tobacco Institute's corporate representative testified in this case that 90% of its incoming mail delivery was by United States Mails, and also that 90% of its press releases were also sent by United States Mails. That same

corporate representative also testified that certain Tobacco Institute representatives appeared on television that was nationally broadcast. CTR's corporate representative testified that it distributed its annual reports by the United States Mails, and "more often than not," its award letters were also sent through the United States Mails. Lorillard's corporate representative estimated that 75% of its correspondence from 1994 to present was delivered by the United States Postal Service. Where 75% of a Defendant's outgoing mail uses the United States Postal Service, it is reasonable to conclude, by a preponderance of the evidence, that a given mailing from that Defendant was indeed carried by the United States Mails. Similarly, in certain circumstances, the only reasonable method of transmission would be by United States Mails; the Court is therefore justified in making such an inference. Philip Morris and Altria Group estimated that as of July 1, 2002, approximately three-quarters of the items arriving in their New York mail room were sent by United States Mails, and that before September 11, 2001 approximately 80% of United States Mails would have flowed through their central Richmond facilities; that all of their incoming mail flows either to their Richmond or New York mail room; that after September 11, 2001, approximately 85% of correspondence and packages arriving in their Richmond mail room, and approximately 75% of all mails and materials they sent were transmitted by U.S. Mails; that no earlier than 1967 did Philip Morris begin using private courier and commercial services to send correspondence or packages, and that Philip Morris and Altria Group now use fax machines, an Internet web site, and e-mail to transmit documents. Deposition of William Adams, United States v. Philip Morris, et al., June 19, 2002, 448:02-11, 454:19-455:01, 479:20-480:04; Deposition of Harmon McAllister, United States v. Philip Morris, et al.,

May 24, 2002, 65:11-66:19, 67:07-18; Deposition of Becky Wright, United States v. Philip Morris, et al., June 27, 2002, 14:11-14:25; Deposition of Dale Frazier, United States v. Philip Morris, et al., 33:20-34:10, 20:12-20:17, 12:12-13:17, 22:6-18, 42:19-43:17, 23:10-23:15, 42:19-43:17.

17. Gwendolyn Beck Joyner testified about the mailings practices of R.J. Reynolds's Marketing Department, based upon her personal knowledge as an employee since 1972, stating that in her experience, most correspondence in the 1970s that she was involved in was sent via the United States Mails. Deposition of Gwendolyn Beck Joyner, United States v. Philip Morris, et al., June 28, 2002, 14:18-15:22.

18. Harmon McAllister testified that the Council for Tobacco Research, U.S.A., Inc. ("CTR") sent communications between it and scientists predominantly by United States Mails. Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 24, 2002, 67:3-18.

19. In a speech by top Philip Morris USA management regarding its 2001 Marketing Plan, Philip Morris USA stated: "Over the course of last year we mailed over 96 million pieces of mail which makes us the second biggest customer of the post office second actually behind the IRS!" 2082013004-3004 (U.S. Ex. 25,101).

20. In 1986, as part of a "targeted mass-mailing outreach campaign," the Tobacco Institute began circulating *Tobacco Update*, a one sheet, double-sided summary of Tobacco Institute positions. The Tobacco Merchant's Association originally published a newsletter called *Tobacco Update* which was a lengthier summary of issues facing tobacco. The Tobacco Institute sent copies of *Tobacco Update* to op-ed page managers, columnists, and business editors of every

daily newspaper with a circulation of 10,000 or more. TIMN 339121-9128 at 9121 (U.S. Ex. 86,127).

21. Certain of the mail fraud Racketeering Acts involve mailings sent by Defendants themselves. For those Racketeering Acts that were not directly sent by Defendants or their employees, the Court finds that those Defendants nevertheless "caused" the transmissions. See, e.g., Racketeering Acts 2, 5, 6-7, 10, 13-15, 31, 38, 44, 47-48, 66-67, 70, 73, 77, 88, 98, 117-118, and 120. It was reasonably foreseeable that such transmissions would occur by the requisite means of transmission. For instance, where Hill & Knowlton, a public relations firm working for and on behalf of the Defendants, issued a press release, and that press release was then sent via the mails, the charged Defendants "caused" that mailing. 11313243-3244 (U.S. Ex. 20,280); TIMN0127723-7724 (U.S. Ex. 21,318); TIMN0098597-8598 (U.S. Ex. 21,270) (U.S. Ex. 56,990) (U.S. Ex. 78,777); TIMN0118245-8246 (U.S. Ex. 62,882) (U.S. Ex. 77,055); TPRE0000159-0162 (U.S. Ex. 85,511); 2015059690-9697 (U.S. Ex. 20,309); 1005154472-4479 (U.S. Ex. 20,229); 1005083882-3886 (U.S. Ex. 20,204); 521030439-0441 (U.S. Ex. 23,019); 1005118752-8753 (U.S. Ex. 21,805); 521029790-9790 (U.S. Ex. 21,536); 1002325026-5026 (U.S. Ex. 35,595); 1002325022-5022 (U.S. Ex. 21,510); 2015047161-7163 (U.S. Ex. 21,809); 507876416-6417 (U.S. Ex. 21,810); (U.S. Ex. 51,236); 507731656-1656 (U.S. Ex. 36,641); (U.S. Ex. 21,709); 507875961-5962 (U.S. Ex. 20,796); 2015006928-6929 (U.S. Ex. 21,811); 521100179-0180 (U.S. Ex. 21,812); 512678470-8473 (U.S. Ex. 22,979), IRA0011317-1345 (U.S. Ex. 58,881); MNAT00280070-0070 (U.S. Ex. 78,775) (U.S. Ex. 21,724); 2025345360-5362 (U.S. Ex. 78,778) (U.S. Ex. 20,414); 500015901-5905 (U.S. Ex. 47,778).

SECTION V.

22. As described above, certain Defendants created, controlled, and funded Defendants CTR and the Tobacco Institute, in large part for the purpose of having those entities disseminate false and fraudulent information. Accordingly, when the Tobacco Institute and CTR perform a mailing or wire communication, the other charged Defendants, along with the Tobacco Institute and CTR, have "caused" the transmissions by mail or wire. See, e.g., Racketeering Acts 3, 5-7, 10, 12, 18, 21, 23-24, 27, 29, 33-35, 42-43, 46, 49, 56, 79, 81, 87, 91, 93, 117, 118, 130, 132, and 133. TIMN0110091-0091 (U.S. Ex. 21,319); TIMN0127723-7724 (U.S. Ex. 21,318); TIMN0098597-8598 (U.S. Ex. 21,270); (U.S. Ex. 56,990); (U.S. Ex. 78,777); TIMN0118245-8246 (U.S. Ex. 77,055); TPRE0000159-0162 (U.S. Ex. 85,511); TPRE0000163-0164 (U.S. Ex. 85,512); TIMN462375-2380 (U.S. Ex. 21,660); 680264942-4943 (U.S. Ex. 22,978); TIMN0100637-0637 (U.S. Ex. 21,663); TIMN0120574-0575 (U.S. Ex. 21,678); TIMN0100469-0470 (U.S. Ex. 21,687); TIMN0120596-0597 (U.S. Ex. 21,321); TPRE0000371-0377 (U.S. Ex. 85,513); TIMN0120638-0639 (U.S. Ex. 21,698); 680263421-3422 (U.S. Ex. 22,345); (U.S. Ex. 78,780); TIFL0522279-2280 (U.S. Ex. 21, 424); TIMN0074006-4006 (U.S. Ex. 21,303); TIMN0133740-3798 (U.S. Ex. 21,280); TIMN0102493-2494 (U.S. Ex. 21,271); TNWL0019638-9640 (U.S. Ex. 21,703); TIFL0540854-0854 (U.S. Ex. 21,711); TIMN0125189-5189 (U.S. Ex. 77,065); TIMN0020530-0531 (U.S. Ex. 21,713); (U.S. Ex. 62,795); (U.S. Ex. 36,253) (U.S. Ex. 62,797); TIMN0015615-5617 (U.S. Ex. 21,265); TIMN0019059-9060 (U.S. Ex. 21,266) (U.S. Ex. 34,400) (U.S. Ex. 21,295) (U.S. Ex. 62,790); MNAT00280070-0070 (U.S. Ex. 21,724); (U.S. Ex. 78,775); 2025345360-5362 (U.S. Ex. 20,414); (U.S. Ex. 78,778); 690149518-9531 at 9520 (U.S. Ex. 21,046) (U.S. Ex. 78,732); TIMN0019963-9963 (U.S. Ex.

21,239) (U.S. Ex. 22,727); TIMN0125189-5189 (U. S. Ex. 21,334) (U.S. Ex. 77,065).

23. Similarly, where a Defendant issues a public statement, and that public statement is then carried by a news agency, wire service, newspaper, television broadcast or other method of dissemination, such transmission by mail or wire is "caused" by the charged Defendant or Defendants. See, e.g., Racketeering Acts 1-3, 5-8, 10, 12, 18, 21, 23-24, 27, 29, 33-37, 39, 42-43, 46-49, 56, 61, 64, 70, 76, 79, 81, 83-84, 87, 93, 97, 100-102, 105, 109-113, 117-118, 120, 130, 132-133, 135-142, and 147-148. For example, when the Tobacco Institute issued a press release, it was reasonably foreseeable (and probably intended) that such press release was disseminated by news outlets and other media. Therefore, the Tobacco Institute (and the other Defendants charged in said acts) have "caused" such dissemination. TIMN0040888-0888 (U.S. Ex. 21,422); 11313243-3244 (U.S. Ex. 20,280); TIMN0110091-0091 (U.S. Ex. 21,319); TIMN0127723-7724 (U.S. Ex. 21,318); TIMN0098597-8598 (U.S. Ex. 21,270); (U.S. Ex. 78,777) (U.S. Ex. 56,990); TIMN0118245-8246 (U.S. Ex. 62,882) (U.S. Ex. 77,055); 508775085-5088 (U.S. Ex. 20,815); TPRE0000159-0162 (U.S. Ex. 85,511); TPRE0000163-0164 (U.S. Ex. 21,551); TIMN462375-2380 (U.S. Ex. 21,660); 680264942-4943 (U.S. Ex. 22,978); TIMN0100637-0637 (U.S. Ex. 21,663); TIMN0120574-0575 (U.S. Ex. 21,678); TIMN0100469-0470 (U.S. Ex. 21,687); TIMN0120596-0597 (U.S. Ex. 21,321); TPRE0000371-0377 (U.S. Ex. 85,513); TIMN0120638-0639 (U.S. Ex. 21,698); 680263421-3422 (U.S. Ex. 22,345); (U.S. Ex. 78,780); 500713769-3769 (U.S. Ex. 48,351); 03061394-1394 (U.S. Ex. 21,700); 500713420-3420 (U.S. Ex. 48,350); TIFL0522279-2280 (U.S. Ex. 21,424); TIMN0074006-4006 (U.S. Ex. 21,303); TIMN0133740-3798 (U.S. Ex. 21,280); 1002325026-

5026 (U.S. Ex. 35,595); 1002325022-5022 (U.S. Ex. 21,510); TIMN0102493-2494 (U.S. Ex. 21,271); TNWL0019638-9640 (U.S. Ex. 21,703); 505302573-2573 (U.S. Ex. 21,627); 513943434-3434 (U.S. Ex. 50,268); (U.S. Ex. 51,761); 507731656-1656 (U.S. Ex. 21,709); (U.S. Ex. 36,641); 509131846-1847 (U.S. 20,823); (U.S. Ex. 76,197); TIFL0540854-0854 (U.S. Ex. 21,711); TIMN0125189-5189 (U.S. Ex. 21,334); (U.S. Ex. 77,065); 509131376-1378 (U.S. Ex. 20,822); 506876715-6718 (U.S. Ex. 21,712); TIMN0020530-0531 (U.S. Ex. 21,713);(U.S. Ex. 36,253); (U.S. Ex. 62,795); (U.S. Ex. 62,797); TIMN0019059-9060 (U.S. Ex. 21,266); (U.S. Ex. 21,295); (U.S. Ex. 34,400); (U.S. Ex. 62,790); 509131534-1534 (U.S. Ex. 21,717); 2500050140-0141 (U.S. Ex. 21,804); IRA0011360-1361 (U.S. Ex. 33,059); IRA0011362-1362 (U.S. Ex. 33,060); 1002605545-5564 (U.S. Ex. 35,622); IRA0011429-1435 (U.S. Ex. 33,063); IRA0011510-1517 (U.S. Ex. 33,064); IRA0011518-1522 (U.S. Ex. 33,065); MNAT00280070-0070 (U.S. Ex. 78,775); (U.S. Ex. 21,724) 2025345360-5362 (U.S. Ex. 20,414); (U.S. Ex. 78,778); 500015901-5905 (U.S. Ex. 47,778); 690149518-9531 at 9520 (U.S. Ex. 21,046); (U.S. Ex. 78,732); TIMN0019963-9963 (U.S. Ex. 21,239); (U.S. Ex. 22,727); TIMN0125189-5189 (U.S. Ex. 21,334); (U.S. Ex. 77,065); 98402850-2851 (U.S. Ex. 57,306); 98402886-2888 (U.S. Ex. 57,307); 86067870-7871 (U.S. Ex. 56,095); 86067879-7879 (U.S. Ex. 56,096); 524649701-9712 (U.S. Ex. 21,750); 517509202-9211 (U.S. Ex. 21,752); 98163137-3139 (U.S. Ex. 21,860); 98173405-3405 (U.S. Ex. 56,945); 98173406-3406 (U.S. Ex. 56,946); 86067870-7871 (U.S. Ex. 56,095); 86067879-7879 (U.S. Ex. 56,096).

24. For instance, Racketeering Act 1, Defendants' "A Frank Statement to Smokers," was carried by various newspapers and other journals throughout the United States, including the

Washington Post and the *New York Times*. Those publications were and are carried not only by newspaper delivery services (for home delivery), periodical outlets, and newspaper machines, but also to subscribers by means of the United States Mail. Similarly, where a press release or other public statement was carried by *Time* magazine, *Newsweek*, or another such publication, as the periodicals themselves indicate, those periodicals were also sent to subscribers by the United States Mails. As with mailings sent by third parties, as described in this Section, such mailings are "caused" by Defendants, as charged. TIMN0040888-0888 (U.S. Ex. 21,422).

B. Defendants Control the Content of Their Respective Websites

25.

Deposition of Mark Berlind, United States v. Philip Morris, et al., May 23, 2002, 199:11-201:4; Deposition of Ellen Merlo, United States v. Philip Morris, et al., June 26, 2003, 712:14-713:17; Deposition of Jan Fulton Smith, United States v. Philip Morris, et al., March 25, 2003, 41:2-4; 45:3; 106:14-16; Deposition of Brennan Dawson, United States v. Philip Morris, et al., May 16, 2002, 45:23-49:17; Deposition of Steven Craig Watson, United States v. Philip Morris, et al., April 2, 2002, 14:23-15:4; Deposition of James Taylor, United States v. Philip Morris, et al., June 14, 2002, 43:15-45:14 (Confidential).

C. Defendants Control the Content of Their Cigarette Advertising

26.

Deposition of Richard Camisa, United States v. Philip Morris, et al., June 28, 2002, 121:12-133:13, 24:23-27:10, 32:19-33:11,

33:11, 51:19-52:4, 81:14-82:16; Deposition of Suzanne LeVan, United States v. Philip Morris, et al., June 27, 2003, 387:10-396:7 (Confidential); Deposition of Andrew Schindler, United States v. Philip Morris, et al., June 12, 2002, 103:12-105:12; Deposition of Sharon Smith, United States v. Philip Morris, et al., February 22, 2002, 37:11-38:16; Deposition of George Telford, United States v. Philip Morris, et al., June 26, 2002, 23:3-13; Deposition of Victor Lindsley, United States v. Philip Morris, et al., May 16, 2002, 34:19-37:2; Deposition of Steven Shipe, United States v. Philip Morris, et al., May 21, 2002, 34:18-43:8, 48:2-12, 62:15-67:9 (Confidential).

D. The 145 Alleged Racketeering Acts Were Undertaken for the Purpose of Executing the Scheme to Defraud

27. The Court finds that all of the mailings and wire transmissions alleged in the charged 145 Racketeering Acts were undertaken for the purpose of executing the scheme to defraud found by the Court.

28. In Section IV above, the Court determined that Defendants devised a scheme to defraud that was executed through seven principal means involving the mailing and/or wire transmission of numerous material false, deceptive, misleading, or otherwise fraudulent statements, representations, or promises, half-truths, and omissions of material facts, as well as other statements which, although not false or misleading (such as internal communications which admitted that smoking causes cancer) were nonetheless in furtherance of Defendants' scheme to defraud. The Court finds that all of the alleged 145 Racketeering Acts were undertaken for the purpose of executing the scheme to defraud because they furthered Defendants' continuing efforts to deceive consumers and potential consumers into starting and continuing to smoke cigarettes by attempting to misrepresent and conceal the adverse health effects caused by smoking cigarettes

and exposure to cigarette smoke and other related matters, and by maintaining that there was an "open question" as to whether smoking cigarettes, or exposure to cigarette smoke, causes disease and other adverse effects. Such false statements, misrepresentations, and concealments had a natural tendency to influence the decisions of consumers and potential consumers to initiate, continue, or quit smoking, and to influence the decisions of others to initiate, forgo, or otherwise affect efforts to address smoking and health issues, including youth smoking. Moreover, each Racketeering Act[1] was undertaken to execute the scheme to defraud on additional grounds, including, but not limited to, the grounds set forth below:

29. **Racketeering Act No. 1:** On or about January 4, 1954, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, AMERICAN, and co-conspirators caused to be placed in numerous newspapers nationwide, including *The Washington Post*, a daily newspaper, an advertisement entitled "A Frank Statement To Smokers," which newspaper was then sent and delivered by the United States Mails to subscribers and others. In this advertisement, defendants promised to safeguard the health of smokers, support disinterested research into smoking and health, and reveal to the public the results of research into the effects of smoking on smokers' health.

30. This communication contained false promises and misrepresentations regarding: safeguarding the health of smokers; fraudulent promises regarding Defendants' support of independent, disinterested research into smoking and health; and fraudulent promises to reveal to the public the results of research into the effects of smoking on smokers' health. This communication was for the purpose of executing the scheme to defraud because its false

[1]Racketeering Acts 8, 13-15, 44, 73, 98, 100, 134, and 140 have been modified to conform to the evidence

statements and misrepresentations constitute principal gravamen of the scheme to defraud. TIMN0040888-0888 (U. S. Ex. 21,422); *The New York Times*, January 4, 1954 (U.S. Ex. 58,987).

31. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, American, and co-conspirators, caused Racketeering Act 1, the 1954 "Frank Statement To Smokers," to be transmitted by the United States Mails. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Sanford Schwartz, United States v. Philip Morris, et al., June 24, 2003 (*The Atlanta Journal Constitution*) at 1, ¶ 4 (U.S. Ex. 75,945); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 17, 2003 (*The Boston Globe*) at 1, ¶ 6 (U.S. Ex. 75,946); Declaration of Michael Carvalhido, United States v. Philip Morris, et al., June 20, 2003 (*New York Post*) at ¶ 6 (U.S. Ex. 75,960); and Declaration of Katherine Hatton, United States v. Philip Morris, et al., June 27, 2003 (*The Philadelphia Inquirer*) at 1, ¶ 4 (U.S. Ex. 75,962).

32. **Racketeering Act No. 2:** On or about July 15, 1957, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through the TOBACCO INDUSTRY RESEARCH COMMITTEE (predecessor to defendant COUNCIL FOR TOBACCO RESEARCH), did knowingly cause a press release entitled "Scientist Comments on Benzypyrene Report" to be sent and delivered by the United States Mails to newspapers and news outlets. This press release disputed the United States Surgeon General's report that Benzypyrene had been identified in cigarette smoke, and stated that scientists had "generally concluded" that Benzypyrene in cigarette smoke cannot be a cause of cancer in smokers.

33. This communication contained the misrepresentation that scientists had generally concluded that Benzypyrene in cigarette smoke could not cause cancer. Moreover, this

communication sought to discredit the Surgeon General's Report with false and misleading statements. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. 11313243-3244 (U.S. Ex. 20,280); *Pittsburgh Press*, July 16, 1957 (UP article) (U.S. Ex. 65,226).

34. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through the Tobacco Industry Research Committee (predecessor to defendant Council For Tobacco Research), caused Racketeering Act 2, a press release to be transmitted by wire, on or about July 15, 1957. Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 24, 2002, 80:7-18.

35. **Racketeering Act No. 3:** On or about November 27, 1959, defendants PHILIP MORRIS, R.J. REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained statements attacking an article written by then-United States Surgeon General Leroy Burney about the hazards of smoking.

36. This communication misrepresented and concealed the link between smoking and disease. Moreover, this communication sought to discredit the Surgeon General's Report with false and misleading statements. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0110091-0091 (U.S. Ex. 21,319).

37. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 3, a press release, to be

transmitted by wire on or about November 27, 1959. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Sanford Schwartz, United States v. Philip Morris, et al., June 24, 2003 (*The Atlanta Journal Constitution*) at 1, ¶ 4 (U.S. Ex. 75,945); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 17, 2003 (*The Boston Globe*) at 1, ¶ 6 (U.S. Ex. 75,946); Declaration of Owen Youngman, United States v. Philip Morris, et al., June 10, 2003 (*Chicago Tribune*) ¶ 5 (U.S. Ex. 75,949); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961); and Declaration of William F. Nagel, United States v. Philip Morris, et al., June 23, 2003 (*The San Diego Union-Tribune*) at 2, ¶ 6 (U.S. Ex. 75,964).

38. **Racketeering Act No. 4:** On or about December 9, 1959, defendant REYNOLDS did knowingly receive from the mails a letter addressed to W.A. Sugg, R.J. Reynolds Tobacco Company, Winston-Salem, North Carolina, from George McGovern of William Esty Company, 100 East 42nd Street, New York, New York. The letter included a marketing study of the smoking habits of high school and college students.

39. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to Defendants' efforts to target the youth market, which they publicly denied. 501113723-3730 (U.S. Ex. 22,366).

40. Defendant R.J. Reynolds caused Racketeering Act 4, a letter addressed to W.A. Sugg, to be transmitted by mail on or about December 9, 1959. Deposition of Gwendolyn Beck Joyner, United States v. Philip Morris, et al., June 28, 2002, 61:17-63:13.

41. **Racketeering Act No. 5:** On or about July 6, 1961, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and

AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release was titled "Allen Gives Tobacco Institute Position on 'Health Scares'" and stated that "[t]he tobacco industry itself is more interested than anyone else in finding out and making public the true facts about tobacco and health" and that "research in recent years has produced findings that weaken rather than support the claim that smoking is a major contributor to lung cancer."

42. This communication falsely promised and misrepresented that Defendants wanted to and would conduct independent, disinterested research regarding smoking and disease and make the results of such research public, and misrepresented and concealed the link between smoking and disease. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0127723-7724 (U.S. Ex. 21,318); *New York Journal-American*, July 7, 1961 (U.S. Ex. 75,936); *Ft. Lauderdale News*, July 7, 1961 (U.S. Ex. 75,862).

43. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 5, a press release, to be transmitted by mail on or about July 6, 1961. Deposition of Gwendolyn Beck Joyner, United States v. Philip Morris, et al., June 28, 2002, 55:23-57:4.

44. **Racketeering Act No. 6:** On or about July 9, 1963, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release stated "the tobacco industry's position that smoking is a custom for adults and that it is not the intent of the industry to promote or encourage smoking among youth" and "[t]he industry wants to make it demonstrably clear that it does not wish to promote or encourage smoking among youth."

45. This communication falsely stated and misrepresented that Defendants did not promote or encourage smoking among youth when, in fact, they did. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0098597-8598 (U.S. Ex. 21,270) (U.S. Ex. 56,990) (U.S. Ex. 78,777); *The Wall Street Journal*, July 10, 1963 (U.S. Ex. 21,559); *The Washington Post*, July 10, 1963 (U.S. Ex. 21,560); AP article published July 10, 1963 in *Times-Union, Humboldt Times, Tribune, Express,* and *Call* (U.S. Ex. 87,228).

46. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 6, a press release, to be transmitted by mail on or about July 9, 1963. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Owen Youngman, United States v. Philip Morris, et al., June 10, 2003 (*Chicago Tribune*) at ¶ 5 (U.S. Ex. 75,949); Declaration of Victor A. Capece, United States v. Philip Morris, et al., July 15, 2003 (*The Washington Post*) at ¶ 6 (U.S. Ex. 75,967).

47. **Racketeering Act No. 7:** On or about November 3, 1963, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. Through this press release, defendants stated that they were on a "crusade" to find answers to the "questions about smoking and health," and that it "should be a crusade neither for nor against tobacco. It is a crusade for research . . . ." Defendants asserted the position that the question of causation was still unresolved.

48. This communication falsely promised and misrepresented that Defendants wanted to and would conduct independent, disinterested research regarding smoking and disease and would make the results of such research public, and misrepresented and concealed the link between smoking and disease. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0118245-8246 (U.S. Ex. 62,882) (U.S. Ex. 77,055); AP article published November 3, 1963 in *News and Observer*, *Durham Morning Herald, Journal & Sentinel* (U.S. Ex. 87,229).

49. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 7, a press release, to be transmitted by mail on or about November 3, 1963. Deposition of Gwendolyn Beck Joyner, United States v. Philip Morris, et al., June 28, 2002, 51:15-53:18.

50. **Racketeering Act No. 8:** On or about March 6, 1964, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant COUNCIL FOR TOBACCO RESEARCH, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release announced the reorganization of the Tobacco Industry Research Committee into the Council for Tobacco Research and represented that CTR's research policy would be set by doctors and scientists independent of the tobacco industry.

51. This communication falsely misrepresented that CTR's research would be independent and disinterested, and concealed that CTR's research policy would be controlled by Defendants. This communication was for the purpose of executing the scheme to defraud

because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. 508775085-5088 (U.S. Ex. 20,815); CTRMN010781-0783 (U.S. Ex. 85,514); *The New York Times*, March 11, 1964 (U.S. Ex. 88,639).

52. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Council For Tobacco Research, caused Racketeering Act 8, a press release, to be transmitted by mail on or about March 6, 1964. Deposition of Gwendolyn Beck Joyner, United States v. Philip Morris, et al., June 28, 2002, 51:15-53:18. See Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1.

53. **Racketeering Act No. 9:** On or about November 23, 1965, defendant COUNCIL FOR TOBACCO RESEARCH did knowingly receive from the mails a letter addressed to Edwin J. Jacob, Esq., Cabell Medinger Forsyth & Decker, 51 West 51st Street, Rockefeller Center, New York, New York, counsel to CTR, from Alvan R. Feinstein, Associate Professor of Medicine, Yale School of Medicine, New Haven, Connecticut, requesting funding for research on data indicating that the clinical effects of cancers were no worse in smokers than in nonsmokers.

54. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to Defendants' fraudulent efforts regarding self-interested research and their fraudulent denials regarding smoking and health issues, including the issue of whether the link between smoking and disease was an open question. 01124436-4437 (U. S. Ex. 21,491).

55. Defendant Council For Tobacco Research caused Racketeering Act 9, a letter, to be transmitted by mail on or about November 23, 1965. Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 24, 2002, 57:10-22; 69:9-19.

56. **Racketeering Act No. 10:** On or about December 29, 1965, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. Through this press release, defendants stated that research had not established whether smoking causes disease and this was still an "open question." "If there is something in tobacco that is causally related to cancer or any other disease, the tobacco industry wants to find out what it is, and the sooner the better."

57. This communication misrepresented that smoking was not causally related to cancer or any other disease; concealed that these Defendants' own research suggested that smoking was causally related to cancer and other diseases; and misrepresented that Defendants wanted to and would conduct independent, disinterested research regarding the link between smoking and disease. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TPRE0000159-0162 (U.S. Ex. 85,511); AP article published December 29, 1965 in *Easton Express* (U.S. Ex. 87,230) and *The Baltimore Sun* (U.S. Ex. 87,230); AP article published December 29, 1965 in *Cincinnati Inquirer* (U.S. Ex. 21,647).

58. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 10, a press release, to be transmitted by mail on or about December 29, 1965. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Michael Prazma, United States v. Philip Morris, et al., June 17, 2003 (*The Charlotte Observer*) (U.S. Ex. 75,948).

59. **Racketeering Act No. 11:** On or about February 28, 1966, defendants BROWN & WILLIAMSON did knowingly cause to be sent and delivered by the United States Mails, and BRITISH-AMERICAN TOBACCO COMPANY (predecessor to BAT INVESTMENTS) thereafter received, a letter addressed to A. D. McCormick, Esq., BAT Co., P.O. Box 482, 7 Millbank, London, SW1, England, from Addison Yeaman, Esq., General Counsel of Brown & Williamson, promoting cooperation among defendants in resisting regulation by Congress and by the Federal Trade Commission by attacking existing scientific studies linking smoking to disease, by making representations to governmental regulators that defendants were engaged in accelerated research, and by suppressing information unfavorable to defendants.

60. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 680204115-4117 (U.S. Ex. 20,990).

61. Defendant Brown & Williamson caused Racketeering Act 11, a letter, to be transmitted by mail on or about February 28, 1966. Response Number 285 of Brown & Williamson to United States' First Set of Requests for Admission ("B&W RFA") (U.S. Ex. 77,410); Response Number 285 of British American Tobacco (Investments) Limited to United States' First Requests for Admission To All Defendants ("BATCo RFA") (U.S. Ex. 77,409); Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶1 (citing Exhibit A); Stipulation of Defendant British American Tobacco (Investments) Limited, United States v. Philip Morris, et al., August 12, 2003 at 1, ¶ 1 (citing Exhibit A).

62. **Racketeering Act No. 12:** On or about October 21, 1966, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. Through this press release, defendants stated that they knew "of no valid scientific evidence demonstrating that either 'tar' or nicotine is responsible for any human illness."

63. This communication misrepresented that there was no valid scientific evidence demonstrating that tar or nicotine was responsible for human illnesses, and concealed that Defendants knew of valid scientific evidence demonstrating that tar or nicotine was responsible for human illnesses. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TPRE0000163-0164 (U.S. Ex. 21,551); *The New York Times*, October 22, 1966 (U.S. Ex. 86,701).

64. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 12, a press release, to be transmitted by mail on or about October 21, 1966. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3,¶ 10 (U.S. Ex. 75,940); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961).

65. **Racketeering Act No. 13:** On or about January 12, 1967, defendants PHILIP MORRIS, R.J. REYNOLDS, BROWN & WILLIAMSON, LORILLARD, LIGGETT, AMERICAN, and COUNCIL FOR TOBACCO RESEARCH, did knowingly cause to be sent and delivered by the United States Mails letters addressed separately to each member of Ad Hoc Committee: Miss Janet Brown, Esq., Chadbourne Park, Whiteside & Wolff, 25 Broadway,

> New York, New York 10004, counsel to American; Kevin L. Carroll, Esq., Donald J. Cohn, Esq., and Francis K. Decker, Esq., Webster Sheffield Fleischmann Hitchcock & Chrystie, 1 Rockefeller Plaza, New York, New York 10020, counsel to Liggett; Edward J. Cooke, Jr., Esq., Davis, Polk, Wardwell, Sunderland, & Kiendl, 1 Chase Manhattan Plaza, New York, New York 10005, counsel to Reynolds; Alexander Holtzman, Esq., Conboy, Hewitt, O'Brien & Boardman, 20 Exchange Place, New York, New York 10005, counsel to Philip Morris; Edwin J. Jacob, Esq., Cabell Medinger Forsyth & Decker, 51 W. 51st Street, New York, NY 10019, counsel to CTR; William W. Shinn, Esq., Shook, Hardy, Ottman, Mitchell & Bacon, 915 Grand Avenue, Kansas City, MS 64106; and Edward DeHart, Hill & Knowlton, 1735 K Street, NW, Washington, DC 20006, each of which was from David R. Hardy, Esq., counsel to Ad Hoc Committee, requesting the recipients to recommend persons who could act as witnesses before Congressional hearings to perpetuate defendants' "open question" position, and assigning the members of the Ad Hoc Committee oversight of CTR "special projects" designed to be of "practical use" for defendants during congressional hearings.

66. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 2015059690-9697 (U.S. Ex. 20,309).

67. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, American, and Council For Tobacco Research, caused Racketeering Act 13, letters, to be transmitted by mail on or about January 12, 1967. Deposition of Gwendolyn Joyner, United States v. Philip Morris, et al., June 28, 2002, at Exhibit 2 (U.S. Ex. 77,879).

68. **Racketeering Act No. 14:** On or about February 2, 1967, defendants PHILIP MORRIS, REYNOLDS, BROWN &

> WILLIAMSON, LORILLARD, LIGGETT, and AMERICAN did knowingly cause to be sent and delivered by the United States Mails a letter addressed to David R. Hardy, Esq., counsel to Ad Hoc Committee, from William W. Shinn, Esq., Shook, Hardy, Ottman, Mitchell & Bacon, 915 Grand Avenue, Kansas City, Missouri 64106, a member of Ad Hoc Committee, and copied the Ad Hoc Committee and Ed DeHart of Hill & Knowlton. The letter responded to Hardy's request for recommendations of persons who could act as witnesses before congressional hearings to perpetuate defendants' "open question" position.

69. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 1005154472-4479 (U.S. Ex. 20,229).

70. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and American caused Racketeering Act 14, a letter, a copy of which was sent from Kansas City, Missouri to Ed DeHart of Hill & Knowlton, New York, New York, to be transmitted by mail on or about February 2, 1967. Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 24, 2002, 57:10-22; 69:9-19.

71. **Racketeering Act No. 15:** On or about May 19, 1967, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, LIGGETT, and AMERICAN did knowingly cause to be sent and delivered by the United States Mails a letter addressed to Alexander Holtzman, Esq., Conboy, Hewitt, O' Brien & Boardman, 20 Exchange Place, New York, New York 10005, counsel to Philip Morris, from William W. Shinn, Esq., regarding CTR Special Projects, outlining a proposal to support and publicize research advancing the theory of smoking as beneficial to health as a stress reducer, even for "coronary prone" persons; representing

> that stress (rather than nicotine addiction), explains why smoking clinics fail; and proposing to publicize the "image of smoking as 'right' for many people . . . as a scientifically approved 'diversion' to avoid disease causing stress."

72. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and to deny the addictiveness of nicotine, and Defendants' fraudulent promise to conduct independent, disinterested research. 1005083882-3882 (U.S. Ex. 20,204).

73. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and American caused Racketeering Act 15, a letter, to be transmitted by mail from Kansas City, Missouri, to New York, New York, on or about May 19, 1967. Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 24, 2002, 57:10-22; 69:9-19.

74. **Racketeering Act No. 16:** On or about October 3, 1968, defendant PHILIP MORRIS did knowingly cause to be sent and delivered by the United States Mails a letter addressed to David R. Hardy, Esq., Shook, Hardy, Ottman, Mitchell, and Bacon, 915 Grand Avenue, Kansas City, Missouri from Philip Morris Assistant General Counsel Alexander Holtzman, proposing "Special Project" funding for a scientist whose application to CTR for funding was previously turned down but who was likely to produce data useful to defendants.

75. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the

link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 1005084784-4786 (U.S. Ex. 22,988).

76. Defendant Philip Morris caused Racketeering Act 16, a letter, to be transmitted by mail from New York, New York, to Kansas City, Missouri, on or about October 3, 1968.

77. **Racketeering Act No. 17**: On or about October 21, 1968, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, LIGGETT, and AMERICAN, through defendant COUNCIL FOR TOBACCO RESEARCH, did knowingly cause to be sent and delivered by the United States Mails letters separately addressed to Liggett General Counsel Frederick P. Haas, Esq.; American General Counsel Cyril Hetsko, Esq.; Reynolds General Counsel H. Henry Ramm, Esq.; Philip Morris General Counsel Paul D. Smith, Esq.; and Brown & Williamson General Counsel Addison Yeaman, Esq., from David R. Hardy, Esq., Shook, Hardy & Bacon, 915 Grand Avenue, Kansas City, Missouri, counsel to CTR' s Committee of Counsel. The letter proposed "Special Project" funding for a scientist whose application to CTR for funding was previously turned down but who was likely to produce data useful to defendants.

78. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 1005084799-4800 (U.S. Ex. 20,206).

79. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and American, through defendant Council For Tobacco Research, caused Racketeering Act 17, letters, to be transmitted by mail on or about October 21, 1968. Deposition of Gwendolyn Joyner, U. S. v. Philip Morris, et al., June 28, 2002, 77:24-78:2; Deposition of

Gwendolyn Joyner, U. S. v. Philip Morris, et al., June 28, 202, at Exhibit 2 (U.S. Ex. 77,879). See also Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

> 80. **Racketeering Act No. 18:** In or about 1968, the exact date being unknown, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, AMERICAN, and co-conspirators, through defendant TOBACCO INSTITUTE, did knowingly distribute reprints of an article written by Stanley Frank and originally published in True magazine, and caused copies of said document to be sent and delivered by the United States Mails, addressed to various physicians and civic leaders. This article disputed the link between smoking and disease, and was distributed anonymously.

81. This communication misrepresented and concealed the link between smoking and disease; concealed the relationship between the author of the article and Defendants; and concealed that Defendants caused the article to be reprinted and distributed. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN462375-2380 (U.S. Ex. 21,660); 85872281-2281 (U.S. Ex. 21,618); 2017002404-2410 (U.S. Ex. 21,619); 2017002404-2410 (U.S. Ex. 21,619); 85872282-2282 (U.S. Ex. 21,622); 2017002404-2410 (U.S. Ex. 21,619); TITX0000183-0183 (U.S. Ex. 21,623); 85872283-2283 (U.S. Ex. 21,624); 85872284-2286 (U.S. Ex. 21,626); TIMN0123336-3336 (U.S. Ex. 21,628); TIMN462646-2646 (U.S. Ex. 22,977).

82. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, American, and co-conspirators, through defendant Tobacco Institute, caused Racketeering Act

18, an article, to be transmitted by mail in or about 1968. Deposition of Gwendolyn Joyner, U. S. v. Philip Morris, et al., June 28, 202, 77:24-78:2.

83. **Racketeering Act No. 19:** On or about May 27, 1969, defendant PHILIP MORRIS did knowingly cause to be sent by the United States Mails a letter from Philip Morris Vice President for Corporate Research and Development, Helmut Wakeham, to defendant Dr. M. Hausermann, Director of Research and Quality Control, Fabriques de Tabacs, Reunies S.A., Neuchatel-Serrieres, Switzerland. The letter communicated the approval of Paul Smith, Philip Morris' General Counsel, for the publication by Dr. Hausermann of a paper describing the Smoke Exposure Machine developed at Philip Morris' Cologne, Germany, Institute for Biological Research, known as INBIFO. The letter clarified the scope of the article, and stated that "[t]he paper should not include any statements with regard to the effect of smoke on the rats in terms of initiation of disease, etc."

84. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, Defendants' fraudulent promise to conduct independent, disinterested research, and to their concealment and suppression of material information relating to the link between smoking and disease. 1000321560-1560 (U.S. Ex. 21,884).

85. Defendant Philip Morris caused Racketeering Act 19, a letter, to be transmitted by air mail to Switzerland on or about May 27, 1969. 1000321560-1560 (U.S. Ex. 21,884).

86. **Racketeering Act No. 20:** On or about September 10, 1969, defendant PHILIP MORRIS did receive from the United States Mails a letter from M. Hausermann, Fabriques de Tabacs, Reunies S.A., Neuchatel Switzerland, addressed to Philip Morris Vice

> President for Corporate Research and Development, Dr. Helmut Wakeham, in which Dr. Hausermann reported that he had, following consultation with Alex Holtzman, Esq., in-house counsel at Philip Morris, decided not to submit for presentation a paper entitled "Cigarette Consumption Related to Cigarette 'Strength.'" Dr. Hausermann reported that Mr. Holtzman felt "that this paper should not be presented, because it might be used as an argument for tar-and-nicotine delivery indication on the pack and in ads."

87. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, Defendants' manipulation of nicotine and nicotine delivery, Defendants' fraudulent promise to conduct independent, disinterested research, and their concealment and suppression of material information relating to the link between smoking and disease. 1001807341-7343 (U.S. Ex. 22,729).

88. Defendant Philip Morris caused Racketeering Act 20, a letter, to be transmitted by mail from Switzerland to Richmond, Virginia, on or about September 10, 1969. 1001807341-7343 (U.S.. Ex. 22,729) (U.S. Ex. 35,560).

> 89. **Racketeering Act No. 21:** On or about April 30, 1970, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release falsely stated that the American Cancer Society had refused to release experimental data underlying the Auerbach/ Hammond "smoking beagles" study.

90. This communication contained the false statement that the American Cancer Society had refused to release experimental data underlying the Auerbach/ Hammond "smoking

beagles" study, when in fact, the American Cancer Society had offered to release it. This communication was in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and health was an open question, and attempted to discredit the American Cancer Society. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. 680264942-4943 (U.S. Ex. 22,978); *The Wall Street Journal*, May 1, 1970 (U.S. Ex. 87219).

91. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 21, a press release, to be transmitted by mail, on or about April 30, 1970. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3 ¶ 10 (U.S. Ex. 75,490); Declaration of Owen Youngman, United States v. Philip Morris, et al., June 10, 2003 (*Chicago Tribune*) at ¶ 5 (U.S. Ex. 75,949); Declaration of Katherine Hatton, United States v. Philip Morris, et al., June 27, 2003 (*The Philadelphia Inquirer*) at 1, ¶ 4 (U.S. Ex. 75,962); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961).

92. **Racketeering Act No. 22:** On or about July 22, 1970, defendants REYNOLDS, PHILIP MORRIS, BROWN & WILLIAMSON, AMERICAN, LIGGETT, and LORILLARD did knowingly cause to be sent and delivered by the United States Mails, and defendant COUNCIL FOR TOBACCO RESEARCH thereafter received, a letter from H.H. Ramm, Esq., General Counsel for R.J. REYNOLDS, addressed to Dr. Robert C. Hockett, Associate Scientific Director, CTR, 110 E. 59th Street, New York, New York. The letter states that "counsel representing Philip Morris,

> Brown & Williamson, American Brands, Liggett & Myers and Lorillard which companies together with R.J. REYNOLDS participate in Special Projects have advised that if the Scientific Advisory Board does not approve this project the same can be treated as an approved Special Project."

93. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. CTRSP-FILES009810-09810 (U.S. Ex. 21,696).

94. Defendants R.J. Reynolds, Philip Morris, Brown & Williamson, American, Liggett, and Lorillard, through defendant Counsel For Tobacco Research, caused Racketeering Act 22, a letter, to be transmitted by mail, on or about July 22, 1970. Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 24, 2002, 95:14-96:10.

95. **Racketeering Act No. 23:** On or about December 1, 1970, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause to be placed in *The Washington Post*, a daily newspaper, an advertisement entitled "The question about smoking and health is still a question," which newspaper was then sent and delivered by the United States Mails to subscribers and others. In this advertisement, the Tobacco Institute discredited the causal link between smoking and disease, stated that "in the interest of absolute objectivity" defendants "ha[ve] supported totally independent research efforts with completely non-restrictive funding," and deliberately created the false impression that all research results have been freely published.

96. This communication misrepresented that the link between smoking and health

was still an open question; misrepresented that there was no evidence supporting a causal link between smoking and disease; misrepresented that Defendants had supported independent, disinterested research efforts with non-restrictive funding; and misrepresented that all research results had been freely published. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0100637-0637 (U.S. Ex. 21,663); *The New York Times*, December 1, 1970 (U.S. Ex. 21,305); *The Washington Post*, December 1, 1970 (U.S. Ex. 21,305) (U.S. Ex. 21,367).

97. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 23, an advertisement, to be transmitted by mail, on or about December 1, 1970. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961); Declaration of Victor A. Capece, United States v. Philip Morris, et al., July 15, 2003 (*The Washington Post*) at 1, ¶ 6 (U.S. Ex. 75,967).

98. **Racketeering Act No. 24:** On or about May 25, 1971, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained statements indicating that "many eminent scientists" believe that "the question of smoking and health is still very much a question."

99. This communication concealed that many of the scientists who believed that the

question of smoking and health was still a question were conducting research that was funded, controlled, and managed by the Defendants; misrepresented the link between smoking and disease; and furthered Defendants' fraudulent position that the link between smoking and disease was an open question. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0120574-0575 (U.S. Ex. 21,678).

100. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 24, a press release, to be transmitted by mail, on or about May 25, 1971. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 51:15-53:18.

101. **Racketeering Act No. 25:** On or about July 1, 1971, defendant COUNCIL FOR TOBACCO RESEARCH did knowingly caused to be sent and delivered by the United States Mails a letter from CTR Associate Scientific Director Robert C. Hockett, to REYNOLDS Vice President and General Counsel Henry H. Ramm, Esq., in which Hockett endorsed and passed along to Ramm a suggestion from two employees of Philip Morris that CTR sponsor a scientific conference on the "benefits" of smoking, in the wake of a private conference on the effects of nicotine and smoking on the central nervous system. Dr. Hockett also requested that the Committee of General Counsel guarantee the financing of the conference.

102. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, Defendants' false claim that nicotine

was not addictive, and Defendants' fraudulent promise to conduct independent, disinterested research. 503654893-4894 (U.S. Ex. 20,719).

103. Defendant Council For Tobacco Research caused Racketeering Act 25, a letter, to be transmitted by mail, on or about July 1, 1971. Response of Defendant The Council for Tobacco Research–U.S.A., Inc. to Plaintiff's First Set of Requests for Admission to All Defendants (Amended Pursuant to Order #119), at Response No. 299 (U.S. Ex. 87,227); Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 24, 2002, 96:12-97:6.

104. **Racketeering Act No. 26:** On or about August 20, 1971, defendant REYNOLDS did knowingly cause to be sent and delivered by the United States Mails, and defendant PHILIP MORRIS did receive, a letter addressed to Joseph F. Cullman, III, Chairman of the Board, Philip Morris Inc., 100 Park Avenue, New York, New York 10017, from Alexander H. Galloway, Chairman, R.J. Reynolds Industries, Inc., Winston-Salem, North Carolina, discussing defendants' joint position with respect to smoking and health research.

105. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 2015023268-3268 (U.S. Ex. 21,727).

106. Defendant R.J. Reynolds caused Racketeering Act 26, a letter, to be transmitted by mail on or about August 20, 1971. Defendant R.J. Reynolds Tobacco Company's Responses To Plaintiff's First Set of Requests For Admission To All Defendants ("Reynolds RFA") (U.S.

Ex. 77,413), at Response Number 300.

107. **Racketeering Act No. 27:** On or about November 15, 1971, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained statements suggesting that smoking is not harmful to pregnant women or their babies and indicating that many doctors and scientists believe that "the question of smoking and health is an open one."

108. This communication falsely stated that smoking was not harmful to pregnant women or their babies, and concealed that many of the doctors and scientists who believed that the question of smoking and health was still an open question were conducting research that was funded, controlled, and managed by Defendants; and furthered Defendants' fraudulent position that the link between smoking and disease was an open question. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0100469-0470 (U.S. Ex. 21,687).

109. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 27, a press release, to be transmitted by mail on or about November 15, 1971. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 17, 2003 (*The Boston Globe*) at 1, ¶ 6 (U.S. Ex. 75,946); Declaration of Patricia C. LoVerme, United States v. Philip Morris, et al.,

July 18, 2003 (*The Los Angeles Times*) at 1, ¶ 6 (U.S. Ex. 75,955); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961); Declaration of William F. Nagel, United States v. Philip Morris, et al., June 23, 2003 (*The San Diego Union-Tribune*) at 2, ¶ 6 (U.S. Ex. 75,964).

110. **Racketeering Act No. 28:** On or about December 22, 1971, defendant PHILIP MORRIS did knowingly cause to be sent and delivered by the United States Mails, and defendants LIGGETT, LORILLARD, REYNOLDS, and BROWN & WILLIAMSON did thereafter receive, copies of a memorandum separately addressed to Liggett employee Dr. W.W. Bates, Reynolds employee Dr. Murray Senkus, Lorillard employee Dr. Alexander W. Spears, and Brown & Williamson employee Dr. Iver W. Hughes, from Philip Morris employee Dr. Helmut Wakeham, describing a research proposal of Drs. Auerbach and Hammond concerning the effects of smoking on health, indicating that the National Cancer Institute's likely funding of the research "is a matter of considerable concern to the tobacco industry," and discussing defendants' plan to have lawyers and scientists meet with [the National Cancer Institute ("NCI")] to discourage NCI from funding the research.

111. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, Defendants' fraudulent promise to conduct independent, disinterested research, and to their concealment and suppression of material information relating to the link between smoking and disease. 1000299103-9104 (U.S. Ex. 21,735).

112. Defendant Philip Morris caused Racketeering Act 28, a memorandum, to be transmitted by mail on or about December 22, 1971. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, Exhibit 2, (U.S. Ex. 77,879).

113. **Racketeering Act No. 29:** On or about February 1, 1972, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained the statement that "[t]he cigarette industry is as vitally concerned or more so than any other group in determining whether cigarette smoking causes human disease, whether there is some ingredient as found in cigarette smoke that can be shown to be responsible, and if so, what it is," and that "despite this effort the answers to the critical questions about smoking and health are still unknown."

114. This communication misrepresented and concealed the link between smoking and disease; misrepresented that Defendants were vitally concerned or more so than any other group about determining whether cigarette smoking caused human disease; and misrepresented that Defendants supported independent, disinterested research efforts with non-restrictive funding. This communication also furthered Defendants' fraudulent efforts to exploit smokers' desire for less hazardous cigarettes. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0120596-0597 (U.S. Ex. 21,321).

115. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 29, a press releases, to be transmitted by mail, on or about February 1, 1972. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 51:15-53:18.

116. **Racketeering Act No. 30:** On or about May 19, 1972, defendant BROWN & WILLIAMSON did knowingly cause to be sent by the United States Mails, and defendant BRITISH-AMERICAN TOBACCO COMPANY (predecessor to BAT INVESTMENTS)

> thereafter received, a letter addressed to A.D. McCormick, Esq., BAT Co., P.O. Box 482, 7 Millbank, London SW1P 3JE, England, from Addison Yeaman, Esq., General Counsel, Brown & Williamson, in which Yeaman provided comments on a statement BAT Co. proposed to make in response to a statement anticipated from a British government minister. Yeaman referred to a cablegram sent to him by McCormick on May 17, 1972, and to a telephone conversation in which McCormick and Yeaman had participated on May 18, 1972. Yeaman commented that BATCo.'s proposed statement concerning the causal relationship between cigarette smoking and disease "is somewhat less affirmative in tone than would be welcome on this side." He gave his approval to alternative versions that described the controversy on this issue. Finally, Yeaman stated in a postscript, "In the penultimate sentence of the B.A.T. draft statement would you object to changing the word 'habit' to 'practice?'"

117. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 680248768-8769 (U.S. Ex. 20,993).

118. Defendant Brown & Williamson caused Racketeering Act 30, a letter, to be transmitted by mail, on or about May 19, 1972. B&W RFA #304; BATCo RFA #304; Stipulation of Defendant British American Tobacco (Investments) Limited, United States v. Philip Morris, et al., August 12, 2003 at 1, ¶ 1 (citing Exhibit A) (U.S. Ex. 86,700); Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A) (U.S. Ex. 86,699).

119. **Racketeering Act No. 31:** On or about November 7, 1973, defendants PHILIP MORRIS, REYNOLDS, BROWN &

> WILLIAMSON, LORILLARD, LIGGETT, and AMERICAN, through defendant COUNCIL FOR TOBACCO RESEARCH, did knowingly cause to be sent and delivered by the United States Mails letters separately addressed to Thomas F. Ahrensfeld, Esq., Philip Morris; DeBaun Bryant, Esq., Brown & Williamson; Frederick P. Haas, Esq., Liggett; Cyril F. Hetsko, Esq., American; Henry C. Roemer, Esq., Reynolds, and Arthur J. Stevens, Esq., Lorillard, from Donald K. Hoel, Esq., Shook, Hardy & Bacon, 915 Grand Avenue, Kansas City, Missouri. The letter recommends approval to fund research by Dr. Richard J. Hickey as a CTR Special Project for two years, beginning September 1973, and cites Hickey's efforts to show that air pollution is primarily responsible for many chronic diseases attributed to smoking.

120. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 521030439-0441 (U.S. Ex. 23,019).

121. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and American, through defendant Council For Tobacco Research, caused Racketeering Act 31, letters, to be transmitted by mail, on or about November 7, 1973. Reynolds RFA #305. See also Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A) (U.S. Ex. 86,699).

122. **Racketeering Act No. 32:** On or about November 26, 1973, defendant BROWN & WILLIAMSON did knowingly cause to be sent and delivered by the United States Mails a letter from DeBaun Bryant, Esq., counsel to Brown & Williamson, addressed to Donald K. Hoel, Esq., Shook, Hardy & Bacon, 915 Grand Avenue, Kansas City, Missouri. The letter conveys Brown & Williamson's approval to fund research by Dr. Richard J. Hickey as a CTR

> Special Project, beginning September 1973, while noting that "[a]s is usual our support is contingent upon the participation in this project by the other companies."

123. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 521030438-0438 (U.S. Ex. 21,504).

124. Defendant Brown & Williamson caused Racketeering Act 32, a letter, to be transmitted by mail, on or about November 26, 1973. B&W RFA #306. See also Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A) (U.S. Ex. 86,699).

125. **Racketeering Act No. 33:** On or about January 11, 1974, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release attacked the 1964 U. S. Surgeon General's Report on smoking and health and dismissed scientific research linking smoking to lung cancer, emphysema, and low birth weight in babies born to women who smoked during pregnancy.

126. This communication misrepresented and concealed the link between smoking and disease. Moreover, this communication sought to discredit the Surgeon General's Report with false and misleading statements. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal

gravamen of the scheme to defraud. TPRE0000371-0377, TIOK0000740-0746 (U.S. Ex. 21,697); *The New York Times*, January 11, 1974 (U.S. Ex. 87,220).

127. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 33, a press release, to be transmitted by mail, on or about January 11, 1974. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961); and Declaration of William F. Nagel, United States v. Philip Morris, et al., June 23, 2003 (*The San Diego Union-Tribune*) at 2, ¶ 6 (U.S. Ex. 75,964).

128. **Racketeering Act No. 34:** On or about January 14, 1975, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained the statement that "domestic tobacco companies . . . have committed some $50 million to help support researchers who are seeking the truth."

129. This communication misrepresented and concealed the link between smoking and disease; concealed the fact that Defendants were funding, controlling, and managing research that they maintained was independent and disinterested; and furthered Defendants' fraudulent position that the link between smoking and disease was an open question. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0120638-0639 (U.S. 21,698).

130. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 34, a press release, to be transmitted by mail, on or about January 14, 1975. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 51:15-53:18.

131. **Racketeering Act No. 35:** In or about September 1975, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained statements noting that, as early as 1963, the Tobacco Institute had issued statements denying that the Cigarette Companies targeted youth smokers. The press release also noted that in July 1969, the Chairman of the Tobacco Institute, Joseph F. Cullman, III, testified before a Senate Commerce subcommittee that the Cigarette Companies intended to avoid advertising representing cigarette smoking as essential to social prominence, success, or sexual attraction or depicting smokers engaged in sports or other activities requiring exceptional stamina or conditioning.

132. This communication contained false statements and misrepresentations denying that Defendants targeted youth, and false promises and misrepresentations that Defendants avoided advertising representing cigarette smoking as essential to social prominence, success, or sexual attraction. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. 680263421-3422 (U.S. Ex. 22,345) (U.S. Ex. 78,780).

133. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 35, a press release, to be transmitted by mail, in or about September 1975. Deposition of William Adams, United

States v. Philip Morris, et al., June 19, 2002, 571:22-572:8.

134. **Racketeering Act No. 36:** During 1975, the exact dates being unknown, defendant REYNOLDS caused to be placed in various print media, including Newsweek, a weekly magazine, an advertisement for Vantage cigarettes, which magazine was then sent and delivered by the United States Mails to subscribers and others. This text included the language, "If you're like a lot of smokers these days, it probably isn't smoking that you want to give up. It's some of that 'tar' and nicotine you've been hearing about."

135. This communication concealed the Defendants' knowledge that smokers compensate by changing how they smoke to obtain sufficient delivery of nicotine and that "low tar/low nicotine" cigarettes such as Vantage were designed so that smokers could obtain variable levels of tar and nicotine; and falsely implied that "low tar/low nicotine" cigarettes such as Vantage were less hazardous. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. 500713769-3769 (U.S. Ex. 48,351).

136. Defendant R.J. Reynolds caused Racketeering Act 36, an advertisement, to be transmitted by mail during 1975. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Sanford Schwartz, United States v. Philip Morris, et al., June 24, 2003 (*The Atlanta Journal Constitution*) at 1, ¶ 4 (U.S. Ex. 75,945); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 17, 2003 (*The Boston Globe*) at 1, ¶ 6 (U.S. Ex. 75,946); Declaration of Owen Youngman, United States v. Philip Morris, et al., June 10, 2003 (*Chicago Tribune*) at ¶ 5 (U.S. Ex. 75,949); Declaration of Katherine Hatton, United States v. Philip Morris, et al., June 27, 2003 (*The*

Philadelphia Inquirer) at 1, ¶ 4 (U.S. Ex. 75,962); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961).

137. **Racketeering Act No. 37:** During 1975, the exact dates being unknown, defendant LORILLARD caused to be placed in various print media, including Family Circle magazine, an advertisement for True cigarettes, which magazine was then sent and delivered by the United States Mails to subscribers and others. This advertisement depicted a young woman and contained text stating, "I thought about all I'd read and said to myself, either quit or smoke True. I smoke True."

138. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, and Defendants' false claims that nicotine was not addictive. This communication also furthered Defendants' fraudulent efforts to exploit smokers' desire for less hazardous cigarettes. 03061394-1394 (U.S. Ex. 21,700).

139. Defendant Lorillard caused Racketeering Act 37, an advertisement, to be transmitted by mail during 1975. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 17, 2003 (*The Boston Globe*) at 1, ¶ 6 (U.S. Ex. 75,946); Declaration of Owen Youngman, United States v. Philip Morris, et al., June 10, 2003 (*Chicago Tribune*) at ¶ 5 (U.S. Ex. 75,949); Declaration of Miriam Lopez, United States v. Philip Morris, et al., June 3, 2003 (*The Miami Herald*) ¶ 6 (U.S. Ex. 75,959); Declaration of Victor A. Capece, United States v. Philip Morris, et al., July 15, 2003 (*The Washington Post*) ¶ 6 (U.S. Ex. 75,967).

140. **Racketeering Act No. 38:** On or about January 4, 1976, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, LIGGETT, and AMERICAN, through defendant COUNCIL FOR TOBACCO RESEARCH, did knowingly cause to be sent and delivered by the United States Mails letters separately addressed to Thomas F. Ahrensfeld, Esq., Philip Morris, Joseph Greer, Esq., Liggett, Cyril F. Hetsko, Esq., American, Ernest Pepples, Esq., Brown & Williamson, Henry C. Roemer, Esq., Reynolds, and Arthur J. Stevens, Esq., Lorillard, from Donald K. Hoel, Esq., Shook, Hardy & Bacon, Mercantile Bank Tower, 1101 Walnut, Kansas City, Missouri. The letter recommends funding Dr. Richard J. Hickey as a CTR Special Project during 1977, noting a report of Dr. Hickey that states, "Our findings for lung cancer appear to raise doubt concerning claims . . . that cigarette smoking is the primary cause of lung cancer, particularly in males."

141. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 1005118752-8753 (U.S. Ex. 21,805).

142. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and American, through defendant Council For Tobacco Research, caused Racketeering Act 38, letters, to be transmitted by mail on or about January 4, 1976. B&W RFA #312. See also Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A) (U.S. Ex. 86,699).

143. **Racketeering Act No. 39:** During 1976, the exact dates being unknown, defendant REYNOLDS caused to be placed in various print media an advertisement for Vantage cigarettes, which newspapers and magazines were then sent and delivered by the

> United States Mails to subscribers and others. The advertisement included text stating, "Vantage cuts down substantially on the 'tar' and nicotine you may have become concerned about."

144. This communication concealed Defendants' knowledge that smokers compensate by changing how they smoke to obtain sufficient delivery of nicotine and that"low tar/low nicotine" cigarettes like Vantage were designed so that smokers could obtain variable levels of tar and nicotine, and falsely implied that "low tar/low nicotine" cigarettes like Vantage were less hazardous. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. 500713420-3420 (U.S. Ex. 48,350); *The New York Times*, December 14, 1976 (U.S. Ex. 87,434).

145. Defendant R.J. Reynolds caused Racketeering Act 39, an advertisement, to be transmitted by mail during 1976. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 41:24-42:21; 43:4-43:8.

> 146. **Racketeering Act No. 40:** On or about January 13, 1977, defendant PHILIP MORRIS did knowingly cause to be sent and delivered by the United States Mails a letter from Alexander Holtzman, Esq., counsel to Philip Morris addressed to Donald K. Hoel, Esq., Shook, Hardy & Bacon, Mercantile Bank Tower, 1101 Walnut, Kansas City, Missouri, approving Philip Morris' participation in a grant to fund Dr. Richard J. Hickey's CTR Special Project during 1977.

147. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the

link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 1005118751-8751 (U.S. Ex. 21,923).

148. Defendant Philip Morris caused Racketeering Act 40, a letter, to be transmitted by mail on or about January 13, 1977.

149. **Racketeering Act No. 41:** On or about March 31, 1977, defendant PHILIP MORRIS did knowingly cause to be sent and delivered by the United States Mails a letter addressed to: Dr. Max Hausermann, Philip Morris Europe S.A., P.O. Box 11, 2003 Neuchatel, Switzerland, from Robert B. Seligman, Vice President for Research and Development, suggesting that the recipient comply with company policy of avoiding direct mail contact with Philip Morris' Cologne, Germany research facility by sending materials to a "dummy" mail address.

150. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question; Defendants' fraudulent promise to conduct independent, disinterested research; Defendants' fraudulent efforts to suppress development and marketing of a less hazardous cigarette; and Defendants' fraudulent efforts to conceal and suppress material information relating to smoking and health. 2000512794-2795 (U.S. Ex. 20,295) (U. S. Ex. 20,296).

151. Defendant Philip Morris caused Racketeering Act 41, a letter, to be transmitted by mail to Switzerland on or about March 31, 1977. 2000512794-2795 (U.S. Ex. 20,295) (U.S. Ex. 20,296).

152. **Racketeering Act No. 42:** On or about December 29, 1977,

> defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained statements suggesting that the contribution of smoking to disease was still an "open question" and that tobacco smoke does not harm nonsmokers.

153. This communication misrepresented and concealed the link between smoking and disease; concealed that Defendants were funding, controlling, and managing research that Defendants maintained was disinterested and independent; furthered Defendants' fraudulent position that the link between smoking and disease was an open question; and falsely stated that tobacco smoke does not harm nonsmokers. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. TIFL0522279-2280 (U.S. Ex. 21,424).

154. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 42, a press release, to be transmitted by mail on or about December 29, 1977. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 51:15-53:18.

155. **Racketeering Act No. 43:** On or about January 17, 1979, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained statements that defendants had spent 75 million dollars on research over 20 years to learn whether smoking is harmful but that "the case against cigarettes is not satisfactorily demonstrated."

156. This communication misrepresented and concealed the link between smoking and disease; misrepresented and concealed that tobacco industry was funding, controlling, and managing research that Defendants maintained was independent and disinterested; and furthered Defendants' fraudulent position that the link between smoking and disease was an open question. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0074006-4006 (U.S. Ex. 21,303).

157. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 43, a press release, to be transmitted by mail on or about January 17, 1979. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, Exhibit 2 (U.S. Ex. 77,879).

158. **Racketeering Act No. 44:** On or about November 20, 1979, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, LIGGETT, and AMERICAN did knowingly cause to be sent and delivered by the United States Mails letters separately addressed to Thomas F. Ahrensfeld, Esq., Philip Morris; Max Crohn, Esq., Reynolds; Joseph Greer, Esq., Liggett; Arnold Henson, Esq., American; Ernest Pepples, Esq., Brown & Williamson; Arthur J. Stevens, Esq., Lorillard; and William Shinn, Esq., Shook, Hardy & Bacon, Kansas City, Missouri, from CTR counsel Edwin J. Jacob, Jacob & Medinger, New York, New York. The memorandum described a proposal to research the relationship between stress and cardiac disorder, and stated, "I have discussed this with Bill Shinn, who agrees with me that this study is well worth doing and that we should recommend it to you for approval, financing to be handled through Special Account #4."

159. This communication was for the purpose of executing the scheme to defraud

because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 521029790-9790 (U.S. Ex. 21, 536).

160. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and American caused Racketeering Act 44, letters, to be transmitted by mail on or about November 20, 1979. B&W RFA #318. See also Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A) (U.S. Ex. 86,699).

161. **Racketeering Act No. 45:** On or about November 27, 1979, defendant BROWN & WILLIAMSON did knowingly cause to be sent and delivered by the United States Mails a letter from Ernest Pepples, Esq., Brown & Williamson Vice President and General Counsel, addressed to CTR counsel Edwin J. Jacob, Esq., Jacob & Medinger, 1270 Avenue of the Americas, New York, New York 10020, regarding a proposal to fund a study on the relationship between stress and cardiac disorder, and agreeing that the study should be financed through Special Account #4.

162. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 521029789-9789 (U.S. Ex. 22,762).

163. Defendant Brown & Williamson caused Racketeering Act 45, a letter, to be transmitted by mail on or about November 27, 1979. B&W RFA #319; Stipulation of Defendant

Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A) (U.S. Ex. 86,699).

164. **Racketeering Act No. 46:** In or about 1979, the exact date being unknown, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly publish a document entitled "Fact or Fancy?" and caused copies of said document to be sent and delivered by the United States Mails to newspapers and news outlets. This publication contained statements asserting that smoking does not contribute to low birth weight in babies and suggesting that cigarette smoking is not harmful to women.

165. This communication misrepresented and concealed link between smoking and disease; misrepresented and concealed that smoking did not contribute to low birth weight in babies; and misrepresented and concealed that cigarette smoking is not harmful to women. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0133740-3798 (U.S. Ex. 21,280).

166. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 46, a publication, to be transmitted by mail in or about 1979. Response of Defendant The Tobacco Institute, Inc. to Plaintiff's First Set of Requests for Admission Amended Pursuant to Order #119, at Response Number 179; Deposition of William Adams, United States v. Philip Morris, et al., June 19, 2002, 573:19-574:3.

167. Racketeering Act No. 47: During 1979, the exact dates being unknown, defendant PHILIP MORRIS caused to be placed in

> various national magazines an advertisement for Merit cigarettes entitled "Best Move Yet," which magazines were then sent and delivered by the United States Mails to subscribers and others. The advertisement stated that Merit's "ability to satisfy over long periods of time could be the most important evidence to date that MERIT science has produced what it claims: The first real alternative for high tar smokers."

168. This communication concealed knowledge that smokers compensate by changing how they smoke to obtain sufficient delivery of nicotine and that "low tar/low nicotine" cigarettes like MERIT were designed so that smokers could obtain variable levels of tar and nicotine, and falsely implied that "low tar/low nicotine" cigarettes like MERIT are less hazardous. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. 1002325026-5026 (U.S. Ex. 35,595); *The New York Times Magazine*, July 29, 1979 (U.S. Ex. 87,435).

169. Defendant Philip Morris caused Racketeering Act 47, an advertisement, to be transmitted by mail during 1979. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. 75,940); Declaration of Sanford Schwartz, United States v. Philip Morris, et al., June 24, 2003 (*The Atlanta Journal Constitution*) at 1, ¶ 4 (U.S. Ex. 75,945); Declaration of Rhonda L. Brauer , United States v. Philip Morris, et al., June 17, 2003 (*The Boston Globe*) 1, ¶ 6 (U.S. Ex. 75,946); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 17, 2003 (*The New York Times*) ¶ 5 (U.S. Ex. 75,961); Declaration of Katherine Hatton, United States v. Philip Morris, et al., June 27, 2003 (*The Philadelphia Inquirer*) at 1, ¶ 4 (U.S. Ex. 75,962); Declaration of Rhonda L. Brauer, United

States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961); Declaration of Victor A. Capece, United States v. Philip Morris, et al., July 15, 2003 (*The Washington Post*) 1, ¶ 6 (U.S. Ex. 75,967).

170. **Racketeering Act No. 48:** During 1979, the exact dates being unknown, defendant PHILIP MORRIS caused to be placed in various national magazines an advertisement for Merit cigarettes entitled "Merit Taste Eases Low Tar Decision," which magazines were then sent and delivered by the United States Mails to subscribers and others. The advertisement stated that Merit's "ability to satisfy over long periods of time could be the most important evidence to date that MERIT is what it claims to be: The first real alternative for high tar smokers."

171. This communication concealed the Defendants' knowledge that smokers compensate by changing how they smoke to obtain sufficient delivery of nicotine and that "low tar/low nicotine" cigarettes like MERIT were designed so that smokers could obtain variable levels of tar and nicotine; and falsely implied that "low tar/low nicotine" cigarettes like MERIT are less hazardous. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. 1002325022-5022 (U.S. Ex. 21,510); *The New York Times Magazine*, April 22, 1979 (U.S. Ex. 88,640).

172. Defendant Philip Morris caused Racketeering Act 48, an advertisement, to be transmitted by mail during 1979. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 17, 2003 (*The Boston Globe*) at 1, ¶ 6 (U.S. Ex. 75,946); Declaration of Michael Prazma, United States v. Philip Morris, et al., June 17, 2003

(*The Charlotte Observer*) at 1-2, ¶ 6 (U.S. Ex. 75,948); Declaration of Miriam Lopez, United States v. Philip Morris, et al., June 3, 2003 (*The Miami Herald*) ¶ 6 (U.S. Ex. 75,959); Declaration of William F. Nagel, United States v. Philip Morris, et al., June 23, 2003 (*The San Diego Union-Tribune*) at 2, ¶ 6 (U.S. Ex. 75,964).

173. **Racketeering Act No. 49:** On or about May 13, 1981, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained statements that members of the Tobacco Institute had a "long-standing policy" of discouraging smoking by children and suggested that smoking is a free choice when done by adults.

174. This communication misrepresented that members of the Tobacco Institute discouraged smoking by children; misrepresented and concealed that members of the Tobacco Institute marketed to youth; and misrepresented that smoking is a free choice when done by adults. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0102493-2494 (U.S. Ex. 21,271).

175. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 49, a press release, to be transmitted by mail on or about May 13, 1981. Deposition of William Adams, United States v. Philip Morris, et al., June 19, 2002, 557:18-558:11.

176. **Racketeering Act No. 50:** On or about November 9, 1981, defendant BRITISH-AMERICAN TOBACCO COMPANY (predecessor to BAT INVESTMENTS) did knowingly cause a

> letter to be delivered by the United States Mails, and defendant BROWN & WILLIAMSON did thereafter receive, a letter addressed to Mr. J. Kendrick Wells III, Esq., Brown & Williamson, 1600 West Hill Street, P.O. Box 35090, Louisville, Kentucky 40232, and signed by Sarah Mash, Secretary to M.J. Leach, BAT Co. The letter referenced an enclosed "copy of the Parliamentary Brief in order that you can see how the B & W amendments have been incorporated into the text," and sought Wells ' approval of the revised document. Brown & Williamson's amendments intended to ensure that the Brief did not contain anything that could be construed as an admission regarding the health effects of smoking.

177. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question. 680585135-5135 (U.S. Ex. 22,976).

178. Defendant British-American Tobacco Company (predecessor to BAT Investments) caused Racketeering Act 50, a letter, to be transmitted by mail on or about November 9, 1981. B&W RFA #324; BATCo RFA #324; Stipulation of Defendant British American Tobacco (Investments) Limited, United States v. Philip Morris, et al., August 12, 2003 at 1, ¶ 1 (citing Exhibit A); Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

179. **Racketeering Act No. 51:** On or about December 17, 1981, defendant BRITISH-AMERICAN TOBACCO COMPANY (predecessor to BAT INVESTMENTS) did knowingly cause to be delivered by the United States Mails, and defendant BROWN & WILLIAMSON did thereafter receive, a letter addressed to J. Kendrick Wells III, Esq., Brown & Williamson, 1600 West Hill Street, P.O. Box 35090, Louisville, Kentucky 40232, and copied to Don Hoel, Esq., Shook, Hardy & Bacon, Kansas City, Missouri, from M.J. Leach, BAT Co. The letter enclosed, for review by

> Wells and Ernest Pepples, another Brown & Williamson attorney, a draft "UK Parliamentary Brief" in which BAT Co.'s position on smoking and health incorporates "open controversy" language urged by Brown & Williamson.

180. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question. 680584974-4985 (U.S. Ex. 21,382).

181. Defendant British-American Tobacco Company caused Racketeering Act 51, a letter, to be transmitted by mail on or about December 17, 1981. B&W RFA #325; BATCo RFA #325; Stipulation of Defendant British American Tobacco (Investments) Limited, United States v. Philip Morris, et al., August 12, 2003 at 1, ¶ 1 (citing Exhibit A); Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003, at 1, ¶ 1 (citing Exhibit A).

> 182. **Racketeering Act No. 52:** On or about February 12, 1982, defendant BROWN & WILLIAMSON did knowingly cause to be sent and delivered by the United States Mails a letter from Ernest Pepples, Esq., Brown & Williamson General Counsel, addressed to Patrick M. Sirridge, Esq., Shook, Hardy & Bacon, 20th Floor, Mercantile Tower, 1101 Walnut, Kansas City, Missouri. The letter concurs in the recommendation to renew an annual grant to Dr. Arthur Furst to be paid from Special Fund 4.

183. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to

conduct independent, disinterested research. 521029995-0008 (U.S. Ex. 20,887).

184. Defendant Brown & Williamson caused Racketeering Act 52, a letter, to be transmitted by mail on or about February 12, 1982. B&W RFA #326; Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

185. **Racketeering Act No. 53:** On or about April 7, 1982, defendant BRITISH-AMERICAN TOBACCO COMPANY (predecessor to BAT INVESTMENTS) did knowingly cause to be delivered by the United States Mails, and defendant BROWN & WILLIAMSON did thereafter receive, a letter addressed to W.L. Telling, Esq., Brown & Williamson International Tobacco, 1600 West Hill Street, Louisville, Kentucky 40232, from G.O. Brooks, BAT Co. The letter replied to a request from Telling for a report on a Smoker Compensation Study that examined how a cigarette smoker's method of smoking alters tar and nicotine delivery, and enclosed "a paper from one of our recent Product Knowledge Seminars [entitled "Human Smoking Behaviour"] which contains a summary of the work and a number of the tables from the report."

186. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' false and misleading statements regarding nicotine addiction, manipulation, and delivery. 660913609-3633 (U.S. Ex. 22,763).

187. Defendant British-American Tobacco Company caused Racketeering Act 53, a letter, to be transmitted by mail on or about April 7, 1982. B&W RFA #327; BATCo RFA #327; Stipulation of Defendant British American Tobacco (Investments) Limited, United States v.

Philip Morris, et al., August 12, 2003 at 1, ¶ 1 (citing Exhibit A); Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

188. **Racketeering Act No. 54:** On or about April 8, 1982, defendant BRITISH-AMERICAN TOBACCO COMPANY (predecessor to BAT INVESTMENTS) did knowingly cause to be delivered by the United States Mails, and defendant BROWN & WILLIAMSON did thereafter receive, a letter addressed to J. Kendrick Wells III, Esq., Corporate Counsel, Brown & Williamson, 1600 West Hill Street, Louisville, Kentucky 40232, from L.C.F. Blackman, BAT Co., in which Blackman informed Wells that "[w]e have acted on the various points you have made" regarding a BAT Co. position paper relating to smoking and health.

189. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question. 680585743-5743 (U.S. Ex. 21,723).

190. Defendant British-American Tobacco Company caused Racketeering Act 54, a letter, to be transmitted by mail on or about April 8, 1982. B&W RFA #328; BATCo RFA #328; Stipulation of Defendant British American Tobacco (Investments) Limited, United States v. Philip Morris, et al., August 12, 2003 at 1, ¶ 1 (citing Exhibit A); Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

191. **Racketeering Act No. 55:** On or about April 14, 1982, defendant BAT INDUSTRIES (predecessor to BAT P.L.C.) did knowingly cause to be delivered by the United States Mails, and defendant BROWN & WILLIAMSON did thereafter receive, a letter

addressed to Dr. I.W. Hughes, Brown & Williamson, 1600 West Hill Street, P.O. Box 35090, Louisville, Kentucky 40232, from T.J. Walker, BAT Industries, Windsor House, 50 Victoria Street, London SW1H ONL, England. The letter referenced materials regarding the "BAT Board Guidelines" on public affairs matters, and referred to enclosed "secret" papers entitled "Assumptions and Strategies of the Smoking Issues."

[Stricken]

192. **Racketeering Act No. 56:** On or about March 17, 1983, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained statements disputing the addictiveness of cigarette smoking.

193. This communication misrepresented and concealed link between smoking and disease; misrepresented and concealed evidence of the addictiveness of cigarettes; and falsely promised and misrepresented that Defendants wanted to and would conduct independent and disinterested research regarding smoking and disease and make the results of such research public. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TNWL0019638-9640 (U.S. Ex. 21,703).

194. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 56, a press release, to be transmitted by mail on or about March 17, 1983. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 51:15-53:18.

195. **Racketeering Act No. 57:** On or about July 20, 1983, defendant

> BRITISH-AMERICAN TOBACCO COMPANY (predecessor to BAT INVESTMENTS) did knowingly cause to be delivered by the United States Mails, and defendant BROWN & WILLIAMSON did thereafter receive, a letter addressed to K. Wells, Esq., Brown & Williamson, 1600 West Hill Street, P.O. Box 35090, Louisville, Kentucky 40202, from Miss A. Johnson, BAT Co. The mailing included "the T.I.' s Australian booklet on the Waxman Hearings" and a note that Johnson had written "to Public Affairs Department about the way in which they can use Dr. Colby's article and the Waxman Hearings' summary in relation to the overseas companies." Johnson also informed Wells that BAT Co. intended to make the smoking and health "controversy" a "central issue" in future presentations to members of the British Parliament.

196. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question. 680583674-3674 (U.S. Ex. 21,383).

197. Defendant British-American Tobacco Company caused Racketeering Act 57, a letter marked "air express," to be transmitted by mail on or about July 20, 1983. 680583674-3674 (U.S. Ex. 21,383). See also Stipulation of Defendant British American Tobacco (Investments) Limited, United States v. Philip Morris, et al., August 12, 2003 at 1, ¶ 1 (citing Exhibit A); Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

198. **Racketeering Act No. 58:** On or about July 27, 1983, defendant PHILIP MORRIS, did receive from the United States Mails a letter addressed to Frederic S. Newman, Esq., Philip Morris International, 120 Park Avenue, New York, New York 10017, from Patrick M. Sirridge, Esq., Shook, Hardy & Bacon, Kansas City, Missouri, enclosing a memorandum summarizing research on the addictive features of nicotine conducted by Philip Morris and

recommending suppression of such research.

199. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny the addictiveness of nicotine; Defendants' fraudulent efforts to suppress and conceal material information regarding the link between smoking and health; and Defendants' fraudulent efforts to misrepresent and conceal evidence of the addictiveness of cigarettes. 1005059920-9920 (U.S. Ex. 35,957).

200. Defendant Philip Morris caused Racketeering Act 58, a letter, to be transmitted by mail from Kansas City, Missouri, to New York, New York, on or about July 27, 1983. 1005059920-9920 (U.S. Ex. 35,957).

201. **Racketeering Act No. 59:** On or about September 9, 1983, defendant BAT INDUSTRIES (predecessor to BAT P.L.C.) did knowingly cause to be delivered by the United States Mails, and defendant PHILIP MORRIS did thereafter receive, a letter from P. Sheehy, Chairman of BAT Industries, addressed to George Weissman, Philip Morris, Inc., 120 Park Avenue, New York, New York, 10017. The letter discussed an advertisement of Philip Morris' Holland affiliate, and stated: "I find it incomprehensible that Philip Morris would weigh so heavily the short-term commercial advantage from deprecating a competitor's brand while weighing so lightly the long-term adverse impact from an on-going anti-smoking programme. . . . In doing so, Philip Morris . . . makes a mockery of Industry co-operation on smoking and health issues. . . ."

[Stricken]

202. **Racketeering Act No. 60:** On or about January 23, 1984, defendant BH-AMERICAN TOBACCO COMPANY (predecessor to BAT INVESTMENTS) did

knowingly cause to be delivered by the United States Mails, and defendant BROWN & WILLIAMSON did thereafter receive, a letter addressed to Mr. E.E. Kohnhorst, Brown & Williamson, P.O. Box 35090, Louisville, Kentucky 40232, from C.I. Ayres, Group Research & Development Centre, BAT Co., Southampton, England, in which Ayres discussed and sought Kohnhorst's comments concerning an upcoming conference on nicotine to be held in Southampton on June 6-8, 1984. Ayres acknowledged the existence of articles in the scientific literature linking nicotine with various diseases and predicted that the Cigarette Companies would be "under pressure to reduce the delivery of nicotine. My translation is that, in the future, we have to evolve ways and means of ensuring that smaller amounts of nicotine continue to give a satisfactory 'reward' to the smoker."

203. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts relating to nicotine manipulation and delivery, and Defendants' fraudulent denials that nicotine is not addictive. 103498901-8902 (U.S. Ex. 21,384).

204. Defendant British-American Tobacco Company caused Racketeering Act 60, a letter, to be transmitted by mail on or about January 23, 1984. B&W RFA #334; BATCo RFA #334; Stipulation of Defendant British American Tobacco (Investments) Limited, United States v. Philip Morris, et al., August 12, 2003 at 1, ¶ 1 (citing Exhibit A); Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing to Exhibit A).

205. **Racketeering Act No. 61:** In or about April 1984, the exact date

being unknown, defendant REYNOLDS did knowingly cause to be placed in numerous publications nationwide, including *U.S. News and World Report*, a weekly magazine, an advertisement entitled "We don't advertise to children," which magazine was then sent and delivered by the United States Mails to subscribers and others. This advertisement contained the statement "we don't want young people to smoke," and further stated, "Kids don't pay attention to cigarette ads, and that's exactly as it should be."

206. This communication misrepresented that Reynolds did not target the youth market; concealed that Reynolds did target the youth market; and falsely stated that young people do not pay attention to cigarette advertising. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. 505302573-2573 (U.S. Ex. 21,627); *Time*, April 9, 1984 (U.S. Ex. 87,436).

207. Defendant R.J. Reynolds caused Racketeering Act 61, an advertisement, to be transmitted by mail in or about April 1984. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Owen Youngman, United States v. Philip Morris, et al., June 10, 2003 (*Chicago Tribune*) ¶ 5 (U.S. Ex. 75,949); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961); Declaration of Victor A. Capece, United States v. Philip Morris, et al., July 15, 2003 (*The Washington Post*) at 1, ¶ 6 (U.S. Ex. 75,967).

208. **Racketeering Act No. 62:** In or about July 1984, the exact dates being unknown, defendant REYNOLDS did knowingly cause to be sent and delivered by the United States Mails letters from Reynolds' employee Ann Griffin, addressed to various children who wrote to Reynolds. In the letter, Reynolds claimed to be engaged in an effort to determine the harmful effects of smoking

> for the benefit of smokers, promised to support disinterested research into smoking and health, and claimed that research had not revealed any "conclusive" evidence linking smoking to disease.

209. This communication contained false statements and misrepresentations that R.J. Reynolds was engaged in an effort to determine the harmful effects of smoking for the benefit of smokers; Reynolds's false promise to support independent, disinterested research into smoking and health; and false claim that research had not revealed any "conclusive" evidence linking smoking to disease; fraudulently concealed that tobacco industry was funding, controlling, and managing research that Defendants maintained was independent and disinterested; and furthered Defendants' fraudulent position that the link between smoking and disease was an open question. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. 505465919-5919 (U.S. Ex. 20,741).

210. Defendant R.J. Reynolds caused Racketeering Act 62, letters, to be transmitted by mail in or about July 1984. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 63:14-64:17.

211. **Racketeering Act No. 63:** On or about August 28, 1984, defendant BROWN & WILLIAMSON did knowingly cause to be sent and delivered by the United States Mails, and defendant BRITISH-AMERICAN TOBACCO CO., LTD. (predecessor to BAT INVESTMENTS) did thereafter receive, a letter addressed to Mr. Ray Pritchard, Deputy Chairman, BAT Co., P.O. Box 482, Westminster House, 7 Millbank, London, England, from Ernest Pepples, Esq., Senior Vice President and General Counsel of Brown & Williamson, enlisting the recipient's help in suppressing a BAT employee's conclusions regarding the addictiveness of nicotine because the conclusion contradicted the position taken by

Brown & Williamson in ongoing litigation.

212. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' false and misleading statements regarding nicotine addiction, manipulation, and delivery. 521016787-6788 (U.S. Ex. 22,129).

213. Defendant Brown & Williamson caused Racketeering Act 63, a letter, to be transmitted by mail on or about August 28, 1984. B&W RFA #337; BATCo RFA #337; Stipulation of Defendant British American Tobacco (Investments) Limited, United States v. Philip Morris, et al., August 12, 2003 at 1, ¶ 1 (citing Exhibit A); Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing to Exhibit A).

214. **Racketeering Act No. 64:** In or about 1984, the exact date being unknown, defendant REYNOLDS did knowingly cause to be placed in daily newspapers an advertisement entitled "Can we have an open debate about smoking?" which newspapers were then sent and delivered by the United States Mails to subscribers and others. In this advertisement Reynolds claimed that "studies which conclude that smoking causes disease have regularly ignored significant evidence to the contrary," that this "significant evidence" comes from research "completely independent of the tobacco industry," and that "reasonable people" would consider the link between smoking and disease to be an "open controversy."

215. This communication misrepresented and concealed the link between smoking and health; concealed that many of the doctors and scientists who believed that the question of

smoking and health was still an open question were conducting research that was funded, controlled, and managed by Defendants, while Defendants maintained that such research was disinterested and independent; falsely claimed that reasonable people would consider the link between smoking and disease to be an "open controversy"; and furthered Defendants' fraudulent position that the link between smoking and disease was an open question. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. 513943434-3434 (U.S. Ex. 50,268) (U.S. Ex. 51,761); *The New York Times Magazine*, February 5, 1984 (U.S. Ex. 87,437).

216. Defendant R.J. Reynolds caused Racketeering Act 64, an advertisement, to be transmitted by mail in or about 1984. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Sanford Schwartz, United States v. Philip Morris, et al., June 24, 2003 (*The Atlanta Journal Constitution*) at 1, ¶ 4 (U.S. Ex. 75,945); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 17, 2003 (*The Boston Globe*) (U.S. Ex. 75,946); Declaration of Owen Youngman, United States v. Philip Morris, et al., June 10, 2003 (*Chicago Tribune*) ¶ 5 (U.S. Ex. 75,949); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961).

217. **Racketeering Act No. 65:** In or about 1984, the exact date being unknown, defendant REYNOLDS did knowingly cause to be placed in numerous newspapers and magazines nationwide, including The New York Times, a daily newspaper, an advertisement entitled "Smoking and health: Some facts you've

> never heard about," which newspapers and magazines were then sent and delivered by the United States Mails to subscribers and others. This advertisement contained the statement, "You hear a lot these days about reports that link smoking to certain diseases. This evidence has led many scientists and other people to conclude that smoking causes these diseases. But there is significant evidence on the other side of this issue. It is regularly ignored by the critics of smoking. And you rarely hear about it in the public media. But, it has helped persuade many scientists that the case against smoking is far from closed." Further, the advertisement contained the statement, "No one wants to know the real answers more than R.J. Reynolds. That is why we are providing major funding for scientific research. The funds are given at arms length to independent scientists who are free to publish whatever they find. We don't know where such research may lead. But this much we can promise: when we find the answers, you'll hear about it."

218. This communication misrepresented and concealed the link between smoking and disease; concealed that many of the scientists who believed that the case against smoking was far from closed were conducting research that was funded, controlled, and managed by the Defendants; falsely claimed that no one wanted to know the real answers more than R.J. Reynolds; misrepresented that Defendants were funding independent, disinterested research; falsely claimed that funding for scientific research was given at arms length to independent scientists who were free to publish whatever they found; falsely claimed that the public would be told about the answers to the smoking and health questions; and furthered Defendants' fraudulent position that the link between smoking and disease was an open question. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. 5014100136-0136 (U.S. Ex. 85,515).

219. Defendant R.J. Reynolds caused Racketeering Act 65, an advertisement, to be

transmitted by mail from in or about 1984. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 23:3-23:6.

220. **Racketeering Act No. 66:** On or about February 18, 1986, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, LIGGETT, and AMERICAN, through defendant COUNCIL FOR TOBACCO RESEARCH, did knowingly cause to be sent and delivered by the United States Mails letters addressed separately to Alexander Holtzman, Esq., Philip Morris; Wayne W. Juchatz, Esq., Reynolds; Josiah Murray III, Esq., Liggett; Ernest Pepples, Esq., Brown & Williamson; Paul Randour, Esq., American; and Arthur J. Stevens, Esq., Lorillard, from Donald K. Hoel, Esq., Shook, Hardy & Bacon, Mercantile Bank Tower, 1101 Walnut, Kansas City, Missouri. The letter recommends funding the work of Dr. Theodor Sterling for the years 1986-1988 as a CTR Special Project.

221. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 2015047161-7163 (U.S. Ex. 21,809).

222. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and American, through defendant Council For Tobacco Research, caused Racketeering Act 66, letters, to be transmitted by mail on or about February 18, 1986. B&W RFA #340; Reynolds RFA #340; Stipulation of Defendant British American Tobacco (Investments) Limited, United States v. Philip Morris, et al., August 12, 2003 at 1, ¶ 1 (citing to Exhibit A); Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

223. **Racketeering Act No. 67:** On or about February 25, 1986, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, LIGGETT, and AMERICAN, through defendant COUNCIL FOR TOBACCO RESEARCH, did knowingly cause to be sent and delivered by the United States Mails letters addressed separately to Alexander Holtzman, Esq., Philip Morris; Wayne W. Juchatz, Esq., Reynolds; Josiah S. Murray III, Esq., Liggett; Ernest Pepples, Esq, Brown & Williamson; Paul A. Randour, Esq., American; and Arthur J. Stevens, Esq., Lorillard, from Patrick M. Sirridge, Esq., Shook, Hardy & Bacon, 1101 Walnut, Kansas City, Missouri, counsel to CTR. The letter advised the Cigarette Companies to continue funding through CTR research by a "Special Fund" scientist.

224. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 507876416-6417 (U.S. Ex. 57,236) (U.S. Ex. 21,810).

225. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and American, through defendant Council For Tobacco Research, caused Racketeering Act 67, letters, to be transmitted by mail on or about February 25, 1986. B&W RFA #341; Reynolds RFA #341; Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

226. **Racketeering Act No. 68:** On or about March 11, 1986, defendant REYNOLDS did knowingly cause to be sent and delivered by the United States Mails a letter from Reynolds counsel Wayne W. Juchatz, Esq., and addressed to Patrick M. Sirridge, Esq., Shook, Hardy & Bacon, 1101 Walnut, Kansas City,

Missouri, counsel to CTR, in which Reynolds approved payment through CTR to a scientist conducting "Special Fund" research.

227. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 507876414-6414 (U.S. Ex. 22,765).

228. Defendant R.J. Reynolds caused Racketeering Act 68, a letter, to be transmitted by mail on or about March 11, 1986. Reynolds RFA #342.

229. **Racketeering Act No. 69:** On or about March 13, 1986, defendant PHILIP MORRIS COMPANIES did knowingly cause to be sent and delivered by the United States Mails a letter from Philip Morris Companies employee Helen Frustace addressed to Donald K. Hoel, Esq., Shook, Hardy & Bacon, Mercantile Bank Tower, 1101 Walnut, Kansas City, Missouri, indicating approval of request to support Dr. Theodore Sterling's research project "provided it is also approved by four other companies."

230. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 2025819186-9186 (U.S. Ex. 37,284).

231. Defendant Altria Group caused Racketeering Act 69, a letter, to be transmitted by mail from New York, New York, to Kansas City, Missouri, on or about March 13, 1986.

232. **Racketeering Act No. 70:** On or about April 1, 1986, defendants

> PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, LIGGETT, and AMERICAN, through defendant COUNCIL FOR TOBACCO RESEARCH, did knowingly cause to be sent and delivered by the United States Mails letters addressed separately to Alexander Holtzman, Esq., Philip Morris; Wayne W. Juchatz, Esq., Reynolds; Josiah S. Murray III, Liggett; Ernest Pepples, Esq, Brown & Williamson; Paul A. Randour, Esq., American; and Arthur J. Stevens, Esq., Lorillard, from Donald K. Hoel, Esq., Shook, Hardy & Bacon, 1101 Walnut, Kansas City, Missouri, counsel to CTR. The letter advised the Cigarette Companies to continue funding through CTR research by a "Special Project" scientist.

233. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 507731656-1656 (U.S. Ex. 21,709) (U.S. Ex. 36,641).

234. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and American, through defendant Council For Tobacco Research, caused Racketeering Act 70, a letter, to be transmitted by mail on or about April 1, 1986. B&W RFA #344.

235. **Racketeering Act No. 71:** On or about April 23, 1986, defendant PHILIP MORRIS COMPANIES did knowingly cause to be sent and delivered by the United States Mails a letter from Eric A. Taussig, Esq., Assistant General Counsel, Philip Morris Companies, addressed to Dr. Paul C. Mele, 3205 Whispering Pines Drive, Silver Spring, Maryland. The letter alleged that Dr. Mele had violated a confidentiality agreement with Philip Morris and warned that "[i]n the future, you are expected to comply" with the agreement.

236. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question; Defendants' false and misleading statements regarding nicotine addiction, manipulation, and delivery; Defendants' fraudulent promise to conduct independent, disinterested research; and their efforts to suppress and conceal material information regarding the link between smoking and adverse health effects. 2048920161-0161 (U.S. Ex. 22,368).

237. Defendant Altria Group caused Racketeering Act 71, a letter, to be transmitted by mail from New York, New York, to Silver Spring, Maryland, on or about April 23, 1986. 2048920161 (U.S. Ex. 22,368).

238. **Racketeering Act No. 72:** On or about April 23, 1986, defendant PHILIP MORRIS COMPANIES did knowingly cause to be sent and delivered by the United States Mails a letter from Eric A. Taussig, Esq., Assistant General Counsel, Philip Morris Companies, addressed to Dr. Victor J. DeNoble, 5603 Fox Run Drive, Plainsboro, New Jersey. The letter alleged that Dr. DeNoble had violated a confidentiality agreement with Philip Morris and warned that "[i]n the future, you are expected to comply" with the agreement.

239. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question; Defendants' false and misleading statements regarding nicotine addiction, manipulation, and delivery; Defendants' fraudulent

promise to conduct independent, disinterested research; and their efforts to suppress and conceal material information regarding the link between smoking and adverse health effects. 2077541354-1354 (U.S. Ex. 44,603).

240. Defendant Altria caused Racketeering Act 72, a letter, to be transmitted by mail from New York, New York to Plainsboro, New Jersey, on or about April 23, 1986. 2077541354 (U.S. Ex. 44,603).

241. **Racketeering Act No. 73:** On or about September 4, 1986, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, LIGGETT, and AMERICAN did knowingly cause to be sent and delivered by the United States Mails letters addressed separately to Alexander Holtzman, Esq., Philip Morris; Wayne W. Juchatz, Esq., Reynolds; Josiah S. Murray III, Liggett; Ernest Pepples, Esq, Brown & Williamson; Paul A. Randour, Esq., American; and Arthur J. Stevens, Esq., Lorillard, from Patrick M. Sirridge, Esq., Shook, Hardy & Bacon, 1101 Walnut, Kansas City, Missouri, advising the companies to continue funding research by a former "Special Project" scientist through the "Shook, Hardy & Bacon Special Account."

242. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question; Defendants' fraudulent promise to conduct independent, disinterested research; and their efforts to suppress and conceal material information regarding the link between smoking and adverse health effects. 507875961-5962 (U.S. Ex. 20,796).

243. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard,

Liggett, and American caused Racketeering Act 73, letters, to be transmitted by mail, on or about September 4, 1986. Reynolds RFA #347; B&W RFA #347.

244. **Racketeering Act No. 74:** On or about September 10, 1986, defendant PHILIP MORRIS COMPANIES did knowingly cause to be sent and delivered by the United States Mails a letter from Eric A. Taussig, Esq., Assistant General Counsel, Philip Morris Companies, addressed to Dr. Paul C. Mele, 3205 Whispering Pines Drive, Silver Spring, Maryland. The letter alleged that Dr. Mele and Dr. DeNoble had violated their respective confidentiality agreements with Philip Morris and stated that "The Company cannot tolerate this kind of conduct. . . . Any further breach of your agreement will result in action being taken."

245. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question; Defendants' false and misleading statements regarding nicotine addiction, manipulation, and delivery; Defendants' fraudulent promise to conduct independent, disinterested research; and their efforts to suppress and conceal material information regarding the link between smoking and adverse health effects. 2043724074-4075 (U.S. Ex. 21,916).

246. Defendant Altria Group caused Racketeering Act 74, a letter, to be transmitted by mail from New York, New York to Plainsboro, New Jersey and Silver Spring, Maryland, on or about September 10, 1986. 2043724074-4075 (U.S. Ex. 21,916).

247. **Racketeering Act No. 75:** On or about September 10, 1986, defendant PHILIP MORRIS COMPANIES did knowingly cause to be sent and delivered by the United States Mails a letter from Eric A. Taussig, Esq., Assistant General Counsel, Philip Morris

> Companies, addressed to Dr. Victor J. DeNoble, 5603 Fox Run Drive, Plainsboro, New Jersey. The letter alleged that Dr. DeNoble and Dr. Mele had violated their respective confidentiality agreements with Philip Morris and stated that "The Company cannot tolerate this kind of conduct. . . . Any further breach of your agreement will result in action being taken."

248. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question; Defendants' false and misleading statements regarding nicotine addiction, manipulation, and delivery; Defendants' fraudulent promise to conduct independent, disinterested research; and their efforts to suppress and conceal material information regarding the link between smoking and adverse health effects. 2043724074-4075 (U.S. Ex. 21,916).

249. Defendant Altria Group caused Racketeering Act 75, a letter, to be transmitted by mail from New York, New York to Plainsboro, New Jersey and Silver Spring, Maryland, on or about September 10, 1986. 2043724074-4075 (U.S. Ex. 21,916).

> 250. **Racketeering Act No. 76:** From about April 1, 1988, through about June 30, 1988, defendant REYNOLDS caused an advertisement for Camel cigarettes to be placed in various print media, including the "Sporting News and other Jumbo Jr. Size Magazines," which magazines were then sent and delivered by the United States Mails to subscribers and others. This advertisement was captioned "Get On Track With Camel's 75th Birthday!" and depicted the Joe Camel character in a Formula One-type automobile racing suit, opening a bottle of champagne, with racing cars whizzing by in the background.

251. This communication was for the purpose of executing the scheme to defraud

because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 509131846-1847 (U.S. Ex. 20,823) (U.S. Ex. 76,197).

252. Defendant R.J. Reynolds caused Racketeering Act 76, an advertisement, to be transmitted by mail, from about April 1, 1988, through about June 30, 1988. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941).

253. **Racketeering Act No. 77:** On or about April 19, 1988, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, LIGGETT, and AMERICAN, through defendant COUNCIL FOR TOBACCO RESEARCH, did knowingly cause to be sent and delivered by the United States Mails letters separately addressed to Alexander Holtzman, Esq., Philip Morris; Wayne W. Juchatz, Esq., Reynolds; Josiah Murray III, Esq., Liggett; Ernest Pepples, Esq., Brown & Williamson; Paul Randour, Esq., American; and Arthur J. Stevens, Esq., Lorillard, from Bernard V. O'Neill, Jr., Esq., Shook, Hardy & Bacon, One Kansas City Place, 1200 Main Street, Kansas City, Missouri. The letter recommended funding Dr. Alvan Feinstein's work in clinical epidemiology as a CTR Special Project for two years.

254. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 2015006928-6929 (U.S. Ex. 21,811).

255. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and American, through defendant Council For Tobacco Research, caused Racketeering Act 77, letters, to be transmitted by mail on or about April 19, 1988. B&W RFA #351;

Reynolds RFA #351; Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

256. **Racketeering Act No. 78:** On or about May 9, 1988, defendant PHILIP MORRIS COMPANIES did knowingly cause to be sent and delivered by the United States Mails a letter from Philip Morris Companies employee Helen Frustace addressed to Bernard V. O'Neill, Jr., Esq., Shook, Hardy & Bacon, One Kansas City Place, 1200 Main Street, Kansas City, Missouri, indicating approval Dr. Rodger L. Bick's request for a one-year extension of the funding for his CTR Special Project.

257. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 2015006925-6925 (U.S. Ex. 20,310).

258. Defendant Altria caused Racketeering Act 78, a letter, to be transmitted by mail from New York, New York to Kansas City, Missouri, on or about May 9, 1988. 2015006925 (U.S. Ex. 20,310).

259. **Racketeering Act No. 79:** On or about May 16, 1988, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained statements disputing the addictiveness of cigarette smoking.

260. This communication contained false and misleading statements disputing the addictiveness of cigarette smoking. This communication was for the purpose of executing the

scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIFL0540854-0854 (U.S. Ex. 21,711); *The New York Times*, May 17, 1988 (U.S. Ex. 87,438).

261. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 79, a press release, to be transmitted by mail on or about May 16, 1988. Deposition of William Adams, United States v. Philip Morris, et al., June 19, 2002, 574:12-20.

262. **Racketeering Act No. 80:** On or about May 16, 1988, defendant PHILIP MORRIS COMPANIES did knowingly cause to be sent and delivered by the United States Mails a letter from Philip Morris Companies employee Helen Frustace addressed to Donald K. Hoel, Esq., Shook, Hardy & Bacon, One Kansas City Place, 1200 Main Street, Kansas City, Missouri 64105. The letter indicated the approval of Alexander Holtzman, Esq., Philip Morris Companies, to renew Dr. Carl Seltzer's CTR Special Project funding.

263. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 2015006923-6923 (U.S. Ex. 23,047).

264. Defendant Altria caused Racketeering Act 80, a letter, to be transmitted by mail, on or about May 16, 1988. 2015006923-6923 (U.S. Ex. 23,047).

265. **Racketeering Act No. 81:** On or about July 1, 1988, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO

> INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained statements disputing the addictiveness of cigarette smoking.

266. This communication contained false and misleading statements disputing the addictiveness of cigarette smoking. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0125189-5189 (U.S. Ex. 77,065).

267. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 81, a press release, to be transmitted by mail on or about July 1, 1988. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 57:7-20.

268. **Racketeering Act No. 82:** On or about August 18, 1988, defendant REYNOLDS did knowingly cause to be sent and delivered by the United States Mails a letter from Reynolds employee Jo F. Spach addressed to Mr. Anthony A. Christina, 815 188th Street, Court E, Spanaway, WA 98387. The letter denied any causal link between smoking and disease.

269. This communication misrepresented and concealed the link between smoking and disease. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. 515792869-2869 (U.S. Ex. 20,869).

270. Defendant R.J. Reynolds caused Racketeering Act 82, a letter, to be transmitted by mail on or about August 18, 1988. Reynolds RFA #356.

271. **Racketeering Act No. 83:** During 1988, the exact dates being

unknown, defendant REYNOLDS caused a multi-page advertisement for Camel cigarettes to be placed in various print media, including Sports Illustrated, which magazines were then sent and delivered by the United States Mails to subscribers and others. The second page of the advertisement, which was captioned, "Some have it. Most don't," stated, "You can have it free!" and contained a coupon for a free pack of Camels. The advertisement depicted Joe Camel in the foreground, with a beautiful woman sitting on the hood of a convertible automobile in the background.

272. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 509131376-1378 (U.S. Ex. 20,822).

273. Defendant R.J Reynolds caused Racketeering Act 83, an advertisement, to be transmitted by mail during 1988. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941).

274. **Racketeering Act No. 84:** During 1989, the exact dates being unknown, defendant REYNOLDS caused advertisements for Camel cigarettes, to be placed in various print media, including magazines, which magazines were then sent and delivered by the United States Mails to subscribers and others. The advertisements were part of Program No. 900162, which involved "buy one, get one free coupons" and included the following advertisements:

a. An advertisement with the words "Bored? Lonely? Restless? What you need is . . . ." This advertisement featured the face of a beautiful woman gazing at the reader.

b. An advertisement captioned "Camel Smooth Moves." One such advertisement offered "Smooth Move #325 - Foolproof Dating Advice," and "Smooth Move #334 - How to impress someone at the beach." The "Foolproof dating advice" concluded with "[a]lways break the ice by offering her a Camel." The "advice" concerning the beach facetiously suggested that the reader

"[r]un into the water, grab someone and drag her back to the shore, as if you 've saved her from drowning. The more she screams, the better" and "[a]lways have plenty of Camels ready when the beach party begins."

c. An advertisement captioned "Smooth Move #437 - How to get a FREE pack even if you don't like to redeem coupons."

275. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 506876715-6718 (U.S. Ex. 21,712); *Omni*, May 1989 (U.S. Ex. 87,439).

276. Defendant R.J. Reynolds caused Racketeering Act 84, an advertisement, to be transmitted by mail during 1989. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941).

277. **Racketeering Act No. 85:** On or about January 11, 1990, defendant REYNOLDS did knowingly cause to be sent and delivered by the United States Mails a letter addressed to Principal, Willow Ridge School, Amherst, New York, from Jo F. Sprach, Manager, Public Relations Department, Reynolds, claiming that defendants, in a sincere attempt to determine what harmful effects, if any, smoking might have on human health, established CTR, claiming that scientists do not know the causes of the chronic diseases reported to be associated with smoking, and stating that Reynolds intends to continue to support scientific research in a continuing search for answers. The letter asked the recipient to pass this information along to her students.

278. This communication misrepresented and concealed link between smoking and disease; concealed that through CTR, R.J. Reynolds and the other Defendants were conducting research that was funded, controlled, and managed by Defendants while Defendants maintained

that such research was independent and disinterested; and furthered Defendants' fraudulent position that the link between smoking and disease was an open question. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. 682730197-0315 at 0296 (U.S. Ex. 21,970).

279. Defendant R.J. Reynolds caused Racketeering Act 85, a letter, to be transmitted by mail on or about January 11, 1990. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 35:1-5; Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, Exhibit 2, at 4 (U.S. Ex. 77,879).

280. **Racketeering Act No. 86:** On or about March 5, 1990, defendant REYNOLDS did knowingly cause to be sent and delivered by the United States Mails a letter addressed to Mark Green, New York City Commissioner of Consumer Affairs, from James W. Johnston, Chairman and CEO of Reynolds. In response to a letter sent by Green to Louis V. Gerstner, Jr., Chairman and CEO of RJR Nabisco (predecessor to RJR Tobacco Holdings), in which Green had complained about the design of the "Joe Camel" advertising campaign in such a manner as to appeal to youths, Johnston stated that it "has long been an R.J. Reynolds policy not to induce youths to smoke," further stating that, as CEO of Reynolds, "I have reinforced this policy," and "I see no basis to conclude that R.J. Reynolds has conducted itself in an unethical, illegal or misleading manner."

281. This communication falsely stated and misrepresented that Reynolds did not market to youths, and concealed Reynolds's fraudulent efforts to target the youth market. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud.

515796367-6367 (U.S. Ex. 22,718).

282. Defendant R.J. Reynolds caused Racketeering Act 86, a letter, to be transmitted by mail on or about March 5, 2000. Reynolds RFA #360.

283. **Racketeering Act No. 87:** On or about May 24, 1990, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained statements suggesting that Cigarette Companies actively discourage smoking by young people.

284. This communication falsely stated and misrepresented that cigarette companies actively discouraged smoking by young people, and concealed Defendants' fraudulent efforts to target the youth market. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. TIMN0020530-0531 (U.S. Ex. 21,713) (U. S. Ex. 36,253) (U.S. Ex. 62,795); (U.S. Ex. 62,797).

285. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 87, a press release, to be transmitted by mail on or about May 24, 1990. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 51:15-53:18.

286. **Racketeering Act No. 88:** On or about August 31, 1990, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, LIGGETT, and AMERICAN, through defendant COUNCIL FOR TOBACCO RESEARCH, did knowingly cause to be sent and delivered by the United States Mails letters addressed separately to Wayne W. Juchatz, Esq.,

> Reynolds; Josiah S. Murray III, Esq., Liggett; Ernest Pepples, Esq, Brown & Williamson; Paul A. Randour, Esq., American; Arthur J. Stevens, Esq., Lorillard; Charles R. Wall, Esq., Philip Morris Companies, from Patrick M. Sirridge, Esq., Shook, Hardy & Bacon, 1200 Main Street, Kansas City, Missouri 64105, advising that the Companies fund research to be conducted by a scientist who generated favorable results for defendants.

287. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 521100179-0180 (U.S. Ex. 21,812).

288. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and American, through defendant Council For Tobacco Research, caused Racketeering Act 88, letters, to be transmitted by mail on or about August 31, 1990. Reynolds RFA #362; B&W RFA #362; Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

289. **Racketeering Act No. 89:** On or about September 18, 1990, defendant REYNOLDS did knowingly cause to be sent and delivered by the United States Mails a letter addressed to Joanna Brown, from Joan F. Cockerham of the Reynolds Public Relations Department. Responding to concerns expressed by Ms. Brown about the "Joe Camel" ad campaign appealing to youth, the letter stated, "Our intention with this campaign, as with all of our advertising, is to appeal only to adult smokers. We would not have launched the current Camel campaign if we thought its appeal was to anyone other than this group."

290. This communication falsely claimed that Reynolds's intention in designing the

"Joe Camel" ad campaign, and other campaigns, was to appeal only to adult smokers; falsely claimed that Reynolds would not have launched the campaign if it thought it appealed to anyone other than adult smokers; and concealed Reynolds's fraudulent efforts to market to youth. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. 507706384-6384 (U.S. Ex. 20,782).

291. Defendant R.J. Reynolds caused Racketeering Act 89, a letter, to be transmitted by mail on or about September 18, 1990. Reynolds RFA #363.

292. **Racketeering Act No. 90:** On or about October 2, 1990, defendant AMERICAN did knowingly cause to be sent and delivered by the United States Mails a letter addressed to Patrick M. Sirridge, Esq., Shook, Hardy & Bacon, 1200 Main Street, Kansas City, Missouri 64105, from Paul A. Randour, Esq., American Vice President and General Counsel, approving payment to a "Special Project" researcher.

293. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. ATX300004098-4098 (U.S. Ex. 58,613).

294. Defendant American caused Racketeering Act 90, a letter, to be transmitted by mail on or about October 2, 1990. B&W RFA #364.

295. **Racketeering Act No. 91:** On or about October 11, 1990, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through

defendant TOBACCO INSTITUTE, did knowingly cause a press release entitled "Major New Initiatives to Discourage Youth Smoking Announced" to be sent and delivered by the United States Mails to newspapers and news outlets. This press release contained statements suggesting that defendants had a "longstanding policy" of discouraging and preventing smoking by youth.

296. This communication falsely stated and misrepresented that Defendants discouraged youth smoking; and concealed Defendants' fraudulent efforts to target the youth market. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0015615-5617 (U.S. Ex. 21,265).

297. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 91, a press release, to be transmitted by mail on or about October 11, 1990. Deposition of William Adams, United States v. Philip Morris, et al., June 19, 2002, 443:15-17.

298. **Racketeering Act No. 92:** On or about June 4, 1991, defendant PHILIP MORRIS COMPANIES did knowingly cause to be sent and delivered by the United States Mails a letter from Philip Morris Companies' Charles R. Wall, Esq., Vice President and Associate General Counsel, in New York, to: Philippa J. Casingena, Esq., British American Tobacco Company Ltd., England; John Evans, Esq., Ashurst Morris Crisp, England; Marion Funck, Esq., Reemtsma Cigaretten Fabriken GmbH, Germany; Alan D. Porter, Esq., Imperial Tobacco Limited, England; and James W. Seddon, Esq., Rothmans International Limited, in which Mr. Wall enclosed "a brief statement and a somewhat longer statement discussing the 'risk factor' language" relating defendants' position on the health effects of smoking.

299. This communication misrepresented and concealed the link between smoking and

disease. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. 2023235511-5512 (U.S. Ex. 22,725) (U.S. Ex. 26,780).

300. Defendant Altria Group caused Racketeering Act 92, a letter, to be transmitted by mail to England and Germany on or about June 4, 1991. 2501234297-4298 (U.S. Ex. 22,662).

301. **Racketeering Act No. 93:** On or about December 11, 1991, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails addressed to newspapers and news outlets. This press release contained statements suggesting that the majority of smokers in the United States are of legal age when they begin smoking and that defendants have discouraged youth smoking.

302. This communication falsely claimed and misrepresented that the majority of smokers in the United States are of legal age when they begin smoking; falsely claimed that Defendants have discouraged youth smoking; and concealed Defendants' fraudulent efforts to target the youth market. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. TIMN0019059-9060 (U.S. Ex. 21,266) (U.S. Ex. 21,295) (U.S. Ex. 34,400) (U.S. Ex. 62,790).

303. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 93, a press release, to be transmitted by mail on or about December 11, 1991. Deposition of William Adams, United States v. Philip Morris, et al., June 19, 2002, 539:13-540:19.

304. **Racketeering Act No. 94:** On or about January 28, 1992, defendant REYNOLDS did knowingly cause to be sent and delivered by the United States Mails a letter addressed to James Harrison, President of the Vermont Retail Grocers Association, from Yancey W. Ford, Jr., Executive Vice President for Sales of Reynolds, stating "R.J. Reynolds Tobacco Co. does not want youth to smoke" and denying in substance that the "Joe Camel" advertising campaign was directed at youth.

305. This communication misrepresented and concealed link between cigarette advertising and youth smoking; falsely claimed that Reynolds discouraged youth smoking; and misrepresented that Reynolds did not target youths. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. 515011420-1422 (U.S. Ex. 51,932).

306. Defendant R.J. Reynolds caused Racketeering Act 94, a letter, to be transmitted by mail on or about January 28, 1992. Reynolds RFA #368.

307. **Racketeering Act No. 95:** On or about May 18, 1992, defendant PHILIP MORRIS COMPANIES did knowingly cause to be sent and delivered by the United States Mails a letter from Charles R. Wall, Esq., Vice President and Associate General Counsel, Philip Morris Companies, addressed to Bernard O'Neill, Esq., Shook, Hardy & Bacon, 1200 Main Street, Kansas City, Missouri. The letter accompanied a check representing Philip Morris' contribution to the research efforts of Theodor D. Sterling.

308. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 2023230770-0770 (U.S. Ex. 20,384).

309. New Defendant Altria caused Racketeering Act 95, a letter, to be transmitted by mail from York, New York, to Kansas City, Missouri, on or about May 18, 1992. 2023230770-0770 (U.S. Ex. 20,384).

310. **Racketeering Act No. 96:** On or about August 28, 1992, defendant REYNOLDS did knowingly cause to be sent and delivered by the United States Mails a letter addressed to Dr. Francis A. Neelon, Editor of the North Carolina Medical Journal, purporting to be from Dr. Robert G. Fletcher, Medical Director of Reynolds, but bearing a handwritten notation on the copy retained by Reynolds stating that it was "written by SWM for Dr. Fletcher," complaining about an article in the North Carolina Medical Journal, and stating about the author of the article, "He claims the tobacco industry spends huge amounts of money promoting its products to youth. This is blatantly false. None of Reynolds Tobacco's product advertising or promotions are directed toward anyone under the legal age to smoke."

311. This communication misrepresented and concealed link between cigarette advertising and youth smoking; falsely claimed that Reynolds discouraged youth smoking and did not target the youth market. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. 512024008-4011 (U. S. Ex. 22,994) (U.S. Ex. 76,095).

312. Defendant R.J. Reynolds caused Racketeering Act 96, a letter, to be transmitted by mail on or about August 28, 1992. Reynolds RFA #370.

313. **Racketeering Act No. 97:** During 1992, the exact dates being unknown, defendant REYNOLDS caused an advertisement captioned "Camel Lights" to be placed in various print media, including Sports Illustrated, a magazine, which magazines were then sent and delivered by the United States Mails to subscribers and others. The advertisement depicted Joe Camel wearing sunglasses, a tee shirt, and blue jeans, with a pack of cigarettes

rolled up in his sleeve and a lit cigarette hanging from his mouth, and casually leaning against a convertible automobile.

314. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 509131534-1534 (U.S. Ex. 21,717).

315. Defendant R.J. Reynolds caused Racketeering Act 97, an advertisement, to be transmitted by mail during 1992. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941).

316. **Racketeering Act No. 98:** On or about March 11, 1993, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN did knowingly cause to be sent and delivered by the United States Mails letters addressed separately to Wayne W. Juchatz, Esq., Reynolds; Ernest Pepples, Esq., Brown & Williamson; Gilbert L. Klemann, II, Esq., American; Arthur J. Stevens, Esq., Lorillard; and Charles R. Wall, Esq., Philip Morris Companies, from Bernard V. O'Neill, Jr., Esq., Shook, Hardy & Bacon, 1200 Main Street, Kansas City, Missouri 64105, advising that the Cigarette Companies continue to fund research to be conducted by a scientist who generated favorable results for defendants and seeking financial contributions in proportion to each Cigarette Company's "market share" to support such research.

317. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question, and Defendants' fraudulent promise to conduct independent, disinterested research. 512678470-8473 (U.S. Ex. 22,979); IRA0011317-1345 (U.S. Ex. 58,881).

318. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and

American caused Racketeering Act 98, letters, to be transmitted by mail on or about March 11, 1993. B&W RFA #372; Reynolds RFA #372; Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

> 319. **Racketeering Act No. 99:** On or about November 12, 1993, defendant REYNOLDS did knowingly cause to be sent and delivered by the United States Mails a letter addressed to Mr. Mark E. Smith, 26582 Mocine Avenue, Hayward, California 94544, from Reynolds employee Catherine Clinton. The letter denied the existence of any proof that smoking causes lung cancer, heart disease, or emphysema, and asserted that "a cause and effect relationship between smoking and disease has not been established."

320. This communication misrepresented and concealed the link between smoking and disease. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. 513601091-1091 (U.S. Ex. 21,815).

321. Defendant R.J. Reynolds caused Racketeering Act 99, a letter, to be transmitted by mail on or about November 12, 1993. Reynolds RFA #373.

> 322. **Racketeering Act No. 100:** In or about December 1994, the exact date being unknown, defendant PHILIP MORRIS did knowingly cause a draft press release to be prepared, which was released in a final version in June 1995 and disseminated to the public through United States Mails. This press release stated that "Philip Morris is taking aggressive steps to keep cigarettes out of the hands of young people" and that the company sought to eliminate access to cigarettes by minors.

323. This communication misrepresented that the Defendants discouraged youth smoking; misrepresented that the Defendants did not target the youth market; and concealed that

Defendants market to youth. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. 2500050140-0141 (U.S. Ex. 21,804).

324. Defendant Philip Morris caused Racketeering Act 100, a press release, to be transmitted by mail in or about June 1995. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 17, 2003 (*The Boston Globe*) at 1, ¶ 6 (U.S. Ex. 75,946); Declaration of Michael Carvalhido, United States v. Philip Morris, et al., June 20, 2003 (*New York Post*) ¶ 6 (U.S. Ex. 75,960); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961); Declaration of Katherine Hatton, United States v. Philip Morris, et al., June 27, 2003 (*The Philadelphia Inquirer*) at 1, ¶ 4 (U.S. Ex. 75,962); Declaration of Victor A. Capece, United States v. Philip Morris, et al., July 15, 2003 (*The Washington Post*) at 1, ¶ 6 (U.S. Ex. 75,967).

325. **Racketeering Act No. 101:** On or about October 31, 1996, defendant BAT INDUSTRIES (predecessor to BAT P.L.C.) did knowingly cause to be transmitted in interstate commerce by means of the mails comments for publication in the Wall Street Journal, which newspaper was then sent and delivered by the United States Mails to subscribers and others. The Chief Executive of BAT Industries, Martin Broughton, denied charges that BAT Industries, including its Brown & Williamson subsidiary, concealed research linking smoking and disease. He stated: "We haven't concealed, we do not conceal and we will never conceal. We have no internal research which proves that smoking causes lung cancer or other diseases or, indeed, that smoking is addictive."

[Stricken]

326. **Racketeering Act No. 102:** During 1996, the exact dates being unknown, defendant REYNOLDS caused multi-page

> advertisements captioned "Take a Rockin' Road Trip" and "Go ahead, it's on me," to be placed in various print media, including magazines which were then sent and delivered by the United States Mails to subscribers and others. The advertisements depicted Joe Camel and offered gift certificates in the amount of $25 to purchase tickets "to just about any Ticketmaster event," in exchange for 100 Camel Cash C-Notes.

327. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. IRA0011362-1362 (U.S. Ex. 33,060).

328. Defendant R.J. Reynolds caused Racketeering Act 102, advertisements, to be transmitted by mail during 1996. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941).

> 329. **Racketeering Act No. 103:** On or about July 3, 1963, defendant BROWN & WILLIAMSON did knowingly cause to be sent by cable, and BRITISH-AMERICAN TOBACCO COMPANY (predecessor to BAT INVESTMENTS) received, a message from Addison Yeaman, Esq., Brown & Williamson General Counsel, to A.D. McCormick, Esq., BAT Co., in London, England, with copies to Messrs. Finch, Wade, and Griffith, reporting that W.T. Hoyt, Executive Director of the TIRC had agreed to withhold a Battelle report from TIRC members or the Scientific Advisory Board, and further agreed that submitting certain information to the Surgeon General would be "undesirable."

330. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question; Defendants' false and misleading statements regarding nicotine addiction, manipulation, and delivery; and Defendants' fraudulent

promise to conduct independent, disinterested research. 689033421-3421 (U.S. Ex. 31,045).

331. Defendant Brown & Williamson caused Racketeering Act 103, a letter, to be transmitted by cable, on or about July 3, 1963. BATCo RFA #377; B&W RFA #377; Stipulation of Defendant British American Tobacco (Investments) Limited, United States v. Philip Morris, et al., August 12, 2003 at 1, ¶ 2 (citing Exhibit B); Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 2, ¶ 2 (citing Exhibit B).

332. **Racketeering Act No. 104:** On or about July 22, 1970, defendant LORILLARD did knowingly cause to be sent by telegram, and defendant REYNOLDS did receive, a message from Arthur J. Stevens, Esq., Lorillard General Counsel, to Henry Ramm, Esq., Reynolds Vice President and General Counsel, transmitting Lorillard's agreement to participate in a CTR Special Project that involved sponsoring a conference on the benefits of smoking.

333. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question; Defendants' false and misleading statements regarding nicotine addiction, manipulation, and delivery; and Defendants' fraudulent promise to conduct independent, disinterested research. 508293416-3416 (U.S. Ex. 21,514).

334. Defendant Lorillard caused Racketeering Act 104, correspondence, to be transmitted by telegram on or about July 22, 1970. R.J. Reynolds RFA #378.

335. **Racketeering Act No. 105:** On or about January 3, 1971, defendant PHILIP MORRIS did knowingly cause to be transmitted on the nationally televised CBS program *Face the Nation*, air date January 3, 1971, statements before a live television and radio audience by Joseph Cullman III, President and CEO of Philip Morris, that misrepresented Philip Morris' funding of independent

research and denied that cigarettes are hazardous or pose a hazard to pregnant women or their infants.

336. This communication misrepresented and concealed the link between smoking and disease; falsely promised and misrepresented that Defendants wanted to and would conduct independent, disinterested research regarding smoking and disease; concealed that Philip Morris and the other Defendants were funding, controlling, and managing research that Defendants maintained was independent and disinterested; falsely denied that cigarettes are hazardous or pose a hazard to pregnant women or their infants; and furthered Defendants' fraudulent position that the link between smoking and disease was an open question. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. 1002605545-5564 (U.S. Ex. 35,622).

337. Defendant Philip Morris caused Racketeering Act 105, statements, to be transmitted live on national television and radio, on or about January 3, 1971. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Owen Youngman, United States v. Philip Morris, et al., June 10, 2003 (*Chicago Tribune*) ¶ 5 (U.S. Ex. 75,949).

338. **Racketeering Act No. 106:** On or about September 16, 1976, defendants BROWN & WILLIAMSON did knowingly cause to be transmitted, and BRITISH-AMERICAN TOBACCO COMPANY (predecessor to BAT INVESTMENTS) did receive, a letter cable addressed to G.C. Hargrove, BAT Co., London, England, from Ernest Pepples, Esq., Brown & Williamson, counseling BAT to maintain the same position in England as Brown & Williamson maintained in America that the use of tobacco is not unduly

dangerous.

339. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question. 680273641-3643 (U.S. Ex. 20,998).

340. Defendant Brown & Williamson caused Racketeering Act 106, a letter, to be transmitted by cable, on or about September 16, 1976. B&W RFA #380; Stipulation of Defendant British American Tobacco (Investments) Limited, United States v. Philip Morris, et al., August 12, 2003 at 1, ¶ 3 (citing Exhibit C); Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 2, ¶ 2 (citing Exhibit B).

341. **Racketeering Act No. 107:** On or about February 25, 1981, defendant REYNOLDS did knowingly cause to be sent by telex a message from Reynolds's employee Frank Colby addressed to Wilfried Dembach, Cologne, Germany, discussing the disciplining of a company employee who admitted publicly that smoking plays a significant role in causing cancer.

342. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question. 504331775-1776 (U.S. Ex. 22,738).

343. Defendant R.J. Reynolds caused Racketeering Act 107, a message, to be transmitted by telex, on or about February 25, 1981. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 35:1-5; Deposition of Gwendoline B.

Joyner, United States v. Philip Morris, et al., June 28, 2002, Exhibit 2, at 5 (U.S. Ex. 77,879).

344. **Racketeering Act No. 108:** On or about October 26, 1983, defendants BAT INDUSTRIES (predecessor to BAT P.L.C.)and PHILIP MORRIS did knowingly cause to be transmitted a telephone conversation between BAT Industries employee Eric Alfred Albert Bruell, Esq., and Philip Morris Vice President Hugh Cullman, in which the participants agreed to continue the Cigarette Companies' internal agreement not to compete with one another on issues relating to smoking and health.

345. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question; Defendants' fraudulent promise to conduct independent, disinterested research; Defendants' fraudulent efforts to suppress development and marketing of a less hazardous cigarette; and Defendants' fraudulent efforts to conceal and suppress material information relating to the link between smoking and adverse health effects. 301030943-0944 (U.S. Ex. 46,577).

346. Defendant Philip Morris caused Racketeering Act 108, a conversation, to be transmitted by telephone, on or about October 26, 1983. 301030943-0944 (U.S. Ex. 46,577).

347. **Racketeering Act No. 109**: On or about April 14, 1994, defendant PHILIP MORRIS did knowingly cause to be transmitted the testimony of the President and Chief Executive Officer of Philip Morris, William I. Campbell, which was presented at a nationally televised hearing of the House Subcommittee on Health and the Environment. During this hearing, Mr. Campbell denied that nicotine is addictive, denied that Philip Morris research establishes that smoking is addictive, and denied that Philip Morris manipulates the amount of nicotine contained in cigarettes.

348. This communication falsely denied that nicotine was addictive; falsely denied that Philip Morris research established that smoking was addictive; and falsely denied that Philip Morris manipulated the amount of nicotine delivered to smokers. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. IRA0011429-1435 (U.S. Ex. 33,063).

349. Defendant Philip Morris caused Racketeering Act 109, statements, to be transmitted by television, on or about April 14, 1994. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Sanford Schwartz, United States v. Philip Morris, et al., June 24, 2003 (*The Atlanta Journal Constitution*) at 1, ¶ 4 (U.S. Ex. 75,945); Declaration of Michael Prazma, United States v. Philip Morris, et al., June 17, 2003 (*The Charlotte Observer*) at 1-2, ¶ 6 (U.S. Ex. 75,948); Declaration of Patricia C. LoVerme, United States v. Philip Morris, et al., July 18, 2003 (*The Los Angeles Times*) at 1, ¶ 6 (U. S. 75,955); Declaration of Katherine Hatton, United States v. Philip Morris, et al., June 27, 2003 (*The Philadelphia Inquirer*) at 1, ¶ 4 (U.S. Ex. 75,962); Declaration of Victor A. Capece, United States v. Philip Morris, et al., July 15, 2003 (*The Washington Post*) at 1, ¶ 6 (U.S. Ex. 75,967).

350. **Racketeering Act No. 110:** On or about April 14, 1994, defendant REYNOLDS did knowingly cause to be transmitted the testimony of the Chairman and Chief Executive Officer of Reynolds, James Johnston, which was presented at a nationally televised hearing of the House Subcommittee on Health and the Environment. During this hearing, Mr. Johnston denied that nicotine is addictive and denied that Reynolds manipulates the amount of nicotine contained

in cigarettes.

351. This communication falsely denied that nicotine is addictive; misrepresented that R.J. Reynolds did not manipulate the amount of nicotine delivered to smokers; and concealed that Reynolds manipulated the amount of nicotine delivered to smokers. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. IRA0011433-1434 (U.S. Ex. 33,063).

352. Defendant R.J. Reynolds caused Racketeering Act 110, statements, to be transmitted by television, on or about April 14, 1994. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Sanford Schwartz, United States v. Philip Morris, et al., June 24, 2003 (*The Atlanta Journal Constitution*) at 1, ¶ 4 (U.S. Ex. 75,945); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 17, 2003 (*The Boston Globe*) at 1, ¶ 6 (U.S. Ex. 75,946); Declaration of Owen Youngman, United States v. Philip Morris, et al., June 10, 2003 (*Chicago Tribune*) ¶ 5 (U.S. Ex.75,949); Declaration of Patricia C. LoVerme, United States v. Philip Morris, et al., July 18, 2003 (*The Los Angeles Times*) at 1, ¶ 6 (U.S. Ex. 75,955); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961); Declaration of Katherine Hatton, United States v. Philip Morris, et al., June 27, 2003 (*The Philadelphia Inquirer*) at 1, ¶ 4 (U.S. Ex. 75,962); Declaration of William F. Nagel, United States v. Philip Morris, et al., June 23, 2003 (*The San Diego Union-Tribune*) at 2, ¶ 6 (U.S. Ex. 75,964); Declaration of Victor A. Capece, United States v. Philip Morris, et al., July 15, 2003

(*The Washington Post*) at 1, ¶ 6 (U.S. Ex. 75,967).

353. **Racketeering Act No. 111:** On or about April 14, 1994, defendant LORILLARD did knowingly cause to be transmitted the testimony of the Chief Executive Officer of Lorillard, Andrew H. Tisch, which was presented at a nationally televised hearing of the House Subcommittee on Health and the Environment. During this hearing, Mr. Tisch denied that Lorillard manipulates the amount of nicotine contained in cigarettes.

354. This communication misrepresented that Lorillard did not manipulate the amount of nicotine delivered to smokers. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. IRA0011510-1517 (U.S. Ex. 33,064).

355. Defendant Lorillard caused Racketeering Act 111, statements, to be transmitted by television, on or about April 14, 1994. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Patricia C. LoVerme, United States v. Philip Morris, et al., July 18, 2003 (*The Los Angeles Times*) at 1, ¶ 6 (U.S. Ex. 75,955); Declaration of Miriam Lopez, United States v. Philip Morris, et al., June 3, 2003 (*The Miami Herald*) at ¶ 6 (U.S. Ex. 75,959); Declaration of Victor A. Capece, United States v. Philip Morris, et al., July 15, 2003 (*The Washington Post*) at 1, ¶ 6 (U.S. Ex. 75,967).

356. **Racketeering Act No. 112:** On or about April 14, 1994, defendant LIGGETT did knowingly cause to be transmitted the testimony of the Chairman and Chief Executive Officer of Liggett, Edward A. Horrigan, Jr., which was presented at a nationally televised hearing of the House Subcommittee on Health and the Environment. During this hearing, Mr. Horrigan denied that Liggett manipulates the amount of nicotine contained in cigarettes.

357. This communication misrepresented that Liggett did not manipulate the amount of

nicotine delivered to smokers. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute the principal gravamen of the scheme to defraud. IRA0011515-1516 (U.S. Ex. 33,064).

358. Defendant Liggett caused Racketeering Act 112, statements, to be transmitted by television, on or about April 14, 1994. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Miriam Lopez, United States v. Philip Morris, et al., June 3, 2003 (*The Miami Herald*) at ¶ 6 (U.S. Ex. 75,959); Declaration of Victor A. Capece, United States v. Philip Morris, et al., July 15, 2003 (*The Washington Post*) at 1, ¶ 6 (U.S. Ex. 75,967).

359. **Racketeering Act No. 113:** On or about April 14, 1994, defendant AMERICAN did knowingly cause to be transmitted the testimony of the Chief Executive Officer of American, Donald S. Johnston, which was presented at a nationally televised hearing of the House Subcommittee on Health and the Environment. During this hearing, Mr. Johnston denied that American manipulates the amount of nicotine contained in cigarettes.

360. This communication misrepresented that American did not manipulate the amount of nicotine delivered to smokers. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. IRA0011518-1522 (U.S. Ex. 33,065).

361. Defendant American caused Racketeering Act 113, statements, to be transmitted by television, on or about April 14, 1994. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Miriam Lopez, United States v. Philip Morris, et al., June 3, 2003 (*The Miami Herald*) at ¶ 6 (U.S. Ex. 75,959);

Declaration of Victor A. Capece, United States v. Philip Morris, et al., July 15, 2003 (*The Washington Post*) at 1, ¶ 6 (U.S. Ex. 75,967).

> 362. **Racketeering Act No. 114:** On or about May 9, 1994, defendant PHILIP MORRIS did knowingly cause to be transmitted a telefax letter addressed to The Honorable Henry Waxman, Chairman, Subcommittee on Health and the Environment, Committee on Energy and Commerce, 2415 Rayburn House Office Building, Washington, D.C. 20515-6118, from Dr. Cathy Ellis, Director of Research, Philip Morris. The letter denied that nicotine causes addiction, based on a definition of addiction overwhelmingly rejected by public and mental health professionals: "intoxication, pharmacological tolerance, and physical dependence in a manner that would impair the smokers' ability to exercise a free choice to continue or to quit smoking."

363. This communication falsely denied that nicotine causes addiction. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. 2029200293-0294 (U.S. Ex. 21,537).

364. Defendant Philip Morris caused Racketeering Act 114, a letter, to be transmitted by telefax on or about May 9, 1994. Philip Morris Inc.'s Responses To Plaintiff's First Requests For Admission To All Defendants ("PM RFA") (U.S. Ex. 77,533), at Response No. 388.

> 365. **Racketeering Act No. 115:** On or about April 27, 1995, defendant BROWN & WILLIAMSON did transmit and cause to be transmitted a telephone call placed by Brown & Williamson employee Melanie Gnadinger to Brown & Williamson Japan employee Hiromi Mikami in furtherance of defendants' public assertions that smoking does not cause disease.

366. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts

to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question. 450010016-0019 (U.S. Ex. 21,539).

367. Defendant Brown & Williamson caused Racketeering Act 115, a conversation, to be transmitted by telephone, on or about April 27, 1995. 450010016-0019 (U.S. Ex. 21,539). See Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 2, ¶ 2.

368. **Racketeering Act No. 116:** During 1999, the exact dates being unknown, defendant BROWN & WILLIAMSON did knowingly cause to be posted on the Brown & Williamson Internet web site a document entitled "Hot Topics: Smoking and Health Issues. The company stated:

> Brown & Williamson believes that the relevant issue should not be how or whether one chooses to define cigarette smoking as addictive based on an analysis of all definitions available. Rather, the issue should be whether consumers are aware that smoking may be difficult to quit (which they are) and whether there is anything in cigarette smoke that impairs smokers from reaching and implementing a decision to quit (which we believe there is not).

369. This communication falsely denied that smoking is addictive. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. IRA0011575-1596 (U.S. Ex. 33,076).

370. Defendant Brown & Williamson caused Racketeering Act 116, a statement, to be transmitted by web site during 1999. B&W RFA #390; Stipulation of Defendant Brown &

Williamson, United States v. Philip Morris, et al., October 1, 2003 at 2, ¶ 2.

371. **Racketeering Act No. 117:** On or about November 20, 1962, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails addressed to newspapers and news outlets. This press release was entitled "TOBACCO INSTITUTE HEAD CALLS N.A.B. PRESIDENT'S CHARGES INCORRECT" and was issued in response to a comment by LeRoy Collins, President of the National Association of Broadcasters, that cigarette advertising is designed primarily to influence high school children.

372. This communication falsely denied that Defendants targeted their products to the youth market. This communication was for the purpose of executing the scheme to defraud because it constitutes the principal gravamen of the scheme to defraud. MNAT00280070-0070 (U.S. Ex. 21,724) (U.S. Ex. 78,775).

373. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 117, a press release, to be transmitted by mail on or about November 20, 1962. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶10 (U.S. Ex. 75,940); Declaration of Miriam Lopez, United States v. Philip Morris, et al., June 3, 2003 (*The Miami Herald*) ¶ 6 (U.S. Ex. 75,959).

374. **Racketeering Act No. 118:** On or about April 27, 1964, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, LIGGETT, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails addressed to newspapers and news outlets. This press release was entitled "CIGARETTE MANUFACTURERS ANNOUNCE

> ADVERTISING CODE" and was issued to announce a so-called Cigarette Advertising Code establishing "uniform standards for cigarette advertising" to include standards relating to youth advertising, and other marketing activities, and the provision that "cigarette advertising shall not represent that cigarette smoking is essential to social prominence, distinction, success, or sexual attraction."

375. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied, and to deceive the public by fraudulently representing that they did not and would not market to youths. 2025345360-5362 (U.S. Ex. 20,414) (U.S. Ex. 78,778); *The New York Times*, April 28, 1964 (U.S. Ex. 21608); *The Wall Street Journal*, April 28, 1964 (U.S. Ex. 21620); AP article published on April 28, 1964 in *Chicago Tribune* (U.S. Ex. 21,6121) and *Chicago Daily News* (U.S. Ex. 21,620).

376. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, Liggett, and American, through defendant Tobacco Institute, caused Racketeering Act 118, a press release, to be transmitted by mail on or about April 27, 1964. See also Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1.

> 377. **Racketeering Act No. 119:** On or about November 15, 1967, defendant AMERICAN, did knowingly cause an advertisement to be sent and delivered by the United States Mails as an attachment to a letter of Nov 15, 1967 of that same date. The advertisement states that Carlton filter cigarettes delivers "70% less 'tar' than the average filter king."

378. This communication is relevant to and was in furtherance of Defendants' fraudulent efforts to exploit smokers' desire for less hazardous cigarettes, and Defendants'

fraudulent and misleading representations regarding low tar and "light" cigarettes. This communication was for the purpose of executing the scheme to defraud because it constitutes the principal gravamen of the scheme to defraud. ATX030213458-3461 (U.S. Ex. 21,611).

379. Defendant American caused Racketeering Act 119, an advertisement, to be transmitted by mail on or about November 15, 1967. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Owen Youngman, United States v. Philip Morris, et al., June 10, 2003 (*Chicago Tribune*) ¶ 5 (U.S. Ex. 75,949); Declaration of Miriam Lopez, United States v. Philip Morris, et al., June 3, 2003 (*The Miami Herald*) ¶ 6 (U.S. Ex. 75,959); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961); Declaration of Katherine Hatton, United States v. Philip Morris, et al., June 27, 2003 (*The Philadelphia Inquirer*) at 1, ¶ 4 (U.S. Ex. 75,962).

380. **Racketeering Act No. 120:** On or about April 22, 1970, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant COUNCIL FOR TOBACCO RESEARCH, did knowingly cause a press release to be sent and delivered by the United States Mails addressed to newspapers and news outlets. This press release was entitled "STUDIES RAISE QUESTIONS ABOUT SMOKING AS HEALTH HAZARD," and was issued to identify studies supported by the Council for Tobacco Research that call into question whether "smoking has actually been shown to be a health hazard," or that there is a link between smoking and diseases such as lung cancer and emphysema.

381. This communication misrepresented and concealed the link between smoking and disease, and contained false promises and misrepresentations that the Defendants supported

independent, disinterested research into the link between smoking and disease. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud. 500015901-5905 (U.S. Ex. 47,778).

382. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Council For Tobacco Research, caused Racketeering Act 120, a press release, to be transmitted by mail on or about April 22, 1970. Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 24, 2002, 57:10-22.

383. **Racketeering Act No. 121:** On or about March 15, 1974 defendant REYNOLDS, did knowingly cause to be sent and delivered by the United States Mails a letter to National Family Opinion, 711 S. St. Clair Street, Toledo, Ohio 43691. The purpose of the letter is a request by Reynolds that, when National Family Opinion conducts its consumer surveys, it continue to question 14 through 17 year olds as well as 18 year olds.

384. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 500487414-7416 (U.S. Ex. 21,865).

385. Defendant R.J. Reynolds caused Racketeering Act 121, a letter, to be transmitted by mail on or about March 15, 1974. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 35:1-5; Deposition of Gwendolyn Joyner, U.S. v. Philip Morris, et al., June 28,2002, Exhibit 2 (U.S. Ex. 77,879).

386. **Racketeering Act No. 122:** On or about September 24, 1974, defendant REYNOLDS did knowingly cause to be sent and delivered by the United States Mails, a letter and attachments

> regarding "Salem Back-Up Advertising and Creative Development Statement" to Mr. A. M. Allen, William Esty Company, Inc., 100 East 42nd Street, New York, New York. The purpose of the letter and attachments is to review Salem's advertising strategy and the effect it has on "young adults." The attachment statement refers to reviewing the Brand's image in the following manner: "This Brand 'personality' positioning will also provide, as a secondary benefit, an image which will improve Salem's attractiveness to . . . current Kool smokers . . . as well as to the majority of young adult smokers entering the cigarette market for the first time."

387. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 501721136-1140 (U.S. Ex. 21,868).

388. Defendant R.J. Reynolds caused Racketeering Act 122, a letter and attachments, to be transmitted by mail on or about September 24, 1974. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 35:1-5; Deposition of Gwendolyn Joyner, U.S. v. Philip Morris, et al., June 28, 2002, Exhibit 2, (U.S. Ex. 77,879).

389. **Racketeering Act No. 123:** On or about March 1, 1976, defendant COUNCIL FOR TOBACCO RESEARCH did knowingly cause to be sent and delivered by the United States Mails a letter and manuscript from Theodor D. Sterling, Director, Simon Fraser University, to Dr. William U. Gardner, Scientific Director, Council for Tobacco Research, that attributed the health effects of smoking to occupation. The letter, referring to the manuscript, states that "Smokers turn out to come from mostly blue collar occupations where they are exposed with high probability to toxic dust, fumes, and chemicals."

390. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to Defendants' fraudulent efforts to misrepresent and conceal information relating to the link between smoking and disease. CTRSP-FILES011785-

1785 (U.S. Ex. 32,726).

391. Defendant CTR caused Racketeering Act 123, a letter and manuscript, to be transmitted by mail on or about March 1, 1976. Deposition of Harmon McAllister, United States v. Philip Morris, et al., May 24, 2002, 106:13-23.

392. **Racketeering Act No. 124:** On or about June 21, 1977, defendant BROWN & WILLIAMSON did knowingly cause to be sent and delivered by the United States Mails, a letter addressed to Mr. Andy Miller, McCann-Erickson, 485 Lexington Avenue, New York, New York, from D.A. Litwin, a letter discussing a project on marketing opportunities, and segmenting the cigarette market into the following flavor categories: "Taste," "Taste with implicit health benefit," "Taste with contemporaneous health benefit," and "Explicit health benefit."

393. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease and Defendants' fraudulent efforts to exploit smokers' desires for less hazardous cigarettes. 660041050-1051 (U.S. Ex. 20,952).

394. Defendant Brown & Williamson caused Racketeering Act 124, a letter, to be transmitted by mail from Louisville, Kentucky, to New York, New York on or about June 21, 1977. 660041050-1051 (U.S. Ex. 20,952). See Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

395. **Racketeering Act No. 125:** On or about May 4, 1979, defendant BROWN & WILLIAMSON did knowingly cause to be sent and delivered by the United States Mails, a letter addressed to Mr. Joseph A. Califano, Jr., Secretary of Health, Education, and Welfare, Washington, DC 20201, from C.I. McCarty, Chairman, responding to letter of April 26, 1979 from Mr. Califano that urged Brown & Williamson to dedicate a percentage of its

> advertising budget to youth smoking prevention efforts. McCarty stated B&W's "policy against advertising or promoting the sale of cigarettes to persons under 21," and stated that it "does not have at hand the research data and other information necessary to a responsible analysis of the suggestion made in [the April 26 letter]."

396. This communication falsely denied that Defendants targeted their products to the youth market, and concealed material information relating to Defendants' fraudulent efforts to target the youth market. This communication was for the purpose of executing the scheme to defraud because it constitutes the principal gravamen of the scheme to defraud. 660008957-8957 (U.S. Ex. 21,520) (U.S. Ex. 79,078).

397. Defendant Brown & Williamson caused Racketeering Act 125, a letter, to be transmitted by mail from Louisville, Kentucky, to Washington, D.C., on or about May 4, 1979. 660008957-8957 (U.S. Ex. 21,520) (U.S. Ex. 79,078). See Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

398. **Racketeering Act No. 126:** On or about May 18, 1979, defendant LIGGETT did knowingly cause to be sent and delivered by the United States Mails, a letter addressed to Mr. Joseph A. Califano, Jr., Secretary of Health, Education, and Welfare, Washington, DC 20201, from Raymond J. Mulligan, President, responding to a letter of April 26, 1979 from Mr. Califano, identifying that millions of children are regular cigarette smokers, and urging Liggett to dedicate a percentage of its advertising budget to youth smoking prevention efforts. Mulligan stated that "this Company does not promote or advertise its cigarette products to children or young people under twenty-one years of age, nor are our promotional activities and advertising aimed at encouraging such children and young people to begin smoking or even continue smoking." The letter further stated that "Cigarette smoking is an adult pleasure and custom" and referred to industry policies aimed at "limiting the pleasure of smoking to adults."

399. This communication falsely denied that Defendants targeted their products to the youth market, and concealed material information relating to Defendants' fraudulent efforts to target the youth market. This communication was for the purpose of executing the scheme to defraud because it constitutes the principal gravamen of the scheme to defraud. 1003058023-8024 (U.S. Ex. 20,149) (U.S. Ex. 78,731).

400. Defendant Liggett caused Racketeering Act 126, a letter, to be transmitted by mail from Durham, North Carolina, to Washington, D.C., on or about May 18, 1979. 1003058023-8024 (U.S. Ex. 20,149) (U.S. Ex. 78,731); Deposition of John Long, United States v. Philip Morris, et al., June 25, 2002, 15:3-11; 25:11-26:5.

401. **Racketeering Act No. 127:** On or about June 1, 1979, defendant BROWN & WILLIAMSON did knowingly cause to be sent and delivered by the United States Mails, a letter addressed to Mr. Joseph A. Califano, Jr., Secretary of Health, Education, and Welfare, Washington, DC 20201, from C.I. McCarty, Chairman, responding to a letter of April 26, 1979 from Mr. Califano, identifying that millions of children are regular cigarette smokers, and urging Liggett to dedicate a percentage of its advertising budget to youth smoking prevention efforts. McCarty stated: "We do not want children to smoke not because we agree with your oft-repeated slogan that smoking is 'slow-motion suicide' but because the decision whether to smoke, we think, is a decision which should be made by adults, not children. . . . I have serious doubts about the effectiveness of any campaign directed toward children advising them to postpone making the decision to smoke until they are adults. Such a campaign could backfire. Children might elect to smoke as a rebellion against authority or in an attempt to show adult behavior."

402. This communication falsely denied that Defendants targeted their products to the youth market; concealed material information relating to Defendants' fraudulent efforts to target

the youth market; and fraudulently denied the link between smoking and adverse health effects. This communication was for the purpose of executing the scheme to defraud because it constitutes the principal gravamen of the scheme to defraud. 660008960-8961 (U.S. Ex. 21,524).

403. Defendant Brown & Williamson caused Racketeering Act 127, a letter, to be transmitted by mail from Louisville, Kentucky, to Washington, D.C., on or about June 1, 1979. 660008960-8961 (U.S. Ex. 21,524). See Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ (citing Exhibit A).

404. **Racketeering Act No. 128:** On or about May 4, 1981, defendant REYNOLDS did knowingly cause to be sent and delivered by the United States mail, a letter from Warren Cowan, President, Rogers & Cowan, Inc., to Mr. Gerald Long, Executive Vice President, Reynolds, discussing Rogers & Cowan's past and continuing efforts on behalf of Reynolds to have smoking featured favorably "in a prominent way" in movies, with celebrities, on television, and in other arenas.

405. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 503579240-9244 (U.S. Ex. 20,718).

406. Defendant R.J. Reynolds caused Racketeering Act 128, a letter, to be transmitted by mail on or about May 4, 1981. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 74:20-23.

407. **Racketeering Act No. 129:** On or about April 13, 1983, defendant BROWN & WILLIAMSON did knowingly cause a contract to be placed in the United States mail from Artistry Limited, Pinewood Studios, Iver Health, Bucks, England, to Brown & Williamson, through N.V. Domantay, vice President, Brand Management, memorializing the agreement to place Barclay outdoor advertising

displays in the film "Supergirl."

408. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 675048039-8042 (U.S. Ex. 20,976).

409. Defendant Brown & Williamson caused Racketeering Act 129, a contract, to be transmitted by mail from Bucks, England, to Louisville, Kentucky, on or about April 13, 1983. 675048039-8042 (U.S. Ex. 20,976). See Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 1, ¶ 1 (citing Exhibit A).

410. **Racketeering Act No. 130:** On or about October 20, 1983, defendants PHILIP MORRIS INC., REYNOLDS, BROWN & WILLIAMSON, AND LORILLARD, through defendant TOBACCO INSTITUTE, did knowingly cause to be transmitted on the nationally televised ABC program *20/20*, air date October 20, 1983, before a live television audience, statements by Anne Browder of the Tobacco Institute that include "We feel very strongly that cigarette smoking is an adult custom that one should not even consider until they've reached the age of maturity," "We do everything possible to discourage teenage smoking," and "age of maturity is 21."

411. This communication contained false and misleading statements regarding Defendants' fraudulent efforts to target the youth market. This communication was for the purpose of executing the scheme to defraud because it constitutes the principal gravamen of the scheme to defraud. 690149518-9531 at 9520 (U.S. Ex. 21,046) (U.S. Ex. 78,732) (U.S. Ex. 79,080).

412. Defendants Philip Morris Inc., R.J. Reynolds, Brown & Williamson, and Lorillard, through defendant Tobacco Institute, caused Racketeering Act 130, statements, to be

transmitted by television, on or about October 20, 1983. 690149518-9531 (U.S. Ex. 21,046) (U.S. Ex. 78,732) (U.S. Ex. 79,080).

413. **Racketeering Act No. 131:** On or about January 14, 1986, defendant PHILIP MORRIS did knowingly cause to be sent and delivered by the United States Mails, an advertising contract addressed to the Los Angeles Dodgers, Inc., Advertising and Novelty Department, 1000 Elysian Park Ave., Los Angeles, California, for the purpose of placing Marlboro advertising in the 1986 Dodger scorecard and magazine available at Dodger major league baseball games.

414. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 2041595387-5387 (U.S. Ex. 38,212).

415. Defendant Philip Morris caused Racketeering Act 131, an advertising contract, to be transmitted by mail from Los Angeles, California to New York, New York, on or about January 14, 1986. 2041595387 (U.S. Ex. 38,212).

416. **Racketeering Act No. 132:** On or about May 16, 1988, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails addressed to newspapers and news outlets. This press release was entitled "CLAIMS THAT CIGARETTES ARE ADDICTIVE CONTRADICT COMMON SENSE" and was issued in response to the Surgeon General's Report on nicotine addiction.

417. This communication contained false and misleading statements that nicotine was not addictive and that discredited the evidence that nicotine is addictive. This communication was for the purpose of executing the scheme to defraud because it constitutes the principal

gravamen of the scheme to defraud. TIMN0019963-9963 (U.S. Ex. 21,239) (U.S. Ex. 22,727).

418. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Racketeering Act 132, a press release, to be transmitted by mail on or about May 16, 1988. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) at 1, ¶ 6 (U.S. Ex. 75,961); Declaration of Katherine Hatton, United States v. Philip Morris, et al., June 27, 2003 (*The Philadelphia Inquirer*) at 1, ¶ 4 (U.S. Ex. 75,962); Declaration of Victor A. Capece, United States v. Philip Morris, et al., July 15, 2003 (*The Washington Post*) at 1, ¶ 6 (U.S. Ex. 75,967).

419. **Racketeering Act No. 133:** On or about July 29, 1988, defendants PHILIP MORRIS, REYNOLDS, BROWN & WILLIAMSON, LORILLARD, and AMERICAN, through defendant TOBACCO INSTITUTE, did knowingly cause a press release to be sent and delivered by the United States Mails addressed to newspapers and news outlets. This press release quoted Mr. Charles O. Whitley of the Institute as stating "that the Surgeon General's Report 'undermines efforts to combat drug abuse,' " and that the Report calling cigarette smoking an addiction was "without medical or scientific foundation."

420. This communication contained false and misleading statements that nicotine was not addictive and that discredited the evidence that nicotine is addictive. This communication was for the purpose of executing the scheme to defraud because it constitutes the principal gravamen of the scheme to defraud. TIMN0125189-5189 (U.S. Ex. 77,065).

421. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and

American, through defendant Tobacco Institute, caused Racketeering Act 133, a press release, to be transmitted by mail on or about July 29, 1988. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 3, ¶ 10 (U.S. Ex. 75,940); Declaration of Patricia C. LoVerme, United States v. Philip Morris, et al., July 18, 2003 (*The Los Angeles Times*) at 1, ¶ 6 (U.S. Ex. 75,955); Declaration of Miriam Lopez, United States v. Philip Morris, et al., June 3, 2003 (*The Miami Herald*) ¶ 6 (U.S. Ex. 75,959); Declaration of Michael Carvalhido, United States v. Philip Morris, et al., June 20, 2003 (*New York Post*) at ¶ 6 (U.S. Ex. 75,960); Declaration of Katherine Hatton, United States v. Philip Morris, et al., June 27, 2003 (*The Philadelphia Inquirer*) at 1, ¶ 4 (U.S. Ex. 75,962).

422. **Racketeering Act No. 134:** On or about April 5, 1990, defendant REYNOLDS did knowingly cause to be sent by wire and mail a memorandum from R.G. Warlick, Division Manager, to all area sales representatives instructions to list in their "Y.A.S. accounts" "[a]ll package action calls located across from, adjacent to [or] in the General vicinity of High Schools or College Campus. (under 30 years of age)."

423. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 507834616-4616 (U.S. Ex. 21,540).

424. Defendant R.J. Reynolds caused Racketeering Act 134, a memorandum, to be transmitted by wire and mail on or about April 5, 1990. Deposition of Gwendoline B. Joyner, United States v. Philip Morris, et al., June 28, 2002, 35:1-5; Deposition of Gwendolyn Joyner, U.S. v. Philip Morris, et al., June 28, 2002, Exhibit 2 (U.S. Ex. 77,879).

425. **Racketeering Act No. 135:** In or about 1999, the exact dates being

> unknown, defendant BROWN & WILLIAMSON did knowingly cause to be placed in newspapers and magazines nationwide an advertising campaign for KOOL cigarettes captioned "B Kool," which newspapers and magazines were then sent and delivered by the United States Mails to subscribers and others. Among several treatments, "BKool" advertising depicted attractive young women gazing longingly back at a man in the foreground holding a lighted cigarette and a pack of Kools. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 98402850-2851 (U.S. Ex. 57,306).

426. Defendant Brown & Williamson caused Racketeering Act 135, an advertisement, to be transmitted by mail in or about 1999. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941).

427. **Racketeering Act No. 136:** In or about 1999, the exact dates being unknown, defendant REYNOLDS did knowingly cause to be placed in newspapers and magazines a nationwide advertising campaign for Camel cigarettes captioned "Viewer Discretion Advised," which newspapers and magazines were then sent and delivered by the United States Mails to subscribers and others.. Among several treatments, advertisements depicted a "farmer's daughter" scene that included a young man being run off by the irate father of an attractive blonde female. The caption reads, "VIEWER DISCRETION ADVISED. This ad contains: SS... Satisfied Smoking FV... Farm Violence AN ... Animal Nudity. *Mighty Tasty!*"

428. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 98402886-2888 (U.S. Ex. 57,307).

429. Defendant R.J. Reynolds caused Racketeering Act 136, an advertisement, to be transmitted by mail in or about 1999. Declaration of Carlotta Figliulo, United States v. Philip

Morris, et al., September 29, 2003 (U.S. Ex. 75,941).

430. **Racketeering Act No. 137:** In or about 2000, the exact dates being unknown, defendant PHILIP MORRIS did knowingly cause a nationwide advertising campaign for Marlboro cigarettes captioned "Marlboro Country," to be placed in radio and television broadcasts, newspapers, which broadcasts and newspapers and magazines, were then sent and delivered by the United States Mails or by wire transfer to subscribers and others. Among several treatments, advertisements often depicted a cowboy smoking or handling cigarettes in a western setting.

431. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 86067870-7871 (U.S. Ex. 56,095).

432. Defendant Philip Morris caused Racketeering Act 137, an advertisement, to be transmitted by mail in or about 2000. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941).

433. **Racketeering Act No. 138:** In or about 2000, the exact dates being unknown, defendant PHILIP MORRIS did knowingly cause a nationwide advertising campaign for Virginia Slims cigarettes, to be placed in newspapers and magazines, which newspapers and magazines were then sent and delivered by the United States Mails to subscribers and others. Among several treatments, advertisements often depicted slim, independent, well-dressed attractive women smoking cigarettes.

434. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 86067879-7879 (U.S. Ex. 56,096).

435. Defendant Philip Morris caused Racketeering Act 138, an advertisement, to be

transmitted by mail in or about 2000. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941).

436. **Racketeering Act No. 139:** In or about 2001, the exact dates being unknown, defendant REYNOLDS did knowingly cause to be placed in newspapers and magazines a nationwide advertising campaign for Camel cigarettes captioned "Pleasure to Burn," which newspapers and magazines were then sent and delivered by the United States Mails to subscribers and others. Among several treatments, "Pleasure to Burn" advertising depicted attractive young men and young women smoking cigarettes or offering cigarettes, including series that are entitled, "7 Pleasures of the Casbah," "Turkish Gold," "Flavors of the Exotic," and "Turkish Jade."

437. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 524649701-9712 (U.S. Ex. 21,750).

438. Defendant R.J. Reynolds caused Racketeering Act 139, an advertisement, to be transmitted by mail in or about 2001. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941).

439. **Racketeering Act No. 140:** In or about 2001, the exact dates being unknown, defendant REYNOLDS did knowingly cause to be placed in newspapers and magazines nationwide an advertising campaign for Winston cigarettes captioned "No Bull," which newspapers and magazines were then sent and delivered by the United States Mails to subscribers and others. Among several treatments, "No Bull" advertising depicted attractive young men and young women smoking cigarettes or offering cigarettes often in circumstances involving irreverent humor or sporting events, and touted that the Winston brand cigarettes had "100% Tobacco" and "No Additives".

440. This communication was for the purpose of executing the scheme to defraud

because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease, including the issue of whether the link between smoking and disease was an open question. Moreover, this communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 517509202-9211 (U.S. Ex. 21,752).

441. Defendant R.J. Reynolds caused Racketeering Act 140, an advertisement, to be transmitted by mail in or about 2001. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941).

442. **Racketeering Act No. 141:** In or about 2001, the exact dates being unknown, defendant BROWN & WILLIAMSON did knowingly cause to be placed in newspapers and magazines a nationwide advertising campaign for KOOL cigarettes captioned "House of Menthol," which newspapers and magazines were then sent and delivered by the United States Mails to subscribers and others.

443. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 98163137-3139 (U.S. Ex. 21,860); 98173405-3405 (U.S. Ex. 56,945); 98173406-3406 (U.S. Ex. 56,946).

444. Defendants Brown & Williamson caused Racketeering Act 141, an advertisement, to be transmitted by mail in or about 2001. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941).

445. **Racketeering Act No. 142:** In or about 2001, the exact dates being unknown, defendant LORILLARD did knowingly cause to be

> placed in newspapers and magazines a nationwide advertising campaign for Newport cigarettes captioned "Pleasure! Fire It Up!," which newspapers and magazines were then sent and delivered by the United States Mails to subscribers and others. Among several treatments, "Pleasure! Fire It Up!" advertising depicted attractive young men and young women smoking cigarettes or offering cigarettes often in circumstances involving sports and other physical activities.

446. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease. Moreover, this communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied.

447. Defendant Lorillard caused Racketeering Act 142, an advertisement, to be transmitted by mail in or about 2001. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941).

448. **Racketeering Act No. 143:** During June 2001, the exact dates being unknown, defendant LORILLARD did knowingly cause to be posted on the Lorillard Internet web site a document entitled "Marketing and Promotion." The section of the website entitled "Marketing and Promotion" represents that "Lorillard does not and will not design or implement any marketing or promotional program intended to encourage youth to smoke cigarettes, and will continue to utilize only those advertising, promotional and marketing materials that do not, directly or indirectly, target youth."

449. This communication contained false and misleading statements denying Defendants' fraudulent efforts to target the youth market. This communication was for the

purpose of executing the scheme to defraud because it constitutes the principal gravamen of the scheme to defraud. http://www.lorillard.net/corp.html (U.S. Ex. 86,695).

450. Defendant Lorillard caused Racketeering Act 143, a statement, to be transmitted over its Internet web site during June 2001. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 4, ¶ 11 (U.S. Ex. 75,940); Lorillard Web site page dated August 9, 2003 (U.S. Ex. 87,304).

451. **Racketeering Act No. 144:** During 1999 and through June 2001, the exact dates being unknown, defendant BROWN & WILLIAMSON did knowingly cause to be posted on the Brown & Williamson Internet web site a document entitled "Hot Topics: Corporate Responsibility." The section of the document entitled "Marketing Principles and Practices: Advertising," represents that "the intended audience for all B&W marketing programs is adults 21 and over."

452. This communication contained false and misleading statements denying Defendants' fraudulent efforts to target the youth market. This communication was for the purpose of executing the scheme to defraud because it constitutes the principal gravamen of the scheme to defraud. http://www.brownandwilliamson.com/Index_sub2.cfm?ID=12 (U.S. Ex. 86,656).

453. Defendant Brown & Williamson caused Racketeering Act 144, a statement, to be transmitted over its Internet web site during 1999 and through June 2001. Declaration of Patricia A. Tobin, United States v. Philip Morris, et al., October 2, 2003 at 4, ¶ 11 (U.S. Ex. 75,940); Brown & Williamson Web Site page dated November 1, 1999 (U.S. Ex. 87,305). See Stipulation of Defendant Brown & Williamson, United States v. Philip Morris, et al., October 1, 2003 at 2, ¶

2 (citing Exhibit B).

454. **Racketeering Act No. 145:** During June 2001, the exact dates being unknown, defendant PHILIP MORRIS did knowingly cause to be posted on the Philip Morris Internet web site a document entitled "Philip Morris U.S.A. Marketing Policies." The section of the website entitled "Philip Morris U.S.A. Marketing Policies" represents that "All of our brand advertising and promotions are intended for adults who choose to smoke. They serve to enhance brand awareness, recognition and loyalty among adult smokers."

455. This communication contained false and misleading statements denying Defendants' fraudulent efforts to target the youth market. This communication was for the purpose of executing the scheme to defraud because it constitutes the principal gravamen of the scheme to defraud. http://www.philipmorrisusa.com/DisplayPageWithTopic917.asp (U.S. Ex. 86,697).

456. Defendant Philip Morris caused Racketeering Act 145, a statement, to be transmitted over its Internet web site during June 2001. Declaration of Patricia A. Tobin, U.S. v. Philip Morris, et al., October 2, 2003, at 4, ¶ 11 (U.S. Ex. 75,940); Philip Morris U.S.A. Web Site page dated February 2, 2001 (U.S. Ex. 87,440).

457. **Racketeering Act No. 146:** During June 2001, the exact dates being unknown, defendant R.J. REYNOLDS did knowingly cause to be posted on the R.J. Reynolds Internet web site a document entitled "Marketing Philosophy." The section of the website entitled "Marketing Philosophy" represents that "Reynolds Tobacco is not interested in, and does nothing aimed at, trying to persuade any nonsmokers to begin smoking."

458. This communication contained false and misleading statements regarding Defendants' fraudulent efforts to market to youth. This communication was for the purpose of

executing the scheme to defraud because it constitutes the principal gravamen of the scheme to defraud. http://www.rjrt.com/IN/COHowWeThink_smokinghealth.asp (U.S. Ex. 72,410).

459. Defendant R.J. Reynolds caused Racketeering Act 146, a statement, to be transmitted over the Internet web site during June 2001. Declaration of Patricia A. Tobin, U.S. v. Philip Morris, et al., October 2, 2003, at 4, ¶ 11 (U.S. Ex. 75,940); R.J. Reynolds Tobacco Company Web Site page dated August 7, 2003 (U.S. Ex. 87,306).

460. **Racketeering Act No. 147:** In or about 2001, the exact dates being unknown, defendant PHILIP MORRIS did knowingly cause a nationwide advertising campaign for Marlboro cigarettes captioned "Marlboro Country," to be placed in radio and television broadcasts, newspapers, which broadcasts and newspapers and magazines, were then sent and delivered by the United States Mails or by wire transfer to subscribers and others. Among several treatments, advertisements often depicted a cowboy smoking or handling cigarettes in a western setting.

461. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 86067870-7871 (U.S. Ex. 56,095).

462. Defendant Philip Morris caused Racketeering Act 147, an advertisement, to be transmitted over the radio and by mail, in or about 2001. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 at 2, ¶ 4 (U.S. Ex. 75,941).

463. **Racketeering Act No. 148:** In or about 2001, the exact dates being unknown, defendant PHILIP MORRIS INC. did knowingly cause a nationwide advertising campaign for Virginia Slims cigarettes, to be placed in newspapers and magazines, which newspapers and magazines were then sent and delivered by the United States Mails to subscribers and others. Among several treatments, advertisements often depicted slim, independent, well-dressed

attractive women smoking cigarettes.

464. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied. 86067879-7879 (U.S. Ex. 56,096).

465. Defendant Philip Morris caused Racketeering Act 148, an advertisement, to be transmitted over the radio and by mail, in or about 2001. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 at 2, ¶ 4 (U.S. Ex. 75,941).

E. Additional Instances of Mail and Wire Fraud Violations

466. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, and Lorillard caused their respective advertisements listed within Instances #149 - #577 to be transmitted by mail from 1998 to 2003. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 and Ex. B attached thereto (U.S. Ex. 75,941); Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., October 3, 2003 (U.S. Ex. 75,944); Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., October 1, 2003 (U.S. Ex. 75,943); Declaration of Robert Silverstone, United States v. Philip Morris, et al., August 4, 2003 (*Allure*) (U. S. Ex. 75,944); Declaration of Sanford Schwartz, United States v. Philip Morris, et al., June 24, 2003 (*The Atlanta Journal Constitution*) (U.S. Ex. 75,945); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 17, 2003 (*The Boston Globe*) (U.S. Ex. 75,946); Declaration of Christopher A. Fraser, United States v. Philip Morris, et al., September 17, 2003 (*Car Craft*) (U.S. Ex. 75,947); Declaration of Michael Prazma, United States v. Philip Morris, et al., June 17, 2003 (*The Charlotte Observer*) (U.S. Ex. 75,948); Declaration of Owen Youngman,

United States v. Philip Morris, et al., June 10, 2003 (*Chicago Tribune*) (U.S. Ex. 75,949); Declaration of Andy Sippel, United States v. Philip Morris, et al., September 8, 2003 (*ESPN The Magazine*) (U.S. Ex. 75,950); Declaration of Christopher A. Fraser, United States v. Philip Morris, et al., September 17, 2003 (*4-Wheel & Off-Road*) (U.S. Ex. 75,951); Declaration of Christopher A. Fraser, United States v. Philip Morris, et al., September 17, 2003 (*Hot Rod*) (U.S. Ex. 75,952); Declaration of Robert Silverstone, United States v. Philip Morris, et al., August 4, 2003 (*Glamour*) (U.S. Ex. 75,953); Declaration of Robert Silverstone, United States v. Philip Morris, et al., August 4, 2003 (*GQ – Gentlemen's Quarterly*) (U.S. Ex. 75,954); Declaration of Patricia C. LoVerme, United States v. Philip Morris, et al., July 18, 2003 (*The Los Angeles Times*) (U.S. Ex. 75,955); Declaration of Robert Silverstone, United States v. Philip Morris, et al., August 4, 2003 (*Mademoiselle*) (U.S. Ex. 75,956); Declaration of John M. Lagana, United States v. Philip Morris, et al., July 28, 2003 (*Maxim*) (U.S. Ex. 75,957); Declaration of Christopher A. Fraser, United States v. Philip Morris, et al., September 17, 2003 (*Motorcyclist*) (U.S. Ex. 75,958); Declaration of Miriam Lopez, United States v. Philip Morris, et al., June 3, 2003 (*The Miami Herald*) (U.S. Ex. 75,959); Declaration of Michael Carvalhido, United States v. Philip Morris, et al., June 20, 2003 (*New York Post*) (U.S. Ex. 75,960); Declaration of Rhonda L. Brauer, United States v. Philip Morris, et al., June 18, 2003 (*The New York Times*) (U.S. Ex. 75,961); Declaration of Katherine Hatton, United States v. Philip Morris, et al., June 27, 2003 (*The Philadelphia Inquirer*) (U.S. Ex. 75,962); Declaration of Larry A. Djerf, United States v. Philip Morris, et al., July 29, 2003 (*Playboy*) (U.S. Ex. 75,963); Declaration of William F. Nagel, United States v. Philip Morris, et al., June 23, 2003 (*The San Diego Union-Tribune*) (U.S. Ex.

75,964); Declaration of Susan A. Meisel, United States v. Philip Morris, et al., September 18, 2003 (*The Village Voice*) (U.S. Ex. 75,965); Declaration of Robert Silverstone, United States v. Philip Morris, et al., August 4, 2003 (*Vogue*) (U.S. Ex. 75,966); Declaration of Victor A. Capece, United States v. Philip Morris, et al., July 15, 2003 (*The Washington Post*) (U.S. Ex. 75,967) (U.S. Ex. 75,967).

467. These communications were for the purpose of executing the scheme to defraud because they transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied.

468. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, and Lorillard caused their respective advertisements listed within Instances #578 - #734 to be transmitted by mail during 2000. Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., October 1, 2003 (U.S. Ex. 75,943); Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., October 3, 2003 (U.S. Ex. 75,944); Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941); All Media Declarations (U.S. Exs. 75,944-75,967).

469. These communications were for the purpose of executing the scheme to defraud because they transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied.

470. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, and Lorillard caused their respective light/low tar advertisements listed within Instances #750 - #788 to be transmitted by mail from 1998 to 2003. Declaration of Carlotta Figliulo, United States v. Philip

Morris, et al., October 1, 2003 (75,943); Declaration of Margaret Ann Morrison, United States v. Philip Morris, et al., October 3, 2003 (U.S. Ex. 75,944); Declaration of Carlotta Figliulo, United States v. Philip Morris, et al., September 29, 2003 (U.S. Ex. 75,941); All Media Declarations (U.S. Exs. 75,944-75,967).

471. These communications are relevant to and were in furtherance of Defendants' fraudulent efforts to exploit smokers' desires for less hazardous cigarettes, and Defendants' fraudulent and misleading representations regarding low tar and "light" cigarettes. These communications were for the purpose of executing the scheme to defraud, as they constitute the principal gravamen of the scheme to defraud.

472. Defendant Philip Morris mailed sixteen issues of its *Marlboro Unlimited* magazine, from the spring 1997 premier issue to the winter 2000 issue. 3000100738-0871 (U.S. Ex. 47,298); Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 453:21-460:2.

473. Defendant Philip Morris caused Instance 735, a magazine, to be transmitted by mail during spring 1997. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 453:21-460:2.

474. Defendant Philip Morris caused Instance 736, a magazine, to be transmitted by mail during summer 1997. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 453:21-460:2.

475. Defendant Philip Morris caused Instance 737, a magazine, to be transmitted by mail during winter 1997. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck,

United States v. Philip Morris, et al., August 26, 2003, 453:21-460:2.

476. Defendant Philip Morris caused Instance 738, a magazine, to be transmitted by mail during spring 1998. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 453:21-460-2.

477. Defendant Philip Morris caused Instance 739, a magazine, to be transmitted by mail during summer 1998. 3000100738-0871 (U.S. Ex. 87,441); Dudreck Deposition, 453:21-460:2.

478. Defendant Philip Morris caused Instance 740, a magazine, to be transmitted by mail during fall 1998. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 453:21-460:2.

479. Defendant Philip Morris caused Instance 741, a magazine, to be transmitted by mail during winter 1998. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 453:21-460:2.

480. Defendant Philip Morris caused Instance 742, a magazine, to be transmitted by mail during spring 1999. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 453:21-460:2.

481. Defendant Philip Morris caused Instance 743, a magazine, to be transmitted by mail during summer 1999. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 453:21-460:2.

482. Defendant Philip Morris caused Instance 744, a magazine, to be transmitted by mail during fall 1999. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck,

United States v. Philip Morris, et al., August 26, 2003, 453:21-460:2.

483. Defendant Philip Morris caused Instance 745, a magazine, to be transmitted by mail during winter 1999. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 453:21-460:2.

484. Defendant Philip Morris caused Instance 746, a magazine, to be transmitted by mail during spring 2000. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck, United States v. Philip Morris, August 26, 2003, 453:21-460:2.

485. Defendant Philip Morris caused Instance 747, a magazine, to be transmitted by mail during summer 2000. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck, United States v. Philip Morris et al., August 26, 2003, 453:21-460:2.

486. Defendant Philip Morris caused Instance 748, a magazine, to be transmitted by mail during fall 2000. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 453:21-460:2.

487. Defendant Philip Morris caused Instance 749, a magazine, to be transmitted by mail during winter 2000. 3000100738-0871 (U.S. Ex. 87,441); Deposition of Thomas Dudreck, United States v. Philip Morris, et al., August 26, 2003, 453:21-460:2.

488. Defendant Philip Morris's *Marlboro Unlimited* communications were for the purpose of executing the scheme to defraud because they transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to target the youth market, which they publicly denied.

489. Defendant R.J. Reynolds caused Instance 789, a statement, to be transmitted over

the Internet web site during August 2003. Declaration of Patricia A. Tobin, U.S. v. Philip Morris, et al., October 2, 1003 at 4, ¶ 12 (U.S. Ex. 75,940).

490. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking, i.e. second-hand smoke, and disease.

491. Defendant Brown & Williamson caused Instance 790, a statement, to be transmitted over the Internet web site during August 2003. Declaration of Patricia A. Tobin, U.S. v. Philip Morris, et al., October 2, 2003, at 4, ¶ 12 (U.S. Ex. 75,940).

492. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny there was a link between smoking, i.e. second-hand smoke, and disease.

493. Defendant Liggett caused Instance 791, an advertisement, to be transmitted by mail in November 2001. Declaration of Patricia A. Tobin, U.S. v. Philip Morris, et al., October 2, 2003, at 4, ¶ 12 (U.S. Ex. 75,940); All Media Declarations (U.S. Exs. 75,944-75,967).

494. This communication is relevant to and was in furtherance of Defendants' fraudulent efforts to exploit smokers' desires for "safer" cigarettes.

495. Defendant Liggett caused Instance 792, a press release, to be transmitted by mail on or about February 2001. Declaration of Patricia A. Tobin, U.S. v. Philip Morris, et al., October 2, 2003, at 4, ¶ 12 (U.S. Ex. 75,940); All Media Declarations (U.S. Exs. 75,944-75,967).

496. This communication is relevant to and was in furtherance of Defendants' fraudulent efforts to exploit smokers' desires for "safer" cigarettes.

497. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Instance 793, a press release, to be transmitted by mail in January 1993. Declaration of Patricia A. Tobin, U.S. v. Philip Morris, et al., October 2, 2003, at 4, ¶ 12 (U.S. Ex. 75,940); All Media Declarations (U.S. Exs. 75,944-75,967).

498. This communication was for the purpose of executing the scheme to defraud because it transmitted information relevant to and in furtherance of Defendants' fraudulent efforts to deny there was a link between smoking, i.e. second-hand smoke, and disease.

499. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Instance 794, an advertisement, to be transmitted by mail in May 1970. Declaration of Patricia A. Tobin, U.S. v. Philip Morris, et al., October 2, 2003, at 4, ¶ 12 (U.S. Ex. 75,940); All Media Declarations (U.S. Exs. 75,944-75,967).

500. This communication contained the false statement that Defendant Tobacco Institute "believes the American public is entitled to complete, authenticated information about cigarette smoking and health." This communication was for the purpose of executing the scheme to defraud as it is a misrepresentation, constituting the principal gravamen of the scheme to defraud.

501. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Instance 795, an advertisement, to be transmitted by mail in November 1969. Declaration of Patricia A. Tobin, U.S. v. Philip Morris,

et al., October 2, 2003, at 4, ¶ 12 (U.S. Ex. 75,940); All Media Declarations (U.S. Exs. 75,944-75,967).

502. This communication, attacking American Cancer Society and American Heart Association commercials which informed the public that cigarette smoking reduces a smoker's life by 8.3 years, furthered Defendants' fraudulent position that the link between smoking and disease was an open question.

503. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Lorillard, and American, through defendant Tobacco Institute, caused Instance 796, a press release, to be transmitted by mail in October 1966. Declaration of Patricia A. Tobin, U.S. v. Philip Morris, et al., October 2, 2003, at 4, ¶ 12 (U.S. Ex. 75,940); All Media Declarations (U.S. Exs. 75,944-75,967).

504. This communication that Defendants know of "no valid scientific evidence demonstrating that either 'tar' or nicotine is responsible for any human illness" is relevant and to and was in furtherance of Defendants' fraudulent efforts to deny that there was a link between smoking and disease.

505. Defendants Philip Morris, R.J. Reynolds, Brown & Williamson, Liggett, Lorillard, and American, through defendant Tobacco Institute, caused Instance 797, a press release, to be transmitted by mail in July 1963. Declaration of Patricia A. Tobin, U.S. v. Philip Morris, et al., October 2, 2003, at 4, ¶ 12 (U.S. 75,940); All Media Declarations (U.S. Exs. 75,944-75,967).

506. This communication falsely stated and misrepresented that Defendants did not

promote or encourage smoking among youth when, in fact, they did. This communication was for the purpose of executing the scheme to defraud because its false statements and misrepresentations constitute principal gravamen of the scheme to defraud.

507. Defendant Philip Morris caused Instance 798, a public statement, to be transmitted by mail in March 1954. Declaration of Patricia A. Tobin, U.S. v. Philip Morris, et al., October 2, 2003, at 4, ¶ 12, (U.S. Ex. 75,940); All Media Declarations (U.S. Exs. 75,944-75,967).

508. This communication from Defendant Philip Morris that it would cease from selling cigarettes if it had any knowledge of the product's harmfulness, was made falsely and for the purpose of executing the scheme to defraud because its falsity constitutes a principal gravamen of the scheme to defraud.

VI

EACH DEFENDANT ENGAGED IN A PATTERN OF RACKETEERING ACTIVITY

1. The Court finds that the respective Defendant committed each of the 148 racketeering acts, as alleged in the Amended Complaint, in the United States' Response to Interrogatory 35, and as set forth above in Section V, in the conduct of the affairs of the Enterprise. See FPFF §§ I., IV. and V. supra.

2. Each Defendant engaged in a pattern of racketeering activity in the conduct of the affairs of the Enterprise.

3. The 148 racketeering acts are "related" in that they:

   a. have the same or similar purposes, results, participants, victims and methods of commission;
   b. furthered the objectives of the Enterprise, especially the Enterprise's primary objective to maximize its members' profits through a scheme to defraud the public;
   c. benefitted the interests of the Enterprise; and
   d. the Defendants' control of, and participation with others in, the Enterprise facilitated their commission of the racketeering acts.

4. The evidence establishes the requisite "continuity" or threat of continued criminal activity because:

   a. the Defendants committed the racketeering acts over a substantial period of time;
   b. the racketeering acts are a regular way of conducting the Defendants' ongoing businesses;
   c. the Defendants' cigarette company businesses are ongoing and they continue to be in a position to continue their unlawful fraudulent activity; and
   d. the totality of the evidence establishes that the Defendants and others acting in concert with them have participated in extensive fraudulent activity for nearly 50 years, and have committed literally thousands of acts of mail and wire fraud in addition to the 148 racketeering acts specifically

alleged.

VII

EACH DEFENDANT CONSPIRED TO VIOLATE RICO

1. The Court finds that the United States has established that each Defendant knowingly conspired to conduct the affairs of the Enterprise through a pattern of racketeering activity, consisting of literally thousands of uses of the mail and interstate wire transmissions in furtherance of the scheme to defraud and the RICO conspiracy and Enterprise, in violation of 18 U.S.C. § 1962(d).

2. Each Defendant knew the general nature of the conspiracy and that the conspiracy extends beyond each Defendant's individual role. In that respect, as demonstrated in U.S. FPFF §§ I., IV. & V., supra., each Defendant has known about, and has participated in, the Enterprise, and has well known that the "primary objective" of the Enterprise is to preserve and enhance Defendants' profits by, among other means, devising and executing a scheme to defraud the public, as set forth in U.S. FPFF § IV., supra, and to avoid adverse liability verdicts in the face of the growing body of scientific and medical evidence about the adverse health effects and addictiveness of smoking cigarettes.

3. Each Defendant committed at least several related racketeering acts in furtherance of the Enterprise's affairs. From such evidence the Court may, and does, infer an agreement to violate RICO.

4. In addition, the Court finds that each Defendant agreed to violate RICO in that each Defendant agreed to facilitate the commission of the substantive RICO violation with the knowledge that other Defendants were also conspiring to participate in the same Enterprise

through racketeering activity.

5. For example, in January 1954, Defendants Philip Morris, R.J. Reynolds, American, B&W and Lorillard and other entities established the Tobacco Industry Research Committee ("TIRC"), which became Defendant Council for Tobacco Research ("CTR") in 1964, as part of their joint, express commitment to a long term fraudulent public relations campaign to preserve and enhance the market for cigarettes. Defendant Liggett, while not a member company of TIRC/CTR, did make contributions to CTR's Special Projects fund from 1966 through 1975 and to CTR's Literature Retrieval Division from 1971 through 1983. See U.S. FPFF §§ I.B. & I.D., supra. Representatives from Defendant Altria/PMC were members of CTR's Board of Directors. See U.S. FPFF §§ I.B., supra. These seven Defendants controlled and funded TIRC/CTR to further the objectives of the Enterprise, including to preserve and enhance Defendants' profits by, among other means, devising and executing a scheme to defraud the public, as set forth above in Section IV., and to avoid adverse liability verdicts in the face of the growing body of scientific and medical evidence about the adverse health effects and addictiveness of smoking cigarettes. See U.S. FPFF § I., II. & IV., supra.

6. Each Cigarette Company Defendant (except for BATCo) agreed to fund, and did jointly fund, numerous Special Projects through Defendant CTR, a member of the association-in-fact Enterprise, that were designed to generate information and support research to bolster Defendants' public relations and litigation positions, actions which contradicted such Defendants' statements, in the Frank Statement and elsewhere, that they would conduct independent research through the TIRC/CTR. See U.S. FPFF §§ I.D. & IV.D., supra.

7. In January 1958, Defendants American, Brown & Williamson, Liggett, Lorillard, Philip Morris, and R.J. Reynolds and other entities established Defendant The Tobacco Institute, another component of the Enterprise, and thereafter these Defendants controlled and funded the Tobacco Institute to further the objectives of the Enterprise. See U.S. FPFF §§ I.C., II., & IV., supra.

8. TIRC/CTR and the Tobacco Institute also participated in the RICO conspiracy by, inter alia, helping to coordinate and implement aspects of the Enterprise's scheme to defraud the public, especially its fraudulent public relations matters. See U.S. FPFF §§ I.C., II. & IV., supra.

9. Each Cigarette Company Defendant (except for BATCo) participated in the Tobacco Institute Committee of Counsel and other Tobacco Institute committees, additional components of the Enterprise, to further the Enterprise's conspiratorial objectives. See U.S. FPFF § I, supra.

10. Each Defendant (except for BATCo) caused and aided and abetted Defendants TIRC/CTR and the Tobacco Institute to commit racketeering acts in furtherance of the affairs of the Enterprise and the RICO conspiracy. See U.S. FPFF §§ I., IV., V. & VI., supra.

11. In furtherance of their fraudulent scheme to deny the adverse health effects of smoking, the Cigarette Company Defendants also agreed not to compete based on health-related issues in the marketing of cigarettes, and established a "Gentleman's Agreement" whereby they agreed not to perform certain animal research using as-marketed cigarettes in their domestic facilities, and agreed to share an innovation that could lead to the manufacture of a "safe" cigarette. See U.S. FPFF §§ I.I., IV.B., & IV.D., supra.

12. Each Defendant endeavored to facilitate the commission of the substantive RICO

offense by participating in one or more of various projects and committees designed to further the above-referenced objectives of the Enterprise and the RICO conspiracy, including, but not limited to: CTR Special Projects, Ad Hoc Special Projects, the Center for Indoor Air Research ("CIAR"), the Research Liaison Committee, the Industry Technical Committee, the International Tobacco Information Inc. ("INFOTAB"), Cooperation for Scientific Research Relative to Tobacco ("CORESTA"), the International Committee on Smoking Issues ("ICOSI") and its successor, the International Tobacco Documentation Center ("TDC"), the Tobacco Research Council ("TRC"), and the Tobacco Manufacturers' Standing Committee ("TMSC"). See U.S. FPFF § I., supra.

13. In furtherance of the objectives of the Enterprise and the RICO conspiracy, all Defendants developed and executed a scheme to defraud the public that was designed to preserve and enhance the market for cigarettes through a variety of means. See U.S. FPFF §§ I. & IV., supra.

14. In furtherance of the objectives of the Enterprise and RICO conspiracy, each Defendant caused the public dissemination of numerous false, deceptive or misleading statements. See U.S. FPFF §§ I., IV., & V., supra.

15. In furtherance of the objectives of the Enterprise, each Defendant endeavored to conceal or suppress information and documents and/or to destroy records which may have been detrimental to the interests of the members of the Enterprise, including information which could be discoverable in smoking and health liability cases against Defendants or in congressional and other governmental proceedings and information that could constitute, or lead to, evidence of the

link between smoking cigarettes and adverse health consequences and addictiveness. See U.S. FPFF §§ I.K. & IV.H., supra.

16. All Defendants directed and coordinated various activities in furtherance of the affairs of the Enterprise and the RICO conspiracy through correspondence and other communications between and among Defendants and their representatives' participation in meetings and committees. See U.S. FPFF §§ I. & IV., supra.

VIII

THE UNITED STATES HAS ESTABLISHED THAT THERE IS A REASONABLE LIKELIHOOD OF ONGOING OR FUTURE UNLAWFUL ACTIVITY BY DEFENDANTS

1. The Court has found that Defendants have engaged in an extensive pattern of intentional, unlawful, fraudulent activity over a forty-five year period. See U.S. FPFF §§ I., IV., V., and VI., supra.

2. Consequently, the Court finds that there is a reasonable likelihood of Defendants' committing future unlawful activity because: (a) Defendants' unlawful violations have been part of an extensive pattern extending over forty-five years, and have not been isolated; (b) Defendants' violations have been flagrant and deliberate, and not merely technical in nature; and (c) Defendants remain in the business of selling and marketing cigarettes and hence they will have countless opportunities and temptations to violate the law in the future.

3. Therefore, the United States is entitled to injunctive and other equitable relief without any need to establish any Defendant's continuing unlawful conduct.

4. In any event, the Court finds that Defendants have continued to engage in misconduct, including after November 1998, in furtherance of the objectives of the RICO Enterprise and conspiracy and Defendants' scheme to defraud the public, as set forth below, which further supports the Court's finding that there is a reasonable likelihood that Defendants will engage in unlawful conduct in the future.

5. Defendants' recent and ongoing misconduct has occurred in several components of the single, overarching scheme to defraud, including in the marketing of "light" cigarettes, in

their marketing efforts to attract youth, and in their conduct with respect to secondhand smoke. See, e.g., U.S. FPFF § IV.C., F., & G., supra.

6. For example, even after Defendants entered the Master Settlement Agreement in November 1998, they did not publicly state what they had long recognized internally: that smoking the cigarettes they manufacture and sell cause many serious diseases in the people who smoke them, including lung cancer and other serious cancers, heart disease, and emphysema. Even now, certain Defendants continue to employ the same "risk factor" language they have utilized for many years without admitting that their cigarettes have ever caused disease in anyone, or that they are even capable of causing such diseases. See U.S. FPFF § IV.A(2), supra.

7. Defendants continue to make public statements denying that secondhand smoke causes adverse health effects in nonsmokers, denials that are contrary to the medical and scientific consensus and the conclusions of leading medical and scientific public health bodies. See U.S. FPFF § IV.C(8)-(9), supra.

8. Similarly, entry into the MSA did not prompt Defendants to inform their customers about the addictive nature of cigarette smoking or that nicotine is the powerful pharmacological agent delivered by cigarettes that creates and sustains the physiological dependence experienced by the overwhelming majority of smokers. In fact, only one Defendant, Liggett, has placed a warning on its packages stating that nicotine is addictive, and other Defendants have taken affirmative steps to withhold such statements from consumers. See U.S. FPFF §§ IV.B(4) & IV.E(1), supra.

9. After the MSA, Defendants have greatly increased their marketing expenditures,

continued to employ themes in their marketing, promotional, and advertising campaigns that appeal to young people, continued to advertise in youth-oriented publications, increased their advertising expenditures in such publications, and have continued to deny that they market to youth. See U.S. FPFF § IV.G(7), supra.

10. Defendants continue to market cigarettes using the "light" and "low tar" descriptive phrases that they have long known, and intended to, convey a "less hazardous" message to smokers, and have made misleading public statements about their use of such descriptors. See U.S. FPFF § IV.F(3), supra.

IX

DISGORGEMENT

A. The United States' $280 Billion Disgorgement Request Represents A Reasonable Approximation of the Proceeds the Defendants Obtained from Their Decades-Long Scheme to Defraud the American People

(1) The Disgorgement Amount Is Reasonable

1. The United States has calculated a reasonable amount of proceeds subject to disgorgement. The United States does not seek all of the Defendants' proceeds from their fraudulent conduct to which it is legally entitled, but seeks only the Defendants' ill-gotten gains from sales to an especially protected class: Youth Addicted persons, and then only for the period from 1971 to 2001.

2. The United States' calculations of years of lost life and smoking-attributable health care costs demonstrate the suffering caused by Defendants' fraudulent acts and prove the reasonable nature of the United States' disgorgement request.

(a) Despite the Pervasive Nature of Defendants' Scheme to Defraud, the United States Seeks Disgorgement of Proceeds Related to Only a Limited and Reasonable Portion of Youth Addicted Smokers

3. Defendants engaged in a massive scheme to defraud the public for over fifty years, fraud which continues today. See United States' Final Proposed Findings of Fact ("U.S. FPFF") § IV, supra.

4. Defendants carried out their scheme to defraud through a variety of means including:

- causing public dissemination of numerous false, deceptive and misleading statements denying that smoking and Environmental Tobacco Smoke cause disease and other adverse health effects; and restricting their marketing and research activities to avoid undermining their public positions (See U.S. FPFF § IV.A., supra;

- causing public dissemination of numerous false, deceptive and misleading statements denying that cigarettes are addictive (See U.S. FPFF § IV.E.1, supra);

- manipulating nicotine to ensure addictiveness of cigarettes despite public dissemination of numerous false, deceptive and misleading statements denying that they manipulated nicotine levels (See U.S. FPFF § IV.E.2, supra);

- marketing to youth despite public dissemination of numerous false, deceptive and misleading statements denying that they marketed to youth (See U.S. FPFF § IV.G., supra);

- deceptively marketing "light" and "low tar" cigarettes as less hazardous despite their knowledge to the contrary (See U.S. FPFF § IV.F., supra); and

- failing to conduct or sponsor independent, disinterested research into the potential adverse health effects of smoking despite public dissemination of numerous false, deceptive and misleading statements that they would conduct or sponsor such research (See U.S. FPFF § IV.D., supra).

5. The purpose of Defendants' overarching scheme was to defraud consumers of the purchase price of cigarettes to sustain and expand the market for cigarettes and to maximize their individual profits. See U.S. FPFF § IV., supra. Defendants executed this scheme in different but interrelated ways, including by enticing consumers to begin and to continue smoking (U.S. FPFF § IV.G.), falsely denying the addictiveness and adverse health effects of smoking (U.S. FPFF §§ IV.A. IV.C., and IV. E., supra), and misrepresenting that such matters were "an open question" (U.S. FPFF §§ IV.A. and IV.B., supra). Thus, Defendants undertook activities specifically intended to obfuscate the public's understanding of the actual dangers posed by smoking at the same time that they were engaging in marketing efforts designed to attract them, all with the intention to sell more cigarettes and make more money. See U.S. FPFF § IV., supra.

6. Two internal R.J. Reynolds documents illustrate that the Cigarette Company Defendants acted to attract young people to smoking because they required new young smokers

to stay in business and increase profits. A 1984 R.J. Reynolds document states, "[y]ounger adult smokers are the only source of replacement smokers . . . . If younger adults turn away from smoking, the industry must decline, just as a population which does not give birth will eventually dwindle." 501431517-1610 at 1526 (U.S. Ex. 20,680).

7. The substantial profits that can be made by retaining young smokers is the topic of another internal R.J. Reynolds memorandum written in 1989 during the Joe Camel campaign: "Our aggressive [strategic marketing] Plan calls for gains of about 5.5 share points of smokers 18-20 per year, 1990-93 (about 120,000 smokers per year). Achieving this goal would produce an incremental cash contribution of only about $442 million during the Plan period (excluding promotion response in other age groups and other side benefits). However, if we hold these YAS [younger adult smokers] for the market average of 7 years, they would be worth over $2.1 billion in aggregate incremental profit." 507181261-1261 (emphasis in original) (U.S. Ex. 20,007) (U.S. Ex. 79,082).

8. The United States has produced substantial evidence that the Defendants' scheme to defraud had damaging and wide-ranging implications, including influence on initiation and continued smoking for people of all ages. See U.S. FPFF § IV.G. All of Defendants' sales of cigarettes to all consumers from 1954 to 2001 were inextricably intertwined with this massive scheme to defraud the public. See U.S. FPFF § IX. As a result, the United States would be justified in seeking disgorgement of the proceeds from all sales to people of all ages from 1954 into the future.

(i) The United States Seeks Disgorgement Only for Cigarettes Sold to the Youth Addicted Population

9. The United States has limited its request for disgorgement to proceeds from the sale of cigarettes only to the Youth Addicted Population.

10. Defendants undertook activities specifically intended to obfuscate the public's understanding of the actual dangers posed by smoking at the same time that they were engaging in marketing efforts designed to attract the "starter" or "beginning" smokers - who, Defendants have long known, were largely under 21. See U.S. FPFF § IV.G.(1), (2), supra. These youth represented a protected class with "a very special place in life which law should reflect." See, e.g., U.S. Final Preliminary Conclusions of Law ("FPCL"). Moreover, the marketing efforts were intended to encourage young people to begin and to continue smoking. See U.S. FPFF § IV.G., supra.

11. Once young people began to smoke, other aspects of Defendants' fraudulent conduct kept them smoking, including Defendants' false denials regarding adverse health effects and addictiveness, and Defendants' deceptive marketing of low tar cigarettes as less hazardous to smokers' health. See U.S. FPFF § IV.A., C., E.(1), and F., supra. Young people do not adequately understand and appreciate the cumulative risk that smoking entails. Most smokers only begin to think of risk after they have started smoking regularly and have become addicted. At that point, more than 80% wish they had never begun. Expert Report of Paul Slovic, United States v. Philip Morris, et al., (R. 661; filed November 15, 2001) at 4. Once addicted to smoking, smokers experience considerable difficulty quitting. Expert Report of Neal L. Benowitz, United States v. Philip Morris, et al., (R. 682; filed November 15, 2001) at 6. Accordingly, Defendants' marketing efforts aimed at youth contributed to their goal of creating lifetime smokers.

12. The Youth Addicted Population is comprised of those who smoked regularly as youth and those adults who became addicted as youth. See Technical Appendix to Expert Report of Jonathan Gruber, United States v. Philip Morris, et al., (R. 1453; filed July 24, 2002) at 4, 17,

as amended on July 25, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 86907); see also data in support Dr. Gruber's calculation of the "Share of Cigarettes Smoked by the Youth Addicted Population, July 2003." VXB364026 (U.S. Ex. 88,031). Specifically, the Youth Addicted Population includes those youth who smoked daily when under the age of 21 and those adults who were smoking more than five cigarettes a day when they turned 21 years old. See Technical Appendix to Expert Report of Jonathan Gruber, United States v. Philip Morris, et al., (R. 1453; filed July 24, 2002) at 4, 17, as amended on July 25, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 86907).

13. The United States employed a series of experts to calculate the Youth Addicted Population (See Technical Appendix to Expert Report of Jonathan Gruber, United States v. Philip Morris, et al., (R. 1453; filed July 24, 2002) at 4, 17, as amended on July 25, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 86907), the proceeds from the sale of cigarettes to the Youth Addicted Population (See Expert Report (Proceeds Report) of Franklin M. Fisher, United States v. Philip Morris, et al., (R. 673; filed November 15, 2001), as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,712) (U.S. Ex. 86,902), and the Youth Addicted Population's smoking-related health care costs and years of lost life resulting from smoking. See Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) VXA392 001-012 (U.S. Ex. 60,711) (U.S. Ex. 86,896). Dr. Jonathan Gruber calculated the Youth Addicted Population. Dr. Franklin Fisher calculated the proceeds from the sale of cigarettes to the Youth Addicted Population. Drs. Timothy Wyant,

Scott Zeger, and Leonard Miller calculated the Youth Addicted Population's smoking-related health care costs, as a proxy for the suffering of smokers, and years of lost life resulting from smoking. Additional experts were employed to address other components of disgorgement, including the causal relationship between Defendants' actions and youth smoking initiation and continuance of smoking, the addiction of smokers, and the inducement of smokers to continue smoking, among other issues.

(ii) The Youth Addicted Population Includes Only Those Who Started Smoking "Daily" As Youth

14. Because of the pervasive and intertwined nature of Defendants' fraudulent conduct over five decades, the United States would be justified in seeking disgorgement of the proceeds from sales to people of all ages, but has limited it to those who began smoking daily when they were under the age of 21, a particularly vulnerable class of people.

15. The United States does not seek disgorgement of proceeds earned on the sale of cigarettes to those under the age of 21 who experimented with cigarettes or who smoked less than daily, even if they later became addicted to smoking after the age of 21. See Technical Appendix to Expert Report of Jonathan Gruber, United States v. Philip Morris, et al., (R. 1453; filed July 24, 2002) at 4, 17, as amended on July 25, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 86907); Deposition of Donald B. Rubin, United States v. Philip Morris, et al., July 17, 2002, 117:3-118:4.

16. The Youth Addicted Population includes the group of young people, those under the age of 21, to whom Defendants publicly promised they would not market their cigarettes. See e.g., U.S. FPFF § IV.G., supra.

17. Defendants have at times stated that they did not market to youth under the age of 21 and have stated that they did not market to youth under the age of 18. These statements were

false. Defendants marketed both to youth under the age of 21 and to youth under the age of 18. See U.S. FPFF § IV.G.(1), (2), (4), and (7)., supra.

18. To the extent that Defendants admitted having marketed their cigarettes to individuals of legal age to smoke, at various times and in various states, Defendants have admittedly marketed to those who where under 21. Defendants have publicly promised not to market their cigarettes to these individuals. FPFF § IV.G.(1), (2), (4), and (7)., supra.

(iii) The Youth Addicted Population Excludes Those Who Began Smoking as Adults

19. The United States does not seek disgorgement of proceeds earned on the sale of cigarettes to those who began smoking when they were 21 years old or older. See Technical Appendix to Expert Report of Jonathan Gruber, United States v. Philip Morris, et al., (R. 1453; filed July 24, 2002) at 4, 17, as amended on July 25, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 86907).

(iv) The Youth Addicted Population Includes Only Those Adults Who Became Addicted As Youth

20. The United States does not seek disgorgement of proceeds earned on the sale of cigarettes to those who began smoking as youth, but who did not become addicted before turning 21 years old. Specifically, the Youth Addicted Population only includes adults who began smoking daily as youth and who were smoking more than five cigarettes a day when they turned 21 years old. See Technical Appendix to Expert Report of Jonathan Gruber, United States v. Philip Morris, et al., (R. 1453; filed July 24, 2002) at 4, 17, as amended on July 25, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 86907).

21. The focus on people who smoked more than five cigarettes a day when they turned 21, while neither required by the RICO statute nor case law, represents a reasonable and

conservative approach to identifying those individuals who became addicted as youth.

22. Smoking one to five cigarettes daily is a predictor of continued smoking and nicotine dependence. Such dependence increases significantly when the quantity smoked increases from less than one cigarette per day to five cigarettes per day. Expert Report of Neal Benowitz, United States v. Philip Morris, et al., (R. 682, filed November 15, 2001), at 24-25; see also Declaration of Neal L. Benowitz, M.D., United States v. Philip Morris, et al., September 29, 2003, at 4, ¶¶ 9 and 11, filed as Exhibit 3 to the Master Rule 7.1/56.1 Statement in Support of the United States' Opposition to Joint Defendants' Motion for Partial Summary Judgment on the Issue of Disgorgement, filed October 7, 2003 (U.S. Ex. 86,930). Order # 550 (denying Defendants' Motion for Partial Summary Judgment Dismissing Government's Disgorgement Claim).

23. "Smoking intensity is a strong indicator of addiction." Expert Report of Neal Benowitz, United States v. Philip Morris, et al., (R. 682, filed November 15, 2001), at 24-25; see also Declaration of Neal L. Benowitz, M.D., United States v. Philip Morris, et al., September 29, 2003, at 4-5, ¶ 10, filed as Exhibit 3 to the Master Rule 7.1/56.1 Statement in Support of the United States' Opposition to Joint Defendants' Motion for Partial Summary Judgment on the Issue of Disgorgement, filed October 7, 2003 (U.S. Ex. 86,930). "[U]nder the Fagerstrom Dependence Scale ("FDS"), a recognized tool for assessing nicotine dependence and addiction in adult smokers, one of the most important criteria is the number of cigarettes smoked per day." Id. "However, while the FDS is useful in characterizing the degree of nicotine addiction for adults, it has limitations as a tool for characterizing nicotine addiction in youth." Id. Order # 550 (denying Defendants' Motion for Partial Summary Judgment Dismissing Government's Disgorgement Claim).

24. "Smoking more than five cigarettes per day is a strong predictor of nicotine addiction among adult smokers." Expert Report of Neal Benowitz, United States v. Philip Morris, et al., (R. 682, filed November 15, 2001), at 24-25; see also Declaration of Neal L. Benowitz, M.D., United States v. Philip Morris, et al., September 29, 2003, at 5, ¶ 11, filed as Exhibit 3 to the Master Rule 7.1/56.1 Statement in Support of the United States' Opposition to Joint Defendants' Motion for Partial Summary Judgment on the Issue of Disgorgement, filed October 7, 2003 (U.S. Ex. 86,930). "'Dependence increases sharply and significantly when [the] quantity [of cigarettes] smoked increases from less than one cigarette per day to one to five cigarettes per day or from one to five cigarettes to half a pack a day. Thereafter, the increased risk [of dependence] is minimal.'" Id. "More than five cigarettes a day is a reasonable threshold for nicotine addiction." Id. "Indeed, the authoritative work of the 1994 Surgeon General's Report indicates that smoking one to five cigarettes per day among teenagers is a predictor of continued smoking and dependence." Id. "Of high school seniors who smoke less frequently than daily, 57.8% had quit five years later. Of those who smoke one to five cigarettes per day, only 29.6% had quit five to six year later, while 62% were smoking at the same or at a greater level. At one-half pack per day (ten cigarettes), 18% had quit and 68% were smoking at the same or at a greater level five years later." Id. "Thus smoking one to five cigarettes per day in high school is a strong predictor of continuing to smoke and is almost as strong a predictor as smoking ten cigarettes per day." Id.

25. "Even levels of smoking intensity lower than those for adults are strong indicators of nicotine addiction among younger smokers." Expert Report of Neal Benowitz, United States v. Philip Morris, et al., (R. 682, filed November 15, 2001), at 24-25; see also Declaration of Neal L. Benowitz, M.D., United States v. Philip Morris, et al., September 29, 2003, at 6, ¶ 12, filed as

Exhibit 3 to the Master Rule 7.1/56.1 Statement in Support of the United States' Opposition to Joint Defendants' Motion for Partial Summary Judgment on the Issue of Disgorgement, filed October 7, 2003 (U.S. Ex. 86,930). As Dr. Benowitz has testified previously, "'In kids I have used a lower consumption level because kids are at an escalating stage and [ ] most kids when they start smoking daily do become addicted. . . .'" Id. This is supported in the academic literature which reports that "'. . . [a]dolescents, who smoke significantly fewer cigarettes per day than adults, experience significantly higher rates of dependence than adults at the same level of use.'" Id.

26. "Levels of smoking by youth even lower than six cigarettes a day are strong indicators of nicotine addiction." Expert Report of Neal Benowitz, United States v. Philip Morris, et al., (R. 682, filed November 15, 2001), at 24-25; see also Declaration of Neal L. Benowitz, M.D., United States v. Philip Morris, et al., September 29, 2003, at 6, ¶ 13, filed as Exhibit 3 to the Master Rule 7.1/56.1 Statement in Support of the United States' Opposition to Joint Defendants' Motion for Partial Summary Judgment on the Issue of Disgorgement, filed October 7, 2003 (U.S. Ex. 86,930). Order # 550 (denying Defendants' Motion for Partial Summary Judgment Dismissing Government's Disgorgement Claim).

27. "[D]aily smoking at any level of intensity is a strong predictor of nicotine addiction for youth." Id.

28. "Approximately 75% of adolescents who are daily smokers [regardless of intensity] become regular smokers as adults (DHHS, 1989)." Expert Report of Neal L. Benowitz, United States v. Philip Morris, et al., (R. 682; filed November 15, 2001) at 25.

29. "Even those who smoke only a few cigarettes per day during high school have a high risk of becoming heavy smokers as adults." Expert Report of Neal L. Benowitz, United

States v. Philip Morris, et al., (R. 682; filed November 15, 2001) at 25.

30. "Once a daily smoker, the quit rates among adolescents are low – 12% among smokers who smoke 1-9 cigarettes per day . . . (Archives of Pediatric and Adolescent Medicine 1998; 153; 151-156). . . . This study may actually overestimate quit rates because it could not assess the duration of quitting and could not differentiate permanent cessation from brief cessation and relapse." Expert Report of Neal L. Benowitz, United States v. Philip Morris, et al., (R. 682; filed November 15, 2001) at 25.

31. "[I]t is my opinion as a clinical pharmacologist and expert on the human pharmacology of nicotine, that there is sufficient evidence to establish that many children and adolescents under the age of 18 smoke cigarettes because they are addicted to nicotine. This is true for most children and adolescents who are daily cigarette smokers. Further, once these smokers are addicted to nicotine, quitting smoking is as difficult for them as it is for an adult." Expert Report of Neal L. Benowitz, United States v. Philip Morris, et al., (R. 682; filed November 15, 2001) at 25.

32. "'[M]ost adolescents who are daily cigarette smokers (as well as some who are occasional smokers) are addicted to nicotine.'" Expert Report of Neal Benowitz, United States v. Philip Morris, et al., (R. 682, filed November 15, 2001), at 24-25; see also Declaration of Neal L. Benowitz, M.D., United States v. Philip Morris, et al., September 29, 2003, at 7, ¶ 13, filed as Exhibit 3 to the Master Rule 7.1/56.1 Statement in Support of the United States' Opposition to Joint Defendants' Motion for Partial Summary Judgment on the Issue of Disgorgement, filed October 7, 2003 (U.S. Ex. 86,930). Order # 550 (denying Defendants' Motion for Partial Summary Judgment Dismissing Government's Disgorgement Claim).

33. "The DSM-IV standard was not designed for youth and, therefore, is not a good

indicator of youth addiction." "Moreover, the DSM-IV 'criteria have been developed for drug dependence in general, not for nicotine dependence. The DSM-IV does include several items reflecting loss of control over drug use (Criteria 3, 4, and 7), but other items are not especially relevant to smokers (Criteria 1, 5, and 6). For this reason, the DSM-IV criteria are not ideally suited for assessing nicotine dependence.'" Declaration of Neal L. Benowitz, M.D., United States v. Philip Morris, et al., September 29, 2003, at 7, ¶ 14, filed as Exhibit 3 to the Master Rule 7.1/56.1 Statement in Support of the United States' Opposition to Joint Defendants' Motion for Partial Summary Judgment on the Issue of Disgorgement, filed October 7, 2003 (U.S. Ex. 86,930). Order # 550 (denying Defendants' Motion for Partial Summary Judgment Dismissing Government's Disgorgement Claim). Order # 550 (denying Defendants' Motion for Partial Summary Judgment Dismissing Government's Disgorgement Claim).

(v) The Youth Addicted Population Overcorrects for Those Who Quit Smoking

34. Former smokers are removed from the Youth Addicted Population for purposes of calculating Defendants' proceeds from sales to the Youth Addicted Population. Technical Appendix to Expert Report of Jonathan Gruber, United States v. Philip Morris, et al., (R. 1453; filed July 24, 2002) at 4, 17, as amended on July 25, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 86907).

35. The adjustment that Dr. Gruber makes to account for those who stop smoking causes his numbers to be conservative and understated. Throughout his calculations, Dr. Gruber reduces the Youth Addicted Population for those who stopped smoking. Because addiction is highly correlated to smoking intensity, those who quit smoking are more likely to have been youth who smoked at low levels of intensity. Those who smoked at higher levels of intensity as youth, such as those smoking more than five cigarettes per day, are less likely to become former

smokers. See Technical Appendix to Expert Report of Jonathan Gruber, United States v. Philip Morris, et al., (R. 1453; filed July 24, 2002) at 4, 17, as amended on July 25, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 86907). However, Dr. Gruber's calculations equally apportion the quitters between those who were low intensity smokers as youth and those who were high intensity smokers as youth. In short, Dr. Gruber uses an adjustment factor to reduce the Youth Addicted Population, which results in a sizable consistent understatement of the Youth Addicted Population. See Technical Appendix to Expert Report of Jonathan Gruber, United States v. Philip Morris, et al., (R. 1453; filed July 24, 2002) at 4, 17, as amended on July 25, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 86907).

(b) The United States Has Selected a Reasonable Time Limit for Disgorgement

36. It is proper for the Court to disgorge an amount that represents a reasonable approximation of proceeds obtained by the Defendants as a result of their misconduct. See U.S. FPCL.

37. The Defendants' fraudulent acts encompassed a period of time beginning, at the latest, in 1954 and extending into the future. See U.S. FPFF § IV. and § IX., supra. The Defendants' scheme to defraud has increased and will continue to increase sales of cigarettes, and has caused suffering and premature death, which will continue well into the future. See Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,711) (U.S. Ex. 86,896). As such, the United States is entitled to disgorge all proceeds causally related to the Defendants' scheme to defraud from 1954 well into the future.

38. The United States reasonably has limited its disgorgement amount to the time period from the passage of RICO in 1971 through the end of 2001. The United States' self-imposed limitation of its disgorgement request to an artificially narrow span of time results in a reasonable approximation of the proceeds Defendants obtained from their fraudulent activities.

(c) The United States' Request for Disgorgement of $280 Billion Is Reasonable Given the Magnitude of the Suffering and Premature Loss of Life Attributable to Defendants' Misconduct

39. The most recent published studies of the impact of smoking on the national economy demonstrate smoking's devastating impact on our citizens and our economy. In 2000, according to the most recent calculations, approximately 435,000 deaths occur each year in the United States as a result of cigarette smoking, which is 18.1% of all deaths in the United States. Mokdad, et al., "Actual Causes of Death in the United States," 291 *JAMA* 138-1245 (Mar. 2004) (U.S. Ex. 87,217). Further, on March 15, 1998, the Department of Treasury released Report 3113, "The Economic Costs of Smoking in the United States and the Benefits of Comprehensive Tobacco Legislation." Among other things, Treasury estimated the basic costs of smoking including medical costs, the costs of smoking during pregnancy, the cost of lost work days, the cost of lost output from early death and retirement, and the external costs such as fires caused by smoking and found "a cost to the U.S. economy of smoking of about $130 billion per year." Department of Treasury, Office of Economic Policy, "The Economic Costs of Smoking in the United States and the Benefits of Comprehensive Tobacco Legislation." *Report 3113* (Mar. 15, 1998) at 12. 106033066-3083, BWC213 2143-2160 (U.S. Ex. 88,047).

40. In addition to unlawfully defrauding millions of victims of at least $280 billion, the Defendants caused substantial financial harm to the national health care system as well as severe harm to the health of the American people. See U.S. FPCL. It has been reasonably

calculated by the biostatistical experts that the Youth Addicted Population – which parallels the population for whom the $280 billion disgorgement is based, except that it extends back to the beginning of the enterprise in 1954 – will incur approximately $840 billion (in 2001 dollars) in health care costs. In addition, approximately 173 million years of life will be lost. VXB 350 1203-1203 (U.S. Ex. 88,048). The Youth Addicted Population, which started smoking before age 18 between 1954 and 2000, and which was smoking more than five cigarettes per day upon reaching age 18, will incur approximately $470 billion (in 2001 dollars) in health care costs. In addition, approximately 104 million years of life will be lost. VXB 350 1202-1202 (U.S. Ex. 88,049).

41. The calculations of the biostatistical experts, Drs. Timothy Wyant and Scott Zeger, are material to a determination of the reasonableness of the disgorgement sought in this case.

42. In a memorandum opinion in this case, the Court has expressly found that "health care costs attributable to smoking remain relevant to this case for three reasons. First, these costs remain relevant to elements of the Government's RICO claims. Second, these costs are relevant to what remedy would be appropriate if the Government were to prove its RICO claims. Third, several Defendants have raised the Eighth Amendment's Excessive Fines Clause as an affirmative defense to this action, and the costs are relevant to this defense." See Order #235 and Memorandum Opinion at 2-3.

43. The calculation of the health care costs attributable to the Youth Addicted Population is reasonable and material to demonstrate the amount of suffering to the American people caused by Defendants' conduct. Moreover, the health care costs and years of lost life demonstrate that the United States' request for $280 billion in disgorgement is exceedingly

reasonable.

(i) The Health Care Costs Model Reliably Measures Suffering Caused By Smoking Of The Youth Addicted Population

44. The calculation of the impact to the national healthcare system represents the devastating consequences to American smokers and their families. The expert biostatisticians, Drs. Timothy Wyant and Scott L. Zeger, and public health economist Dr. Leonard S. Miller, are eminently qualified to testify as to their opinions regarding the devastating consequences in terms of the cost of smoking-related diseases and years of life lost as the result of smoking. Their opinions are based upon sufficient facts and data and were the product of reliable modeling principals and methods; and, the experts applied those modeling principals and methods reliably to the facts in this case. Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,711) (U.S. Ex. 86,896).

45. Both premature deaths and years of life lost are standard measures of the health impact of smoking. Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,711) (U.S. Ex. 86,896).

46. The United States' statistical experts not only created a reliable model, but also obtained results properly based on the reliable causal evidence that was presented by other witnesses. Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,711) (U.S. Ex. 86,896).

47. "The conclusions . . . are correct to a reasonable degree of certainty in the fields of statistics and economics." Expert Report of Timothy Wyant, Scott L. Zeger, and Leonard S.

Miller, United States v. Philip Morris, et al., (R. 674; filed November 15, 2001) at 4; See also Deposition of Timothy Wyant, United States v. Philip Morris, et al., September 13, 2002, 237:19-241:6 (confirming reasonable degree of certainty for estimates).

48. Drs. Wyant and Zeger were not asked to present the entirety of the framework that forms the basis for the United States' disgorgement, notwithstanding Defendants' suggestion; as expressly noted in their report: "In this report, we do not attempt to establish that smoking causes these diseases and conditions. We rely on Dr. Samet and other experts to establish causation; here we focus simply on measuring the health care costs associated with having these diseases." Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 674; filed November 15, 2001), at 15.

49. And, again, the biostatistical experts expressly stated their reliance upon other evidence and other experts to determine causation:

> Cigarette smoking has been identified as a major cause of premature death, and of many diseases and adverse health conditions. In this report, as in the November report, we rely on other experts to establish that smoking causes the diseases and conditions we have examined. We focus on measuring the consequences of having these diseases and conditions in terms of increased health care utilization, increased health care costs, premature deaths, and reduced life spans.

Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), at 1, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,711) (U.S. Ex. 86,896).

50. "Smoking increases the chance that a person will have a number of diseases and conditions, and increases the chance that a person will have nonspecific diminished health. As a result, smokers on average die sooner than never smokers, and while they are alive, have more serious diseases such as cancer, heart disease and chronic obstructive pulmonary disease, and

even absent specific smoking-caused diseases, tend to be less healthy." Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), at 1, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) at 2 (U.S. Ex. 60,711) (U.S. Ex. 86,896).

51. "We measure in a number of ways the extent to which people in the youth smoker sub-groups, while they are alive, have or will have an increased health burden." Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), at 1, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) at 2 (U.S. Ex. 60,711) (U.S. Ex. 86,896).

52. "We rely upon medical experts and the Surgeon General who have determined, without reliance on a formal counterfactual model like the ones recommended by defendant experts, that smoking causes premature death, certain major diseases and poor health. Our analyses quantify the medical expenditures likely to have occurred to treat these diseases and conditions and project those expenditures into the future." Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), at 1, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) at 12 (U.S. Ex. 60,711) (U.S. Ex. 86,896).

53. The suffering of the American public and the harm to the health care system in connection with the Youth Addicted Population – which is estimated by the biostatistical experts to be approximately $840 billion – is yet another interlocking piece of the United States' framework for disgorgement. Expert Report of Timothy Wyant and Scott L. Zeger in United States v. Philip Morris et al., (R. 1449; July 24, 2002), as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) at Exhibit B (U.S. Ex. 60,711) (U.S.

Ex. 86,896).

54. This Court has recognized that the health care costs attributable to smoking are relevant to the determination of a reasonable remedy. See Order #235 and Memorandum Opinion at 2-3.

(ii) The Health Care Costs Model Controls Adequately For Factors Other Than Smoking

55. The biostatistical experts controlled for all the necessary variables, including age, gender, and smoking history. Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,711) (U.S. Ex. 86,896).

56. Controlling for factors beyond what the United States' experts controlled for could have increased estimates of adverse health impacts. Scientific studies demonstrate that controlling for additional variables, like diet, exercise, drinking alcohol, asbestos exposure, *etc.*, either has little or no effect on these calculations or can increase the estimated healthcare costs, diseases, and premature deaths that are attributable to smoking. Increases can occur where a factor reacts synergistically with smoking to cause additional disease (asbestos exposure), or where a factor may be protective against disease (moderate alcohol consumption). Deposition of Timothy Wyant, United States. v. Philip Morris, et al., September 13, 2002, 130:6-137:14 (discussing how Drs. Wyant and Zeger reasonably controlled for covariates); 130:21-131:2 (". . . with regard to deaths, where there have been immense numbers of studies, and basically finding that outside of age and gender, there is not really any need to control for other factors"); 134:14-21 (explaining that Drs. Wyant and Zeger controlled for factors in accordance with "standard statistical practices").

57. As stated in the 1989 Surgeon General's Report, *Reducing the Health*

Consequences of Smoking,". . . numerous attempts to control statistically for confounding and stratifying variables have not materially altered the estimated relative risks for cigarette-related diseases." (U.S. Ex. 34,184 at p.129).

58. As stated in the 2001 Surgeon General's Report, *Women and Smoking*, at p. 189, "In most studies, risk estimates were not adjusted for potential confounders other than age. However, studies in which adjustment was made for other factors found little evidence that the estimates of risk associated with smoking were substantially different after adjustment." The report gives examples from *Nurses' Health Study* and CPS-II studies. In these examples, relative risks after adjustment for other factors are similar to, and sometimes higher than, relative risks adjusting for just age and gender. (U.S. Ex. 64,315).

59. "Although it is well established that cigarette smoking causes excess mortality, the extent of the increased risk has been challenged because self-selection biases and confounding factors may not have been adequately accounted for in prior studies. We therefore performed a propensity analysis on a population-based cohort. . . . The independent association of smoking with death even after a rigorous propensity analysis argues that it is highly unlikely that the link between smoking and mortality is materially biased or confounded." Foody, J. M.; Cole, C. R.; Blackstone, E. H.; Lauer, M. S., "A Propensity Analysis of Cigarette Smoking and Mortality with Consideration of the Effects of Alcohol," *Am. J. Cardiol* 87:6, pp. 706-11 (2001) (U.S. Ex. 86, 805).

60. "The Surgeon General estimates that more than 400,000 deaths are attributable to smoking annually in the United States. The tobacco industry has criticized the Surgeon General's estimates because they do not control for the lower educational and socioeconomic status of modern-day smokers. [We] determine whether controlling for education, occupation, race,

alcohol consumption, and various dietary factors, in addition to age and sex, substantially alters the relative and attributable risk estimates associated with tobacco smoking. . . . Our study suggests that federal estimates of deaths caused by smoking are not substantially altered by adjustment for behavioral and demographic factors associated with smoking beyond the current adjustment for age and sex." Thun, M. J.; Apicella, L. F.; Henley, S. J., "Smoking vs Other Risk Factors as the Cause of Smoking-Attributable Deaths: Confounding in the Courtroom," *JAMA* 284:6, pp. 706-12 (2000) (U.S. Ex. 64,199); cited in Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), at 16, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,711) (U.S. Ex. 86,896).

61. As noted in a 1997 publication, at iii, entitled "Smoking Attributable Mortality: Control for Confounding," Battelle Centers for Public Health Research and Evaluation, under contract to the Centers for Disease Control, Office of Smoking and Health, "These analyses also indicate that there is little residual confounding of the relative risks once age is taken into account. That is, the differences between the fully adjusted relative risks and the age-adjusted relative risks are minimal. . . . Further adjustment for additional potential confounders such as alcohol use or educational level does not materially change the age-adjusted attributable fraction or the age-adjusted smoking-attributable mortality," "Smoking Attributable Mortality: Control for Confounding," Battelle Centers for Public Health Research and Evaluation, under contract to the Centers for Disease Control, Office of Smoking and Health. (U.S. Ex. 86,806).

62. While the United States' statistical experts did not present every conceivable measure of uncertainty in connection with their estimates, their model is reliable and their methods are reasonable.

63. Defendants' RICO violations have been established and it is reasonable to model healthcare costs, person-years of disease, premature deaths, and years of life lost, and project these measures into the future in order to quantify the foreseeable impact of Defendants' behavior. Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,711) (U.S. Ex. 86,896).

64. "In calculations such as ours, that involve combining data from a variety of standard sources to generate overall summary figures or projections for businesses, governments, or courts, confidence intervals are not typically used. Appropriate summaries of uncertainty in these situations are typically of two types: (1) 'scenario analyses,' in which calculations are done under different assumptions about aspects of the process being investigated, or (2) comparisons of the results to those reported from similar studies conducted independently. We have provided both." Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,711) (U.S. Ex. 86,896).

(iii) The Health Care Costs Model Understates The Suffering and Health Burden To the American Public Caused By Defendants' Fraudulent Acts

65. The devastating impact represented by the figures calculated by the United States' statistical experts underestimate the total costs, number of disease cases related to major life-threatening diseases, and premature deaths because, among other reasons, the list of major, life-threatening diseases caused by smoking continues to grow. The International Agency for Research on Cancer (IARC) has recently stated that myeloid leukemia, liver cancer, and cervical cancer are caused by smoking, and that passive smoking causes lung cancer. Expert Report of

Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002) at 3, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,711) (U.S. Ex. 86,896); International Agency for Research on Cancer (IARC) "Tobacco Smoke and Involuntary Smoking," *IARC Monograph* Volume 83. Lyon, France: IARC, WHO, June 2002 (http://monographs.iarc.fr/htdocs/monographs/vol83/01-smoking.html. April 28, 2003) (U.S. Ex. 77,617).

66. Yet, these impacts were not included in the health care costs model of Drs. Wyant and Zeger. Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002), as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,711) (U.S. Ex. 86,896); Deposition of Timothy Wyant, United States v. Philip Morris, et al., 135-136, 201, 250 (reiterating that overwhelmingly, decisions were made that would tend to understate the United States' estimates).

67. Because of the lengthy latency of smoking-attributable diseases, by far the majority of pain and suffering caused to smokers, former smokers, and their family members from these major diseases and other public health impacts occur decades after Defendants have pocketed the majority of their proceeds from selling cigarettes. Expert Report of Timothy Wyant and Scott L. Zeger, United States v. Philip Morris, et al., (R. 1449; filed July 24, 2002) at 3 and Figure B.1, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) at Figure B1 (U.S. Ex. 60,711) (U.S. Ex. 86,896).

(2) The Disgorgement Amount is a Reasonable Approximation of the Proceeds Causally Related to Defendants' Scheme to Defraud the American People

(a) Defendants' Numerous Fraudulent Acts Induced Youth To Begin Smoking and Continue Smoking

68. Cigarette marketing, including advertising and promotion, stimulates primary demand for cigarettes. Expert Report of Dean M. Krugman, United States v. Philip Morris, et al., (R. 665; filed November 15, 2001) at 16-19. Defendants' activities in creating doubt about smoking and health concerns and denying smoking's addictiveness, also brought people "into the market" and "helped retain them as smokers." Expert Report of Robert J. Dolan, United States v. Philip Morris, et al., (R. 671; filed November 15, 2001) at 1.

69. In fact, 88% of daily smokers tried their first cigarette before age 18, and 70% of people who have ever smoked daily began smoking daily before they were 18 years old. Expert Report of Neal L. Benowitz, United States v. Philip Morris, et al., (R. 682; filed November 15, 2001) at 6-7.

70. Cigarette Company Defendants' historical and current expenditures on cigarette advertising and promotion remain high both on an absolute basis and relative to other industries. In the nine-year period from 1991-1999, domestic cigarette advertising and promotional expenditures totaled $51.4 billion dollars (unadjusted for inflation). In 1999 alone, domestic cigarette advertising and promotion totaled $8.2 billion, an increase of 22% over 1998, and a six-fold increase over 1963, after adjusting for inflation. Expert Report of Dean M. Krugman, United States v. Philip Morris, et al., (R. 665; filed November 15, 2001) at 12. For example, Philip Morris spent in excess of $10 billion marketing Marlboro alone from 1997 to 2001, and has more than doubled its marketing expenditures for Marlboro since entering the Master Settlement Agreement ("MSA"). Deposition of Suzanne LeVan, United States v. Philip Morris,

et al., June 25, 2002, 47:23-78:19; 2085298135-8136 (U.S. Ex. 25,253).

(i) Despite Promises to the Contrary, the Defendants Marketed to Youth, which Induced Youth to Begin Smoking and to Continue Smoking

71. Historically and currently, cigarette marketing has particularly appealed to youth as Defendants intended. The messages, images and merchandise used in Defendants' cigarette marketing have corresponded to adolescent aspirations, and have appealed to those themes and imagery most attractive to youth. All of the Cigarette Company Defendants have marketed to youth. R.J. Reynolds's Joe Camel campaign is just one example of the Cigarette Company Defendants' marketing to youth despite their promises not to do so. See U.S. FPFF § IV.G., supra.

72. Independent academic studies have concluded that, historically and currently, cigarette marketing has appealed to youth. The messages, images, and merchandise used in cigarette marketing have corresponded precisely to adolescent aspirations. Teens smoke the most heavily marketed brands: Marlboro, Camel, and Newport. Expert Report of Michael P. Eriksen, United States v. Philip Morris, et al., (R. 678, filed November 15, 2001) at 17. Studies have found that marketing targeted to women and the Joe Camel campaign had demonstrable success among youth. Expert Report of Michael P. Eriksen, United States v. Philip Morris, et al., (R. 678, filed November 15, 2001) at 3-4.

73. "Independent scientific studies performed by reputable independent scientists, and published in reputable scientific journals or in official government reports, have confirmed Defendants' knowledge, as set out in their internal documents, that their marketing contributes to the primary and continuing demand for use of cigarettes. Over the past ten years, there have been a number of comprehensive reviews of the scientific evidence concerning the effects of cigarette

marketing, including advertising and promotion, on smoking decisions by young people. From these reviews it is clear, that the weight of all available evidence, including survey data, scientific studies and experiments, behavioral studies and econometric studies, supports the conclusions that cigarette marketing is a substantial contributing factor in the smoking behavior of young people, including the decision to begin smoking and the decision to continue smoking." Expert Report of Michael P. Eriksen, United States v. Philip Morris, et al., (R. 678, filed November 15, 2001); see also Declaration of Michael P. Eriksen, United States v. Philip Morris, September 24, 2003, at 6 ¶ 16, filed to the Master Rule 7.1/56.1 Statement of Material Facts Demonstrating the Existence of Genuine Issues for Trial Particular to Defendants' Motion for Partial Summary Judgment on Claims that Defendants Advertised, Marketed, and Promoted Cigarettes to Youth and Fraudulently Denied Such Conduct, filed October 7, 2003 (U.S. Ex. 74,015) (U.S. Ex. 75,679). Order #501.

74. Dean M. Krugman, Ph.D., a Professor in the Department of Advertising and Public Relations and Associate Dean of the Henry W. Grady College of Journalism and Mass Communication at The University of Georgia, is one of America's leaders in marketing research. After reviewing the published behavioral research literature and internal company documents and applying his professional training and judgment, in Dr. Krugman's expert opinion, Defendants' cigarette advertising and marketing stimulate primary demand, and intentionally play an important role in influencing people, including young people to begin smoking and to continue smoking. Expert Report of Dean M. Krugman, United States v. Philip Morris, et al., (R. 665; filed November 15, 2001).

75. Robert J. Dolan, Ph.D., has reached the same conclusion based, in part, on a review of company documents. Dr. Dolan is Dean of the University of Michigan Business

School and the Gilbert and Ruth Whitaker Professor of Business Administration. For nearly thirty years, Dr. Dolan has been training the nation's marketing executives and researchers at America's leading business schools. After reviewing the internal company documents and applying his professional training and judgment, in his expert opinion Defendants' cigarette advertising and marketing stimulate primary demand, and intentionally played an important role in influencing young people to begin smoking and refrain from quitting. Expert Report of Robert J. Dolan, United States v. Philip Morris, et al., (R. 671; filed November 15, 2001); Deposition of Robert J. Dolan, United States v. Philip Morris, et al., May 10, 2002, 239:4-241:25 (emphasis added).

76. The influence of marketing on youth initiation has also been confirmed by Anthony Biglan, Ph.D., a Senior Scientist and Director of the Center for Community Interventions on Childrearing at the Oregon Research Institute, and one of America's leading behavioral researchers on adolescent smoking and smoking prevention. After reviewing the published behavioral research literature and internal company documents and applying his professional training and judgment, in Dr. Biglan's expert opinion, Defendants' cigarette advertising and marketing appeal to youth and have a substantial influence on causing young people to begin smoking and to continue smoking. Expert Report of Anthony Biglan, United States v. Philip Morris, et al., (R. 676; filed November 15, 2001); Deposition of Anthony Biglan, United States v. Philip Morris, et al., March 12, 2002, 30:13-20.

77. Young people are particularly vulnerable to the types of affective marketing and promotion that associate positive imagery with smoking. Young people overestimate smoking prevalence and underestimate smoking risk, in part as a result of these types of marketing campaigns. Expert Report of Paul Slovic, United States v. Philip Morris, et al., (R. 661; filed

November 15, 2001) at 3, 6, and 14. Deposition of Paul Slovic, United States v. Philip Morris, et al., March 13, 2002, 379:8-380:24.

78. Many people, and particularly young people, do not adequately understand and appreciate the cumulative risk that smoking entails. Most smokers only begin to think of risk after they have started to smoke regularly and become addicted. At that point, more than 80% of smokers wish they had never begun to smoke. Expert Report of Paul Slovic, United States v. Philip Morris, et al., (R. 661; November 15, 2001) at 3-4.

79. Accordingly, the actions of Defendants substantially contributed to, and continue to contribute to, widespread initiation of smoking behavior among young people and others and to the persistence of cigarette smoking among adolescents and adults in the United States. Expert Report of Michael P. Eriksen, United States v. Philip Morris, et al., (R. 678; filed November 15, 2001) at 26-29 and 42-43.

(ii) Defendants' Own Admissions Prove that They Intended Their Marketing to Induce Youth to Begin Smoking and Continue Smoking

80. In addition to the compelling evidence presented above – that Defendants marketed to youth smokers and that such marketing induced youth to begin smoking and to continue smoking – Defendants' own statements demonstrate their intention to market to youth as a means to induce them to begin smoking and to continue smoking.

81. George Washington Hill, President of American Tobacco, testified to the power of cigarette marketing to attract people to become smokers, as well as to the fact that maintaining and enhancing the size of the cigarette market is a collective effort shared by the cigarette industry as a whole: "The impetus of those great advertising campaigns not only built this [business] for ourselves, but built the cigarette business as well, because that is the way

competition works. You don't benefit yourself most, I mean, altogether. Of course, you benefit yourself more than the other fellow if you do a good job, but you help the whole industry if you do a good job." Tennant, R.B., "The American Cigarette Industry: A study in Economic Analysis and Public Policy," at 137 (1950), quoting trial proceedings in United States v. American Tobacco Co., Tr. 9100 (W.D. Ky. 1941). U.S. Ex. 79,075.

82. As Diane Burrows of R.J. Reynolds wrote in February 1984, "Younger adult smokers are the only source of replacement smokers. . . . If younger adults turn away from smoking, the industry must decline, just as a population which does not give birth will eventually dwindle." 501928462-8550 at 8471 (U.S. Ex. 20,689).

83. A document produced by Brown & Williamson, entitled "The 'New' Smoker" concludes in a section entitled "Summing Up" that "the younger smoker is of pre-eminent importance." 779217794-7833 at 7827 (U.S. Ex. 21,055).

84. Defendants' internal documents indicate that Defendants knew that, because most "starter smokers" are youths, Defendants' marketing efforts should be directed to this important demographic. While publicly denying that they targeted their products to youth, internal documents reveal that Defendants understood the import of their marketing to youths, and documented their success in doing so. See U.S. FPFF § IV.G.(1), (2), (4), supra.

85. Defendants internal statements include the following.

- "Thus a new brand aimed at the young smoker must somehow become the 'in' brand and its promotion should emphasize togetherness, belonging and group acceptance . . . The fragile, developing self-image of the young person needs all of the support and enhancement it can get. . . . if the desire to be daring is part of the motivation to start smoking, the alleged risk of smoking may actually make smoking attractive. . . . The smoking and health controversy does not appear important to the group because, psychologically at eighteen, one is immortal." 502987357-7368 at 7663 (U.S. Ex. 21,475).

- Brown and Williamson's strategy statement called for improvement in "B&W's position in attracting young male smokers by making as direct an appeal as possible in product, packaging, and advertising to young males. . . .Target: 6.3 million 16-25 year old smokers." 670186789-6824 at 6811-6815 (U.S. Ex. 21,431) (1973 Brown and Williamson document).

- "The base of our business is the high school student." 03537131-7132 (U.S. Ex. 22,357) (1978 Lorillard document).

- "Newport is being heavily supported by blacks and the under 18 smokers. We are on somewhat thin ice should either of these two groups decide to shift their smoking habits." 01110993-1032 at 1030 (U.S. Ex. 20,031) (1980 Lorillard document).

- "In a very real sense, the principle that is suggested by the Younger Adult Smoker Analysis is much broader. . . . It can be stated as: Attract a smoker at the earliest opportunity and let brand loyalty turn that smoker into a valuable asset." 502033156-3157 (U.S. Ex. 49,017); 507555896-5909 at 5909 (U.S. Ex. 20,779) (1984 R.J. Reynolds's document).

- "Historically, RJR has been substantially underdeveloped in the 18-34 adult smoker segment, versus PM . . . . R JR has identified CAMEL as the Brand best able to build share against this segment . . . . The successful 75th Birthday "event" and introduction of Joe provided the first evidence that CAMEL could deliver against this objective." 507490339-0354 at 0342 (U.S. Ex. 23,010) (1990 R.J. Reynold's document).

- The "vast majority of 18-24 year old African-Americans continue to choose a menthol product," . . . . . it is "critical to get into the 18-24 group . . . . . to ensure long term viability." 514200832-0889 at 0866 (U.S. Ex. 20,857) (1996 R.J. Reynolds's document).

86. Defendants falsely assert that all of the Cigarette Company Defendants' marketing efforts are directed only at those consumers who may switch between Cigarette Company Defendants' brands. Since only about 9% of adult smokers switch between Cigarette Company Defendants' brands, brand switching could not possibly justify $8.2 billion in annual advertising and promotion expenditures. Expert Report of Dean M. Krugman, United States v. Philip Morris, et al., (R. 665; filed November 15, 2001) at 12-13, 19, and 28.

87. A 1990 marketing document from the files of R.J. Reynolds stated that "[m]uch of this brand switching tends to be random noise, with little net effect on shares for most brands." 507852904-2970 at 2906 (U.S. Ex. 20,792).

(iii) Defendants' False Statements of Health Reassurance Induced Youth to Begin Smoking and Continue Smoking

88. Defendants' maintenance of an "open controversy" allowed smokers to believe that, because the case for causation had not yet been scientifically proven, their continued smoking likely would not cause them to suffer serious disease.

89. Economic theory and additional substantial scientific evidence demonstrate that over the past fifty years, American consumers have reduced their use of cigarettes in response to accurate information concerning the health hazards of smoking. If Defendants had not engaged in a concerted campaign of misinformation about smoking and health, then the rate of smoking cessation would have been higher and the rate of smoking initiation would have been lower. Therefore, absent Defendants' misconduct, the total consumption of cigarettes would have declined more rapidly over time. Expert Report of Jeffrey Harris, United States v. Philip Morris et al., (R. 660; November 15, 2001; Harris Report #1) at 7-8, 35-40.

90. Defendants not only internally admitted that they intended the public to rely on their statements and marketing, but they also lauded their success in creating and sustaining this reliance. For instance, in 1955, the scientific director of TIRC stated that "the phase of uncontrolled fear . . . created by the original premature and overbalanced statement of the American Cancer Society is rapidly passing," and noted the "general trust which the American people had begun to place in our efforts." 85875738-5743 at 5743 (U.S. Ex. 21,775).

91. Defendants also lauded the success of TIRC in inspiring this trust: "There is absolutely no question in my mind that if this committee [TIRC] had not been formed, the

industry by now would have been in a deplorable position. . . . In other words, the TIRC has been a successful defensive operation." MNAT00724279-4280 at 4279 (U.S. Ex. 22,996).

92. Defendants knew that their maintenance of an "open controversy" enabled smokers to justify their continued smoking. One R. J. Reynolds focus group found that the smokers rationalized the risks of smoking and that they "discounted the statistical risks of smoking." 502458984-9004 at 8994 (U.S. Ex. 21,726).

93. Defendants' fraudulent representations regarding environmental tobacco smoke ("ETS") include the same attention to public reliance and cigarette sales. Despite finding that nonsmokers exposed to second hand smoke suffer significant damage to their health, Defendants undertook concerted deceptive action to forestall and undermine any public perception of risk by smokers and nonsmokers because, as early as 1974, such a perception was seen as a "movement that could lead to the virtual elimination of cigarette smoking." TIMN 0067732-7755 at 7734, TW0036 1918-1941 at 1920 (U.S. Ex. 22,047).

94. On January 31, 1974, at the 1974 Tobacco Institute annual meeting in New York, Horace Kornegay, TI President, recounted the opening of official hostilities between the industry and the Federal Government ten years earlier over the 1964 Surgeon General's report. Kornegay then switched to the threat from research into passive smoking and stated, "our opponents are seeking a new strategic handle . . . . [t]his time they will start trying to protect people from the smokers. Our efforts at the Tobacco Institute, with your support, will be to frustrate them. It is in this context that I hope you will view my report of what we have done this year. At the executive committee meeting in November we called attention to one aspect of the new agenda: . . . the successful efforts made in 1973 to prohibit smoking in public places. We illustrated the potential impact on sales and warned that the movement could lead to the virtual elimination of

cigarette smoking." TIMN 0067732-7755 at 7734 (U.S. Ex. 22,047), TW0036 1918-1941 at 1920 (U.S. Ex. 22,047).

95. Two years later, in June 1976, BAT Industries/BATCo held a Chairman's Advisory Conference, in Hot Springs, Virginia. These conferences were attended by the Board and Chief Executives of the major overseas subsidiaries and other affiliates. 201767224-7224 (U.S. Ex. 36,294). At this conference, there was agreement that the social unacceptability issue surrounding second hand smoke "constitutes 'a more serious threat to the industry's future than any other aspect of the attack on smoking.'" 2025025481-5494 at 5481 (U.S. Ex. 37,220); 680040485-0502 at 0489 (U.S. Ex. 25,437) (official notes of the conference) ("It had been estimated that the issue of passive smoking had already lost the industry cigarette sales of 1,000 million a year."); 2025025457-5460 at 5457 (R.Haddon) (U.S. Ex. 75,152); 2025025510-5512 (U.S. Ex. 37,221) (official notes of TAC).

96. Defendants BATCo and Brown &Williamson had executives in attendance. C.I. McCarty, a Brown & Williamson Executive Vice President, member of its Board of Directors, and a member of TI Executive Committee, spoke to the conference about the situation in the United States relating to legislative efforts on smoking restrictions. 680040485-0502 at 0490 (U.S. Ex. 25,437) and 110069862-9862, BAG554 704 (U.S. Ex. 88,051). In preparation for the 1976 BAT Industries/BATCo Chairman's Conference, T.J.N. Foley, a former BATCo chairman, who later became a director of BAT's Australian subsidiary, provided comments on the draft agenda regarding social unacceptability of smoking. “The subject is inseparably linked with passive smoking and presents a major danger and challenge to the industry . . . the challenge lies in the industry’s need to devise a counter-campaign . . . part of the industry’s answer surely is to work towards making passive smoking the conflict issue.” 110069863-9866 at 9863-9864 (US

Ex. 34,951).

97. In 1978, the Roper Organization advised Defendants that the passive smoking issue was "the most dangerous development to the viability of the tobacco industry that has yet occurred. While there is little sentiment for an out-right ban on smoking in public gathering places, there is already a majority sentiment for providing separate facilities for smokers and non-smokers. As the anti-smoking forces succeed in their efforts to convince non-smokers that their health is at stake too, the pressure for segregating facilities will change from a ripple to a tide as we see it." The Roper Organization, Inc., "A Study of Public Attitudes toward Cigarette Smoking and the Tobacco Industry in 1978, prepared for the Tobacco Institute" Vol. 1 (May 1978) TITX0000963-1015 at 0968 (U.S. Ex. 88,053).

98. In January 1980, Frank Colby at R.J. Reynolds wrote in a draft memorandum addressing the activities of the Hoel Committee and recommending additional research and public relations efforts that the "'public smoking' activities of the anti-smoking forces do not only tarnish the 'image' of the industry, but they also represent a very substantive threat to sales. A cigarette which a smoker is prevented from smoking because of restrictions to smoke in public areas, is a cigarette not smoked, because, by and large, the smoker will not smoke that cigarette once he returns home." 502668016-8018 at 8018 (U.S. Ex. 22,229), RJR002 3847-3849 at 3849 (U.S. Ex. 22,229).

99. On June 26, 1987, and throughout the 1990's, Philip Morris continued to stress the link between second hand smoke and cigarette sales. During a group presentation to senior Philip Morris management advocating Project Down Under, "a . . . multiple warhead . . . system that targets specific audiences with specific messages and tactics [including] . . .longer term science work to address the health issue" raised by second hand smoke, it was recognized that

"[t]he situation cannot get any worse. Sales are down, [and the decline] can't be attributed to taxes or price increases." 2021502671-2678 at 2671, 2678 (U.S. Ex. 22,275) (U.S. Ex. 22,950) (U.S. Ex. 75,076); 2026226012-6021 at 6012 (U.S. Ex. 88,054) (an undated report from the 1990's stated, "Without a doubt, the social acceptability of smoking practices is the most critical issue that our industry is facing today. . . . The consequences of any decrease in social acceptability are extremely important because of their direct effect on the total volume of sales . . . "); 2041183751-3790 at 3752 (U.S. Ex. 37,924) (July 1994 - "The achievement of universal accommodation [between smokers and non-smokers] . . . is imperative because the rights of smokers to smoke where they work, play – and even where they live – is under attack as it has never been before. The immediate implications for our business are clear: if our consumers have fewer opportunities to enjoy our products, they will use them less frequently and the result will be an adverse impact on our bottom line.").

100. Indeed, the actual impact of second hand smoking restrictions on cigarette sales was known to be so substantial that by January 1992, Philip Morris USA was measuring past impacts on sales and modeling the future sales impact. "From 1987 to 1991, the industry lost an estimated <u>incremental</u> 1.7% (9.5 billion units) due to <u>increasing</u> workplace restrictions [alone]. If these trends continue, the industry will lose an additional 1.3% to 1.9% (8.4 to 11.4 billion units) from 1991 to 1996. . . . If smoking were banned in all workplaces, the industry's average consumption would decline 8.7%-10.1% from 1991 levels and the quitting rate would increase 74% (e.g., from 2.4% to 4.4%). 2023914280-4284 at 4280 (U.S. Ex. 88,055) (emphasis in original).

101. Evidence that untainted, accurate information matters to consumers of cigarettes just as it matters to consumers of virtually every marketed product – is widely recognized among

economists and other social scientists. Expert Report of Jeffrey Harris in United States v. Philip Morris, (R. 660; November 15, 2001; Harris Report #1) at 35-40.

102. The evidence that information matters is supported not only by analyses of nation-wide trends, but also by studies of the effects of anti-smoking campaigns in specific states. Expert Report of Jeffrey Harris, United States v. Philip Morris et al., (R. 660; November 15, 2001; Harris Report #1) at 7-8, fn.7; 35-36, fn. 54.

103. The actions of Defendants substantially contributed to widespread initiation of smoking behavior among youth and to the persistence of cigarette smoking among youth and adults in the United States. This resulted from the Defendants' actions to foster a public message of doubt regarding the health effects of smoking; their failure to disclose or acknowledge the addictiveness of cigarettes; and their use of marketing to associate smoking with attractive imagery, which fostered a political and social culture of acceptance or tolerance of smoking. Expert Report of Jeffrey Harris, United States v. Philip Morris et al., (R. 660; November 15, 2001; Harris Report #1) at 39-40; Expert Report of Dean M. Krugman, United States v. Philip Morris, et al., (R. 665; filed November 15, 2001) at 12-13, 19, and 28.

(iv) Defendants' Pricing Strategies Induced Youth to Smoke and Continue Smoking

104. Cigarette Company Defendants have long recognized the importance of price-based marketing efforts as a key marketing strategy, particularly for attracting young people. Defendant-initiated reductions in price, such as the steep drop in the wholesale price of cigarettes most popular with young people that was led by Philip Morris on "Marlboro Friday," have reduced the rate of decline in overall cigarette smoking and contributed to the increases in youth smoking incidence and prevalence observed during much of the 1990s. Expert Report of Frank J. Chaloupka, United States v. Philip Morris, et al. (R. 679; filed November 15, 2001);

2022216179-6180 (U.S. Ex. 76,177); 2024252441-2562 at 2441 (U.S. Ex. 21,984); 2070770040-0109 at 0043, 0055, 0065 (U.S. Ex. 24,536) (Category I)

(1982 R.J. Reynolds's document that states: "a key finding is that younger adult males are highly sensitive to price. This suggests that the steep rise in prices expected in the coming months could threaten the long term vitality of the industry, by drying up the supply of new/younger adult smokers entering the market. It could also undermine the long range growth potential of brands which rely on new/younger smokers, including Marlboro and Newport.") 503011368-1369 at 1368 (U.S. Ex. 20,709) (emphasis in original); See U.S. FPFF § IV.G., supra.

105. Philip Morris currently admits that increased cigarette price is a variable that would lower youth smoking rates. Deposition of Carolyn Levy, United States v. Philip Morris, et al., April 26, 2002, 546:6-547:13.

(b) The Addictiveness of Cigarettes and Defendants' Manipulation of the Nicotine in Cigarettes Prevented Smokers from Quitting

106. Cigarette smoking is an addictive behavior, and nicotine is the primary component of tobacco that creates and sustains addiction to cigarettes. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al., (R. 681; November 15, 2001); Expert Report of David Burns, United States v. Philip Morris, et al., (R. 664; November 15, 2001).

107. Defendants well understood the primary role of nicotine in sustaining smoking addictiveness by the 1960s, and designed their products to deliver sufficient nicotine for this purpose. See U.S. FPFF § IV.E.(2), supra.

108. Not only did Defendants' knowledge and research reflect a sophisticated understanding of nicotine and its role in smoking addiction – Defendants also deliberately

withheld such information from the general public. Defendants attempted to withhold and did withhold from public dissemination, and from public health authorities, accurate information regarding the addictiveness of nicotine in cigarettes. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al., (R. 681; filed November 15, 2001) at 24-25.

109. To this day, despite the documented harm caused by nicotine and Defendants' knowledge of the harm, Defendants have engaged in a pattern of making false, fraudulent, and misleading statements, including half-truths, and suppressing information regarding the addictiveness of smoking and nicotine's role in causing that addiction. See U.S. FPFF § IV.E.(2), supra.

110. Defendants' false and fraudulent statements denying the addictiveness of smoking allowed people to believe that experimenting with cigarettes or occasionally using cigarettes would not lead to addiction, or that continued smoking would not sustain addiction. Expert Report of Robert J. Dolan, United States v. Philip Morris, et al., (R. 671; filed November 15, 2001).

111. Defendants recognized that while genuinely "low-yield" cigarettes could lead smokers away from smoking altogether, smokers were nonetheless concerned about their exposure to tar and nicotine. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al., (R. 681; filed November 15, 2001).

112. Through years of research, the Cigarette Company Defendants sought to identify an "optimal" amount of nicotine: one that would meet consumers' demand for lower tar yield products (based on their perception – fueled by Defendants – that such cigarettes actually delivered less tar and thus might be potentially safer), while still providing an addiction creating and sustaining level of nicotine. This research was conducted with the knowledge that their

continued profits depended on creating and maintaining a base of addicted consumers. See U.S. FPFF § IV.F., supra.

113. Cigarette Company Defendants were aware that a cigarette's ability to deliver adequate levels of nicotine to smokers was critical to its commercial success. See U.S. FPFF § IV.E.(2), supra.

114. To address the smokers' concerns and to avoid losing them from the marketplace, Defendants took advantage of the FTC testing system by designing purportedly "low-yielding" cigarettes to register low FTC tar and nicotine yield values that would be acceptable to cigarette smokers, while at the same time facilitating the efforts of smokers to get their desired levels of nicotine. That is, the cigarettes were designed to make it easy for consumers to obtain higher tar and nicotine yields than those obtained using the FTC testing method. See U.S. FPFF § IV.E.(2), supra.; Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al., (R. 681; filed November 15, 2001) at 50-59.

115. Company documents establish that the Cigarette Company Defendants also intentionally manipulated nicotine; and, specifically, the efforts to generate and deliver the "free-base" form of nicotine, reflected their commitment to ensure that smokers could obtain sufficient nicotine doses, whatever the reported FTC yield. See U.S. FPFF § IV.E.(2)., supra.

116. Defendants pursued numerous other cigarette designs to administer an optimal level of nicotine by "manipulat[ing] the relationship between cigarette design and nicotine delivery." The design features included filter design; paper selection, perforation, and placement of ventilation holes; the amount of tobacco and nicotine in the cigarette; and the presence of additives. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al., (R. 681; filed November 15, 2001) at 12-19; 2055133167-3718 (.U.S. Ex. 38,819).

117. In short, "[t]he tobacco industry's own internal documents reveal that tobacco manufacturers were aware of, and took advantage of, flaws in the testing process employed by the Federal Trade Commission to measure tar and nicotine levels in cigarettes, and designed their cigarettes to increase the flexibility of their tar and nicotine dosing capacity to smokers even as they reduced the tar and nicotine yields as determined by machine tests. Expert Report of Jack E. Henningfield, United States v. Philip Morris, et al., (R. 681; filed November 15, 2001) at 6. Fed. Reg. 44619 (August 1996) (jurisdictional determination annex) at 44635 (U.S. Ex. 78,288).

118. Youth are particularly vulnerable to nicotine addiction because they are not capable of making a fully informed decision whether to start or continue smoking for a variety of reasons, including the fact that they underestimate personal risks and lack judgment which is developed through experience. Youth also fail to appreciate the risks and consequences of addictions. *The Health Consequences of Smoking: Nicotine Addiction: A Report of the Surgeon General* (1988) (U.S. Ex. 64,591); Expert Report of Neal L. Benowitz, United States v. Philip Morris, et al., (R. 682; filed November 15, 2001); Expert Report of Neil D. Weinstein, United States v. Philip Morris, et al., (R. 675; November 15, 2001).

(c) Defendants Falsely Marketed Light and Low Tar Cigarettes as Less Hazardous to Induce Smokers to Continue Smoking

119. Defendants' deceptive marketing of "low tar" and "low nicotine" brands not only have attracted new consumers, but also have allowed smokers to "rationalize" their continued smoking. Expert Report of Robert J. Dolan, United States v. Philip Morris, et al., (R. 671; filed November 15, 2001); Expert Report of Michael P. Eriksen, United States v. Philip Morris, et al., (R. 678; filed November 15, 2001).

120. From the early 1900s to the present day, Defendants have made explicit and implicit claims that their filtered cigarettes – and later, their "low tar" cigarettes – were either not

harmful at all or less harmful than regular delivery and unfiltered cigarettes. Defendants made these claims when they either lacked evidence to substantiate them or knew that they were false. See U.S. FPFF § IV.F., supra.

121. Absent Defendants' purposeful conduct in the design and marketing of "low tar" cigarettes, "the rate of smoking cessation would have been higher and the rate of smoking initiation would have been lower. Concomitantly, the total consumption of cigarettes would have declined more rapidly, and thus Defendants' sales and profitability would have declined, too." Expert Report of Jeffrey Harris, United States v. Philip Morris et al., (R. 660; November 15, 2001; Harris Report #1) at 3-5.

(d) Defendants' Own Statements Indicate that Their False and Misleading Public Statements Induced Reliance

122. Various Defendants in the State of Minnesota litigation provided sworn testimony conceding that they hoped and intended that the public rely on their statements.

123. In June 1997, Joseph Cullman III, who was Vice President of Benson & Hedges in 1954 and ultimately became President and Chief Executive Officer of Philip Morris, admitted that Defendants intended that smokers rely upon the Frank Statement, the seminal public statement of Defendants' fraudulent scheme:

> Q. The cigarette companies intended consumers to rely on the information asserted in this Frank Statement; correct?
> A: . . . . .We would hope people would have read it....
> ****
> Q: And you hoped people would believe them, right?
> A. Yes.
> Q: And you hoped people would rely on them; right? ....Conduct their affairs with the belief that what is asserted herein is true and accurate?
> A. I believe it was true and accurate.
> Q. And you wanted the people who read this to believe that it as true and accurate; correct?
> A. I would expect that was the reason, yes.

Q. Okay. And you wanted them, in conducting their affairs, to rely on the facts asserted herein as being true and accurate; right?
A. They were true and accurate.
Q. And you wanted people to believe and rely on that; right?
A. I see no reason why they shouldn't . . . . We hoped they would....
Q. And that's what you wanted then; right?
A. Yes.

Deposition of Joseph F. Cullman III, State of Minnesota v. Philip Morris Inc., C1-94-8565, June 11, 1997, 88:12-89:20 (objections omitted).

124. Lorillard's CEO Alexander Spears testified in 1997 that he believed smokers should rely upon statements by the Tobacco Institute that smoking does not cause cancer:

Q: Do you believe that smoking has been proved to cause lung cancer?
A; No, I do not.
*****
Q. And to the extent that the Tobacco Institute has made that statement publicly in the past, do you believe that smokers have the right to rely upon that statement?
A. I believe they should have -- they should rely on information that's provided along with other information that they have.

Deposition of Alexander W. Spears III, State of Minnesota v. Philip Morris Inc., C1-94-8565, September 25, 1997, 559: 9-15.

125. Walker Merryman, spokesperson for the Tobacco Institute, explained in 1997 how Defendants intended that smokers rely upon their public statements that no scientific proof showed cigarette smoking to be hazardous:

Q. And it is true, isn't it, that the Tobacco Institute has consistently in its public statements on smoking and health taken the position that no scientific proof had been found to convince – to convict smoking as a hazard to health?
A. We have said that from time to time.
Q. And in fact you intended people who received this publication and read it to believe what was being said; correct?

A. Correct.
Q. And sir, the sentence – the paragraph goes on to say, quote, "The statistical, clinical and experimental findings have not established smoking as a cause of any disease," close quote.
A. That – that is correct.
Q. And in fact The Tobacco Institute intended the people who received this publication and read it to believe what the Tobacco Institute was saying.
A. Yes.

Deposition of Walker P. Merryman, State of Minnesota v. Philip Morris Inc., C1-94-8565, July 15, 1997, 110-111.

126. Finally, one of the best measures of reliance is Defendants' success in sales. As American Tobacco's Eric Gesell admitted in a deposition in the State of Minnesota litigation on September 1997:

Q. You expect people to be able to rely on the advertising that you place on behalf of the American Tobacco Company; correct?
A. Sure.
Q. And you know, in fact, people will rely?
A. Yes.
Q. And one of the best measures of reliance would be sales; correct?
DEFENSE COUNSEL: Object to the form.
A. Correct.

Deposition of Eric Gesell, State of Minnesota v. Philip Morris Inc., C1-94-8565, September 18, 1997, 22:8-22:20 (objections omitted).

B. The United States' Disgorgement Calculations Are Reasonable and Proper

(1) Calculation of Disgorgement

127. The United States' experts, Drs. Franklin Fisher and Jonathan Gruber, Professors of Economics at the Massachusetts Institute of Technology, reliably determined the amount of proceeds that were obtained by the Cigarette Company Defendants on the sale of cigarettes to the Youth Addicted Population. The Youth Addicted Population is comprised of those who smoked

regularly as youth and those adults who became addicted as youth. See Technical Appendix to Expert Report of Jonathan Gruber, United States v. Philip Morris, et al., (R. 1453; filed July 24, 2002) at 4, 17, as amended on July 25, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 86907).

128. Those experts calculated various amounts of proceeds depending on which alternative factors were used in the following criteria: (a) the definition of protected class of young people (i.e., below age twenty-one or below age eighteen); (b) the level or intensity of smoking (i.e., daily smoking, amount of adult smoking attributable to initiation as a member of the protected class, smoking intensity cutoff of more than five cigarettes per day, or more than ten cigarettes per day); (c) the time period (i.e., smoking by the protected class starting from 1971, the first calendar year after the enactment of the RICO statute, or starting from 1954, the first calendar year after the date the complaint alleges the conspiracy and RICO violations began). Expert Report (Proceeds Report) of Franklin M. Fisher, United States v. Philip Morris, et al., (R. 673; filed November 15, 2001) at 2, ¶ 5 and Exhibit 1, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,712) (U.S. Ex. 86,902).

129. Cigarette Company Defendants' proceeds from the sales of cigarettes during the time period 1971-2001 smoked by the Youth Addicted Population who started smoking more than five cigarettes daily before reaching the age of twenty-one, is $280 billion. Expert Report (Proceeds Report) of Franklin M. Fisher, United States v. Philip Morris, et al., (R. 673; filed November 15, 2001) at 2, ¶ 5 and Exhibit 1, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,712) (U.S. Ex. 86,902).

130. To determine the proceeds amounts referenced above, Dr. Fisher used the

formula:

Number of cigarettes sold to the Youth Addicted Population (youth defined as under 21)	x	Proceeds per cigarettes	=	Youth Addicted Proceeds

Expert Report (Proceeds Report) of Franklin M. Fisher, United States v. Philip Morris, et al., (R. 673; filed November 15, 2001) at 3, ¶ 6, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,712) (U.S. Ex. 86,902); Expert Report of Jonathan Gruber, United States v. Philip Morris, et al., (R. 672; filed November 15, 2001) at 2, as amended on July 25, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 86907).

131. Under this formula, the annual number of cigarettes sold to the entire population was reliably estimated by using information from Defendants' responses to interrogatories, Defendants' annual financial statements, and the Maxwell Reports. The proportion of cigarettes smoked by the Youth Addicted Population was reliably estimated for each year by Dr. Gruber for use in Dr. Fisher's equation. Expert Report (Proceeds Report) of Franklin M. Fisher, United States v. Philip Morris, et al., (R. 673; filed November 15, 2001) at 2, ¶ 4, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,712) (U.S. Ex. 86,902).

132. Also under the above formula, to determine the proceeds, Dr. Fisher used the definition of "proceeds" found in the Civil Asset Forfeiture Reform Act of 2000. That statute, which applies to the proceeds of sales in situations involving the sale of lawful goods in an allegedly illegal manner, defines "proceeds" as

> the amount of money acquired through the illegal transactions resulting in the forfeiture, less the direct costs incurred in providing the goods or services. The claimant shall have the burden of proof with respect to the issue of direct costs. The direct costs shall not include any part of the overhead expenses of the entity providing the goods or services, or any part of the income taxes paid by the entity.

18 U.S.C. § 981(a)(2)(B). Expert Report (Proceeds Report) of Franklin M. Fisher, United States v. Philip Morris, et al., (R. 673; filed November 15, 2001) at 2, ¶ 4, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,712) (U.S. Ex. 86,902).

133. Dr. Fisher calculated the proceeds separately for each Cigarette Company Defendant for each year from 1971 to 2001. Expert Report (Proceeds Report) of Franklin M. Fisher, United States v. Philip Morris, et al., (R. 673; filed November 15, 2001) at Exhibit 2, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,712) (U.S. Ex. 86,902).

134. Based upon application of the definition of "proceeds" in 18 U.S.C. § 981(a)(2)(B), Dr. Fisher used a reasonable method for calculating total proceeds from Defendants' available financial statements.

135. The estimate of costs in the proceeds calculation was based upon standard cost-accounting methodology. In order to calculate the "total proceeds," reasonable direct cost estimates were made because direct cost figures do not appear on financial statements and Defendants did not otherwise provide them. Based upon the best data and information available, direct costs were reasonably calculated. Expert Report (Proceeds Report) of Franklin M. Fisher, United States v. Philip Morris, et al., (R. 673; filed November 15, 2001), at 2-3, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex.

60,712) (U.S. Ex. 86,902).

136. Dr. Fisher calculated a contemporaneous proceeds amount per cigarette on an annual basis for each Cigarette Company Defendant as the total proceeds divided by the number of cigarettes sold. A further adjustment, as explained below, was performed before arriving at the proceeds from the Youth Addicted Population. Expert Report (Proceeds Report) of Franklin M. Fisher, United States v. Philip Morris, (R. 673; filed November 15, 2001), at 4, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,712) (U.S. Ex. 86,902).

(2) Disgorgement Provides Economic Incentives That Will Prevent Further RICO Violations

137. Despite the fact that it is not necessary for the United States to prove this, disgorgement will prevent and restrain further bad acts.

138. Dr. Fisher stated in his expert report and deposition testimony, that disgorgement of the proceeds that he calculated would in fact act to prevent and restrain Defendants from committing future RICO violations as a matter of economic principle. Dr. Fisher directly addressed this point in his rebuttal report in which he states:

> Defendants' experts have suggested that disgorgement of ill-gotten gains such as the proceeds sought in this matter will not serve the goal of preventing or restraining the defendants from engaging in similar bad acts in the future. For example, Professor Carlton argues, 'Having to disgorge past proceeds, by itself, would not affect a defendant's incentives to engage in misconduct in the future because it would not affect the returns (if any) from future misconduct.' I address these criticisms with well-known economic principles. What Professor Carlton and the other defendants' experts who espouse this view fail to recognize is that requiring defendants to pay proceeds will affect their expectations (and those of others contemplating malfeasance) about the returns from future misconduct. As a matter of economic principle, the higher the proceeds amount, the lower the expected returns from future misconduct and the greater the desired effect of deterrence.

Expert Rebuttal Report of Franklin Fisher, United States v. Philip Morris, et al., (R. 1450; filed July 24, 2002) at 4-5, ¶ 12.

139. Dr. Fisher expressly states in his expert report:

> [Defendants' experts] have also suggested that enjoining Defendants from future illegal behavior and threatening them with the possibility of financial penalties would be more effective as future deterrents than would be disgorgement. Professor Weil, for example, suggests that "the Court could establish now a schedule of fines or punishments that it would levy should the Defendants engage in prohibited behavior." These experts forget that laws prohibiting this behavior already exist and that, despite these laws and their associated remedies, the Defendants allegedly chose to engage in the illegal behavior. In this context, it is important to note that requiring Defendants to pay proceeds would strengthen the credibility of existing laws and thus provide additional economic incentives to deter future misconduct.

Expert Rebuttal Report of Franklin Fisher, United States v. Philip Morris, et al., (R. 1450; filed July 24, 2002) at 5-6, ¶ 14.

140. Dr. Fisher has repeatedly confirmed the preventative benefit of disgorgement. At his deposition he stated:

> Q. . . . the idea is that disgorgement prevents and restrains future violations by altering the defendants' expectations about the returns they might receive from future misconduct. Is that right?
> A. . . . I believe that to be correct.
> Q. Does disgorgement prevent and restrain future RICO violations in any other way?
> A. Well, it removes at least some, and possibly all, of the assets with which to engage in future illegal activities.

Deposition of Franklin Fisher, United States v. Philip Morris, et al., September 12, 2002, 828:4-19.

141. "[A]s I have repeatedly and clearly stated in my report and deposition testimony, disgorgement of Defendants' proceeds, as I have calculated them, would in fact act to prevent and

restrain future RICO violations." Declaration of Franklin Fisher, United States v. Philip Morris, at 7, ¶ 16, Exhibit 5 to Master Rule 7.1/56.1 Statement in Support of the United States' Opposition to Joint Defendants' Motion for Partial Summary Judgment on the Issue of Disgorgement, filed October 7, 2003 (U.S. Ex. 86,931). Order # 550 (denying Defendants' Motion for Partial Summary Judgment Dismissing Government's Disgorgement Claim).

(3) Additional Gains Appropriately Account for the Value to Defendants of Using Proceeds in Subsequent Years

142. The United States' experts properly accounted for the fact that money earned by Defendants in prior years that was causally related to their frauds must be adjusted for the time value of money.

143. Once the contemporaneous value of the proceeds was calculated, Dr. Fisher then adjusted the proceeds to account for the time value of money. The calculations discussed above were performed for each year using the contemporaneous dollar amounts. Thus, an adjustment factor was used to bring the proceeds amount to account for the time value of money. The proceeds were adjusted to account for the additional gains due to the use of additional proceeds over time (a process which brings the proceeds from other years to a common present day amount). Expert Report (Proceeds Report) of Franklin M. Fisher, United States v. Philip Morris, et al., (R. 673; filed November 15, 2001), at 8-10, as amended on July 31, 2003 (disclosed to Defendants on July 31, 2003, but not filed with the Court) (U.S. Ex. 60,712) (U.S. Ex. 86,902).

144. As Dr. Fisher more thoroughly explained at his deposition, the "additional gains" adjustment was for the time value of money using the Weighted Average Cost of Capital (WACC), a standard methodology used by economists. Deposition of Franklin Fisher, United States v. Philip Morris, et al., April 10, 2002, 175:20-181:23. Dr. Fisher aptly explained why the WACC was the appropriate methodology to use in this case:

A. In the present instance, we're not talking about making the plaintiff whole [as in a damages case]. We're talking about what were the proceeds from the illegal activities. And that is a -- that is a different problem and a different measurement. . . . The proceeds also include the time value of money, but not the pure time value of money. Here the proceeds involve what the defendant saved by having this money, and what it saved is the weighted average cost of capital, not just the pure time value of money, but what it paid for money generally.

It is a different problem, and it has a different answer.

* * *

Q. . . . If the sole purpose of the lawsuit is to affect the defendants' future behavior, the assessment of prejudgment interest on the fruits of the defendants' past misconduct doesn't have any place, does it?

A. Well, no, I don't think that is right, and I don't think I would call this necessarily prejudgment interest. . . .
I said yesterday that forfeiture as a lump sum has the deterrent effect on the defendants' future actions because it affects the calculation as to whether it is likely to be profitable to repeat such actions. If the time value of money measured I think by the weighted average cost of capital is not part of the lump sum, then you have just told the defendants, hey, we may not be able to get away with this forever, but if we can --if we can get away with it for several years, even though I will have to give back as it were the original money, we can make a lot of money by doing things like this. That would be perverse. We can, as it were, take money from the public, use it in our own ways, and we won't have to pay -- we won't have to pay any charge for the use of the money.

Deposition of Franklin Fisher, United States v. Philip Morris, et al., April 11, 2002, 344:16-353:23 (objections omitted).

145. Of the $280 billion in proceeds from the Youth Addicted Population, $75.49 billion represents the contemporaneous value of the proceeds and $204.39 billion is the adjustment that accounts for the time value of money, or Defendants' additional gains. Declaration of Franklin Fisher, United States v. Philip Morris, at 3, ¶ 7, Exhibit 5 to Master Rule 7.1/56.1 Statement in Support of the United States' Opposition to Joint Defendants' Motion for

Partial Summary Judgment on the Issue of Disgorgement, filed October 7, 2003 (U.S. Ex. 86,931). Order # 550 (denying Defendants' Motion for Partial Summary Judgment Dismissing Government's Disgorgement Claim).

146. It is irrelevant to the computation of additional gains whether Defendants retained the proceeds on which the additional gains are computed, distributed some or all of the proceeds to shareholders, or, for that matter, squandered the proceeds at a roulette table. Defendants' decisions to retain the money or to spend the money does not alter the fact that they received additional gains. As the Court stated in Order # 550 denying the Defendants' Motion for Partial Summary Judgment Dismissing Government's Disgorgement Claim:

> Here, under the reasoning of Carson, so long as a defendant had disposed of all illegally-acquired gains (whether through payment of dividends or capital distributions to shareholders or investment in new manufacturing facilities), such gains would be unavailable to fund present or future illegal conduct and therefore could escape disgorgement. Neither Carson, nor the Defendants, explain why this result is not just as 'absurd' in a civil RICO case as our Circuit found it to be in a securities case or why it would not 'perpetuate rather than correct an inequity.'

147. Dr. Fisher echoed this point in his deposition testimony:

> Q. And you are being asked to engage in this economically optimal calibration of future incentives. To do that, would you seek to deprive only the defendant corporations of the benefits they had received, or would you also include benefits that had accrued to their shareholders?
>
> A. . . . if the corporations use the proceeds to pay dividends to their stockholders, that was a benefit to the corporation. If you are asking me would I seek to recover it from the current stockholders, the answer is no, as opposed to the corporation. I think the corporation can be fairly said to have had the benefits. In an ideal world, if you are going to let me do all of these things, in which I have all power and I am also omniscient, one could -- there could at least be an argument that said you should try to recover it from the people who were the stockholders when the dividends were paid.

* * *

A. . . . it is a bad incentive to provide by having a system that says you can get away with all of these gains so long as you give them away to your stockholders fast enough.

* * *

A. . . . If the payments would have occurred anyway to the shareholders, then, and particularly then, it is particularly obvious that the gain accrued to the corporation, because they avoided raising capital. But apart from that .... if the proposition is that you ..... don't count those moneys in the disgorgement, then I don't see why in the future, regardless of why the money was paid out to shareholders, you won't have set up a system that says pay the money out to shareholders.

Deposition of Franklin Fisher, United States v. Philip Morris, et al., September 12, 2002, 885:13-889:12.

148. In further explaining the rationale behind the calculation of gains, Dr. Fisher testified: "you just can't get away from the simple proposition that says because of the [Youth Addicted Population] sales these guys made money in years gone by and they had the use of that money, and having the use of that money was worth something to them." Deposition of Franklin Fisher, United States v. Philip Morris, et al., September 12, 2002, 959:15-969:1.

149. Dr. Fisher further explained the additional gains to Defendants as a result of having the proceeds from sales to the Youth Addicted Population: "A firm receives gains or proceeds or whatever we're calling them at the moment, and invests them in the firm, let us say, and acquires capital assets, it builds plants, it buys a company jet, so forth. Those assets now disappear from working capital, but nevertheless, they're still assets that are available and the firm could raise money on them. They haven't disappeared from the possession of the firm....The firm benefits when the – when the illegal activities more than cover their direct costs, because they get a contribution toward those fixed costs, and they would bear those fixed costs, because by assumption they are fixed, in any event, and, therefore, to exclude the same share of the -- a

share of the fixed costs would be to ignore the fact that the firm is getting a benefit from that."

Deposition of Franklin Fisher, United States v. Philip Morris, et al., September 12, 2002, 1047:24-1050:11.

CONCLUSION

1. The Court hereby finds that the United States has proven all the necessary elements of its RICO claims against Defendants: Philip Morris USA Inc.; R.J. Reynolds Tobacco Company; Brown & Williamson Tobacco Corporation; Lorillard Tobacco Company, Inc.; Liggett Group, Inc.; American Tobacco Company; Altria Group, Inc. f/k/a Philip Morris Companies Inc.; British American Tobacco (Investments) Ltd.; Council for Tobacco Research -- U.S.A., Inc.; and the Tobacco Institute, Inc.

2. The Court hereby finds that the United States is entitled to equitable relief against Defendants, including, but not limited to, injunctive relief and disgorgement of ill-gotten gains.

Respectfully submitted,

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