

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,	:	CA No. 99-2496 (GK)
	:	March 9, 2005
Plaintiff,	:	
	:	9:30 a.m.
	:	
v.	:	Washington, D.C.
	:	
PHILIP MORRIS USA, et al.,	:	
	:	
Defendants.	:	
.	:	

VOLUME 73
MORNING SESSION
TRANSCRIPT OF TRIAL RECORD
BEFORE THE HONORABLE GLADYS KESSLER
UNITED STATES DISTRICT JUDGE

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P R O C E E D I N G S

12

THE COURT: Good morning everybody. This is United
13 States versus Philip Morris, CA 99-2496.

14

I want to deal this morning with the objections to
15 Dr. Dixon's testimony.

16

Ms. Eubanks, was there something you wanted to raise
17 first?

18

MS. EUBANKS: No, Your Honor. I'm prepared to address
19 the objections to Dr. Dixon, but he is in the room. We would
20 ask that he be excused.

21

THE COURT: He may wait outside.

22

And who will be speaking on this issue for defendants?

23

MR. SHEFFLER: Bruce Sheffler, Your Honor.

24

THE COURT: I have to say, counsel. I don't know who
25 I'm holding responsible on this, but it was very difficult -- I

1 have now read these sets of objections twice, once over the
2 weekend and once very early this morning -- and it was very
3 difficult to match up the objections and the responses.
4 Consequently, I have questions.

5 And the way we're going to do this is we're going to go
6 through it. I'm going to ask my questions, which are all
7 factual, actually, and then I will hear from people. But it was
8 very confusing.

9 Now, the government provided a list in attachment A of
10 the joint defendants' exhibits and demonstrative exhibits to
11 which it objected and its reasons.

12 It would have been a lot easier for me if defendants
13 had responded to that list. You certainly responded
14 substantively to some of the items on the list, but not in the
15 same order, not in the same way.

16 Anyway, it's taken a lot of time, so let's go through
17 things.

18 MS. EUBANKS: Your Honor, maybe I can be of some
19 assistance here in terms of what it is we felt was important to
20 raise before the witness's testimony.

21 It only goes to nine of the exhibits themselves and
22 that leaves three remaining that we feel, we don't have to
23 discuss now, we could take those up in the normal course.

24 THE COURT: Well, we probably might as well get rid of
25 everything now one way or the other and get it done. So, let me

1 start at this point.

2 Number 30 -- this is a defendants' demonstrative,
3 Number 30009. Mr. Sheffler, you better come to the podium as
4 well with your papers.

5 MR. SHEFFLER: Yes, Your Honor.

6 THE COURT: Unless you've memorized all of this, which
7 would be very impressive.

8 MR. SHEFFLER: I have it, Your Honor. Thank you.

9 THE COURT: Joint defendants respond that you're
10 neither offering nor using it. What's it here for?

11 MR. SHEFFLER: Your Honor, it's merely a graph. It's
12 merely a demonstrative to try to illustrate the testimony of the
13 witness.

14 It's no different than the illustration up here on the
15 board. It's a demonstrative to allow the trier of the fact to
16 better understand his testimony.

17 If Dr. Dixon had been testifying here live, he would
18 have drawn that little chart right on a screen, on a board, and
19 that's all it represents. We are not putting the underlying
20 document into evidence. We are not putting the demonstrative --

21 THE COURT: Mr. Sheffler, let's try to move quickly
22 through these if we can.

23 MR. SHEFFLER: Sorry, Your Honor.

24 THE COURT: I believe -- correct me if I am wrong --
25 that it was listed on -- part of the confusion is between

1 demonstrative exhibits and regular exhibits.

2 MR. SHEFFLER: There was no regular exhibit for this,
3 Your Honor.

4 THE COURT: Correct.

5 MR. SHEFFLER: This is purely a demonstrative.

6 THE COURT: And it was not previously disclosed as a
7 reliance document because -- well, for reasons that are clear to
8 me.

9 What's the government's objection at this point,
10 succinctly?

11 MS. EUBANKS: That 26(a)(2)(b) was violated. That this
12 court has previously ruled on numerous occasions that a failure
13 to disclose a document on the reliance list is something that
14 makes a clear violation of Rule 26 and makes the document not
15 useable.

16 THE COURT: But he's not relying on it, is he?

17 MS. EUBANKS: He certainly, based upon what
18 Mr. Sheffler just said, going to enhance his testimony by it,
19 and testimony is evidence.

20 If the witness is going to use that demonstrative and
21 offer testimony upon it and did not disclose it under
22 26(a)(2)(b), it's no different from the situations where the
23 government was placed in the position of not being able to rely
24 upon documents that -- or documents that were not previously
25 disclosed.

1 THE COURT: No. The objection is overruled.

2 I want to be clear, though, because the rule is very
3 firm, and it will be applied, I believe, shortly, depending on
4 answers I get to some things, that if some things should have
5 been on the reliance list and was not disclosed, it will not be
6 allowed.

7 But on this particular demonstrative it does not appear
8 to me that the witness relied upon it in the formation of his
9 opinion. He is merely using it to explain and illustrate his
10 opinion; therefore, that objection -- and one other thing. It
11 is not being moved in as an exhibit, and so, therefore, that
12 objection is overruled.

13 MS. EUBANKS: Your Honor.

14 THE COURT: Yes.

15 MS. EUBANKS: With respect to that objection, it's the
16 source material that's indicated on that demonstrative that
17 itself was not disclosed.

18 There is at the bottom of the demonstrative an
19 indication that the source is from a sensory professional and
20 expert panel training manual which was not disclosed to the
21 United States. So, apparently, the witness made up this
22 demonstrative based upon source materials that were not
23 disclosed.

24 THE COURT: It was made available to you, but you did
25 not select it; is that right?

1 MS. EUBANKS: That is not necessarily the case. But
2 besides which, with respect to an expert, the court has not
3 applied a rule where we are required to go to defendant's place
4 of business and obtain every document --

5 THE COURT: That's true.

6 MS. EUBANKS: -- an expert might rely upon from the
7 Guilford Depository. So that is not a ruling that, in terms of
8 an expert witness, would apply here; that simply because
9 defendants have made a document available in the millions of
10 documents --

11 THE COURT: Let me hear from Mr. Sheffler. I can see
12 this morning is going to test my patience. Maybe my patience
13 was tested before I walked in here because I had to reread
14 everything. But, in any event, Mr. Sheffler.

15 MR. SHEFFLER: Your Honor, I begin by apologizing for
16 that.

17 But secondly, let me say very briefly, it's an
18 illustration.

19 THE COURT: Correct. The objection is overruled.

20 We are now on 63009, not a demonstrative, but an
21 exhibit. My understanding is that this exhibit was listed on
22 the reliance materials -- reliance list, I'm sorry. It was
23 the -- the opinion was disclosed in Dr. Dixon's expert report.
24 I think that's what I have down.

25 All right, government.

1 MS. EUBANKS: Yes, Your Honor.

2 That if defendants are willing to make this a -- this
3 was not listed on defendants' exhibit list. It just showed up
4 on this list. If they are willing to make this one of their
5 subsequently included trial exhibits and count against that
6 number, we don't oppose using it. But we do oppose just putting
7 it out there when it's not on their list and not having it count
8 against their additional SITE documents.

9 MR. SHEFFLER: We did that on February 22nd.

10 THE COURT: Oh, I see. All right. Therefore, I guess
11 for the record, the objection is overruled with the
12 understandings that we've just gone over.

13 Now, this is joint defendants' demonstrative 30011.
14 Now, the government says this was not disclosed as a reliance
15 document; however, according to the defendants, the opinion was
16 disclosed over three years ago in Dr. Dixon's expert report, and
17 this is simply a demonstrative to illustrate that opinion.

18 Government, please.

19 MS. EUBANKS: The defendants concede that the document
20 was not disclosed initially or by supplementation. But, Your
21 Honor, I would concede based upon -- I would classify this
22 document in the same group as when you ruled on J-DEM 030009,
23 and based upon that ruling, I would think that the same would
24 apply here.

25 THE COURT: All right. The objection is overruled.

1 Now, Joint Defense Exhibits 62719 and 24497, which are
2 connected.

3 Now, as to 24497, the defendants say that the opinion
4 was previously disclosed as to what I will call for the moment
5 the underlying document 62719. The defendants say that that was
6 listed in Dr. Dixon's reliance materials and in his expert
7 report, that the particular article in question was cited in his
8 expert report which was submitted over three years ago. 2719,
9 according to plaintiff, was not on the exhibit list.

10 Let me hear from the government at this point. Maybe
11 you want to make this same arrangement as to this exhibit.

12 MS. EUBANKS: If this is going to -- if defendants will
13 make this an SITE and count against their number, then we don't
14 oppose adding it.

15 MR. SHEFFLER: We did on February 22nd, Your Honor.

16 THE COURT: All right. So again, with that
17 understanding, the objection is overruled.

18 Now we come to three documents, which are probably the
19 most significant.

20 MS. EUBANKS: Your Honor, you had mentioned JD 024497.

21 THE COURT: I did.

22 MS. EUBANKS: The objection there is not to it being a
23 subsequently included trial exhibit. There, the objection is
24 different, and so we wouldn't concede that if defendants made
25 that an SITE, that it would be all right, because with respect

1 to that, it wasn't -- that's a 2003 article, and that was not
2 disclosed initially or by supplementation. It's a very clear
3 violation of Rule 26. It's a 2003 paper that the witness
4 himself wrote. So defendants had two years to disclose that to
5 the United States by supplementation. And it's exactly the same
6 thing that we faced with Dr. Weinstein where the court did not
7 allow him.

8 THE COURT: I remember.

9 Mr. Sheffler.

10 MR. SHEFFLER: Your Honor, as I understand the court's
11 rulings, exhibits that are merely confirmatory fortifying the
12 opinion -- and if I could just quote what he says in his written
13 direct about this. This was further confirmed in work that we,
14 JD 2497, and others, JD 062719. They are the same study. It's
15 the same study.

16 The one that was an SIE was the Hasenfrats' article,
17 that's the one we just talked about. And he subsequently
18 confirmed that work with his own research. It was the same
19 study, the same work. It's merely confirmation.

20 It's nothing -- his opinions about the Hasenfrats'
21 article were clearly set forth in the expert report. His
22 opinions about the Hasenfrats hasn't changed at all.

23 The mere fact that he's further confirmed it with
24 research that's ongoing all the time shouldn't make this
25 excluded. It's not objectionable.

1 This is no different than any expert who has testified
2 about confirmation of work that he has done after his expert
3 report. These people do this work all the time.

4 THE COURT: This is new research; right?

5 MR. SHEFFLER: I'm not sure it was new research at the
6 time he testified in his deposition, it probably wasn't, but I
7 can tell you it was published in 2003.

8 THE COURT: Well, that's very similar to the problem we
9 faced with Dr. Weinstein. I remember it well, indeed,
10 foreseeing that you all remember every single thing I ever do.
11 I had actually double-checked my ruling as to Dr. Weinstein.
12 The objection is sustained as to 24497. I think Mr. Sheffler
13 misspoke a minute ago.

14 Let me get to the next one.

15 Mr. Bernick, we have one lawyer per side, especially on
16 something as annoying as all of these.

17 Now, joint defendants' demonstratives: 30019, 30020,
18 and 30021. The defendants argue that these matters were covered
19 in a 2-day deposition. The government argues that none of these
20 documents were disclosed as reliance documents.

21 I'm not even sure, by the way -- everybody can correct
22 me -- I'm not sure they were in existence at the time of the
23 deposition. But the government argues that all three of them
24 are new tests and new methods to confirm previous material --
25 let me put it this way -- to confirm material that was

1 previously disclosed. And just so it's very clear what my
2 concerns are.

3 J-DEM 30019 rests upon -- or the testimony about it
4 rests upon information, according to the government, from a
5 BATCo research report that's never been disclosed or produced.

6 J-DEM 30020 is similarly so derived. I'm not clear
7 whether that's from a second research report never disclosed or
8 from the first one that was never disclosed, but the issue is
9 the same.

10 And as to J-DEM 30021, the government's papers are
11 clear that they are alleging that the testimony regarding that
12 demonstrative is again taken directly from another research
13 report not disclosed to the United States.

14 Mr. Sheffler.

15 MR. SHEFFLER: Well, Your Honor, with respect to 30020,
16 30021, the government's characterization that these came from
17 research reports is wrong. They did not. This is ongoing
18 study. It was a study that was begun before Dr. Dixon's
19 testimony.

20 THE COURT: Before what?

21 MR. SHEFFLER: Before his deposition testimony. It was
22 ongoing at that time.

23 Dr. Dixon talked about the very fact that filter
24 analysis of the butt studies were being used to look at large
25 populations in terms of what actually was delivered to smokers.

1 At the time they were doing this.

2 THE COURT: Why didn't you disclose the research when
3 it was completed?

4 MR. SHEFFLER: It's not completed. The data is
5 still being analyzed, and as Dr. Dixon stated in his written
6 direct, these documents will be published eventually, but they
7 are in preparation. It's a long study, takes a lot of time to
8 do as he could explain. But the data that was gathered was
9 gathered at the time of his deposition. He referred to the fact
10 that they are doing these types of studies. And, in fact, Your
11 Honor, all that we're showing on the demonstratives is his
12 compilation of the data.

13 THE COURT: But the government hasn't seen the data.
14 How can they cross-examine on it?

15 MR. SHEFFLER: Your Honor, they did cross-examine on it
16 in his deposition. They asked by the filter analysis. They
17 asked about the duplication. They asked about the confirmation
18 of filter analysis with the other methods.

19 They did ask him about what are the advantages,
20 disadvantages? How do you do it? What is it for? This was
21 part of the deposition.

22 I mean, all that he's done is said "This is what we
23 did. This is the data we have." I mean, it's part --

24 THE COURT: Without supplying the data.

25 MR. SHEFFLER: Pardon me?

1 THE COURT: Without supplying the data.

2 MR. SHEFFLER: They didn't ask for it in his
3 deposition.

4 THE COURT: Of course not. They didn't know about it
5 at that point.

6 MR. SHEFFLER: But he was talking about it in his
7 deposition. That's what he was discussing. Further analysis of
8 a normal environment was what he was discussing.

9 THE COURT: Let me hear from the government.

10 MS. EUBANKS: Yes, Your Honor.

11 Mr. Sheffler has made a misrepresentation about what
12 occurred in the deposition. I hope it was unintentional.

13 But the fact is that at the deposition he couldn't have
14 talked about these matters because the studies were ongoing.
15 The documents that we're looking at here, J-DEM 030019, has a
16 source material from 2005. Certainly at that time it could not
17 have been discussed. Furthermore, these were unpublished
18 studies, not available in the public domain, so self-help was
19 not an option.

20 A simple question at a deposition, this court has ruled
21 when ruling out Dr. Eriksen's opinions, all of them on light and
22 low tar when the defendants had a complete deposition of him all
23 of his opinions on that, that was excluded because it was
24 questioned about at a deposition because of the failure to
25 disclose.

1 Here, these were things that weren't even in existence
2 at the time of the deposition, necessarily could not have been
3 discussed, and certainly would not have been available to the
4 United States because they were unpublished.

5 They were admittedly not disclosed; in defendants'
6 papers, they say that. The testimony that Dr. Dixon gives talks
7 about approximately two years ago BATCo using this study,
8 beginning to conduct -- conduct of this study. And he says that
9 this year, that would be 2005, they started to use the technique
10 that he's describing. We couldn't have explored this.

11 MR. SHEFFLER: That's not correct. That's not correct.

12 They were using this technique, as he will testify, for
13 many, many years. They've been refining it all that time. The
14 data that was being collected at the time that he was deposed
15 that he testified about was the data that he's going to
16 represent on the chart.

17 Now that hasn't been published. I grant the court it
18 hasn't been published. However, he is a scientist. This is his
19 work that he's engaged in. And he did testify at the deposition
20 about the fact that he was engaged in the very work.

21 This is no different, Your Honor, than Dr. Samet's work
22 when Dr. Samet was testifying about his work with the IARC
23 working group. And at the time when he was cross-examined, he
24 wanted to talk about that IARC working group, and the court
25 allowed him to because it was merely the confirmation of what

1 his work was at the time of the deposition.

2 It's no different here. We are confirming what, in
3 fact, his data shows. That's all that he's doing. The
4 demonstrative is merely his creation of what the data has shown
5 him, and it's not any different than the data as shown for years
6 before as well.

7 THE COURT: The objection is sustained.

8 Number one, it is clear that the government can't
9 cross-examine about it because they haven't had it.

10 Number two, there is no reason that the data could not
11 have been submitted to the government and an ongoing basis as he
12 was completing portions of it or in preparation for his direct
13 testimony.

14 And number three, it is not merely confirmatory. He is
15 relying on this data to answer certain questions. So the
16 objection is sustained as to J-DEM 30019, 30020, 30021.

17 Now, J-DEM 30026.

18 MR. SHEFFLER: Your Honor, just for the record, I do
19 want to state that there were no papers, other than the 30019,
20 with respect to any of these demonstratives, just for the
21 record.

22 THE COURT: All right.

23 MR. SHEFFLER: Thank you.

24 THE COURT: Now, the government says that this document
25 was not previously disclosed as a reliance document.

1 The defendants say that this expands on 3003167, which
2 the government says was not previously disclosed as a reliance
3 document, but the defendants indicate that the opinion was
4 previously disclosed.

5 Now, 30026 is the demonstrative, 31677 is the actual
6 exhibit itself. Let me focus first on 31677. It was not -- is
7 it correct, Mr. Sheffler, it was not disclosed as a reliance
8 document?

9 MR. SHEFFLER: That's correct, Your Honor. It was
10 published after his deposition, after his expert report.

11 THE COURT: What's your response to the government?

12 MR. SHEFFLER: Your Honor, he testified precisely to
13 what the document asks in his deposition.

14 He was examined on the issue of acetaldehyde. He was
15 examined on the issue of synergy between acetaldehyde and
16 nicotine and on the formation of acetaldehyde. He testified
17 about that in his deposition. His written direct repeats almost
18 verbatim what's in his deposition, just some word changes, and
19 this document simply confirms what he was saying at the
20 deposition.

21 This is confirmatory information. This is exactly what
22 the court had said in the past would be permitted as
23 confirmatory information of and fortifying prior testimony of
24 the witness.

25 THE COURT: And as to J-DEM 30026, is your argument --

1 and I don't mean to make -- but it is -- is it simply that the
2 demonstrative is based upon 31677?

3 MR. SHEFFLER: Yes.

4 THE COURT: Government.

5 MS. EUBANKS: Yes, Your Honor. This is very simply the
6 Eriksen rule, Order 622.

7 I want to be clear here because there is positively no
8 mention of the word "acetaldehyde" anywhere in the expert report
9 of Dr. Dixon.

10 These materials, this article addresses acetaldehyde.
11 It was an article that was published apparently in 2002. He had
12 three years to supplement. There's your Weinstein.

13 So just because a matter was explored at a deposition,
14 as this court found with Dr. Eriksen when it excluded all of his
15 opinions on critical issues to the government there with respect
16 to the light and low tar analysis that they had a full
17 deposition of him with, simply because he failed to disclose
18 materials in a timely manner.

19 This is no different, simply because after the
20 deposition Dr. Dixon publishes an article and defendants don't
21 disclose that article to us as a reliance material, we have no
22 basis, having received the 26(a)(2)(b) expert report, upon which
23 to rely for his opinions, that simply because he's publishing
24 something else, that we would be placed on notice. Again
25 acetaldehyde, which is the subject that is discussed here and

1 also in his written direct, is not an opinion that he was
2 disclosed. So it's an entirely new opinion, it's violative of
3 Rule 26, and it's exactly the same ruling that this court
4 applied when excluding, in Order 622, Dr. Eriksen's testimony
5 and when excluding the materials with respect to Dr. Weinstein
6 for failure to supplement.

7 THE COURT: Mr. Sheffler.

8 MR. SHEFFLER: Your Honor, the questions at his
9 deposition explored acetaldehyde in detail, and the questions at
10 his --

11 THE COURT: At his deposition. Wait a second.

12 Was your argument that acetaldehyde was not mentioned
13 in either his expert report or in his deposition? That's to
14 Ms. Eubanks.

15 MS. EUBANKS: Oh, I'm sorry, Your Honor.

16 It was mentioned at his deposition, but it was not a
17 part -- a lot was mentioned in his long 2-day deposition, but it
18 was not disclosed in his expert report as an opinion that he
19 intended to offer.

20 As you know, a deposition is discovery. Facts known
21 and opinions held by experts that they intend to testify about
22 under 26(a)(2)(b) are materials that need to be disclosed in
23 order for a party to know how to focus and prepare its case.

24 And again, we went through this with Dr. Eriksen and we
25 lost. Defendants placed exactly the same arguments that I'm

1 placing before the court here and prevailed upon those.

2 THE COURT: Let me hear from Mr. Sheffler.

3 MR. SHEFFLER: Your Honor, first of all, we are a
4 defendant in this case, so we go second. We have to respond to
5 allegations that are raised during the plaintiff's case.

6 One of the allegation raised during the plaintiff's
7 case that Dr. Dixon did not address at his expert report time
8 was this synergy between acetaldehyde and nicotine.

9 Now that has been debunked for some time, and we didn't
10 expect -- Dr. Dixon was not told to put that in his expert
11 report because, quite honestly, we didn't expect the government
12 to use that in their case. Dr. Dixon did reserve the right to
13 supplement his expert report or to address issues raised during
14 the trial.

15 THE COURT: But you put your finger on it. He could
16 have supplemented either his reliance materials or his expert
17 report.

18 MR. SHEFFLER: But he did. He did, Your Honor. He
19 supplemented his expert testimony at the deposition.

20 THE COURT: No, no, no. That doesn't come within the
21 rules. No, no. Objection is sustained as to 31677 and 30026.

22 Now, there are other objections listed by -- no, excuse
23 me a minute. Other objections to which the defendants respond.
24 Again, it was very confusing. And I'm going to go through the
25 defendants' responses at this point because, quite frankly, I

1 didn't see some of these things listed in -- well, yes, I guess
2 they are listed in the government's evidentiary objections. I
3 am not going to hear argument. I've been over them. There's
4 one or two I might have a question on.

5 There's an objection to the direct at page 10, line 17
6 through 25. Does everybody need to get their papers out? That
7 objection is overruled.

8 Some of these objections border on de minimis. There's
9 an objection to the direct at page 11, 19 through 23.
10 Overruled.

11 There's an objection to the direct at page 15, 1
12 through 7. Overruled.

13 There's an objection to the direct at page 27, line 2,
14 through 28, line 6. That is overruled.

15 JD 011596 has been resolved by the parties.

16 US Exhibit 64226, are the defendants seeking to move
17 that in? Is that it, Mr. Sheffler?

18 MR. SHEFFLER: Well, we would make that a joint
19 exhibit, yes, as the government suggested.

20 THE COURT: Is there any objection to that?

21 MS. EUBANKS: That's fine, Your Honor.

22 THE COURT: All right. That will be admitted.

23 I believe that we have dealt with 2719 and 63009.

24 Now, again, it was like dealing with two ships in the
25 night dealing with the objections and the responses. I think

1 I've covered everything. I'm not sure.

2 Government any other objections?

3 MS. EUBANKS: Your Honor, with respect to the opinions
4 that are offered on the acetaldehyde issue to the extent that
5 they are set forth in the written direct, we should file a
6 notice or something with the court making it clear, given this
7 ruling on the failure to disclose, that certain portions of the
8 testimony corresponding to that should be stricken as well.

9 We will supply that to Mr. Sheffler and find out if we
10 can reach agreement based upon the court's ruling on that, and
11 we will do that in the next several days.

12 THE COURT: I've tried to make the record as clear as I
13 could this morning, but again it would be good to make it easier
14 for someone who may be reading it two years later.

15 MR. SHEFFLER: Your Honor, we may very well then make a
16 proffer of proof after we get your ruling on that.

17 THE COURT: What the government did in regard to their
18 witness, do you mean file a factual proffer?

19 MR. SHEFFLER: Yes.

20 THE COURT: Yes, I think that's what they did. I know
21 that's what they did. So, certainly under the rules you are
22 permitted to do.

23 MR. SHEFFLER: Thank you, Your Honor.

24 THE COURT: Are we ready now to begin with the
25 substance of Dr. Dixon?

1 MR. SHEFFLER: If we can get him.

2 MS. EUBANKS: Your Honor, I'm sorry. I just want to
3 make sure that it's clear.

4 Mr. Williams is informing me that he did not hear a
5 ruling on two demonstratives: 030029 and 030030.

6 THE COURT: Wait a minute. 00 -- go ahead.

7 MS. EUBANKS: 030029.

8 MR. SHEFFLER: Your Honor, we will make it easy. We
9 will withdraw those demonstratives. They are just pictures. We
10 will withdraw them.

11 THE COURT: All right.

12 MS. EUBANKS: Thank you.

13 THE DEPUTY CLERK: Please remain standing and raise
14 your right hand.

15 MICHAEL DIXON, Ph.D., Defendant's witness, SWORN

16 THE DEPUTY CLERK: You may be seated.

17 THE WITNESS: Thank you.

18 DIRECT EXAMINATION

19 BY MR. SHEFFLER:

20 Q. Do you have some water there?

21 A. Yes, I have. Thank you.

22 Q. Dr. Dixon, you have your written direct testimony up there
23 in front of you?

24 A. Yes.

25 Q. And do you accept that as your testimony in this case?

1 A. Yes.

2 MR. SHEFFLER: Your Honor, we would like the court to
3 accept Dr. Dixon's testimony.

4 THE COURT: Yes, certainly. It may be accepted.

5 MR. SHEFFLER: And Your Honor, we would also like the
6 court to recognize Dr. Dixon as an expert in smoking behavior.

7 THE COURT: Any objections?

8 MS. EUBANKS: No objection to that limited proffer,
9 Your Honor.

10 THE COURT: All right.

11 BY MR. SHEFFLER:

12 Q. Now, Dr. Dixon, in your written testimony there you discuss
13 two separate actions that are involved in taking smoke from a
14 cigarette into the lungs.

15 A. Yes, I do.

16 Q. Using this demonstrative that we have up there -- and it's
17 J-DEM 30007, could you explain the actions for us?

18 A. Yes. May I stand?

19 MR. SHEFFLER: Your Honor, can he step down?

20 THE COURT: Yes, you may.

21 THE WITNESS: Thank you.

22 THE COURT: Do you happen to have one of those little
23 lights? You probably don't know what I'm referring to.

24 THE WITNESS: One of these, Your Honor? Little red
25 lights.

1 THE COURT: If you can use that big one, it would be
2 easier only because the bottom half of that demonstrative gets
3 blocked by the computer.

4 MR. SHEFFLER: Your Honor, I think he needs to actually
5 use his hand for this, so if --

6 THE COURT: I'll follow you.

7 THE WITNESS: Please tell me if I obscure your vision.
8 A. This is just a cross-section through someone's head. And
9 the purpose of this is to try and demonstrate how a person
10 inhales cigarette smoke.

11 Obviously, the cigarette is placed here between the
12 lips. And if I talk you through this area. Here is the tongue,
13 the cross-section. This part is the upper part of the mouth,
14 the hard palate.

15 And the important part is this little flap that comes
16 around the corner, and that's a soft muscular flap and it's call
17 the soft palate.

18 Now what happens is when a person takes a puff on a
19 cigarette -- and it's exactly the same if you are using a
20 drinking straw and drinking some water out of the beaker -- the
21 soft palate contracts and that soft palate moves down into this
22 position and it physically seals the mouth, which is this area,
23 from this region which is the throat.

24 When it does that, because it's a physical seal in the
25 mouth, the tongue is then depressed, the jaw is depressed a

1 little, and it creates a vacuum inside the mouth. And so you
2 have a gradient where you get a high pressure here, low pressure
3 in the mouth, and that causes air to move through the cigarette,
4 create the smoke and then causes that puff of smoke to go into
5 the mouth.

6 The key thing is during the puff, it's entirely a mouth
7 action. Doesn't involve the lungs at all. It's purely and
8 simply a mouth action. And the only place the smoke can go
9 during the puff is inside the mouth.

10 Now, what normally happens in most smokers -- not all
11 smokers, but most smokers -- once they finish taking that puff
12 of smoke, they then open their mouth, and the next thing that
13 happens is this soft palate, which is at the moment down in the
14 closed position, goes back to the position you can see on the
15 chart there, and it now allows the mouth and the throat to be
16 connected.

17 So when the person inhales, they inhale air, comes in,
18 it goes through the mouth, it mixes with the smoke and it sweeps
19 it from the mouth down to this throat region down to the larynx,
20 down to the trachea, and down into the lungs.

21 THE COURT: Am I correct -- because I have read your
22 testimony, Doctor -- that you sharply differentiate between the
23 act, if you will, of puffing, i.e., taking smoke into the mouth,
24 and inhaling, which is taking smoke down into the lungs; is that
25 correct?

1 THE WITNESS: That's exactly correct, Your Honor, yes.

2 BY MR. SHEFFLER:

3 Q. Dr. Dixon, would you just point out -- you testified in the
4 written direct about impact.

5 A. Yes.

6 Q. Just point out on the demonstrative, if you would, where
7 impact occurs.

8 A. Impact occurs in this region here, in the throat region, and
9 the only way you can get impact from a cigarette is when you
10 inhale the smoke.

11 So when you're taking the puff, you do not get any
12 impact because the smoke is restricted into the mouth. The soft
13 palate opens, you inhale, the smoke is swept from the mouth,
14 goes past the throat, and at that point you get impact.

15 And that impact occurs almost instantaneously. As soon
16 as the smoke reaches that area, impact is signaled by nerve
17 endings in the throat. They send the signal to the brain in a
18 fraction of a second. And so it's an instantaneous sensation as
19 soon as you inhale the smoke.

20 Q. Doctor, if you would resume the seat.

21 Now, what is the size of a puff?

22 How big is a puff of smoke when it's taken into the
23 mouth?

24 A. It can vary. It depends on the person. It can vary.

25 If you want to know the maximum size of a puff, we've

1 done work with many, many people looking at puff volume, and the
2 maximum one I've seen is around about a hundred milliliters.

3 And to give you a clue as to what a milliliter is --
4 it's very difficult to visualize a milliliter. A golf ball is
5 around about 35 milliliters.

6 So if you imagine a person who takes a very, very large
7 puff from a cigarette, maybe get two and a half to three golf
8 because in the mouth, and that's the limit that a person can
9 obtain, around about a hundred milliliters.

10 Q. Now, Doctor, I'm going to show you J-DEM 30027, and if you
11 could just briefly describe the two flows we see there.

12 A. Okay. These are puff flow rate profiles.

13 The red one is a profile which would be obtained from
14 an FTC machine, taken to 35-milliliter, two-second puff. These
15 are actually recordings taken from an instrument that we have
16 which enables us to monitor puff profiles in smokers.

17 Q. What's that called?

18 A. It's called the puff recorder or smoking recorder.

19 Q. Okay.

20 A. So the red one is an FTC profile.

21 You see very symmetrical -- it's called a bell-shape
22 puff. It will always be two seconds and it will always be a
23 35-milliliter puff.

24 Now, the blue one is just one record I happened to take
25 from many, many thousands that we have. That is taken from a

1 smoker, and I think it was something like a third or fourth puff
2 on a full-flavored cigarette.

3 And you can see it's very, very different to the FTC
4 profile. It starts off very steeply. It reached a peak earlier
5 than the FTC and then comes down quite rapidly.

6 Now, with humans they can get all different types of
7 profiles, big profiles, small profiles, fast ones, slow ones.
8 People are so different in the profiles that they produce from a
9 cigarette.

10 Q. And are you able with the recorder to get other information
11 about how people smoke?

12 A. Yes. With the recorder, because we are measuring that puff
13 profile very accurately, we can use that to derive other aspects
14 of smoking.

15 We can use it to determine how many puffs a person
16 takes from a cigarette, what's the average duration of the puff.
17 We can take that profile signal and do a thing called
18 integration, which is looking at the area under that flow curve,
19 and that gives us puff volume.

20 And we can look at times between different puffs, total
21 number of puffs, and we do many, many things with that
22 information.

23 Q. Doctor, is there a way to use the puff recorder to measure
24 exactly how much tar and nicotine a person gets from smoking a
25 cigarette?

1 A. There is. You can use the puff recorder to get the smoking
2 pattern from an individual smoker.

3 And then we've developed a machine called a puff
4 duplicator. That is a smoking machine which uses the Cambridge
5 pattern as the FTC machine, but this particular machine is
6 driven by the profile from the smoker, so it faithfully
7 reproduces how the smokers smoke a cigarette.

8 It can give you a very accurate measure of the tar and
9 nicotine and carbon monoxide produced by the smoker while
10 smoking that cigarette.

11 Q. Is there a machine that's called a puff simulator?

12 A. Yes. I've seen a machine called a human smoke simulator,
13 which I think is one. That is -- it has some elements of a
14 smoke duplicator in that it uses some human data, but it is not
15 the same as our smoke duplicator.

16 It takes records from the number of people and then it
17 compiles an average record and that is a news to drive the
18 machine. I also believe it uses the bell-shaped puff rather
19 than using the actual puff shape from the human smokers.

20 Q. In your opinion, Doctor, do those differences make any
21 significant difference in determining what the quantity of smoke
22 a smoker actually gets?

23 A. Yes, they can do, because the puff shape can be an important
24 determiner of the amount of smoke.

25 Q. In your direct testimony, Doctor, you defined compensation

1 as the change in smoking behavior that occurs when a smoker
2 switches to a cigarette with a lower tar and nicotine yield.

3 What aspect of smoking behavior most often changed when
4 a smoker compensates?

5 A. Yes. There's been a lot of research on that, and the most
6 common one is, and the most universally reported one is a change
7 in puff volume.

8 Q. That's puff size?

9 A. Puff size, yes.

10 Q. Now, this conclusion that you've said has been recognized in
11 the literature?

12 A. Oh, yes. Yes, and even the '84 Surgeon General's Report
13 came to the same conclusion.

14 Q. We're going to use J-DEM 30013. Using this demonstrative,
15 can you explain some of the research that you've done to
16 determine the factors that cause smokers to change puff volume
17 when they smoke?

18 A. Yes. One of the things we have been interested in for many
19 years is trying to determine what are the factors that influence
20 puff volume.

21 One thing that's been known for many, many years, or
22 ever since people have recorded puff volume, is that when a
23 person smokes a single cigarette that puff volume changes as
24 they go down the cigarette.

25 This curve shows an example of the study that we did a

1 few years ago. These points are mean values from 10 smokers.
2 And you can see there that the puff volume starts fairly high,
3 about nearly 70 milliliters on the first puff, and as you
4 progressively go down the cigarette rod, the puff volume starts
5 to decrease, and at the end of the cigarette it is much slower
6 than at the beginning of the cigarette.

7 Q. Are there explanations for why this happens? Why this
8 decrease in puff size happens as a person smokes the cigarette?

9 A. Yes. There's been two main hypotheses as to why that
10 happens. One is related to the aspect of nicotine titration --

11 Q. Nicotine titration?

12 A. Yes, the pharmacological fate of nicotine to the brain. So
13 nicotine gets to the brain, and there were theories that the
14 brain could sense the amount of nicotine. That could then
15 control how the person smokes a cigarette in terms of when they
16 smoke a cigarette and also how they change their puff volume.
17 So, titration -- people often call it the nicotine satiation
18 response to get that decline in volume.

19 Q. So that's the effect of nicotine in the blood to the brain?

20 A. Yes. Yes.

21 Q. What's the other explanation?

22 A. The second explanation is based on a sensory proposition of
23 cigarette smoke.

24 What we do know is when a person takes the first puff
25 on the cigarette, that the tar and nicotine levels in those

1 cigarettes are relatively low compared to puffs at the end of
2 the cigarette, and when the person smokes them, they get a
3 bigger sensory response at the end of the cigarette than at the
4 beginning of the cigarette.

5 So one theory is that that puff volume reduction is in
6 response to the changing sensory property of the cigarette
7 smoke.

8 Q. Now, have you researched those two hypotheses to see which
9 one applies to human smoke?

10 A. Yes, I have.

11 Q. And with J-DEM 30014, could you explain that research?

12 A. What we did here is -- again, it's the same people. They
13 were all full-flavored smokers. And this study, rather than
14 giving them a cigarette and letting them smoke a cigarette down
15 to the end, we gave them a puff from one cigarette. They took a
16 puff.

17 We then discarded that cigarette and gave them the
18 second puff from an identical cigarette, exactly the same
19 position on the tobacco rod

20 MS. EUBANKS: Your Honor, this is -- objection. This
21 is directly out of the written direct almost verbatim in terms
22 of the testimony given at pages 26 and 27. Obviously, if the
23 court wants to hear it, we will let -- you know, to rehear it,
24 but it is directly from the written direct.

25 MR. SHEFFLER: Your Honor, I think this is something

1 that's important to his opinion, it's important to the whole
2 issue.

3 THE COURT: You may proceed.

4 THE WITNESS: Thank you.

5 A. So basically we gave them a series of puffs from the same
6 position on the cigarette and replacing the cigarette each time.
7 So those would be, if you like, constant sensory puffs.

8 Now, if the nicotine titration theory was controlling
9 the puff volume you would have expected to see a decline in the
10 puff volume. It would start to go down as we saw in the
11 original one.

12 Q. But, Doctor, you're taking the second puff on each
13 cigarette, so isn't the sensory response less for each puff?

14 A. The sensory response, the first one or --

15 Q. No. In the puff volume response. Each puff is like the
16 sensory response of the second puff?

17 A. Second puff up there, yes, exactly.

18 Q. So why do you expect, if the nicotine satiation or titration
19 was the reason for this, why would you expect it to go down?

20 A. Because the nicotine, the building up. Each time you take a
21 puff you absorb more nicotine, that would then build up, and
22 therefore if it was a response to the nicotine buildup and
23 nicotine titration, one would expect to see a decline in the
24 puff volume as you take more and more puffs.

25 We only did eight puffs, but there's a publication by

1 Miller and Batty where they did a similar experiment and they
2 went on for 30 puffs and they saw complete flat response, and
3 that conclusion was that that puff volume was not driven by
4 nicotine titration or nicotine satiation.

5 Q. Now, as a result of this research and others that nicotine
6 titration or satiation is not driving the change in the puff
7 volume, could you conclude what it was that was driving the
8 change?

9 A. Yes. From that, we concluded that it was something to do
10 with the sensory properties of smoke. At this stage this
11 experiment wouldn't tell us where that was occurring: whether
12 it was the mouth, during the puff, or whether it was in the
13 inhalation, but it was something with sensory.

14 Q. So did you do research to try to answer that question?

15 A. Yes, we did.

16 Q. And could we have 30015? Is this the research?

17 A. This is the research. What we did in this experiment is
18 that we had two cigarettes: One was a light cigarette,
19 5 milligrams tar, .4 nicotine --

20 THE COURT: Would you repeat the last sentence, please?

21 A. The second cigarette was a regular 16-milligram tar.

22 And what we did, we gave people -- start off with the
23 same people that we used in the previous experiment, we gave
24 them the light cigarette and they obtained the first puff at
25 that level. And then unbeknownst to these people we switched

1 that to the regular cigarette.

2 And you can see when they went from the light to the
3 regular, and the very first puff they took from the regular
4 cigarette, their volume has come down. Then we switched them
5 back and we gave them a light cigarette, and the very first puff
6 they took on that light cigarette, up it goes again. And that
7 pattern went through.

8 Q. What --

9 A. Light decreasing on regular.

10 Q. What does that show?

11 A. That tells us that this response, that volume control, was
12 happening as a result of some stimulation in the mouth whilst
13 the person was taking the puff.

14 Q. Why wasn't the impact inhalation driving that response?

15 A. Well because the puff volume changed from the light to the
16 regular, this occurred before the smoke was actually got to the
17 site of impact. So it has to be a mouth response rather than an
18 inhalation response.

19 Q. So the sensory response from the regular cigarette was not
20 due to impact?

21 A. Correct.

22 Q. Now, from this, what would you conclude? What was the
23 sensory -- where was the sensory response?

24 A. The sensory response from the experiment has to be in the
25 mouth. That's the first conclusion. We then wanted to try to

1 understand what is that sensory response.

2 Q. How did you do that?

3 A. We've done work where we've looked at actually measuring
4 sensory response to light and regular cigarettes as part and
5 parcel of my life for many, many years.

6 One important differentiation between a light cigarette
7 and a regular cigarette, if we're talking about the mouth, is a
8 regular cigarette, which has a low smoke, gives you a very high
9 sensation of something called mouth full or mouthfeel. You feel
10 the presence of smoke as it's entering the mouth.

11 If you have a very light cigarette, this 5 milligram or
12 if you went to a 1 milligram cigarette, very little smoke goes
13 into the mouth so the sensation is very leak and it feels very
14 thin and airy. So we believe it's that mouth full sensation
15 that is controlling that volume response.

16 Q. Now, have you looked to see what causes that mouth full
17 sensation?

18 A. We have been trying to find out what caused the mouth full
19 sensation. We believe it's associated with the tar on the
20 cigarette.

21 We've experimented looking at whether it's nicotine.
22 And we've done similar experiments where we have taken
23 cigarettes which are matched in tar, but differ radically in
24 their nicotine content, and we've done this type of switching
25 experiment.

1 Q. What did that show?

2 A. What we find there is that the puff volume remained
3 absolutely constant when the tar was constant. Even if we
4 varied the nicotine, the puff volume was still constant.

5 So that told that it wasn't nicotine that was
6 controlling it through any fact in the mouth, and it pointed
7 towards some component of tar being the driving force on that
8 mechanism.

9 Q. Now, Doctor, how does all of this research on these puffs
10 and the cigarette, how does that all relate to compensation?

11 A. It has a big bearing on compensation because, as I mentioned
12 earlier, one of the major mechanisms of compensation is changing
13 puff volume, increasing puff volume if you go to a low-yield
14 cigarette.

15 And the factors that control this puff volume
16 mechanism, even within a single cigarette, we believe are the
17 same factors that are controlling it when you switch from the
18 high yield to a low-yield cigarette.

19 And I did a study and published a study with colleagues
20 in 1989 where we showed there was a relationship between this
21 behavior on a single cigarette, this declining volume, with the
22 degree of puff volume change when a person switches from the
23 high to a low-yield cigarette. So there I established a
24 relationship between them. So this mechanism is very, very
25 important for what happens during compensation.

1 Q. Now, you mentioned in the written testimony about the
2 varying of tar and nicotine that you talked about doing with the
3 individual cigarette. Has that been done with switching
4 smokers?

5 A. Yes.

6 Q. And what has that research showed?

7 A. Most of that research shows that if you hold the tar
8 constant and you vary the nicotine, that people generally have
9 similar puff volumes on those cigarettes.

10 However, if you hold the nicotine constant and vary the
11 tar, you tend to find that the puff volume increases as the tar
12 comes down. So again it points towards tar being an important
13 factor in the control of volume.

14 Q. Doctor, we have been talking about tar and puff volume. Is
15 it your opinion that nicotine plays no role in compensation?

16 A. Not at all, no. Nicotine has a role in compensation.

17 I think many, many years ago people thought nicotine
18 was the only feature of compensation. My view is that nicotine
19 plays a role, but other factors, sensory factors also have a
20 very, very important role, and makes a situation more complex.

21 Q. Now, talking about compensation. Could we...

22 Doctor, I'd like you to try to explain -- this came out
23 of your written examination, but it's a somewhat difficult
24 concept, perhaps, and it's an important one -- so could you take
25 your time and explain what this chart shows with respect to

1 compensation and its relationship to FTC?

2 A. Yes.

3 THE COURT: Mr. Sheffler, do you happen to know -- I'm
4 sure you do -- where that is in the written direct?

5 MR. SHEFFLER: Yes. It is on page 16, Your Honor.

6 THE COURT: All right. Thank you.

7 MR. SHEFFLER: I'm sorry. That's not right. It's page
8 15.

9 THE COURT: It's easier to follow when I can work with
10 my own notes as well.

11 MR. SHEFFLER: I apologize.

12 THE COURT: That's all right.

13 BY MR. SHEFFLER:

14 Q. Again -- I'm sorry, Dr. Dixon, would you please, using the
15 schematic, show us how compensation relates to FTC and explain
16 what's really going on here with smokers?

17 THE WITNESS: Is that okay, Your Honor, to -- you can
18 see that?

19 A. This is a schematic representation. What I'm to do is to
20 give you an example to try to explain what is meant by
21 compensation, partial compensation, to try and -- it's a very
22 important topic to try to explain.

23 Now, we have a situation where we have two cigarettes:
24 one a 10-milligram tar yield as measured by FTC, and the second
25 one a 5-milligram tar yield.

1 If we were to take three smokers -- this is just a
2 hypothetical example -- and we were to measure how much tar each
3 smoker obtained from the 10-milligram FTC cigarette, and we
4 would have a situation like that.

5 I say smoker A, he's getting more -- or she's getting
6 more than 10 milligrams; smoker B getting around 10 milligrams;
7 smoker C is getting less than 10 milligrams.

8 Q. Is that compensation?

9 A. No, it's not, because compensation only comes into play when
10 you switch them from one cigarette of one yield to a cigarette
11 of usually a lower yield.

12 So although smoker A is getting more than 10-milligram,
13 that person is not compensating. It's just the way they smoke.
14 Smoking more intensely than the FTC and they happen to get more.

15 Now, compensation comes to play when we switch. If we
16 switch these people from the 10 to the 5, and we were to now
17 measure that tar again -- and if we have this situation where
18 they've come from here down to here, when they've gone from 10
19 to 5, and you can see that smoker A is a little higher than 5,
20 smoker B is 5, smoker C a little less. And if you were to work
21 at that, that's a 50 percent reduction in FTC. Each of these
22 smokers has received a 50 percent reduction in the amount of tar
23 they've obtained.

24 So in that case, their downward reduction is
25 proportionate, the same as the downward reduction in the FTC.

1 So, in that situation there's absolutely no compensation, zero
2 compensation.

3 Q. Even those smoker A is getting more than 5 milligrams?

4 A. Smoker A is still getting more than 5, but that person was
5 getting more than 10, but they've come down in proportion to the
6 FTC yield. And that's the key part of -- many ways of measuring
7 compensation index. They are all based on that principle. It's
8 comparison of the relative reduction in FTC against the relative
9 change in the intake of the human being.

10 Q. Show us what full compensation is.

11 A. Well, full compensation, we go right over to the far side of
12 the chart. And that's very easy to explain, because you see A,
13 B and C, they got these yields from the 10, and they go to the 5
14 milligram and they are still getting exactly the same as they
15 obtained from the 10.

16 So in that case they have had no reduction in tar
17 intake, yet the FTC has come down by 50 percent. So those
18 people there are fully compensating or a hundred percent
19 compensation.

20 Q. And now let's talk about the partial compensation.

21 A. The group in the middle -- and this is typically what
22 happens when people switch, is that there is compensation
23 because they've gone from here. They've reduced their intake in
24 tar, but they haven't reduced it to the same extent as those
25 people that were not compensating, so that is called partial

1 compensation.

2 And in this particular case the reduction in yield they
3 are getting is about 25 percent reduction, whereas the FTC
4 reduction is 10 to 5, it's 50 percent. So you do a calculation
5 and we would say that is at 50 percent compensation.

6 Q. Fifty percent compensation meaning what?

7 A. Meaning, yeah. Effectively they are getting half of the
8 reduction from the FTC.

9 Q. Doctor, you've testified that just a moment ago that this is
10 typically the way people compensate in this partial
11 compensation. Have you done research looking at the degrees of
12 compensation?

13 A. Yes.

14 Q. And, of course, you've reviewed the research and you've
15 talked about some of that in the written direct?

16 A. Yes.

17 Q. Is it universally agreed that partial compensation is the
18 most common effect from switching from high to lower-yield
19 cigarettes?

20 A. That's true. There's been many, many studies that have
21 examined this compensation, and most of those studies agree that
22 compensation occurs but it is partial.

23 Q. Doctor, has research been conducted in the past to determine
24 whether the ranking of cigarettes by tar and nicotine yields
25 according to the FTC test, or the ISO test in the UK, have

1 studies looked to see what the relevance that is to human
2 smoking?

3 A. Yes. There have been a number of attempts, a number of
4 studies to do exactly that.

5 Q. What do they show?

6 A. They generally show that if they are talking about the FTC
7 yield or the ISO and ranking, say high tar cigarette versus a
8 low-tar cigarette, they generally show that that ranking is
9 maintained even under human smoking conditions.

10 Most studies show that, in general, the smoker will
11 probably get more than the FTC rating, but if they're smoking
12 the high tar switching, or other people just naturally taking a
13 low-tar cigarette tend to get lower amounts from the low tar
14 than from the high tar. So in general the rank order will be
15 maintained.

16 Q. Now, Doctor, I'd like you to confirm your question -- I'd
17 like you to confine your answer to my question to the time
18 period before your deposition, which was in January 2002, the
19 time period before you --

20 A. My deposition? It was in August 2002.

21 Q. Okay. What I would like you to do is tell me about the
22 research that BATCo has done looking at this issue of the rank
23 order of cigarettes according to the ISO method or FTC method.

24 A. Okay. BATCo a number of years ago were investigating a
25 technique called filter analysis. This is going way back into

1 the 1970s. That was used in early studies to see whether the ISO
2 had any resemblance to what humans were getting, and those
3 studies in general were showing there was a relationship between
4 ISO and human intake. That method was okay, but it was a little
5 bit blunt and it needed to be improved.

6 Q. Were there improvements made? Again confining your answer
7 before your deposition in the case.

8 MS. EUBANKS: Objection, Your Honor.

9 This witness has been identified exclusively as an
10 expert witness in this case to provide opinions that he's
11 bringing to the court, not fact testimony about what BATCo may
12 or may not have done.

13 MR. SHEFFLER: I'll withdraw the question.

14 BY MR. SHEFFLER:

15 Q. Have you researched this issue using filter analysis?

16 A. I published papers on filter analysis in 1998.

17 Q. During your research on filter analysis, have you looked at
18 the methodologies -- again before your deposition, have you
19 looked at the methodologies used?

20 A. Yes.

21 Q. And have you examined the methodologies historically up
22 until the present time?

23 A. Yes.

24 Q. Now, confining your answer again before 2002, were those
25 methodologies improved from the early years when filter analysis

1 was being done?

2 A. Yes, they certainly have. And the work that I've done with
3 colleagues at Southampton, we've been trying to improve the
4 methods, and by 1998 we did a study using filter analysis where
5 we much improved the method. We still felt our method needed to
6 be improved further. So since then we've been doing further
7 work.

8 Q. Doctor, for reasons that don't concern you, we are not going
9 to talk about that.

10 Could you just briefly tell us what the procedure is on
11 filter analysis?

12 A. Very, very simply. The filter obviously filters tar and
13 nicotine from a cigarette. And there's a relationship between
14 the amount of tar and nicotine left in the filter after smoking
15 and the amount of tar and nicotine that passes through the
16 filter to the smoker.

17 And in very simple terms, the filter analysis, you
18 allow a person to smoke a cigarette. They can smoke it in their
19 normal environment. It's totally noninvasive. You ask them to
20 collect their filters in a little container, return them to the
21 lab, and we can analyze the tar and nicotine in the filter, and
22 as long as we know how that filter works -- and there are ways
23 and means which we can determine that -- we can then use that
24 information to tell us how much tar and nicotine the smoker
25 obtained from each cigarette that they smoked.

1 Q. Doctor, you talked about some improvements that needed to be
2 made, even in 1998. What was the deficiencies or limitations of
3 filter analysis at that time?

4 A. At that time we ironed out some of the deficiencies.

5 One of the problems is that the filtration was not
6 constant and they can depend upon how hard a person puffs, the
7 flow rate.

8 Now, we -- our method in 1998 took out a number of
9 those deficiencies. We improved it. What we did find is that
10 when we got down to very highly ventilated, 1 milligram
11 products, we needed to refine our method further to get more
12 accurate information from how people were smoking those. That
13 was the major problem in the development we did.

14 MS. EUBANKS: Your Honor, I'm going to object to this
15 line of testimony.

16 This filter analysis' description that he's given is
17 not something that was revealed in the expert report that was
18 filed in this case which formed the basis for this witness's
19 opinions.

20 This is just a back door method with respect to those
21 same opinions. They are oral testimony where you've ruled on
22 with respect to the objections that these are opinions. They
23 were not discussed in the expert report.

24 While there may have been a question or two at the
25 deposition, it's really not appropriate because we can't

1 adequately cross on that. It's the same thing.

2 THE COURT: Mr. Sheffler.

3 MR. SHEFFLER: Yes, Your Honor.

4 Dr. Dixon has just represented that he has done this
5 research. He has published this research. Those publications
6 are on his reliance list.

7 This is a methodology we're talking about. The
8 opinions based on the methodology were clearly disclosed in the
9 expert report and that's what we're talking about.

10 We are laying the foundation for that opinion. That's
11 all we are doing, Your Honor, given the prior rulings of the
12 court. So we are laying a foundation for the opinions with all
13 of the warts that we have for his views based on his research,
14 which he did talk about and which he did disclose in his expert
15 report.

16 MS. EUBANKS: The new filter method was not disclosed
17 in the expert report.

18 MR. SHEFFLER: And I specifically told him not to talk
19 about that.

20 THE COURT: The objection is overruled.

21 You may proceed.

22 BY MR. SHEFFLER:

23 Q. Now, those highly-ventilated products that you said the
24 filter analysis wasn't accurately depicting --

25 A. In 1998.

1 Q. What percentage of the market do they make up? Do you know?

2 A. In the U.S.?

3 Q. In the U.S.

4 A. Probably less than 5 percent of the market.

5 Q. Now, based on your research and based on your publications
6 prior to 2002, can you generally describe what the methodologies
7 that were being used by you and others at that time has done and
8 shown with respect to the rank order of cigarettes according to
9 the FTC?

10 A. Yes. If I look at all of that work, and including stuff
11 myself and other people, what you find is generally the rank
12 order is maintained.

13 So, if we have, say, full-flavor products, light
14 products, ultra lights products, we tend to find that even when
15 humans smoke them, that that rank order high-to-low is generally
16 maintained.

17 Q. Does that mean people get what the FTC predicts they would
18 get?

19 A. No, it doesn't. The FTC is a standardized method. It
20 doesn't say that 10 milligrams, that's what they will get,
21 10 milligrams. It never intended to do that.

22 Q. What was it intended to do?

23 A. It was intended to give you a direction, so if you have a
24 10-milligram product and another product has 5 milligrams FTC.
25 If a person wishes to go a lower-yield cigarette, for whatever

1 reason, the FTC gives you an indication this is high, this is
2 low. And the work shows that that is generally maintained.
3 It's a high-yield cigarette, people tend to get more than they
4 do from a low-yield cigarette.

5 Q. For a person who is switching, who wants to switch his
6 cigarettes to get lower tar, does the FTC provide relevant
7 information based upon your research and others before 2002?

8 A. It certainly does in the switching because compensation is
9 partial and it's incomplete.

10 If a person looked to the FTC ratings and they were
11 smoking a high-yield cigarette and they wished to go to a lower
12 yield one, so they chose one from the FTC list, then the
13 compensation works shows that they will indeed get a lower
14 amount of tar and nicotine from that cigarette.

15 Q. Doctor, I want to switch gears here and go to a different
16 topic that you talked a little bit about in your written direct,
17 and that's ammonia, and you described the research you had done
18 and research others had done that demonstrate that ammonia in
19 commercial cigarettes does not increase the amount or speed of
20 the absorption of nicotine.

21 Now, what I want to ask you to do is assume that there
22 was some technique used that would make cigarette smoke more
23 alkaline, would raise the pH. I want you to assume that, okay?
24 What would happen to the nicotine in the cigarette as it was
25 smoked?

1 A. Okay. The first thing that would happen, you would
2 substantially increase the alkalinity of smoke. You would have
3 a higher proportion of free nicotine in smoke.

4 Q. Now, as the smoke left the cigarette, would there be a
5 higher proportion of free nicotine?

6 A. As the smoke leaves the filter you would have a higher
7 proportion of free nicotine.

8 Q. Where would that free nicotine be? In the gas phase of the
9 smoke or the particulate phase of the smoke? Both?

10 A. No. It would be the particulate phase of smoke. And
11 there's been a number of studies established this; that as the
12 smoke leaves the cigarette, 99.9 percent, or over 99.9 percent
13 of that nicotine at that moment is associated with the
14 particles, the particulate phase.

15 Even though you have a high alkaline smoke, which would
16 have more free nicotine in those particles, as it leaves the
17 cigarette it still contained 99.9 percent within the particle

18 Q. Now, what happens -- when you take the smoke in the mouth
19 and inhale what happens to that free nicotine then?

20 A. That's when things start to change.

21 Once you take the smoke into the mouth and then you
22 start to inhale, you're diluting that smoke. And one of the
23 things that happens is if you get a high amount of free nicotine
24 in the smoke particle, that free nicotine is what's called
25 volatile. It's trying to escape from the particle. When you

1 give it to a dilution, when you inhale the smoke, it allows that
2 nicotine to come out from the particle into the gas phase.

3 Q. Now, what happens when the free nicotine from our alkaline
4 smoke is evaporated off? What changes in terms of the way the
5 nicotine is taken into the body or how it's delivered to the
6 brain? What changes?

7 A. Well, what happens when you have vapor nicotine, so the
8 particle comes into the mouth, the person then starts to inhale.
9 The nicotine is driven off the particle into the vapor.

10 It's very, very effectively taken into the linings of
11 what's called the upper airway. That would be the throat. It
12 would be in the trachea, the larynx. So that vapor nicotine is
13 absorbed at that site.

14 Vapor nicotine does not travel from the mouth or from
15 the throat right down to the gas exchange, the deep lung. It
16 doesn't happen. It's taken out of the upper airway.

17 Q. And what would be the result of this free nicotine
18 evaporating in the upper airway rather than being taken into the
19 gas exchange?

20 A. Well, one effect. It would give you a higher sensation in
21 the throat. The impact sensation would increase because you are
22 having more nicotine hitting those nerve endings within the
23 throat, so your impact would go up.

24 The second thing would happen is that if that nicotine
25 is being absorbed in the upper airway, it would mean there would

1 be less nicotine available in those smoke particles to be
2 absorbed down in the lower airway, in the gas exchange region.

3 What we know is that if you are to look at the
4 transport of nicotine and smoke to the brain, the fastest way
5 you can get nicotine to the brain is to be absorbed in the deep
6 lung.

7 Q. Do we have a demonstrative that we can use to explain that?

8 Okay, Doctor, if you could just take us through this --
9 this is a schematic that you did.

10 A. Yes. Rather than trying to draw a heart and things, which
11 would be difficult, I've done them as little block diagrams.

12 And I have the upper airway -- by the upper airway, I'm
13 talking about the throat region, the trachea, and even what's
14 call the bronchi, which are the sort of pipes that branch out
15 from the trachea.

16 I'm talking about the lungs. I'm really talking about
17 now these things called alveoli, alveolar area, which is where
18 the good oxygen and carbon dioxide is exchanged, right in the
19 base of the lung. So the upper airway, got the deep lung.

20 And then here we got the heart. And you can see the
21 right auricle, right ventricle, left auricle, left ventricle,
22 four chambers of the heart. And up here we got the brain up at
23 the top.

24 Now, if you had nicotine in the particle, those
25 particles are traveling down, they go past the throat, go down

1 into the deep lung, and that nicotine then is absorbed at the
2 deep lungs, in this region. It has a very, very short pathway
3 to the heart.

4 It comes straight back from the pulmonary pleuries, the
5 pulmonary circulation into the heart, through the left side of
6 the heart, which is the oxygenated blood, and it goes straight
7 into the arterial circulation and through that would go up the
8 carotid artery up to the brain.

9 You can calculate what the time would be for absorption
10 of a substance in this deep region of the lung, what's the
11 minimum time it would take to go from here to the brain, and
12 people talk around about 10 seconds. And that would be the
13 shortest pathway from -- for nicotine to get from the lungs to
14 the brain.

15 Q. And what is the nicotine that gets down to the deep lung
16 again? What is the nicotine gets down to the deep lung?

17 A. That would be carried down in the particles until it gets to
18 the deep lung. What would happen then, because you got such a
19 huge surface area of the lung, the size of a football field,
20 that once you get that dilution, that nicotine would rapidly
21 come off the particle into the gas phase and it's at that point
22 that it would be absorbed into the pulmonary circulation.

23 Q. Now let's talk about the gaseous free nicotine that got
24 deposited in the upper airway, what happens to that?

25 A. Okay. Well, now we are talking about this side of the

1 structure. So if we really raised the pH of the smoke, we
2 created more free nicotine. I mentioned that when you then
3 start to inhale, that nicotine starts to come off almost
4 immediately or some of it starts to come off immediately, and
5 that is absorbed in the upper airway, the back of the mouth, the
6 throat and the trachea.

7 It's a very inefficient site of absorption because the
8 blood supply in that region is much less copious than when it's
9 down in the lungs. But even if it gets into the blood, in the
10 upper airway, it then has to go into what's called the venous
11 return, and this is like unoxygenated blood which is going to
12 travel back to the right side of the heart.

13 It then passes through the right side of the heart and
14 that blood then has to be pumped through to the lungs to receive
15 its oxygen, and then it comes back to the left side.

16 So you can see that what happens there is you got an
17 extra circuit -- so if you were to absorb nicotine here, it's
18 got to go all the way through the heart, around through the
19 lungs and then back through the heart to the brain. So that
20 considerably slows down the rate at which that absorbed nicotine
21 get to the brain.

22 The second thing it does as well is that once that
23 nicotine goes into the blood, not all of it is going to be
24 available to go to the brain. You get what's called
25 distribution losses. And the chances of getting a distribution

1 loss is much greater when you got a much more long tortuous
2 route to get to the brain.

3 So the second thing that would happen, it would reduce
4 the amount of nicotine to the brain as well as reducing the
5 speed of nicotine to the brain.

6 Q. Now, starting off with the question I asked you at the
7 beginning. If you were to raise the smoke pH and make the smoke
8 more alkaline, would that increase the rate or amount of
9 nicotine to the brain?

10 A. No.

11 MR. SHEFFLER: Your Honor, that concludes our our-hour
12 direct.

13 THE COURT: It probably makes sense to take our break
14 now, everybody. I believe the government anticipates about
15 two hours. Am I right?

16 MS. EUBANKS: That's correct, Your Honor, possibly
17 less.

18 THE COURT: All right. We will take a 15-minute break
19 now.

20 (Recess began at 10:52 a.m.)

21 (Recess ended at 11:09 a.m.)

22 THE COURT: Ms. Eubanks, please.

23 MR. BERNICK: Your Honor, I know that there's only one
24 lawyer, but I do have a different client, and I just want to
25 make a statement for the record and I think it's of critical

1 importance.

2 With regard to the testimony concerning acetaldehyde,
3 I've since asked to have the deposition pulled so that I could
4 take a look at it myself.

5 And also Rule 26(e)(1). Rule 26(e)(1) says, "A party
6 is under a duty to supplement at appropriate intervals its
7 disclosures under subdivision (a) if the party learns that in
8 some material respect the information disclosed is incomplete or
9 incorrect and if the additional or corrective information has
10 not otherwise been made known to the other parties during the
11 discovery process or in writing."

12 It's what it says. In this particular case this is not
13 a situation where acetaldehyde was only simply mentioned;
14 otherwise, I wouldn't be up making the argument.

15 But the question really was put directly to the witness
16 by the government at page 19 of the deposition. "What is the
17 basis for your opinion that acetaldehyde does not have a
18 synergistic effect on nicotine?" Just flat out the question,
19 opinion, what's the basis?

20 There then followed a discussion that basically takes
21 the better part of the next six pages of the transcript. So you
22 have the witness's opinion. You have the exploration of that
23 opinion. That's actually more than we often get in the expert
24 reports themselves which sometimes only contain a very brief
25 reference.

1 So -- I mean, we believe that it is very, very clear in
2 this instance. I've been scrambling around to try to find the
3 basis for making perhaps an even more telling argument, which is
4 based upon the sauce rule, which is what happened in the context
5 of the government's case, but I can't really raise that with,
6 Your Honor.

7 The reason I'm saying it now is that the witness is now
8 going on cross-examination and I want to make sure I timely
9 raised this matter.

10 But I really think that in this particular instance,
11 the government, there's absolutely no surprise. The government
12 put on Dr. DeNoble. They know this is an issue. They put on
13 Dr. Wigand. They know this is an issue. They know exactly what
14 this witness's opinions are, and they are saying that somehow
15 they've been prejudiced? I don't think they have. And I don't
16 think that the rules provide for a treatment that's different
17 from what's taken place.

18 MS. EUBANKS: Your Honor, I certainly need to address
19 that briefly.

20 First off, there is no sauce rule. There's this
21 court's ruling dealing with Dr. Eriksen which defendants
22 actually urged the position.

23 The United States had to make a major adjustment to its
24 presentation based upon the court's ruling in Order 622 in the
25 accompanying memorandum opinion explaining the basis for that

1 ruling.

2 Simply because in a deposition a question is asked,
3 What's the basis for your opinion, when we're talking about a
4 witness who is solely giving opinion testimony, it flows from
5 the conversation that followed, but it is the expert report.

6 Insofar as Rule 26(e) is concerned, the advisory
7 committee notes to the rule provide for no exception with
8 respect to supplemental disclosures. It states, "This
9 subdivision is revised to provide that the requirement for
10 supplementation applies to all disclosures required by
11 subdivisions (a)(1) through (3)."

12 So insofar as a requirement is concerned, we have been
13 proceeding for almost six months now under this set of rules
14 with respect to arguments that were raised, considered and
15 addressed by the court.

16 As we go forward, if what Mr. Bernick is saying is to
17 apply, then we should be allowed to call Dr. Eriksen back to
18 offer his opinions on lights and low tar.

19 We fully accepted the court's ruling and we would
20 suggest to defendants that they do the same.

21 Insofar as the timing for arguments that are made,
22 those arguments that the United States made were fully set forth
23 in our submission.

24 In a timely fashion Mr. Bernick on behalf of his client
25 certainly could have raised those in writing in a coordinated

1 response.

2 So we are prepared to question the witness and we don't
3 believe that he's made any statement that would suggest reversal
4 of the court's determination or reconsideration of that ruling.

5 MR. BERNICK: The only thing I would add, Your Honor,
6 is we've got the witness here. We have the ability to create a
7 record of what he would say on cross-examination. And it's
8 their right, and -- I mean, if Your Honor stands by that ruling
9 and they are right, then it's excluded.

10 But if the witness is dismissed without the opportunity
11 and for the conduct of that cross-examination, the determination
12 is correct or it's incorrect, but there's no record of what the
13 cross-examination would have been, all that there is a proffer,
14 and so that's the reason that I'm raising it now.

15 THE COURT: You've got the direct in the record, and
16 having the cross in the record can only benefit the government,
17 not you.

18 MR. BERNICK: Well, I understand that, but that's the
19 point, is the government will have had a full and fair
20 opportunity -- well, because, you know, the witness is here --

21 THE COURT: I understand that.

22 MR. BERNICK: Right. So it doesn't make -- my point is
23 it doesn't really make a difference. If we're correct --

24 THE COURT: You're the one -- excuse me. You're the
25 one who would be prejudiced if we didn't have written direct and

5 What you're suggesting is that I should let the
6 government, based on my ruling, still go forth -- that I should
7 essentially act as if I hadn't ruled, let the government cross
8 so that the appellate court could find out or read whatever
9 points the government might be able to make on cross. Well,
10 that's the government's argument, not yours.

12 THE COURT: And they are not making that argument.

17 THE COURT: I understand that.

20 MS. EUBANKS: Your Honor, this was addressed in Order
21 471, and the United States had argued that offers of proof
22 should be made in a fashion that Mr. Bernick suggested.

25 CROSS-EXAMINATION

1 BY MS. EUBANKS:

2 Q. Good morning, Dr. Dixon. My name is Sharon Eubanks and I
3 represent the United States.

4 Now, I know you have worked for tobacco companies for
5 nearly 25 years; isn't that right?

6 A. Yes, getting on to 25 years, correct.

7 Good morning, by the way.

8 MR. BERNICK: The microphone --

9 A. Sorry. Can you hear me now?

10 Q. Yes, I can.

11 A. Yes, around about 25 years, correct.

12 Q. And when you worked for the Midhurst Medical Research
13 Institute, that was an organization that actually did
14 tobacco-related research, wasn't it?

15 A. Among other things, yes.

16 Q. And so, just to summarize your work for tobacco companies,
17 you were with BATCo from 1981 to 1984; correct?

18 A. Yes, sounds about right, 1981 to '84.

19 Q. And you were with the Midhurst Medical Research Institute
20 from '85 to 86?

21 A. That sounds about right. It might be '82 to '85 for BATCo.

22 Q. All right.

23 A. Yeah.

24 Q. And Rothman's International, that's a tobacco company;
25 correct?

1 A. Correct, yes.

2 Q. And from 1986 to 91, you worked for Rothman's International?

3 A. Yes.

4 Q. And from 1991 to the present you worked for defendant BATCo;
5 correct?

6 A. That's correct, yes.

7 Q. Dr. Dixon, nicotine is a drug; right?

8 A. Correct.

9 Q. And it's an addictive drug, isn't it?

10 A. Many people agree it's an addictive drug, yes.

11 Q. Do you disagree that nicotine is an addictive drug?

12 A. No. I would go along with the opinions of people, depending
13 on how you define addiction, but I have no reason to disagree
14 with the current view on nicotine and addiction.

15 Q. How do you define addiction?

16 A. I'm an expert in addiction. I don't have a specific
17 definition, but if I look at definitions, and definitions is
18 applied today in terms of finding that people find it difficult
19 to quit, people know the dangers of smoking, continue to smoke,
20 that is a sort of loose definition which defines addiction, and
21 if that's the definition, I would agree with that.

22 Q. All right.

23 MR. SHEFFLER: Doctor -- excuse me -- could you take
24 your portable mike off and pull the big mike to you? I think it
25 would be better for everybody.

1 THE WITNESS: Is that better?

2 THE COURT: Yes, it is better. But what you have to
3 remember is to talk directly into the mike. And I know
4 witnesses sometimes forget to do that because that mike is
5 placed in a very uncomfortable and inconvenient place, and it's
6 too far from the witness, so you will have to move forward.

7 THE WITNESS: I'll have to lean forward.

8 Thank you, Your Honor.

9 BY MS. EUBANKS:

10 Q. Now, Dr. Dixon, I want to make sure that I understood you
11 correctly. Did you say you are not an expert in addiction?

12 A. I'm not an expert in addiction in terms of --

13 Q. Fine. Thank you.

14 A. -- I'm not a clinical pharmacologist or anything like that,
15 correct.

16 Q. I want to show you a document, it's U.S. Exhibit 23036. And
17 she will hand you a copy of that.

18 A. Thank you.

19 Q. Now, that's a two-page document on British American Tobacco
20 Company, Limited letterhead. Do you see that it is dated
21 June 29, 1994?

22 A. I do, yes.

23 Q. And who signed the letter?

24 A. Dr. Sharon Boyse.

25 Q. Who is she?

1 A. She at one stage was an employee of BATCo, and she's a
2 scientist. I'm not sure in 1994 what her position was, but I
3 think she was at BATCo in 1994, but I'm not absolutely certain.

4 Q. Is this -- does she also, or has she also used the name
5 Sharon Boyse Blackie?

6 A. Her name now is Sharon Blackie, correct. Yes.

7 Q. And this is a letter to the editor of the Daily Telegraph,
8 isn't it?

9 A. It is, yes.

10 Q. Now, I want to focus your attention on the first paragraph
11 of that letter and the second sentence. It states, "What it
12 failed to do was to examine the evidence -- what it failed
13 entirely to do was to examine the evidence that nicotine is not
14 addictive and thereby present a balanced view of a highly
15 controversial debate."

16 Do you see that?

17 A. I do see that, yes.

18 Q. And then if you will look at the second page of the letter
19 to the editor, which is U.S. Exhibit 23036, on the next to the
20 last paragraph I want to invite your attention to that language.

21 It notes that, "It has been suggested that smoking must
22 be addictive because it contains nicotine. So do many common
23 vegetables, including tomatoes, aubergines and potato skins.
24 Are vegetable eaters also drug users -- physically dependent on
25 their ratatouille, perhaps, in the same way that heroin addicts

1 are dependent on their heroin?"

2 Did I read that correctly?

3 A. You did, yes.

4 Q. Now, in terms of debate within the BAT Group companies.
5 Everyone there did not share in 1994 your view that nicotine is
6 an addictive drug?

7 MR. SHEFFLER: Your Honor, I object.

8 The government made an objection during my examination
9 of Dr. Dixon and pointed out that he wasn't here as a fact
10 witness to talk about BATCo, and I agreed and withdrew the
11 question. I think it's only fair for the government to play by
12 the same rules.

13 He's an expert. He's rendered expert opinions. He's
14 not here as a BATCo representative to render opinions or facts.
15 It's his testimony about the science of smoking behavior that
16 was the subject of Dr. Dixon's direct written testimony as well
17 as his offered in this case.

18 MS. EUBANKS: Your Honor, it goes to the weight of the
19 opinion that this witness has offered.

20 He stated that in large part the bases for his opinion
21 is his 25 years' work with the tobacco industry and the
22 information that he obtained there by way of background. Part
23 of that information that he obtained was through working with
24 other employees.

25 Some of the documents that we will focus upon that

1 really go directly to the opinions that are expressed in his
2 written direct examination involve documents that were created
3 by the company at the same time where the viewpoints there are
4 different.

5 THE COURT: The objection is sustained certainly as to
6 this question. I don't know what other documents you're going
7 to question him about, but this goes to the issue of addiction.
8 This witness does not purport to be and wasn't offered as an
9 addiction expert.

10 So the objection is sustained. Let me hear where
11 you're going next.

12 BY MS. EUBANKS:

13 Q. Dr. Dixon, prior to 1997 you never testified in any
14 tobacco-related case; isn't that correct?

15 A. That's correct, yes.

16 Q. And your testimony is offered today on behalf of joint
17 defendants?

18 A. Yes, I believe so.

19 Q. And who are the joint defendants that you're offering your
20 testimony on behalf of?

21 A. Philip Morris, BATCo, Brown & Williamson, Reynolds. And I'm
22 not sure, maybe Lorillard.

23 Q. You don't know?

24 A. I can't recall off the top of my head all of the defendants.

25 Q. Anybody else you can think of that you represent?

1 A. I believe it was CTR or CTIR as they have been called
2 different times.

3 Q. Anybody else?

4 A. Not that I can recall off the top of my head, no.

5 Q. What about Altria?

6 A. Sorry. Philip Morris. I always get confused between what
7 they call themselves: Philip Morris or Altria.

8 Q. Now, you stated in your written direct examination that
9 you're receiving a salary from BATCo and that you are not going
10 to receive additional compensation from BATCo for the time spent
11 working on or providing testimony.

12 Do I have that right?

13 A. That's correct, yes.

14 Q. There isn't anything in any arrangement that you have that
15 would preclude you from receiving payments from any of the other
16 defendants, is there?

17 A. I don't have any arrangements in that way. I haven't signed
18 any arrangements with anyone.

19 Q. That's not my question.

20 A. Sorry. I misunderstood.

21 Q. My question is whether there's anything that would preclude
22 you from receiving any financial reward or benefit from any of
23 the other defendants for the time that you're spending in
24 preparing and giving your testimony here.

25 A. I don't know whether there is or not. I'm not aware of

1 anything. But I think there would be a problem with my company
2 as I'm a full-time employee of BATCo.

3 Q. I want to stick with facts and not beliefs on this.

4 Do you know anything that would preclude your ability
5 from accepting from one of the other defendants a financial
6 benefit or reward for giving testimony in U.S. v Philip Morris?

7 MR. SHEFFLER: Your Honor, he's already stated he
8 doesn't know, but he believes and she doesn't want to have that.

9 THE COURT: Sustained.

10 BY MS. EUBANKS:

11 Q. Now, you said that the first time you testified in a
12 tobacco-related case was 1997; right?

13 A. 197 or '98. I can't recall precisely. It was the Minnesota
14 case.

15 Q. So for the first 16 years or so that you worked for a
16 tobacco company, you never testified in any tobacco-related
17 litigation; is that right?

18 A. That's correct, yes.

19 Q. But now let's look at U.S. Exhibit 79018. It's your expert
20 report which contains your curriculum vitae, and I'll get you a
21 copy of that.

22 A. Thank you.

23 Q. Do you have that before you?

24 Now, I'd like you to look at -- if you need it to
25 refresh your recollection -- why don't I take you to the page?

1 You identify at page 32 of U.S. Exhibit 79018 the cases
2 and matters that you have given testimony in. We will have that
3 up on the screen in a moment. And you also have a hard copy in
4 front of you.

5 A. Yes, thank you.

6 Q. Now, the first thing I'd like you to do, Dr. Dixon, is to
7 update this list for us. It only goes up to 2001.

8 Can you tell us what proceedings on behalf of any
9 tobacco company you have offered either deposition testimony or
10 trial testimony or class certification hearing testimony, any
11 manner of testimony, since the last entry on here, which is
12 5/15, 2001?

13 A. I'll do my best.

14 Now, certainly in 2002 I had a deposition for this case
15 at the American Embassy. I can do the -- okay, in depositions
16 there is also a trial called the Eiser.

17 Q. Can you spell that, please?

18 A. E-i-s-e-r. That was in Philadelphia.

19 Q. And when was that?

20 A. That was in 2003.

21 Q. Did you give a deposition in that case?

22 A. I testified in court in that case. I can't recall whether I
23 gave a deposition or not. Probably did, but I can't recall.

24 Q. Can you think of any others?

25 A. Yes. Let's see what you've got on there.

1 Q. The most recent one on this exhibit at the time that you
2 submitted your expert report was the Blue Cross and Blue Shield
3 of New Jersey case that is 5/15 2001 where you gave testimony,
4 and the most recent deposition that is identified on your CV is
5 December 4, 2001, in the Sara Howard vs Brown & Williamson case.

6 A. Okay. So I mentioned Eiser.

7 There was also, the same year, there was a case called
8 Frankson and that was in Brooklyn, New York.

9 Q. Could you spell that, please?

10 A. F-r-a-n-k-s-o-n.

11 Q. Did you give both a deposition and trial testimony?

12 A. I think that was just trial testimony for that. Again, I
13 can't recall precisely. It was certainly trial testimony.

14 Q. To be clear, what year was that?

15 A. That was 2003. December 2003.

16 Q. All right. Can you recall any others, Dr. Dixon?

17 A. I think that's all.

18 Q. In the Frankson case, was BATCo a defendant?

19 A. I think in Frankson, it was just Brown & Williamson.

20 Q. What about -- was it the Beiser case that you mentioned?

21 A. Eiser.

22 Q. Eiser?

23 A. BATCo was a defendant in Eiser, true.

24 Q. Now, in Eiser when you offered testimony, was it on behalf
25 of more than one defendant or just BATCo?

1 A. No. It was very complicated, because Brown & Williamson,
2 but I think it was American Tobacco, so however they sort of
3 merged together.

4 But it was BATCo, plus Brown & Williamson, and American
5 Tobacco involved because they were taken over by Brown &
6 Williamson at some stage.

7 Q. In Frankson, were you offering testimony on behalf of any
8 other defendant besides Brown & Williamson?

9 A. In Frankson, it was -- I may be wrong.

10 BATCo may have been cited in that one as well, but it
11 would have been Brown & Williamson and BATCo. There were no
12 other defendants that I'm aware of.

13 Q. And the only other case since that time is this case, U.S. v
14 Philip Morris; correct?

15 A. That's correct, yeah.

16 Q. And you were deposed once in this case and now you're
17 offering trial testimony?

18 A. That's correct.

19 Q. Now, this was a new process for you, this written direct
20 examination, wasn't it?

21 A. Yes, it is. First time I've done this, yes.

22 Q. And tell the court how you went about that process.

23 A. Yes. Okay.

24 About two weeks ago, two and a half weeks ago, I was
25 contacted by lawyers from Chadbourne & Parke and they asked me

1 if I would come over to New York to spend a few days for
2 producing this direct testimony.

3 The way we worked it was Mr. Sheffler came along on one
4 of the days, a Friday I think it was. Mr. Sheffler explained to
5 me the areas that he wanted me to be involved in because
6 obviously very large scope, what are the issues, what are the
7 areas that they would like me to cover. That was on one day.

8 What we did on the second day is that we went back to
9 Chadbourn's and we had a court reporter who sat in a meeting
10 room. Mr. Sheffler asked me a series of questions which went on
11 for, I don't know, maybe five or six hours. And I gave answers
12 to these questions, and these were then recorded by this court
13 reporter. And about a day or so later I was then sent a very
14 rough transcript of the questions and my answers.

15 Q. Excuse me just a minute. I'm sorry to interrupt.

16 But how soon after the transcription was made were you
17 given your transcript?

18 A. Let me think. We did this on a Saturday. So we finished
19 around about five, 6 PM on a Saturday. I then flew back to the
20 UK that night, arrived back sometime Sunday. And I think I
21 received the rough transcript on the -- my Monday morning.

22 Q. Now, who was present during the transcription that occurred
23 with the court reporter during your five to 6-hour meeting with
24 Mr. Sheffler?

25 A. There was Mr. Sheffler. There was Mr. Loss, Mr. Greg Loss.

1 There was, I think it was Mr. MacDonald. He's sitting here
2 today. And I think Mr. Davis, Dr. Davis.

3 Q. Now, who was Dr. Davis?

4 A. I think he's a paralegal that works for Chadbourne & Parke.
5 I think that's his title.

6 Q. What about Mr. Pfeffer, was he present?

7 A. No, he wasn't.

8 Q. So there were, besides yourself, four other people present
9 during the transcription?

10 A. And the court reporter, yes.

11 Q. So three lawyers and a paralegal were present during your
12 transcription?

13 A. Yes.

14 Q. All right. Why don't you continue with what happened upon
15 your receipt of the transcription, the rough transcript?

16 A. Okay. So I received that sometime on the Monday morning,
17 and I then spent virtually all of Monday and working through to
18 quite late into the night looking at my answers.

19 And what I was trying to do -- I'm very verbose, as I'm
20 sure the court reporter will appreciate -- so what I tried to do
21 is to cut out, if you like, all the unnecessary parts of my
22 answer, babbling a little bit too much, and put it down into
23 what I thought were the key points I was trying to make. And so
24 I then did that. I said, took me a long time to do that because
25 it was a very rough transcript.

1 I then sent my, if you like, refined draft back to
2 Mr. Sheffler at Chadbourne & Parke. And then I think the
3 following day Mr. Sheffler sent the refined draft to the people
4 that actually put it into this type of format.

5 We had to put the illustrations in. They had to put it
6 into the correct format for the expert report, in the delay out
7 of it. So that was done by either someone at Chadbourne's or
8 done by the firm that transcribes it that way.

9 And then sometime on the Tuesday I was then sent back a
10 copy of the final draft with all the illustrations in the
11 correct format, and then I then read through it to make sure
12 that I was happy with it. I looked to see if there were any
13 mistakes, any typos, and it was fine. There was no problem.

14 So I then contacted Mr. Sheffler. That would have been
15 late Tuesday afternoon, my time, and said, "I'm happy with that.
16 That's fine. And go ahead and post it with the court."

17 Q. Now let me take you back to the transcription that was
18 given.

19 Was an oath administered when you were providing the
20 answers to the questions, with the court reporter?

21 A. The court reporter? I think, no. There was some
22 discussions we had, which was not recorded, and then Bruce would
23 say, "Let's go on the record," and then he would ask me a
24 question.

25 Q. So what was happening during this process is off the record

1 questions would be asked while the transcription was not going
2 on, while the court reporter was not making a verbatim
3 transcript --

4 A. No.

5 Q. Let me finish, please.

6 A. Sorry.

7 Q. And then at certain points you would go on the record and
8 get the question and answer with the court reporter taking it
9 down?

10 A. No. It didn't quite work that way.

11 What was happening is that Bruce would ask me a
12 question. I would give an answer.

13 Bruce would then ask another question and then say,
14 "Wait a minute, I got it wrong." And then we'd maybe chat for a
15 minute, and then the court reporter would say, "Wait. I'll
16 start reporting that."

17 So it wasn't like substantial discussion on the topics.
18 It was more, sort of like chat-type discussions that were going
19 on. So they were not actually recorded.

20 Q. You said that you met for five or six hours. How long was
21 the actual transcript in number of pages?

22 A. Oh, I have no idea. I can't recall. It was hundreds of
23 pages. I can't recall exactly how long.

24 Q. Well, not exactly how long, but since you had a five or
25 6-hour meeting and parts were off the record and parts were on,

1 do you remember if the transcript was more than 200 pages?

2 A. It was probably around about 200 pages.

3 I honestly didn't actually count the number of pages.
4 I was just working on my computer screen, so I didn't actually
5 have the hard copy, and I was just working from that.

6 Q. How many hours would you say total that you spent on this
7 process of preparing your written direct examination?

8 A. We had a meeting on the Friday for, I guess it was an
9 afternoon, when Bruce was just discussing in general the areas.

10 We then had that session in New York, which total would
11 be -- I would say probably about five or six hours in actual
12 time. We obviously had lunch and coffee and things like that.
13 So probably five or six hours there.

14 I worked all day on Monday, from my morning about 10:00
15 o'clock in the morning right through to, probably about 1 AM the
16 following day working on the rough draft putting it into a form
17 that I was happy with. So, how many hours is that? Probably
18 12 hours on that.

19 And then when I received the one that had been
20 formatted, that was just a question of maybe an hour just to go
21 through to make sure that I was happy with what I had written.

22 Q. Now, in terms of what you were writing, you had the freedom
23 to write both the questions and the answers when you got the
24 document, didn't you?

25 A. I'm not sure I had the freedom to do that, but I didn't do

1 that. I just responded to my answers. That's what I was
2 looking, was making them a little bit more readable rather than
3 chatty.

4 Q. And in terms of some of the questions that were asked during
5 the five or 6-hour session with the court reporter, many of
6 those questions and answers don't appear in the transcript or in
7 the written direct that was submitted to this court. Isn't that
8 true?

9 A. I think all the questions that were asked appear in this
10 report.

11 What is not in the report is the little chitchat that
12 we had when we were having a coffee and this sort of thing. But
13 as far as I'm aware, all the questions that I was asked that
14 were on the rough transcript are actually in this report.

15 Q. So it's your testimony that if we obtained a copy of the
16 rough transcript, every single question that's presented on the
17 rough transcript we would see duplicated in your written direct
18 examination and every single answer that you gave would be
19 reproduced in the written direct examination?

20 A. I'm just trying to think now whether that would be true.
21 Certainly, if there was a question, which is the question is in
22 the -- the final report and my answering them, my answer would
23 be substantially the same as what's in the written transcript,
24 the rough transcript.

25 I did say that when I was asked a question I was very

1 verbose, and so I condensed it down and summarized it. So it's
2 obviously not word for word, but the gist of my answer would be,
3 included in here, would be the same meaning, same scientific
4 meaning as my answer in the rough draft, that's true.

5 Q. Now, with respect to the review of the rough transcript, did
6 you ever receive -- well, strike that.

7 Did you ever receive a final transcript, an unrough
8 version?

9 A. Well, yes. I mean, the one that we have here I received
10 electronically. Is that what you mean?

11 Q. No. I mean --

12 A. I'm sorry. I'm confused.

13 Q. Let me be clear. That's my fault.

14 When the court reporter was making the verbatim record
15 of your conversation with Mr. Sheffler and others, you said that
16 you returned to the United Kingdom and you received a rough
17 version of that conversation.

18 What I'm asking is with respect to that transcript, did
19 you ever receive a final version from the court reporter?

20 A. No, I didn't.

21 Q. Did you share that rough version with any of your
22 supervisors or coworkers at BATCo?

23 A. I didn't. The whole process was done at home, because I
24 arrived back home the Sunday. I knew I was going to have to
25 work a long day on the Monday to go through this, so I actually

1 worked from home on the Monday and also the Tuesday so I could
2 concentrate on getting this together. I had a very tight time
3 schedule to get the thing out by Tuesday evening.

4 So I didn't discuss the content of it or the meeting I
5 had in Chadbourne's with anyone, other than just mentioning it
6 to my wife. That was the only person that I discussed it with.

7 Q. So, now if we could return to the number of times that you
8 have offered testimony. Just counting it up with those that
9 you've given us. You've given us, in addition to this case,
10 U.S. v Philip Morris, you have identified two other proceedings
11 where you've offered testimony.

12 And if I understand your testimony correctly, you're
13 not certain whether you offered both a deposition and trial
14 testimony, but you are certain that you at least offered trial
15 testimony in those cases; correct?

16 A. Certainly for those two cases, I remember the trial. I just
17 can't recall whether I did a deposition. Usually, there's a
18 deposition, but I know there's been a couple of trials where a
19 deposition wasn't taken.

20 Q. So referring to your CV, U.S. Exhibit 79018, if we counted
21 up the depositions that you've given between 1997 and the
22 present -- since you're not certain we won't add those in --
23 this document indicates that you gave at least eight
24 depositions -- and you can confirm this for me -- and you've
25 testified now, counting your testimony here today, at least --

1 in at least eight tobacco-related trials as well as a class
2 certification hearing identified on page 32.

3 Do I have that right?

4 A. Yes, that's right. It's certainly eight trials and the one
5 class certification. And I say I can't recall exactly the
6 depositions, but it would be at least eight.

7 Q. And you have offered testimony as an expert witness in
8 tobacco litigation where BATCo is not a defendant; right?

9 A. That's correct, yes.

10 Q. And in those cases where BATCo was not a defendant, you were
11 an expert for the tobacco industry as you are here; correct?

12 A. Yes. I think in some of those cases it was just for Brown &
13 Williamson, but yes, it's for the rest of the defendants, if you
14 will.

15 Q. And I believe you said that the first time that you gave
16 testimony was in the Minnesota case in '97 or '98; right?

17 A. That's correct, yes.

18 Q. Now, your CV lists your title as Principal Scientist and
19 Group Manager of Smoke Quality and Sensory Research. Does that
20 ring a bell?

21 A. It does ring a bell, yes. A few years ago now, but --
22 you're talking about the past, at '98?

23 Q. Yes.

24 A. Yes, that's correct.

25 Q. So when you testified in the State of Minnesota case in 1998

1 you were the Principal Scientist and Group Manager of Smoke
2 Quality and Sensory Research?

3 A. I was -- well, I was a Principal Scientist, not the
4 Principal Scientist, and then I was manager, so almost right,
5 yeah.

6 Q. Okay. As a Principal Scientist, not the Principal
7 Scientist, you managed a small group of people; right?

8 A. That's correct, yes.

9 Q. Now, that same year in 1998, the year that you provided
10 testimony in Minnesota, you also gave expert testimony in the
11 Engel case in Florida and the Commonwealth of Massachusetts'
12 case; is that right?

13 A. That was depositions, I think, in that year, yes.

14 Q. All right. Now, Dr. Dixon, how many is your current salary?

15 A. To be honest, I don't know the exact figure.

16 Q. Really!

17 A. It's around about 70,000 Pounds. So, I don't know,
18 \$140,000, that sort of figure.

19 Q. Now, I'll ask. You said that you're not certain. Is there
20 a reason? Does your salary fluctuate? Is there some reason you
21 don't know --

22 A. No, it's just something that -- I don't really pay that much
23 attention to. My wife is the master of the household money, and
24 so she would be able to tell you exactly what it is.

25 I say I know roughly in that region, give or take a

1 couple of thousand.

2 Q. Now you testified in July 1998 that your salary was
3 approximately 48,000 British Pounds; right?

4 A. That would sound about right, yes.

5 Q. That's the equivalent -- well, at that time that was about
6 \$70,000, American.

7 A. I can't remember what the exchange was rate. It was about
8 one and a half dollars to the Pound, yes.

9 Q. Now, at the same time that you offered that testimony back
10 in -- back during the Engel case in 1998, you owned 1200 shares
11 of stock in one of the BAT Group companies; right?

12 A. That's correct, yes.

13 Q. Now, how much stock do you currently own?

14 A. Again, I don't know to be precise, but it's going to be a
15 little more than 1200. Probably about 1600 shares that I
16 currently own.

17 Q. It's been a lot higher than that over time, hasn't it?

18 A. Not really. And basically what happens, we get -- each
19 member of the company is given a share allocation each year,
20 which is usually about 2,000 Pounds worth of shares. They are
21 kept in trust for three years for the Inland Revenue Rules.

22 So what I've been doing over the years is that when the
23 stock is up that I can sell, because it's qualified for the
24 Inland Revenue Rule, I normally sell a few of these shares off.

25 So it's always held around about a thousand to 1500, is

1 about the stock that I ever have at one time. As I said, I
2 don't know precisely because I've not actually counted them
3 recently.

4 Q. All right. Now, just continuing with the chronology of your
5 experience in offering testimony in tobacco litigation.

6 In January of 1999 you testified as an expert witness
7 on behalf of your employer in the Ironworkers case in Ohio;
8 right?

9 A. That sounds correct.

10 Q. Now, I said your employer, but I guess should be clear here.

11 Was BATCo a defendant in that case?

12 A. I can't recall whether it was or not in Ironworkers.

13 Q. But Brown & Williamson was?

14 A. Brown & Williamson certainly was, yes.

15 Q. Now, in -- well, let me see if this refreshes your
16 recollection. I don't need to show you a deposition of it
17 because if it doesn't refresh your recollection we will just
18 move on.

19 But in the Ironworkers case, do you recall that at that
20 point in time you testified that you had 3,000 shares of BATCo
21 stock?

22 A. I don't recall. Saying 3,000 shares or 3,000 Pounds worth
23 of shares. I can't recall.

24 Q. Your salary has increased since your deposition in U.S. v
25 Philip Morris in this case, hasn't it?

1 A. My salary since -- yes, it has, since the deposition, yes.

2 Q. And at the deposition it was what? 65,000 Pounds?

3 A. I wouldn't argue with that. That would probably be about
4 right, thereabouts, yes.

5 Q. Now, you also have testified that you have received annual
6 performance bonuses over time; correct?

7 A. It's very complicated because we have a very strange system.

8 Q. But let's -- why don't we -- why don't we try to focus on --
9 and obviously, if you need to explain the bonus system, that's
10 fine.

11 But what I'm interested in is just my question right
12 now of whether over time you've received annual performance
13 bonuses from BATCo. Yes or no, if you can.

14 A. Yes, I have. Yes.

15 Q. And let's talk about the time frame for those bonuses and
16 your receipt of them, if we can.

17 You received annual performance bonuses for, I believe
18 you've testified, for three years prior to 2003. For each one
19 of those years you received a performance bonus from BATCo;
20 right?

21 A. I'm just trying to think because -- that would be about
22 right, because my grade that I was on at that time didn't use to
23 have a performance bonus and then they lowered the qualification
24 for the performance bonus. So, yes, it would have been about
25 2003.

1 Q. They've lowered their qualifications for performance bonuses
2 and then you qualified?

3 A. I'm sorry. Could you ask that again? I didn't quite
4 understand.

5 Q. They lowered their qualifications for performance bonuses
6 and then that led to your qualifying for one.

7 A. Yes. Well, what happened was the company had a system
8 whereby -- we have a grade structure, and obviously the higher
9 the grade, the more money you get.

10 A grade called 38 was the point where a bonus, an
11 annual bonus was paid for people on 38 and above. At that time
12 my grade was 37, so I didn't qualify for the bonus.

13 Around the time I've indicated, around 2000, what the
14 company is they changed the system and the bonus now came into
15 play for people who were on grade 37 and above. And then about
16 two years later, they then reduced it to grade 36.

17 So that's why I say I then qualified for the bonus.
18 Nothing had changed with me personally; it's just that the bonus
19 structure of the company, throughout the company, had changed,
20 which was very beneficial because people in my grade and people
21 in the grade below were very pleased that we could now get a
22 bonus which we couldn't have before.

23 Q. Well, your bonuses really started coming into play after you
24 began to offer expert testimony; right?

25 A. It came in, as I said, in the year 2000 when the bonus

1 system was brought down to my grade level.

2 Q. And by the year 2000 you had at that point been deposed in
3 four different -- four different times; correct?

4 A. Yes, that would sound about right. Yes.

5 Q. And you believed that you had performed well in those
6 depositions, hadn't you?

7 A. It's difficult for me to say. I thought I did okay, but
8 it's not for me to judge.

9 Q. But, actually, you have judged that in the past, haven't
10 you, when you prepare your drafts of your performance
11 appraisals?

12 A. I've -- I can't remember precisely what I've done with my
13 performance appraisals.

14 Q. It's true, isn't it, that you prepare a draft for your
15 supervisor and -- yes or no, please.

16 A. In the last three, four years, no.

17 Q. But in the past you have, haven't you? Yes or no, please.

18 A. Before 1999, yes.

19 Q. Yes. And in writing those drafts for performance appraisals
20 you have noted your work giving testimony, have you not? Yes or
21 no, please.

22 A. I can't recall.

23 Q. You can't recall?

24 A. No.

25 Q. All right. We will look into that later, but I'm going to

1 move on with the testimony?

2 So it's your testimony sitting here today that you have
3 no recollection of whether you have ever set forth your
4 assessment of your performance in testimony as a basis for
5 content of your performance appraisal?

6 A. I'm just trying to think. It's possible I may have. I just
7 really can't recall.

8 My performance review I very rarely take serious. It
9 sounds a little bit strange, but it's true. And it's not
10 something that I concentrate on, so I can't really recall
11 exactly what I put on the review. So I may or may not have. I
12 really don't know.

13 Q. Now, the bonuses that you received, those are based not just
14 on company performance but they are also based on an
15 individual's performance, aren't they?

16 A. Again, I'm not absolutely certain.

17 The main part of it is based on company performance.
18 The main aspect is company performance.

19 There's also a second aspect, which is the team that
20 you're working in so that the department you're working in, that
21 has to perform satisfactorily to qualify for the bonus.

22 And I think there is an element of individual
23 performance as well, but I don't know how big that is compared
24 to the rest.

25 Q. So you describe bonuses in your -- did you review your

1 deposition in preparation for giving testimony here today?

2 A. I skimmed through it. I didn't go through it word by word,
3 but I had a quick look through it, yes.

4 Q. We will take a closer look at it in a bit.

5 So, let's just talk about the bonuses that you
6 described if you recall in your testimony in 2002. I believe
7 you -- and you can correct me if you don't have a recollection
8 of this -- that you received between, around 12 to 14,000 Pounds
9 in a bonus during 2000 -- for each of the three years prior to
10 2002 you received a bonus of between 12 and 14,000 Pounds each
11 year?

12 A. The 12 to 14,000 Pounds is correct. I'm not quite sure
13 whether it was over that period of time. Certainly from either
14 2000 or 2001 that would be correct. I'm not sure about 1999.

15 I really have a hazy recollection of bonus system and
16 things. It's not something that I'm really up to speed on.

17 Q. Okay.

18 A. But -- yes, 12 to 14,000, that is about correct. I'm not
19 quite sure of the dates.

20 Q. So if we focus on 2002, based on your salary and your bonus,
21 and you said your salary was 65,000 Pounds, and if we look at
22 your bonus and it was 12 to 14,000 Pounds, then you made a
23 substantial increase over prior years before you were offering
24 testimony. Isn't that true?

25 A. Well, yeah, it's true, yes, because my salary three or four

1 years before that was lower, and my grade didn't qualify for the
2 bonus then. So yes, I do get more money.

3 Q. All right. Why don't we take a look at your testimony in
4 U.S. v Philip Morris and see if we can refresh your recollection
5 about your performance appraisal and whether you prepared a
6 performance appraisal and drafted one that focused on your
7 litigation work.

8 A. Thank you.

9 Q. You have the transcript of your deposition in U.S. v Philip
10 Morris, don't you?

11 A. Yes.

12 Q. And I want you to look at page 162 of that transcript,
13 please.

14 A. Okay, I've got 162.

15 Q. All right. Now there's a discussion -- as you've said, you
16 tend to be verbose, so we're not going to be able to necessarily
17 focus on one page.

18 But the testimony that you've given -- let me just ask
19 you to review the testimony briefly at pages 162 and 163. In
20 particular, I'll just read the question and answer. Mr. Spiegel
21 asked the question at line 15 on page 162.

22 "Certainly, what I am trying to get at is basically
23 aiding the company in scientific matters relating to a case
24 versus acting as an expert in that case. Have you participated
25 in litigation in a matter that was not simply serving as an

1 expert?"

2 The answer you gave is, "It is a difficult one to
3 answer. There are a number of issues which crop up repeatedly
4 in litigation, not just in the U.S., other places as well, and I
5 have been actively involved on a number of -- many of these are
6 in this report, and the areas in this report, obviously, so I
7 have been advising people within the company on the scientific
8 aspects of those, aside from simply it being part of my expert
9 witness work, so instead of just writing the report or preparing
10 for a testimony, I have been advising people on these issues for
11 purposes, which may well have been used in litigation, and
12 probably have been used in litigation, aside from me being used
13 as an expert."

14 Did I read that correctly?

15 A. Yes, you did.

16 Q. Now, in terms of the discussion that you and Mr. Spiegel had
17 at your deposition, if you will stay at page 163 and look down
18 to line 19, the question is asked, "And presumably, then, you
19 are also reviewed in your performance evaluations for the job
20 you do in providing scientific advice to attorneys?"

21 Do you see that?

22 A. I do, yes.

23 Q. And you answered at the deposition, "I guess so, yes."

24 The question was asked, "Have you produced any written
25 product aside from expert reports for use in litigation?"

1 And there was an objection by Mr. Sheffler and limited
2 instruction not to answer.

3 Now, in terms of the fact that you were actually
4 preparing attorneys, as you've testified here in your
5 deposition, providing scientific advice to attorneys, does that
6 refresh your recollection as to whether, as part of your
7 performance duties, that you addressed your testimony in cases
8 in your performance appraisal drafts that you prepared?

9 A. No, not really. I mean, I probably didn't explain it very
10 well there. I'm still trying to figure it out myself.

11 But I think what I was trying to say there is that I
12 testify on expertise in certain areas, which I've testified in
13 on a number of occasions in court. The issues that I testified
14 on, things like compensation, things like ammonia, things like
15 acetaldehyde, these issues also come up in other aspects of the
16 company business, which involve attorneys.

17 Q. Let me move to another area then. That's fine, but I want
18 to focus on another part of the deposition. Let me have you
19 look at page 160 of the deposition and let's focus on line 13.
20 Let me know when you have that before you.

21 Do you have it?

22 A. I have, yes.

23 Q. Now the question that Mr. Spiegel asked you at your
24 deposition, "Have your activities as an expert witness ever been
25 mentioned in any oral or written performance evaluation?"

1 And at your deposition you told Mr. Spiegel, "Yes, it
2 has, yes."

3 Then Mr. Spiegel asked, "What was said about it?"

4 You answer at line 18, "I think, I cannot remember
5 exactly what was said, but this was one, probably one of the
6 last ones that I had was at Southampton. You have to put down
7 what you have done over the year, and I think it was just a note
8 to say that I had worked with the legal team. I had testified
9 in cases and had done a very good job in testifying. That was
10 just noted on the comments on the performance rating."

11 Do you see that?

12 A. I do see that, yes.

13 Q. So it's actually true, isn't it, that you provided comments
14 about the testimony that you had given noting that you had done
15 a good job in testifying in a draft performance appraisal that
16 you submitted to your supervisors?

17 A. That's correct, but you asked me the question referring to
18 the depositions.

19 Q. Just a moment, please, Doctor.

20 MR. SHEFFLER: Your Honor, I object. I think the
21 witness was trying to complete his answer, and I think it was
22 responsive.

23 THE COURT: I think he was trying to explain his answer
24 or differentiate it from a question that had been asked earlier,
25 but he answered the question, which is what counts, and so

1 therefore the objection is overruled.

2 BY MS. EUBANKS:

3 Q. Dr. Dixon, you've testified a number of times and I'm going
4 to explain to you the process that I'd like you to work with me
5 on.

6 I'm going to be asking you a series of questions. Many
7 of those questions will be leading questions to which the answer
8 is a Yes, a No, or I don't know.

9 Now, you will have a time to explain further when your
10 counsel, Mr. Sheffler, does his redirect examination of you.
11 But I would like to get through the testimony. I know that you
12 like to explain. I've read your deposition testimony. I've
13 looked at the videotape. But I want to try to stay focused on
14 the questions that I ask, and, as I said, many of them will have
15 yes and no answers.

16 So, to the extent that you can, will you work with me,
17 please, and try to confine your answers to yes or no when my
18 questions are clear and you can do so?

19 A. I will try, and if I have to do it qualified, I'll say yes
20 with a qualification and then stop at that.

21 Q. Okay. I guess that will have to do for now.

22 So, in fact, the time that you spend on giving
23 testimony and working with lawyers is more than half your time
24 at BATCo in terms of your workload, isn't it?

25 A. Sometimes yes, sometimes no. It depends on what year we're

1 talking about, and what time frame.

2 Q. Let's talk about now. It's been as much as 50 percent in
3 the past and isn't it about the same right now?

4 And I'm talking about, to be clear, your work in
5 preparing to testify or working with attorneys.

6 A. Working preparing for testifying wouldn't be 50 percent, no,
7 nowhere near that.

8 Working with company attorneys on regulation type
9 issues, which I do a lot, providing them scientific advice for
10 dealing with regulators in different countries; putting that
11 together, it could approach 50 percent. It's not something I
12 know precisely, but it could do that. But that's not testifying
13 in court or working on litigation, it's a combination.

14 Q. But let's -- then let's see if I can narrow the question
15 down to something that you can work with, and let's just talk
16 about your work in interfacing with lawyers for the company,
17 either in-house or outside lawyers, whether on litigation or
18 regulation matters.

19 Is it fair to say that you currently spend at least
20 50 percent of your time on working with lawyers at BATCo -- for
21 BATCo?

22 A. It could be up to 50 percent, depending on the circumstance
23 and the time. Yeah, I wouldn't dispute that.

24 Q. So, you spend, and you did in 2002 when you were deposed,
25 about 40 to 50 percent of your time, on average, in interacting

1 with company lawyers as part of your job responsibilities;
2 correct?

3 A. That's correct, in terms of regulation as well, yes.

4 Q. Now, I know that you're putting "regulation" in there and
5 I'm not excluding it, but I do want the record to be clear. And
6 we can look at your testimony from the deposition. And let's
7 turn to U.S. v Philip Morris' deposition, page 120.

8 And actually, if you would, Dr. Dixon, if -- you can
9 certainly take your time and get the context, but my questions
10 will focus more on page 121 of that deposition.

11 Let me know when you have it before you. Do you have
12 it?

13 A. I've got 121, but I just want to very quickly look at the
14 page before it if that's possible.

15 Q. Okay. Let me know when you're ready.

16 A. Yeah.

17 (Pause) Okay, I've read 120, 121.

18 Q. Now, at line 14 of 121, the question was posed at your
19 deposition, "But how often does your work have you interacting
20 with lawyers?"

21 And you answered, "It depends. If I was having to put
22 a figure on it, you know, a portion of my work, what time would
23 be involved in lawyer interaction, various. It comes in fits
24 and starts. I guess maybe 40, 50 percent or something like that
25 would be involved in, you know, not necessarily litigation, this

1 could be lawyers involving regulation, this sort of thing."

2 Correct?

3 A. That's exactly what I said a few minutes ago, correct, yes.

4 Q. And that hasn't changed to the present time in terms of your
5 job responsibilities and time commitment with respect to working
6 with lawyers, whether on regulation or litigation?

7 A. I'll say, as I mentioned there, it comes in fits and starts
8 and it varies a little.

9 Last year, 2004, would be less than 40 to 50 percent.
10 But it's not something I really quantified. But, you know,
11 that's sort of ballpark figure. But as part of my job as a
12 scientific adviser in the Science and Regulation Group, I have
13 to deal with regulatory issues and that involves legal people in
14 the regulatory side.

15 Q. Dr. Dixon, remember my discussion about yes or no?

16 A. I'm sorry. Yes.

17 Q. Now you're familiar with the name, a man by the name of Hugh
18 Honeycutt, aren't you?

19 A. Yes, I know Hugh.

20 Q. And he's the Director of Research Services and Analytical
21 Research for Brown & Williamson; right?

22 A. He was at one time. I think he's retired now.

23 Q. But he's a colleague with whom you have worked; right?

24 A. Yes. I mean, I've not personally worked with Hugh, but I
25 know Hugh very well and I have corresponded with him over the

1 years, but never personally worked with him.

2 Q. When you say "personally worked with him," you mean you have
3 not reported to him in a work relationship?

4 A. That's true, yes.

5 Q. Is there anything else you mean by "not personally working
6 with him"?

7 A. Well, I've never actually been in joint projects with Hugh
8 or anything like that. I say that I know him well and we've
9 exchanged correspondence, but I've not actually worked
10 physically with him.

11 Q. All right. I want to show you a document. It's U.S.
12 Exhibit 46683. Would you take a moment -- it's a two-page
13 document. Do you have it?

14 A. I have it, yeah.

15 Q. All right. The print is rather small here. But why don't
16 we identify what the document is?

17 This is a couple of e-mails that were sent between you
18 and Hugh Honeycutt; correct?

19 A. That's correct, yes.

20 Q. And the e-mail, both e-mails are dated March 26, 1999;
21 right?

22 A. That's correct.

23 Q. And the one at the bottom is your e-mail to Mr. Honeycutt
24 and to Richard Baker at Southampton as a copyee; right?

25 A. Yes.

1 Q. What is the subject?

2 A. Smoke dosimetry.

3 Q. And I notice that the top e-mail is dated the same day, and
4 that is to you, and it's from Mr. Honeycutt; correct?

5 A. That's correct. Yes.

6 Q. Would you identify for the court the copyees on that e-mail?

7 A. Richard Baker.

8 Q. And who is he?

9 A. Richard is a Senior Scientist at Southampton. Yes.

10 Q. And there's a Tilford Reel, who is he?

11 A. Tilford Reel used to be a research manager at Brown &
12 Williamson.

13 Q. He's retired now, isn't he?

14 A. I believe so, yes.

15 Q. There's Scott Appleton. Who is he?

16 A. Scott also is a research scientist who was with Brown &
17 Williamson until they merged with Reynolds.

18 Q. And can you just identify the others very briefly on that
19 e-mail as copyees?

20 A. Kelley St. Charles was another scientist at Brown &
21 Williamson until the merger. And Sharon Boyse, who I think at
22 that time was also working for Brown & Williamson.

23 Q. Now, I want you to focus on your e-mail to Mr. Honeycutt,
24 which is the second part of the document, and I want to focus
25 your attention to the last full paragraph of your e-mail that

1 says.

2 "I have also heard via Sharon Boyse that Nick Brookes
3 is keen for us to publish the outcome of the joint behavior
4 study conducted in Atlanta. As you know, aspects of this study
5 were presented by Nicky at CORESTA and" Elaine?

6 A. Melanie.

7 Q. Thank you. "At TCRC and I wrote a paper which appeared in
8 the CORESTA bulletin. I agree that we should produce a full
9 paper for publication in a peer review journal and would be more
10 than happy to work with Kelley in its preparation."

11 Do you see that?

12 A. I do, yes.

13 Q. So even though you didn't work with Mr. Honeycutt, you were
14 seeking him out about the possibility of working on a peer
15 review work product and passing this information on to him at
16 Brown & Williamson; correct?

17 A. Yes.

18 Q. Yes or no?

19 A. Qualified yes.

20 Q. Well, the document will speak for itself, and if there's
21 more we will find out.

22 Now I also want to focus your attention on the last, on
23 the PS on your e-mail, because you note in the postscript, "The
24 Ohio result was great news. Let's hope that Florida is as
25 good."

1 Now that's a reference to two pieces of litigation that
2 you offered testimony in, isn't it?

3 A. That's correct, yes.

4 Q. Ohio is Ironworkers?

5 A. That was the Ironworkers, yes.

6 Q. And you said the result was great?

7 A. Yes, because we won the case and I was very pleased.

8 Q. Now Florida, that was Engel; right?

9 A. That's correct, yes.

10 Q. This was before you lost that case?

11 A. That's true, yes.

12 Q. So if you were waiting for Florida, and you were noting to
13 Mr. Honeycutt just as a postscript that great result in the Ohio
14 case and we hope Florida is as good.

15 Now let's look at the response that Mr. Honeycutt sent
16 to you, if we can enlarge that.

17 Now, he writes you back in response to your suggestion
18 about trying to publish the outcome of a joint behavioral study
19 in a peer-reviewed journal, he writes back and states. "Mike,
20 Nick Brookes is very keen to get the Atlanta study published.
21 His concern was that the study gave an indication that smokers
22 of ultralow tar brands like our Carlton 1 milligram appeared to
23 be getting -- to actually get 3 milligrams. And Brown &
24 Williamson had just made a big splash in the U.S. touting
25 Carlton as the one for you. Although B&W --"

1 The e-mail goes on, as you can see, but the part I want
2 to focus your attention on is further down in that very same
3 paragraph after the discussion of the Carlton issue. It's
4 noted, "Such a study would probably be done at a medical
5 university, would involve many smokers in a complex test design,
6 be very expensive, and is step beyond what we have done with
7 butt studies. While there is general agreement to do such a
8 study, the concern is over lack of internal resources to manage
9 such a project." And then you were told, "You are full-time
10 litigation witness."

11 Do you see that?

12 A. I do see that, yes.

13 Q. So Mr. Honeycutt was expressing a concern, was he not, with
14 respect to the scientific work that you were interested in
15 pursuing because of your time commitment to litigation
16 activities. Is that fair to say?

17 A. That's what it reads to me, yes.

18 Q. Now, CORESTA. What is CORESTA?

19 A. CORESTA is a scientific organization for tobacco science,
20 and it's an organization where, you know, scientists from the
21 various tobacco companies or people associated with tobacco
22 manufacturing or parts of that have scientific discussions and
23 debates.

24 Q. Now, you state, at page 4 of your written direct
25 examination -- and I know you have that before you, but we will

1 put it up on the screen as well. I'll get you the line in a
2 moment.

3 Line 22 you note that, "Very recently I was invited to
4 represent CORESTA on a working party formed by the World Health
5 Organization and the International Standards Organization, ISO,
6 to critically review the ISO smoking machine standard and, if
7 necessary, make recommendations for changes or improvements."

8 Do you see that?

9 A. Yes, I do, yes.

10 Q. Now, CORESTA was an organization that included tobacco
11 companies among its members; right?

12 A. Yes. Yes.

13 Q. And isn't it true that most members of CORESTA are either
14 current or former employees of tobacco companies?

15 A. I'm struggling with what you mean by members of CORESTA.
16 Because the CORESTA has a committee, and that would be right if
17 you're talking about members of tobacco companies or former
18 members of the committee, but basically CORESTA is an
19 organization which is open to anyone, so when they hold
20 meetings, et cetera, anyone with an interest can attend.

21 So, you know, I'm, for example, not a member of
22 CORESTA, but I go along to their meetings.

23 Q. All right. Now just to be clear, though. The meeting that
24 you're describing representing CORESTA, now you were not invited
25 by the World Health Organization, were you?

1 A. No. The World Health Organization invited CORESTA to
2 nominate two people to sit on that committee, and they nominated
3 myself and Dr. Scherer.

4 Q. Can you spell that, please?

5 A. S-c-h-e-r-e-r.

6 Q. Thank you. Now, you're not an expert on the health effects
7 of low-tar cigarettes, are you?

8 A. On the health effects? No, I'm not an epidemiologist or a
9 clinician, that's true.

10 Q. Your doctorate is in physiology; right?

11 A. Yes.

12 Q. And you've mentioned several of the United States' expert
13 witnesses in your written direct. You've mentioned Dr. David
14 Burns. He's a medical doctor, correct?

15 A. I believe so, yes.

16 Q. You've mentioned Dr. Neal Benowitz. He's a medical doctor;
17 right?

18 A. I think so, yes.

19 Q. You're not a medical doctor, are you?

20 A. I'm not, no.

21 Q. You're not an epidemiologist?

22 A. That's true.

23 Q. And so you're not an expert on whether or not smoking causes
24 lung cancer or any other disease; right?

25 A. No. I don't have that expertise, no. I'm not an expert in

1 that area.

2 Q. And you're not an expert on whether there is a reduction in
3 health risk by switching down to a lower FTC-rated cigarette,
4 are you?

5 A. I'm not an expert in the fact. That's not an area that I
6 personally work in. But obviously, it's very important for me
7 to review literature in that area because it is related to my
8 area of expertise.

9 Q. Yes, but just to be clear you're not an expert on whether or
10 not there is a reduction in health risks by switching down to a
11 lower FTC-rated cigarette; right?

12 A. Yeah, I would go with that. I'm not an epidemiologist, so
13 therefore in that case I'm not an expert. That's true.

14 Q. You've already stated that you're not an expert on
15 addiction; right?

16 A. In terms of the clinical measurements and assessment of
17 addiction, that's true, yes.

18 Q. I don't believe you qualified it before.

19 Is there any way in which you consider yourself an
20 expert on addiction?

21 A. Again, in terms of my area of expertise, which is smoking
22 behavior, people have often used compensation, smoking behavior
23 as a way or means to say whether someone is addicted or not.

24 Now, in that area in terms of the role of nicotine and
25 smoking behavior, if that isn't applied to the issue of

1 addiction, then I do have some expertise.

2 What I was trying to say is that in terms of, you know,
3 the clinical psychiatry or that, the clinical side of it,
4 clearly I'm not an expert.

5 Q. You would agree, wouldn't you, that experts in the field of
6 addiction study the effects of drugs on the central nervous
7 system?

8 A. Yes, some of them would. Yes.

9 Q. Most of them would, wouldn't they?

10 A. Not necessarily, no. Many would do if you're looking at
11 that aspect of addiction.

12 Q. I see.

13 A. I mean, clinical psychiatrists wouldn't look at the action
14 of drugs. They would be looking at it from a psychiatric point
15 of view, so that's my difference there.

16 Q. Well, a clinical psychiatrist would first have to be a
17 medical doctor; correct?

18 A. They would be to qualify.

19 Q. Yes. Now, you've never been qualified in court to testify
20 as an expert on addiction now, have you?

21 A. I don't believe I have, no.

22 Q. And when you talk about the sensory properties of nicotine,
23 that's something separate and distinct from the addictive
24 properties of nicotine in your language; right?

25 A. Yes, I would say so.

1 Q. And you know that Dr. Benowitz is a clinical pharmacologist,
2 don't you?

3 A. Yes, I do know that.

4 Q. And you're aware that Dr. Benowitz served as a Senior
5 Scientific Editor of 1988 Surgeon General's Report on nicotine
6 addiction?

7 A. Yes.

8 Q. And, in fact, your written direct testimony also mentions
9 the United States' expert witness, Dr. Jack Henningfield,
10 doesn't it?

11 A. Yes.

12 Q. Now, Dr. Henningfield holds a Ph.D. in behavior
13 pharmacology, which is the study of drugs that affect the brain;
14 right?

15 A. Well, he could be one aspect of that. It could be wider. I
16 do know in his case that is right. That's what he does, yes.

17 Q. And your written direct also mentions the testimony of a
18 fact witness, Dr. Victor DeNoble, doesn't it?

19 A. Yes.

20 Q. And Dr. DeNoble holds a Ph.D. in behavioral psychology,
21 doesn't he?

22 A. I think so. I believe so.

23 Q. You give a definition at page 5, line 6 through 12 of your
24 written direct of smoking behavior, don't you?

25 A. I'm sorry. Could you give me the page again?

1 Q. Certainly. Page 5, lines 6 through 12.

2 A. Okay, yeah. I'm there.

3 Q. I just wanted to remind you that you had provided a
4 definition in your written direct of smoking behavior.

5 Now, the definition that you provide of smoking
6 behavior doesn't include any mention of nicotine addiction, does
7 it.

8 A. No.

9 Q. And nowhere in your written direct examination do you even
10 mention the word "addiction," do you?

11 A. That's true, yes.

12 MS. EUBANKS: Your Honor, I'm getting ready to change
13 topics. I can do that now and go for another few minutes, or if
14 you want to take the lunch break now, I'm pretty sure I can cut
15 out a great deal of this.

16 THE COURT: Well, that's an incentive always.

17 MR. SHEFFLER: Your Honor, just one thing.

18 As Dr. Dixon does have to travel back to the UK -- I
19 understand we are ending a little early today -- could we just
20 get some idea of where we stand, perhaps, so if he has to make
21 other travel plans, he would know so.

22 THE COURT: All right.

23 MS. EUBANKS: I'm happy to tell you, Bruce. But what
24 I'm going to do is look at my notes over the lunch break and
25 come back, but --

1 MR. SHEFFLER: I was going to suggest maybe we could
2 take a shorter break if we need to if it's necessary to get the
3 witness done.

4 MS. EUBANKS: I thought the court had said yesterday
5 that we were going to take only an hour today anyway.

6 THE COURT: That's correct. Do you think that we are
7 still going to fit within the time limits that you indicated
8 yesterday?

9 MS. EUBANKS: I do. I don't have very much more.

10 THE COURT: All right. We will come back at 1:30
11 everyone.

12 (Lunch recess began at 12:25 p.m.)

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10 CERTIFICATE

11 I, EDWARD N. HAWKINS, Official Court Reporter, certify
12 that the foregoing pages are a correct transcript from the
13 record of proceedings in the above-entitled matter.

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16 Edward N. Hawkins, RMR

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UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,	.	
	.	
Plaintiff,	.	Docket No. CA99-02496
	.	
v.	.	
	.	
PHILIP MORRIS USA, et al.,	.	Washington, D.C.
	.	March 9, 2005
	.	
Defendants.	.	
.	

VOLUME 73
AFTERNOON SESSION
TRANSCRIPT OF BENCH TRIAL PROCEEDINGS
BEFORE THE HONORABLE GLADYS KESSLER,
UNITED STATES DISTRICT JUDGE

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1 AFTERNOON SESSION, MARCH 9, 2005

2 THE COURT: All right, Ms. Eubanks, please.

3 MS. EUBANKS: I think we can finish up, at least with the
4 cross-examination, in about 15 minutes, Your Honor.

5 THE COURT: All right. That's fine.

6 CONTINUED CROSS-EXAMINATION OF MICHAEL DIXON, Ph.D.

7 BY MS. EUBANKS:

8 Q. Dr. Dixon, it's fair to say that you disagree with many
9 of the conclusions set forth in NCI Monograph 13, don't you?

10 A. That's true, I disagree with some of the conclusions,
11 yes.

12 Q. Well, you think that smokers compensate for tar, not for
13 nicotine, right?

14 A. I think tar is involved in the compensation process.
15 It's not simply a nicotine compensation, tar is involved and has
16 a major role.

17 Q. And it would be fair to say that that's inconsistent with
18 the determinations set forth in Monograph 13, correct?

19 A. Yes, if you look at Dr. Benowitz's chapter, he would
20 argue that nicotine is the main drive of the compensation.

21 Q. And Monograph 13 is a publication of the National Cancer
22 Institute, right?

23 A. That's correct, yes.

24 Q. And you would agree, wouldn't you, or would you consider
25 the National Cancer Institute a public health authority?

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- 1 A. Of course, yes.
- 2 Q. I'd like you to look at U.S. Exhibit 72407. Now, I'd
- 3 like to direct your attention in that exhibit to, let's see,
- 4 page 0062 in the bottom left-hand corner. It's about four
- 5 pages, three pages from the back of the document.
- 6 A. Um-hmm. Yes, I've got the one -- yes.
- 7 Q. It says at the top page 5 of 5, do you see that?
- 8 A. Yes.
- 9 Q. Now, this document itself is Brown & Williamson's -- a
- 10 copy of Brown & Williamson's Website. Do you see that?
- 11 A. Yes.
- 12 Q. All right. And it states here, doesn't it, on the page
- 13 that I've directed your attention to, 0062, that "While we are
- 14 making our views known, we continue to believe that smokers
- 15 should rely on the public health authorities' views on low-tar
- 16 cigarettes and other smoking issues." Did I read that
- 17 correctly?
- 18 A. You did, yes.
- 19 Q. Now, on the Website for Brown & Williamson, for whom
- 20 you've testified on behalf of on a number of occasions, as we've
- 21 discussed earlier today, you -- their Website suggests that
- 22 smokers should get their information from the public health
- 23 authorities about low-tar cigarettes and other smoking issues,
- 24 right?
- 25 A. Yes, that's correct.

- 1 Q. And you agree that the National Cancer Institute is a
2 public health authority, right?
- 3 A. Yes.
- 4 Q. And Monograph 13 is a publication on behalf of the
5 National Cancer Institute, correct?
- 6 A. Yes.
- 7 Q. And you disagree with some of the conclusions as we
8 discussed a moment ago of Monograph 13?
- 9 A. Yes.
- 10 Q. So, you want this Court to take note of your views rather
11 than the public health authorities' views on low-tar cigarettes;
12 is that correct?
- 13 A. Not exactly. I would like the Court to listen to my
14 views on some of the issues which are addressed in Monograph 13.
15 I'm looking at them as an expert scientist.
- 16 Q. Now, let me stop you right there, please, if I could.
17 You agreed with the statement that the Website for Brown &
18 Williamson, one of the companies on whose behalf you've offered
19 expert testimony, directs the public, smokers, to public health
20 authorities to obtain views on low-tar cigarettes and other
21 smoking issues?
- 22 A. Absolutely, yes.
- 23 Q. Yes. But now, you want Judge Kessler to rely upon your
24 views, even to the extent that they are inconsistent with public
25 health authorities' views on low-tar cigarettes and other

1 smoking issues in order to evaluate this case and render a
2 decision, correct?

3 A. A qualified correct, because basically the role of the
4 public health authority --

5 Q. A qualified correct is just fine. Thank you.

6 Now, Monograph 13 also believes that compensation is
7 complete, doesn't it?

8 A. That's what it states in one of the conclusions for
9 spontaneous brand switching.

10 Q. Now, I'd like to direct your attention to some testimony
11 that you gave in your written direct about the Leaf Blenders
12 Handbook. I'm sure you remember it?

13 A. I remember it well, yes.

14 Q. Okay. Was that testimony your idea?

15 THE COURT: What was your question, is it what?

16 MS. EUBANKS: Was it his idea the testimony that he
17 remembers well that he gave in his written direct on the leaf
18 blender handbook.

19 THE WITNESS: It's an idea that I shared with a colleague
20 of mine way back in the early '90s, a guy called Derrick Irwin,
21 I-R-W-I-N, and we looked at the technology handbook -- this was
22 probably '91, '92 -- and we discovered that there were some
23 incorrect data in there. So that's where my idea came from, so
24 I've been aware of that for many many years.

25 BY MS. EUBANKS:

1 Q. But you've never offered that testimony, along the lines
2 that you offer here before Judge Kessler, ever before in any
3 other proceeding about the Blenders Handbook, have you?

4 A. Not in such great detail.

5 Q. Not in any detail; isn't that true?

6 A. I can't recall off the top of my head, but it's possible
7 that I may, in cross-examination in previous trials, have
8 referenced the Leaf Blenders Manual on this issue of nicotine
9 transfer.

10 Q. Now, is it your testimony that you have pointed out to
11 any other Court anywhere that you've testified that as you point
12 out here, that the researchers misinterpreted the findings in
13 the Leaf Blenders Handbook as you set it forth in your written
14 direct in this case?

15 A. As my answer before, I don't think I've said that in
16 direct testimony, but it's quite possible that I've been asked
17 that question in cross-examination, because I can't swear on
18 absolute certainly, but I think I may well have been asked that
19 question during cross-examination and I certainly -- the point
20 that I raise in here in my direct, I certainly expressed to many
21 many people in the past. And I say it's quite possible that
22 could have happened in a trial on cross-examination.

23 Q. Well, let me represent something to you and you can feel
24 free to check me on this, but you set forth in your -- in your
25 expert report that your views are largely as set forth in the

1 expert report and as well as in your testimony set forth in --
2 and I'll limit this for you -- ironworkers in the Minnesota
3 case, correct?

4 A. Correct.

5 Q. Now, let's focus on those two. It's fair to say, isn't
6 it, that in neither ironworkers nor in the Minnesota litigation,
7 you set forth this point of view on the misinterpretation of the
8 data in the Leaf Blenders Handbook?

9 A. That certainly was the case in the ironworkers, it was a
10 very, very brief testimony in the ironworkers. I can't recall
11 for Minnesota. I'm not disagreeing, I just can't recall whether
12 I would have or not.

13 Q. Well, it's certainly not set forth expressly in your
14 expert report in this case, U.S. vs. Philip Morris, is it?

15 A. No, it's not in the expert report.

16 Q. Now, you -- just to focus the Court on where this is in
17 your testimony, at pages 58 and 59 is where you discuss the
18 Manual, correct?

19 A. Yes.

20 Q. Okay. I'm going to ask you some questions about the
21 errors that you claim are there. What you're saying, if I
22 understand it, is that the researchers at Brown & Williamson
23 reached the conclusion that the use of ammoniated sheet resulted
24 in an increase in nicotine transfer and that that's reflected in
25 the Leaf Blenders Manual, correct?

1 A. That's correct, and they use table 2 in the Leaf Blenders
2 Manual to make that point and that is the bit that is incorrect.

3 Q. All right. We'll get to that. Now, in terms of the Leaf
4 Blenders Manual itself, we don't have to put this up yet, Chris,
5 but just for the record, that's U.S. Exhibit 86,908.

6 Now, you don't discuss -- and forgive me if you've
7 answered this, I just want to make sure I understand, you don't
8 discuss the Leaf Blenders Manual in your -- any of the reliance
9 materials that you set forth, do you?

10 A. No, I don't.

11 Q. All right. So you really didn't consider it in terms
12 of -- strike that.

13 In terms of your understanding of what happens, let's
14 look at your interpretation of the same data. You have
15 concluded that the conclusion was wrong because -- you know
16 what, let me -- I think it would probably be better for the
17 Court if you explain the chart in the Leaf Blenders Manual and
18 let's just get it up. It is 86908, and if you would explain to
19 the Judge your view of what they got wrong on that chart as is
20 set forth in your written direct, I think that would be helpful.

21 A. Okay.

22 Q. And that's on -- let me tell you what page that's on,
23 Chris. If you will go to page 2057.

24 A. Shall I proceed?

25 Q. Just a moment. This is the page that's duplicated in

1 your written direct, the table that's duplicated in your written
2 direct. Table 2 is the one that I'm referring to, the one at
3 the bottom, Chris.

4 All right, now, go ahead, please.

5 A. Okay, Your Honor, that is a table, and if you look on the
6 left-hand side of the table, you'll see something that says
7 percent in blend, and CPCL, now, CPCL is a form of reconstituted
8 tobacco.

9 THE COURT: Just -- I want to emphasize to talk into the
10 mic so everybody can hear you.

11 THE WITNESS: I'm sorry.

12 THE COURT: I can hear you more easily than everybody
13 else, actually.

14 THE WITNESS: Okay. CPCL is reconstituted tobacco, which
15 contains ammonium salts, diammonium phosphate. And then you see
16 EBR. That's just a code name for another form of reconstituted
17 tobacco which doesn't contain any added ammonia, and the key
18 thing is to look at the first line, which is the cigarettes that
19 has no reconstituted tobacco containing ammonia, but it has the
20 non ammoniated recon.

21 BY MS. EUBANKS:

22 Q. And when you say the first line, you mean horizontally,
23 left to right where it says zero?

24 A. Exactly where you are now, if you read across from there,
25 okay. So that sample has no ammoniated recon. Now, if you go

1 to the bottom one where it says 17 --

2 Q. Yes.

3 A. That's the one that has the highest level of

4 reconstituted tobacco containing ammonia. So those are the two

5 extremes to compare, no ammonia with the maximum amount of

6 ammonia in that experiment. Okay.

7 Q. I see.

8 A. If you read across what you see is two columns, tar

9 delivery and nicotine delivery.

10 Q. Yes.

11 A. Yes. And using the FTC machine for cigarettes -- for

12 those two cigarettes.

13 Q. You focus, if I understand your testimony, upon the puffs

14 as being the defining factor, right?

15 A. That's just part of the explanation. There's a more

16 convincing explanation, but that's the one way it happens. But

17 if you look at the one -- the first line, you have the red line,

18 you see that you have the tar 14.87 and nicotine of 1.14. If

19 you look at the last row, you've got the 17 percent down there.

20 You can see tar is now 16.7 and nicotine is 1.29.

21 Q. Let me ask Chris if he will highlight that last line

22 going across. Thank you.

23 A. Okay. Now, what the conclusion reached, as I said, was

24 that the nicotine yield increased from 1.14 to 1.29, which is

25 absolutely correct, it did. We said that was as a result of the

1 increased nicotine transfer efficiency. Now, the technical term
2 "nicotine transfer efficiency" means that if you've got a
3 tobacco blend which contains a certain amount of nicotine, when
4 you burn that tobacco, a certain percent of that nicotine goes
5 into the smoke formed by that tobacco. So you've got tar and
6 you've got nicotine in that tar. If you then were to increase
7 that nicotine transfer efficiency, what it means is that you
8 would get more nicotine from that tobacco into the same amount
9 of that tar so that the efficiency of transferred nicotine has
10 increased. Now, that's what they claimed happened in this case.

11 Now, where it is wrong, is if you actually look and say if
12 the efficiency had increased you would expect to have more
13 nicotine per unit tar. And when you actually look at that,
14 you'll find the very last column, tar/nicotine ratio, that was
15 expressing the amount of tar to nicotine, and the two that we're
16 interested in is exactly the same, 12.9 for the one without
17 ammonia, and 12.9 for the one with ammonia.

18 Now, by all definition, nicotine transfer efficiency, if
19 you increase the transfer efficiency, what would happen is that
20 tar to nicotine ratio would reduce because you'd have more
21 nicotine per unit tar.

22 Q. But just a moment, Doctor, let me stop you there. If you
23 look at that last column, which obviously the researchers must
24 have been aware of this information when they prepared that, all
25 of those values that are set forth in the tar/nicotine ratio are

1 roughly close in time. Do you see that -- or close in value?

2 A. Exactly. That makes my point, because if there was a
3 change in nicotine transfer efficiency, those ratios would
4 change. The blend nicotine is the same in all those cases, and
5 the only way you can change the nicotine transfer efficiency --
6 sorry, the only result of increase in nicotine transfer
7 efficiency would mean you would have more nicotine per unit tar.
8 In that case, in all of those samples there's no evidence of
9 that at all, that ratio is exact -- is within experimental
10 error, exactly the same. And the explanation for it is why has
11 the nicotine gone up, the reason it's gone up is because the tar
12 has gone up from 14.7 to 16.7, and the reason why the tar has
13 gone up is because you've got an extra half a puff, you've gone
14 from 8.7 puffs to 9.2 puffs. Why does that happen? Because
15 when you use the ammoniated sheet, it slows down the burn rate
16 in the tobacco column so when you are smoking on the FTC
17 machine, instead of getting 8.7 puffs you get 9.5 puffs, and
18 that is the complete explanation for that finding, and it is
19 nothing at all to do with nicotine transfer efficiency, it is
20 basically wrong conclusion.

21 Q. Yes, now that's never been published, your idea that
22 that's a wrong conclusion, has never been published in any
23 literature and circulated among companies, now, has it, that
24 you've testified for?

25 A. Sorry, you mean published specifically about that Root

1 Technology Handbook or the idea about nicotine transfer
2 efficiency?

3 Q. The former.

4 A. Oh, no, not specifically with the Root Technology, but
5 the expression of nicotine transfer efficiency, that's been
6 published many times. It's very, very well defined.

7 Q. Well, let's take a closer look at this chart. Let's look
8 at the third line down. Chris, if you can yellow highlight the
9 third line down, I want to do a comparison here with you across
10 with these values. Are you with me on this?

11 A. Yes.

12 Q. Now, I want to compare the first line, which has no
13 ammonia, and the third line, which contains a value of 8 in the
14 CPCL column, okay?

15 A. Yes.

16 Q. Now, what you've said is that, if I understand your
17 written direct testimony and what you've just said here, that
18 the increased puff rate in the puff column has resulted in the
19 nicotine transfer efficiency increase and would explain the
20 differential in the first column with zero nicotine to the value
21 in the last column, correct? 18.16 percent?

22 A. Partially. I mean, what I was saying was that the key
23 determinant of nicotine transfer efficiency is looking at the
24 ratio between the tar and the nicotine in the smoke. That's the
25 definition of nicotine transfer efficiency.

1 Q. And this led you to conclude that ammonia had nothing to
2 do with making the transfer of nicotine more efficient, what
3 you've described, rather it was the puff volume?

4 A. No, not the puff volume. That really confers --
5 basically what I'm saying is nicotine to tar ratio, which is how
6 much nicotine is contained in that tar. If you increase the
7 transfer efficiency by increasing the transfer efficiency, by
8 its very definition means you have more nicotine per tar and you
9 don't have that in any of those samples. That's part of my
10 explanation as to why ammonia, as used commercially as in these
11 samples, does not enhance nicotine transfer, that's part of it.
12 The second part is I conduct an extensive review and published
13 review on ammonia three or four years ago and with a very, very
14 fine --

15 Q. We're not about to go there. I want to focus on the
16 third line, okay, if we could do that?

17 A. Okay, yeah.

18 Q. Now, I want you to look at the fact that as I said
19 before, the last column has roughly the same values for the
20 tar/nicotine ratio for all of the tested blends, correct?

21 A. Correct.

22 Q. All right. Now, stay with me. Now, what I want to do is
23 I want you to look at the third line across where the CPCL is 8,
24 meaning that is an ammoniated blend, correct?

25 A. It's half the amount in the -- yeah, the last row.

1 Q. Correct. Now, I want you to look at the difference
2 between the puffs in the first -- which is 8.7. Do you see
3 that?

4 A. I do, yes.

5 Q. And then the puff value identified in the third column,
6 is 8.8. Do you see that?

7 A. I do see that, yeah.

8 Q. You would agree with me that those are roughly the same
9 value in puffing?

10 A. Within the experimental error of the FTC test, yes.

11 Q. Yes. Now, the last line, however, that you focused upon
12 is somewhat larger, it's 9.2, so that's not roughly the same as
13 8.7, right?

14 A. It's moving away, yes.

15 Q. Right. Now, furthermore, don't you see that the nicotine
16 transfer efficiency in the third line across is increased from
17 the 14.87 percent when the puff remains relatively constant with
18 the no nicotine value -- with the no nicotine -- no ammonia
19 cigarette, that the amount of nicotine transfer efficiency is
20 increased?

21 A. According to that table, but that table, but that table
22 calculation is incorrect.

23 Q. All right. You don't have any other information that the
24 table is incorrect besides what you just gave the Court in way
25 of your long explanation and what's in your written direct

1 because that's what you focused on, correct?

2 A. No, I know exactly how the people at Brown & Williamson
3 calculated that nicotine transfer efficiency.

4 Q. We're not about to go there. I want you to answer the
5 questions that I have about this because I understand you're not
6 here as a fact witness. So I'm here to question your
7 determination that this chart was wrong.

8 Now, we've already established, haven't we, that this
9 information about the incorrectness of this chart, as you explain
10 it, has not been disseminated in a volume that says don't depend
11 on this Root Technology Handbook anymore, it's all wrong. That
12 hasn't been done now, has it?

13 A. Could you please repeat the question, I lost you there.

14 Q. Sure. U.S. Exhibit 86908, the Root Technology Handbook
15 for leaf blenders and product developers?

16 A. Yes.

17 Q. The information on the chart that you now claim before
18 this Court is incorrectly set forth, hasn't been widely
19 disseminated to the people at Brown & Williamson as they use
20 this handbook, has it?

21 A. It has been widely disseminated to the people at Brown &
22 Williamson.

23 Q. But stop, you never testified about it before coming to
24 this Court and putting it in your written direct, isn't that so?

25 A. I haven't been asked questions about it before.

- 1 Q. Well, I want you to focus on the puff volume one more
2 time, or the puffs. You said it's not puff volume it's puffs.
3 You would agree that the puffs in the first column with no
4 ammonia, the value of no ammonia was roughly the same as the
5 third one, correct?
- 6 A. Yeah, yeah.
- 7 Q. Now, you elected to use the last column for your analysis
8 to claim that the transfer efficiency was affected because of
9 the increase in the puffs, but now those puffs are the same.
10 This chart does show that ammonia had an affect on the nicotine
11 transfer efficiency, yes or no, please?
- 12 A. No, it doesn't, because --
- 13 Q. Then that's fine. We'll move on.
- 14 A. Okay.
- 15 Q. Now, I want to talk just a little bit about your research
16 before we close out our questioning, and let me just start with
17 a general question about how you conduct research. In
18 conducting scientific experiments, typically researchers begin
19 with a hypothesis to explain a phenomena, would you agree with
20 that?
- 21 A. They use what's called a null hypothesis, yes.
- 22 Q. All right. Now, in your experience as a scientific
23 researcher, have you ever been involved in projects where the
24 researchers agreed to a given conclusion and then decided to
25 work backwards from that to generate data that would support

1 that conclusion?

2 A. I've been involved in experiments where people have a
3 hypothesis and then done a study to test that hypothesis to see
4 if it confirms their idea or not.

5 Q. Now, we already explained the hypothesis, but what I
6 asked was a different question and it is where you engage in
7 attempting to -- you engage in a conclusion from the outset and
8 then try to work backwards to generate data that supports that
9 conclusion. Have you ever done that?

10 A. Not quite that way. You can generate a conclusion from a
11 number of ways, you can review information and come to a
12 conclusion and then you can say you need to do another
13 experiment to see if it confirms that conclusion. So I've
14 certainly done in a number of occasions, and that's the way the
15 way science works.

16 Q. Well sometimes -- well, let's just look at another
17 exhibit. Let's look at U.S. Exhibit 28236, and I'll get you a
18 copy of that in a moment.

19 A. Thank you.

20 Q. Now, you'll notice that this is the U.S. Exhibit 28236,
21 is a meeting at Denham Place on February 11th, 1998, correct?

22 A. Correct.

23 Q. And it indicates that you, Mike Dixon, BAT, were present
24 at this meeting, right?

25 A. That's correct, yes.

1 Q. Now, there's a -- do you see the language proposal and
2 "aim"?
3 A. I do, yes.
4 Q. It states here that the aim, under proposal, was "to
5 demonstrate slash publish findings that human nicotine retention
6 efficiencies, under normal patterns of inhalation, are 90 to
7 96 -- inhalation are 90 plus 96 or 92 99 without ammonia
8 technology intervention and are not slash cannot be increased by
9 the use of this technology." Do you see that?
10 A. I do, yes.
11 Q. Isn't this an instance where the actual aim was to
12 publish particular findings working backwards from a conclusion
13 that was desired to be reached, rather than a null hypothesis?
14 A. No, that's why you -- I must say, I didn't write that,
15 that's not my document, I don't believe, but --
16 Q. But let's -- you say it's not your document, but I mean,
17 you were present at a meeting, correct?
18 A. I was present at that meeting, and --
19 Q. And at that meeting it's fair to say, isn't it, that what
20 was discussed was the possibility of publishing particular
21 findings that reached the conclusion as is set forth here, isn't
22 that so?
23 A. Not in that -- not in so many words. I remember that
24 meeting very well and we discussed the whole area of nicotine
25 retention, in fact, I gave a presentation at that meeting on

1 work I had done previously, and the question arose as to --

2 Q. Well, let me stop you right there because I really want

3 to stay focused on this particular aim and not necessarily the

4 presentation that you gave because we don't see that document on

5 this exhibit. What we do see documented on this exhibit, won't

6 you agree, is a statement that aim was set forth that the

7 company would try to demonstrate in the published findings a

8 particular conclusion they wanted reached in the published

9 literature, yes or no please?

10 A. That's what it says, yes.

11 MS. EUBANKS: No further questions, Your Honor.

12 THE COURT: All right, Mr. Sheffler. Are you going to

13 make it in your hour and a half?

14 MR. SHEFFLER: Yes, Your Honor, I will.

15 REDIRECT EXAMINATION OF MICHAEL DIXON, Ph.D.

16 BY MR. SHEFFLER:

17 Q. Dr. Dixon, I think we might just start where we left off.

18 I'm going to ask you a few questions about some of the testimony

19 that was elicited with respect to this meeting. You said you

20 remembered the meeting well. What was discussed at the meeting?

21 A. We were talking about this whole area of nicotine

22 retention and the effect or not effect of ammoniated tobacco.

23 The meeting was held because around about that time there was a

24 lot of interest in this particular issue from the U.K.

25 Departments of Health. That was a meeting of scientists from

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1 within the industry. It wasn't just BATCo scientists. I gave a
2 presentation on retention studies.

3 Q. When you say "retention studies", what does nicotine --
4 what are retention studies?

5 A. You get people to smoke a cigarette, inhale, you measure
6 how much nicotine is delivered in the cigarette and how much
7 nicotine is exhaled from the cigarette and by difference you can
8 work out how much nicotine is retained within the lung.

9 Q. And one of the issues of the meeting was to discuss what
10 had been done about nicotine retention?

11 A. Yes. Yes.

12 Q. So that's why you gave the presentation?

13 A. That's why there was a presentation.

14 Q. Then what happened?

15 A. At our meeting we were talking about the effect of
16 ammonia on the -- now, I had been involved in experiments, small
17 studies within BAT, many many years ago where we had failed to
18 show an effect of the ammonia or pH on the amount of nicotine
19 retained. I presented that as well at the meeting. We then
20 decided --

21 Q. Were any of the other scientists there, had done similar
22 work with respect to looking at nicotine retention and what it
23 meant and how it was --

24 A. Yes, I think Barrie Frost was, and Neil Sinclair and they
25 do work on that as well, yes.

1 Q. And was their work similar to yours?

2 A. Yes.

3 Q. Now, at this meeting, was it discussed that there was a
4 hypothesis?

5 A. Yes.

6 Q. That ammonia had something to do with nicotine retention
7 or uptake or speed or the other allegations that have been
8 alleged?

9 MS. EUBANKS: Objection, leading, Your Honor.

10 BY MR. SHEFFLER:

11 Q. What was discussed at the meeting with respect to --

12 A. The whole purpose of the meeting was to get a group of
13 scientists together to discuss the allegations that were being
14 forcefully placed at that time that the addition of ammonia to
15 tobacco increased the amount of nicotine retained in the lung
16 and the amount of nicotine getting into the blood stream and to
17 the brain, that was the whole purpose of the meeting.

18 Q. Was this a hypothesis or was there any research that had
19 been conducted to that date on humans to show whether ammonia
20 had any effect on nicotine retention?

21 A. Absolutely no research that showed that effect. It was
22 purely a hypothesis and a concern that had been expressed by a
23 number of people.

24 Q. And were the people who had done the work and looked at
25 human retentions of nicotine, were they persuaded that this

1 hypothesis had any validity at that time?

2 A. They -- no, they were not. They thought it was -- that
3 the hypothesis was wrong, but we felt we had to address that
4 hypothesis. It was an important issue.

5 Q. And so, was there work done to address that hypothesis?

6 A. Yes.

7 Q. And what was done?

8 A. We did, ourselves, a study to enable us to actually look
9 at what happens when you get smokers to smoke cigarettes with or
10 without added ammonia, to be able to then look at nicotine
11 retention and to look more importantly at the rate of nicotine
12 and the amount of nicotine getting into the blood.

13 Q. Now, I want to take it very slowly here, Doctor. First
14 of all, is this the study, it's JD 031612, that resulted from
15 your work on nicotine retention uptake with respect to ammonia?

16 A. That's the one, yes.

17 Q. Okay. Now, it's called the effect of tobacco blend
18 additives on the retention of nicotine and Solanesol. What is
19 Solanesol?

20 A. Solanesol is a chemical which is contained in cigarette
21 tar, and it's an involuntary chemical so it will always stay
22 with a tar particle. And what we wanted to do there was to have
23 a marker for tar retention in the lung, and that was a very
24 appropriate one and was suggested by many people as a useful
25 marker for tar retention.

1 Q. In fact, have there been other publications with respect
2 to nicotine retention and Solanesol under other conditions?

3 A. Yes.

4 Q. And did Dr. Armitage and yourself offer such a paper?

5 A. Yes.

6 Q. What did you do to get your cigarettes to use in this
7 experiment? Tell us what the cigarettes were comprised of.

8 A. These were American blended cigarettes with a tar yield
9 of around 10 milligrams tar, and one cigarette was based on a
10 commercial -- in fact, Brown & Williamson commercial product
11 which contained recon tobacco which had diammonium phosphate,
12 ammoniated recon tobacco.

13 Q. Now, I'm going to stop you right there. Diammonium
14 phosphate, ammoniated recon tobacco, is that the way in the USA
15 ammonia is added to cigarettes, through diammonium phosphate in
16 the reconstituted sheet?

17 A. That's the way you see in most of them that use that,
18 yes.

19 Q. And, now, what did you do next?

20 A. Well, we -- the sample that was, I'll say, based on the
21 commercial ammonia containing product, we then said what we need
22 to compare it with is a cigarette which is identical to the one,
23 the test cigarette, but doesn't contain any added ammonia in
24 its manufacture. So what we did is we actually used the same
25 brand, the same physical construction, but we replaced the

1 ammoniated recon with non ammoniated recon.

2 Q. So now you had two cigarettes, you had the ammoniated

3 recon, like the cigarette sold here in the United States, and

4 one exactly like it without the --

5 A. Exactly, yes.

6 Q. What did you then do?

7 A. First we did a little bit of chemistry on those

8 cigarettes to see if there was any difference in the smoke

9 chemistries, and in terms of tar and nicotine yields they came

10 out identical.

11 Q. How about nicotine transfer efficiency, did you look at

12 that?

13 A. We didn't really directly, but if the blend nictines

14 were the same, the nicotine in the smoke was the same. So by

15 definition, nicotine transfer efficiency, there's no difference.

16 Q. What did you do next?

17 A. The next thing we did, we went to a contract laboratory

18 called Covens in the U.K., and they obtained a group of smokers

19 in the current study where we got each of these smokers to smoke

20 the controlled cigarette and also later smoked the test

21 cigarette containing ammonia. And we measured a number of

22 things. The key thing that we measured was how much nicotine

23 was retained in the lung when they inhaled the smoke from both

24 cigarettes.

25 Q. How did you do that?

- 1 A. By using the smoking behavior equipment, the smoke
2 duplicator to determine how much nicotine was delivered to each
3 smoker, and then we had a system whereby we could get the smoker
4 to exhale into a trapping system, which was very efficient for
5 trapping nicotine, and the nicotine was exhaled and by
6 difference we can note how much is left in the lung.
- 7 Q. So what did that show?
- 8 A. That showed absolutely no difference between the amounts
9 contained and controlled, absolutely no difference.
- 10 Q. I think we left off with you explaining the next
11 procedure after looking at whether or not it was retained in the
12 lung. That was what?
- 13 A. The next thing we did is to measure the amount of
14 nicotine entering into intervenous blood, so we took -- we
15 catheterized --
- 16 Q. Okay. Now, why was it necessary to look to see what
17 amount of nicotine was into the blood stream, why was that
18 important?
- 19 A. Because the concern at the time was that if you were to
20 use ammonia, that would enhance the amount of nicotine in the
21 blood stream and the rate to which nicotine goes into the blood
22 stream. That was the concern, that was the hypothesis that a
23 number of people were working on.
- 24 Q. Okay. Now, what did you do?
- 25 A. So what we did is we had each smoker would have a

1 catheter into their arm, and we took blood samples at very rapid
2 intervals whilst they were smoking the cigarette. I think we
3 were doing it every 30 seconds initially. After they
4 extinguished the cigarette we eventually tailed off the sampling
5 time, but we followed them through for a total period of
6 two hours after smoking the cigarette.

7 Q. Now, what would that tell you?

8 A. That would tell us very, very precisely what is a peak --
9 the maximum amount of nicotine getting into the blood and the
10 time it takes for that maximum amount of nicotine to get into
11 the blood.

12 Q. So what did you find?

13 A. Well, what we found was that there was no significant
14 difference between either the peak amount of nicotine going into
15 the blood or the speed at which that nicotine entered the blood,
16 for either the control or for the ammoniated sample. In actual
17 fact, it was slightly higher peak for the control sample but it
18 was not significant.

19 Q. I want you -- I want you to go through this carefully if
20 you could. Is this the table that reflects the results of what
21 happened when you drew the blood from the smokers as they were
22 smoking the cigarettes?

23 MS. EUBANKS: Objection, Your Honor. This is far beyond
24 the scope of what I went into with respect to the possible study
25 that was performed. Now we've gone into a document and we're

1 looking at the charts and tables and asking this witness without
2 any foundation comparing it to the questions that I asked about a
3 particular document in a study, an aim that was set forth,
4 details of experiments that were undertaken to write an article.
5 That's beyond the scope of the cross-examination.

6 THE COURT: Certainly there were many questions on this
7 topic, but let me be clear about one thing. Are the results of
8 the study that you are now describing in your redirect testimony,
9 do they pertain to the proposal that Ms. Eubanks showed you in
10 her cross-examination at the very end or do they pertain to some
11 other studies that were performed at a different time?

12 THE WITNESS: It is in reference to that proposal.

13 THE COURT: All right. That's the answer. Go ahead,
14 please. Doctor, it will really help us all if you would just
15 answer the questions. Go ahead, Mr. Sheffler.

16 MR. SHEFFLER: Thank you.

17 BY MR. SHEFFLER:

18 Q. Now, Doctor, we have three charts up on the screen.

19 A. Yeah.

20 Q. Are these the charts that were the results of your
21 experiment with the blood?

22 A. On the blood, yes.

23 Q. Now, you have a mouth hold condition, 75 milliliters
24 inhalation, 500 milliliters inhalation, what does at a mean?

25 A. That means when the smokers did their experiment they

1 either just took the smoke into their mouths and didn't inhale
2 and immediately exhaled or they took the smoke into their mouth
3 during the puff, inhaled to a very shallow inhalation of 75
4 milliliters, and then the third condition they inhaled to 500
5 milliliters. Now, 500 milliliters is what a typical inhalation
6 depth in smokers.

7 Q. Okay. Well, let's look at the 500 milliliters then. And
8 you have two different symbols on there?

9 A. There's actually three, but two of what we're talking
10 about now.

11 Q. What's the third one just for --

12 A. The third one was another approach at making ammoniated
13 sample using something called urea, and we put the urea levels
14 even higher than what would be used in any commercial cigarette
15 to see if we could deliberately increase the amount of
16 alkalinity in the smoke, and we successfully did that and that's
17 the third one. And we then tested that alongside the commercial
18 ammoniated one and also the control.

19 Q. And each of those marks on that -- in the graph that
20 we're looking at, C, each of those represents a blood level
21 measure?

22 A. Yes, that's a blood measure sampled at that time, the
23 timing at the bottom, starting at time zero is when the person
24 starts to smoke, and as you move along, each symbol is a time
25 point.

- 1 Q. And on the other axis here you have plasma nicotine, and
2 what's plasma nicotine?
- 3 A. That is just the amount of nicotine in blood in the
4 concentration.
- 5 Q. What does the graph show?
- 6 A. The graph shows an absolute characteristic pattern that's
7 been reported by many smokers that when you smoke you get a
8 fairly rapid rise of nicotine in the blood and then it starts to
9 tail off and gradually comes down to the pre-smoking level
10 over a period of about two hours. And what it shows clearly
11 there is the open circle, the one you see right at the top of
12 that graph, that is one of the points for the control cigarette,
13 and you can see that that is actually slightly higher than the
14 other two points you see below showing that, if anything, in
15 that experiment the control cigarette without the ammonia had a
16 higher plasma level to the two cigarettes that had ammonia, but
17 they are not significantly different.
- 18 Q. What did it tell you about the speed of absorption with
19 respect to ammoniated cigarettes?
- 20 A. It shows that it has no effect on the speed of absorption
21 and the amount of absorption.
- 22 Q. Now, this was published in chemical -- well, what was it
23 published in?
- 24 A. Chemical Research and Toxicology.
- 25 Q. Was -- after this publication, Doctor, has anybody done a

1 similar experiment? Has anybody published a similar type of
2 experiment or anybody published any human data that would
3 contradict the findings of this paper?

4 A. No, not at all.

5 Q. Doctor, when scientists set out a proposal and do an
6 experiment, is it --

7 THE COURT: Let me ask one other question, and the answers
8 weren't clear. I want to ask you three specific questions, and
9 they're answers that can be provided with a yes or no. Has
10 anyone done a similar type of experiment?

11 THE WITNESS: No.

12 THE COURT: Has -- then, is it correct to conclude that
13 there is no evidence that supports your conclusions that you have
14 reached?

15 THE WITNESS: Not direct evidence in an experiment like
16 this, but there's a possibility.

17 THE COURT: Is it also correct to conclude that there is
18 no evidence to contradict the conclusions that you have reached?

19 THE WITNESS: That is absolutely correct, yes.

20 THE COURT: Mr. Sheffler, go ahead.

21 BY MR. SHEFFLER:

22 Q. Doctor, you did a literature review before you did this,
23 you testified in your written direct?

24 A. Correct.

25 Q. And that was -- you discussed your written direct and

1 we're not going to go over it, that was for the Department of
2 Health in the U.K. or as a result of a --
3 A. It emerged as a result of that, yes.
4 Q. In that literature review, were the issues about ammonia
5 and its affect on the speed of absorption addressed?
6 A. Yes.
7 Q. And when you did your literature review, did you canvas
8 all of the literature that you could with respect to the topic?
9 A. All that was available, yes.
10 Q. And after doing that, what was it that led the group to
11 decide they needed to do an actual human experiment?
12 A. Well, the conclusions from the review was that, if you
13 put all the pieces of evidence together, the evidence suggested
14 there would be no affect of ammonia, but we felt we had -- we
15 needed to have a direct experiment to measure it directly that
16 was lacking. That wasn't available, so that's why we did the
17 experiment.
18 Q. Has anybody else suggested, other than this group, that
19 there was a need to have a direct experiment to address the
20 issue of the speed and rate of uptake at the time that you were
21 considering doing this?
22 A. Yes.
23 Q. And could you tell us about that?
24 A. There was a paper which was published last year by
25 Dr. Henningfield specifically on the aspects of ammonia and he

1 recommended --

2 MS. EUBANKS: Your Honor, I'm going to object at this
3 point because I think I know where this is going. I didn't
4 explore this in the cross-examination, but in the written direct
5 there are references to a study that was done by Dr. Henningfield
6 and he's, apparently, repeating what was stated there. I'm going
7 to need recross if he's going to be permitted to explore this
8 area to raise some particular questions about this. This is so
9 far repeating what's in the written direct. That's one
10 objection. The other objection is that it's beyond the scope of
11 my cross-examination, and I need some recross to ask some
12 particular questions if this is to be allowed.

13 THE COURT: Mr. Sheffler, briefly.

14 MR. SHEFFLER: The only thing I was trying to do, Your
15 Honor, is address the issue of whether or not this was ever done
16 before, whether there was other evidence and whether the lack of
17 human evidence was recognized by those outside of the tobacco --

18 THE COURT: That is in the direct and there was a direct
19 reference to Dr. Henningfield's comment. It was not explored on
20 cross, which was the government's choice, so I'm going to sustain
21 the objection.

22 MR. SHEFFLER: I'll go on, Your Honor, thank you.

23 BY MR. SHEFFLER:

24 Q. Now, let's get on the same subject, ammonia, let's move
25 back a bit and talk about the Leaf Blenders Manual.

- 1 A. Yes.
- 2 Q. Now, first of all, in your expert report -- do you have a
3 copy of that up there?
- 4 A. Yeah.
- 5 Q. It's --
- 6 A. The expert report, not the --
- 7 Q. Yeah. I'll just put it up here so you can see it. This
8 is at page 18, and you talk about the allegations that have been
9 made about ammonia?
- 10 A. Yeah.
- 11 Q. And one of the things you said, was that it worked via
12 the mechanism of increase nicotine transfer from tobacco to
13 smoke, correct?
- 14 A. Correct.
- 15 Q. In fact, you did address the issue of nicotine transfer
16 efficiency in your expert report?
- 17 A. Absolutely, yeah.
- 18 Q. And you also addressed it in your review that you
19 attached as one of the reliance materials to your --
- 20 A. That was a big part of the review, yes.
- 21 Q. So this is not something that hasn't been discussed
22 before by you, has it -- is it?
- 23 A. No, I've discussed it many times.
- 24 Q. The issue of whether the Leaf Blenders Manual -- okay.
25 You were asked some questions about whether the Leaf Blenders

1 Manual error was ever corrected in some publication or other, do
2 you remember that?

3 A. Yes.

4 Q. Was the Leaf Blenders Manual ever published?

5 A. No.

6 Q. Was it ever meant to be published?

7 A. No.

8 Q. In fact, you testified when the Leaf Blenders Manual
9 first came out it was 1991, '92?

10 A. Around about that, sort of late '80s early '90s.

11 Q. And you mentioned that you and a fellow by the name of
12 Derrick Irwin. Who is Derrick Irwin?

13 A. Derrick Irwin, at that time, was a chemist who worked at
14 BATCo.

15 Q. And Derrick Irwin and you discussed this Leaf Blenders
16 Manual; is that right?

17 A. Yes, because -- on many many occasions.

18 Q. And when Derrick Irwin saw the Leaf Blenders Manual and
19 reviewed it, what did he say?

20 A. He --

21 MS. EUBANKS: Objection, Your Honor, hearsay.

22 THE COURT: Sustained.

23 BY MR. SHEFFLER:

24 Q. What did -- okay. What led Derrick Irwin to communicate
25 to B & W as you testified earlier?

1 A. Because he believed that nicotine transfer efficiency
2 calculation was wrong, it was using the wrong principal, and
3 Derrick's calculation and the nicotine transfer efficiency
4 calculation is exactly as I was talking about on cross, and he
5 felt that Brown & Williamson should be told that -- or the
6 authors of that report should be told that that is wrong and
7 that they made a mistake.

8 Q. And did he?

9 A. Yes, he did in no uncertain terms.

10 Q. Now, you were asked about how B & W calculated and what
11 the error was in B & W's calculation, but you were cutoff before
12 you could answer that. You said you knew how they did it and
13 you knew what the error was, but you weren't allowed to finish
14 your answer at that point. Now's your time to finish it.

15 A. Yeah, basically what Brown & Williamson's people did was
16 they looked to the nicotine content in tobacco and they looked
17 to the nicotine content in smoke and then they just simply did a
18 calculation to work out an efficiency from there.

19 Q. Do we have that?

20 Now, you were shown this, these percentages?

21 A. Yeah.

22 Q. How did you they get those percentages?

23 A. That's based on the number, that percent of nicotine
24 that's in the blend and they know how much nicotine comes out
25 from the smoke, and it's just a straight arithmetical

- 1 calculation using those two pieces of information.
- 2 Q. So since there is more nicotine in that puff, there's
- 3 going to be a higher percentage in that puff?
- 4 A. Exactly, yeah.
- 5 Q. So we have 1.14 to 1.29, it's higher so it's going to be
- 6 a higher percentage?
- 7 A. In the way they've calculated it, yes.
- 8 Q. Now, what's wrong with that?
- 9 A. Well, what's wrong with that is it takes into account --
- 10 no account at all what's happening with tar, because if you were
- 11 to increase nicotine transfer efficiency, it would mean you
- 12 would have more nicotine going into that tar. So what you have
- 13 to do there is to relate everything back to the tar yield. And
- 14 you can see, even on that one where there's the eight percent
- 15 one, the one that we discussed in cross, that the nicotine's
- 16 gone up from 1.14 to 1.26, but the tar's gone up from 14.7 to
- 17 16.3, so --
- 18 Q. If you look at the tar efficiency -- I know that's not
- 19 something that you would do, but if you calculated the tar
- 20 delivery as opposed to what was in the rod, you'd have the same
- 21 type of percentage increase?
- 22 A. It would be identical, yes.
- 23 Q. And so what does that tell you about nicotine transfer
- 24 efficiency?
- 25 A. It tells you it's not changing.

1 THE COURT: Well, leave that up there for a moment,
2 please, Mr. Sheffler.

3 Why is the tar/nicotine ratio on line 1 at 12.9 with 8.7
4 puffs and 14.7 of tar and 1.14 of nicotine, the same 12.9 as on
5 line 5, where your puffs have gone up to 9.2, and you've told us
6 that puffs are an essential determinant, if you will, here, and
7 the tar has gone up from 16.7 -- up to 16.7 and the nicotine has
8 gone up to 18.16 percent -- why does the ratio remain the same?
9 Or is that a straight mathematical calculation?

10 THE WITNESS: It's a straight mathematical calculation.
11 What it's saying, Your Honor, is that the nicotine's gone up, but
12 the tar has gone up by the same proportion.

13 BY MR. SHEFFLER:

14 Q. Doctor, let me do this: What is the tar/nicotine ratio?
15 Just give me the numbers for CPCL, the first line. What would
16 be the numbers you would plug in for the tar/nicotine ratio?

17 A. You simply would put 14.7 divided by 1.14.

18 Q. Because that's the tar --

19 A. It's the tar --

20 Q. -- nicotine and it's the ratio between those two that
21 gives you that number?

22 A. Exactly.

23 Q. Now, for the last one, what would be the numbers we would
24 use --

25 A. 16.7 divided by 1.29.

- 1 Q. And that would give us, if the math is correct, 1.29
2 (sic)?
- 3 A. Yeah.
- 4 Q. Now -- so the tar and nicotine ratios did not change?
- 5 A. Correct.
- 6 Q. The tar went up and the nicotine went up in the same pro
7 rata way?
- 8 A. Exactly.
- 9 Q. And because both of them went up in the same pro rata
10 way, what does that say about efficiency of one over the other?
- 11 A. The efficiency --
- 12 Q. Let me start again. Since both the nicotine and the tar
13 went up in the same pro rata way, what does that say about the
14 efficiency of nicotine in transferring to smoke?
- 15 A. It says it's exactly the same because if the transfer
16 efficiency increased, you would alter that ratio.
- 17 Q. How would this ratio be altered if nicotine --
- 18 A. It would actually go down because you would have less tar
19 for more nicotine.
- 20 Q. Okay. And just to finish this off, why did both of these
21 go up when we had this CPCL ammoniated -- why did the tar and
22 nicotine both go up in the same pro rata way?
- 23 A. Simply because the cigarette was actually delivering more
24 smoke. And that last one is because he gave an extra half a
25 puff.

Scott L. Wallace, RDR, CRR
Official Court Reporter

1 Q. Thank you.

2 THE COURT: Are you done?

3 MR. SHEFFLER: No, Your Honor, I have a few more --

4 THE COURT: I didn't think so.

5 MR. SHEFFLER: -- questions.

6 BY MR. SHEFFLER:

7 Q. Now, Doctor, you were asked about your views on Monograph

8 13. You were asked about at least -- I think you were asked one

9 view on Monograph 13?

10 A. Yeah.

11 Q. And I just want to follow up on that. You said you

12 disagreed with the conclusion of Monograph 13 that says

13 compensation is complete for spontaneous switchers.

14 Now, before I ask you about that directly, is that

15 conclusion contained in Chapter 3 by Dr. Benowitz?

16 A. Yes.

17 Q. Did Dr. Benowitz come to a conclusion about whether

18 compensation is complete or incomplete on the basis of the

19 compensation literature as a whole?

20 A. He -- no, he didn't. His conclusion was based on one

21 spontaneous brand switching study.

22 Q. Okay. And that study -- well, he said compensation is

23 complete for spontaneous switchers and you said you disagreed.

24 Why did you disagree?

25 A. First of all, there's only one study that's been

1 published and that is the one that Dr. Benowitz conducted. And
2 if you go and have a look at that one study and the data in
3 Monograph 13 and also in the study itself, and if you apply a
4 compensation calculation, you'll find that it's incomplete in
5 terms of the smokers actually get less nicotine when they
6 switched to a lower tar cigarette than they were getting from
7 the higher tar cigarette.

8 Q. How was the study conducted?

9 A. This was a study where they took a blood sample --

10 MS. EUBANKS: Objection, Your Honor, lack of foundation.
11 The witness is now being asked about how Dr. Benowitz conducted
12 his study that appears in a chapter in Monograph 13.

13 And also, the particularities of that is beyond the scope
14 of the cross-examination.

15 THE COURT: But you asked him the question. It may be
16 beyond the scope of direct, but it's not beyond the scope of
17 cross.

18 However, you do have to lay a foundation.

19 BY MR. SHEFFLER:

20 Q. Did Dr. Benowitz publish the results of his study?

21 A. Yes, in 1983.

22 Q. And was this the publication?

23 A. Yes.

24 Q. And have you reviewed this article?

25 A. Yes.

1 Q. Are you familiar with the contents?

2 A. Yes.

3 Q. Are you familiar with the methodology?

4 A. Yes.

5 Q. Are you familiar with the results?

6 A. Yes.

7 THE COURT: Does the article discuss the methodology?

8 THE WITNESS: Yes.

9 BY MR. SHEFFLER:

10 Q. Is that the part under "Methods"?

11 A. Exactly, yes.

12 Q. Now, how did they do this study?

13 A. What they did was they looked to a group of smokers at a
14 certain timeframe and they took blood samples from these smokers
15 and measured the amount of cotinine that was present in the
16 blood. And cotinine is a breakdown product of nicotine, so
17 using cotinine can give you some indication of how much nicotine
18 is being taken in during smoking.

19 So they did that for quite a large number of people and
20 then I think it was five years later, they went back to see if
21 they could find the same subjects and repeat the blood cotinine
22 measurement. And they did. And what they found was that during
23 that five-year period, some of those people switched to a lower
24 tar and nicotine yield cigarette and some of them remained at
25 the same tar level and some had actually gone the other way and

- 1 increased the FTC yield of their cigarette.
- 2 So they then looked to see what the cotinine levels were
- 3 on day one and what the cotinine levels were five years later.
- 4 Q. And what did he find?
- 5 A. What he found was that those people that did not change
- 6 their cigarette yield had a similar cotinine level on day one
- 7 and five years later. Those people that had switched from the
- 8 higher yield to a lower yield cigarette had a significantly
- 9 lower cotinine level and those people who switched from a low
- 10 yield to a high yield had a significantly higher level.
- 11 Q. Let me just show you this table, Doctor, and see if we
- 12 can -- now, this is the blood plasma cotinine --
- 13 A. Yeah.
- 14 Q. -- levels that he actually measured?
- 15 A. Yes.
- 16 Q. And this is the people who, on day one, were smoking the
- 17 lowest tar and nicotine cigarette?
- 18 A. Exactly, yep.
- 19 Q. And they switched to a higher?
- 20 A. Yes.
- 21 Q. And by year five, their cotinine levels went up?
- 22 A. Yes.
- 23 Q. Now, does that show compensation?
- 24 A. It does, yes, but it's not complete.
- 25 Q. It's not complete. Here we have a person who's smoking a

- 1 cigarette in the mid range -- the square on day one. On day
2 five they go down to a low tar cigarette.
- 3 A. Yes.
- 4 Q. Now, is what happened there, Doctor, when they went down
5 from the high tar cigarette they were smoking to the low tar
6 cigarette in the study?
- 7 A. Five years after going down to low tar, they were getting
8 less cotinine in their blood, which has been indicative of less
9 nicotine from that cigarette.
- 10 Q. Were they compensating?
- 11 A. They were. You can actually calculate it. I've
12 calculated the compensation index. There's sufficient
13 information in the paper to do that. And they're compensating
14 at around 50 percent.
- 15 Q. 50 percent?
- 16 A. Yes.
- 17 Q. Which in your direct, you said the compensation was
18 around 60 percent, 50 to 60 percent?
- 19 A. Yes. It's right in that ballpark.
- 20 Q. Have there been other people who have calculated
21 compensation indices for these compensation studies that are out
22 there and research?
- 23 A. Yes, yes.
- 24 Q. What I would like to do is just show you one of
25 Dr. Benowitz's conclusions in his study, in which he says: "It

1 is important to note that smokers did not fully compensate for
2 smoking fewer cigarettes so that the overall exposure did
3 decline."

4 A. Yeah.

5 Q. And that's what you showed us: The overall exposure did
6 decline?

7 A. Exactly, yes.

8 THE COURT: And so, therefore, he did not reach the
9 conclusion that compensation was complete; isn't that correct?

10 THE WITNESS: That's correct. When he was looking at --

11 THE COURT: I think you answered my question.

12 Mr. Sheffler.

13 BY MR. SHEFFLER:

14 Q. And is that the basis for your disagreement with the
15 conclusion of Monograph 13?

16 A. That's one of the reasons. There are a few others in
17 terms of other studies.

18 Q. All right. Why don't you tell us the others.

19 A. Well, my main disagreement is that Dr. Benowitz was
20 basing that really on just that one study and when you look at
21 the data, you see that it's incomplete. In his chapter, he
22 discusses a number of other studies that have been addressed on
23 the compensation issue and most -- in fact, virtually all of
24 those studies show incomplete compensation. These were
25 short-term brand switching studies.

1 And so if you look at the overwhelming evidence from that
2 spontaneous one, from the large number of smaller scale brand
3 switching studies that have been done, those show quite clearly
4 that compensation occurs, but it's incomplete. And that's
5 really why I would disagree with that conclusion.

6 Q. Now, you were asked about public health authorities and
7 whether or not you regarded the NCI as a public health authority
8 and you testified you did. But it's not the only public health
9 authority, is it, Doctor?

10 A. Not at all.

11 Q. Are there public health authorities in the U.K.?

12 A. Yes.

13 Q. Was the Independent Scientific Committee on Smoking and
14 Health regarded as a public health authority in the U.K.?

15 A. Yes. It was for the Department of Health, which is the
16 leading public health authority in the U.K.

17 Q. And did the Department of Health have an interest in this
18 issue of compensation --

19 A. Yes.

20 Q. -- in the U.K.?

21 A. Yes.

22 Q. Why?

23 A. Because through the years of the early 1970s right
24 through until today, the U.K. Department of Health were trying
25 to come up with cigarette regulations to reduce the risk and the

1 hazard of smoking. One of their main programs was to encourage
2 the manufacturers to reduce the tar yield of their cigarettes.
3 So they initially had voluntary agreements; then it became
4 mandatory to reduce tar yields. And they moved to make sure
5 that people were in fact getting lower tar from low ISO tar
6 yield cigarettes.

7 If compensation was complete or if compensation was
8 almost complete, that would mean that people would not have got
9 a reduced exposure from the low tar cigarettes and it would have
10 made the whole program of going for low tar a waste of time. So
11 they needed to check that that was not causing it to be
12 derailed.

13 Q. Did they do that? Did they check?

14 A. Yes, they did.

15 MS. EUBANKS: Objection, Your Honor. This is in the
16 written direct. This is all laid out there.

17 MR. SHEFFLER: I don't believe it is.

18 THE COURT: I will allow the question only because I'm not
19 sure myself at this point.

20 BY MR. SHEFFLER:

21 Q. Are you familiar with a document entitled: "Nicotine,
22 Smoking and the Low Tar Programme"?

23 A. Yes, I am.

24 MR. SHEFFLER: This is in evidence. It's JD 030099.

25 BY MR. SHEFFLER:

1 Q. Now, was the "Nicotine, Smoking and the Low Tar
2 Programme" -- it's a lengthy monograph, isn't it?

3 A. Yes.

4 Q. What was the genesis of this monograph?

5 A. It's basically -- the Low Tar Programme is what I was
6 talking about, from the mid '70s through -- I think this was
7 produced in 1989, this particular document. And so it's
8 referring to the Low Tar Programme encouraging tobacco companies
9 to reduce the tar yields in the U.K.

10 And they had a big meeting where they brought in together
11 a number of experts and health experts who were working on these
12 programs and reviewed the Low Tar Programme and specifically the
13 role of nicotine in the Low Tar Programme.

14 Q. Did they review compensation?

15 A. They certainly did, yes.

16 Q. Are you familiar with the study by Stevens that's in the
17 Low Tar Programme monograph?

18 A. The Alison Steven study, yes.

19 Q. Is that in Monograph 13? Is there a reference to it?

20 A. I believe so, yes.

21 Q. Is the reference reversed? It's Stevens Alison --

22 A. Yes, yes.

23 Q. But it's the same study?

24 A. Yes.

25 Q. Now, it's entitled, "Estimating the Content -- Estimating

- 1 the Extent of Compensatory Smoking," Alison Stevens and others?
- 2 A. Correct.
- 3 Q. And if we could just focus in on the summary here, it
- 4 talks about reviewing -- defines compensation; estimates it in
- 5 17 published studies. They used carbon monoxide and nicotine as
- 6 tobacco smoke markers.
- 7 A. Correct.
- 8 Q. And then it talks about what it found.
- 9 A. Yeah.
- 10 Q. "A method of estimating tar intake from intake of other
- 11 smoke constituents is suggested and compensation based on tar
- 12 estimated to be 60 percent."
- 13 What is that? Explain that for us.
- 14 A. Basically, what they're saying is that if you were
- 15 smoking the high tar cigarettes and then you switched to a low
- 16 tar cigarette, that you reduced your intake of tar, but not by
- 17 the same proportion as the ISO reading. It's around about
- 18 60 percent of that proportion, so it's partial compensation.
- 19 Q. Is that what you were showing us on that chart before
- 20 where you had the three different levels of compensation and the
- 21 10-milligram going to the five and this is -- this is finding
- 22 what happened when it looked at the studies as a group and
- 23 analyzed all the results?
- 24 A. Yeah. They're positioning it almost in the place that I
- 25 showed the partial compensation chart, yes.

1 Q. Okay. Now, how does that finding of compensation
2 index -- how does that match up against other findings that
3 you're aware of?

4 A. There have been a number of studies that have looked at
5 that and reviewed them. There was a review in 1999 that came
6 out with a very similar value to that. And that looked at even
7 more studies because some more had been conducted by then.
8 There's comments in the Independent Scientific Committee reports
9 to the U.K. Department of Health, saying that compensation is
10 incomplete, around about 60 to 70 percent.

11 So each time we look at a review where people have gone
12 back to the data, done the calculations, looked at the data,
13 they tend to be in that same ballpark figure, 50, 60 percent
14 partial compensation.

15 Q. Now, the last conclusion in the article states -- this is
16 from the Low Tar Monograph, the Stevens chapter: "It is
17 reassuring, having quantified the relationship between yield and
18 intake of smoke constituents; we can conclude that on average,
19 switching from cigarettes with relatively high yields to
20 cigarettes with lower yields will lead to a reduced intake of
21 the smoke constituents we have considered, even though the
22 reduction in intake is significantly less than is predicted by a
23 smoking machine."

24 What's it talking about?

25 A. That's talking about partial compensation.

1 Q. Thank you. Was this looked at again by the public health
2 authorities in the U.K. later? Was the same issue of
3 compensation and its effect on the Low Tar Programme looked at
4 again?

5 MS. EUBANKS: Objection, Your Honor. This is now beyond
6 the scope, to talk about what the U.K. public health authorities
7 have done and how far they've gone. This is far beyond the
8 scope.

9 MR. SHEFFLER: Your Honor, counsel's cross-examination
10 attempted to paint Dr. Dixon as an isolated member of the
11 scientific community against the weight of the public health
12 authorities. I should have the right on cross-examination to
13 rehabilitate that. And that's all I'm doing.

14 MS. EUBANKS: Your Honor, my questions about this issue
15 went to opinions that the witness was offering that were
16 inconsistent with statements on a website which sent smokers to
17 the public health authorities. Now we're going into what public
18 health authorities in the U.K. said about certain things when my
19 line of questions specifically went to the statements that this
20 witness was offering to the Court that were inconsistent with the
21 statements on the website sending the people to public health
22 authorities.

23 MR. SHEFFLER: Your Honor --

24 THE COURT: One at a time -- or not one at a time. I've
25 decided.

1 Whatever the government's intent may have been with its
2 specific questions, I certainly don't mind saying that the clear
3 impression that I was left with as a result of the cross was that
4 the views of this particular witness were very singular; let's
5 put it that way. And I do think that, therefore, the defendant
6 has a right to rehabilitate his witness.

7 Go ahead, Mr. Sheffler.

8 MR. SHEFFLER: Thank you, Your Honor.

9 BY MR. SHEFFLER:

10 Q. Are you familiar with a document called "The Tobacco
11 Products Research Trust"?

12 A. Yes, I am. Very familiar.

13 Q. And what is that?

14 A. "The Tobacco Products Research Trust" was a funded body
15 by the British government. They got money from the tobacco
16 companies and it was handled by the Independent Scientific
17 Committee. They then used that money to go out and conduct
18 research on the Low Tar Programme, including a number of studies
19 on compensation.

20 Q. Who were some of the people who were funded by the
21 independent scientific community to do this kind of research?

22 A. There were people like Wald, Professor Wald; people
23 like -- well, the Frost and Stevens group that we've already
24 talked about. They were funded by it.

25 Q. How about Dr. Peto?

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1 A. And Dr. Peto, yes.

2 Q. Now, as a result of the research that was done by the
3 government on this issue, now after 1996, do you know what they
4 concluded with respect to compensation in the Low Tar Programme?

5 A. Yeah, they made two conclusions. The first conclusion
6 was that all the studies that they conducted, they looked at the
7 data and they concluded that compensation occurs, but it's
8 partial; and they also concluded that the fact that compensation
9 is there, the fact that it is not complete means there was a
10 benefit in going forward with the Low Tar Programme and to
11 continue with the Low Tar Programme.

12 Q. Showing you a part of the document from the Tobacco Trust
13 Research Program, it stated: "The significance of compensatory
14 smoking for Product Modification Programme." Now, what's the
15 Product Modification Programme?

16 A. The Product Modification Programme was the Low Tar
17 Programme. Reduce the tar yield by modifying the product.

18 Q. The government states there that: "It was important to
19 thoroughly investigate compensatory smoking since if it tended
20 toward completeness -- i.e., a hundred percent -- it could
21 undermine the rationale of the Product Modification Programme."
22 And that's what you just told us?

23 A. Exactly. In shorter words, but that's what I said, yeah.

24 Q. "The sponsored projects and many others in the scientific
25 literature showed that, whilst compensation almost universally

1 occurred, it was never complete, figures of 60 to 70 percent
2 being usual, depending on the methodology."

3 Now, what does that mean?

4 A. Incomplete compensation. People smoking lower tar --
5 going from higher to lower tar will get less tar.

6 Q. "This justified the continuation of the Product
7 Modification Programme even though the results would be expected
8 to be less marked than those assumed on the basis of
9 machine-derived yields."

10 And in fact, was that implemented in the U.K. at this
11 time?

12 A. Yes.

13 Q. Now, Doctor, you were also asked about an e-mail. You
14 were asked about a copy of an e-mail from you to Hugh Honeycutt
15 and Hugh Honeycutt to you. Do you still have that?

16 A. Somewhere, yes. I've got it here.

17 Q. Okay. Now, what I want to do is ask you a little bit
18 about some portions that were read to you and put it in a little
19 bit of context.

20 First of all, there was a -- the statement was read to
21 you that -- from Hugh Honeycutt: "Mike, Nick Brooks is very
22 keen to get the Atlanta study published. His concern was that
23 the study gave an indication that smokers of ultra low tar
24 brands like our Carlton 1 milligram appear to be actually --"
25 get 3 milligrams.

1 That's the first sentence of it?

2 A. Yeah.

3 Q. And B & W had just made a big splash in the U.S., touting

4 Carlton as the number one for you.

5 A. Uh-huh.

6 Q. And it stopped there. But as it goes on, it says:

7 "Although B & W says on our website that what you get depends on

8 how you smoke" --

9 Do you agree with that, Doctor?

10 A. Most definitely, yep.

11 Q. -- "Nick" -- referring to Nick Brooks?

12 A. Yep.

13 Q. -- "wanted to make sure that we were not seen to be

14 hiding anything." Right?

15 A. Correct.

16 Q. Now, what was this Atlanta study?

17 A. This was a study that Kelly St. Charles, who's referenced

18 in there, Nikki Reeves and myself were looking at an aspect of

19 smoking behavior called vent blocking. And we wanted to look to

20 see what happened if we artificially blocked the vent zones of

21 ventilated cigarettes, how that influenced smoking behavior.

22 And we used cigarettes in the 1 milligram, like Carlton; we used

23 cigarettes in the higher tar range, light cigarettes and going

24 up to full flavor cigarettes.

25 Q. Doctor, let me just step in and ask you: What did the

1 study do with respect to the methodology? What methodology did
2 they use?

3 A. To estimate the yield, we were using something called
4 filter or butt analysis.

5 Q. Okay. Now, in this, it says: "The Atlanta study had
6 very few 1- to 3-milligram smokers and we felt that a more
7 extensive butt study was needed."

8 A. Correct.

9 Q. And it goes on to say: "Kelly is already thinking about
10 how this might be done."

11 A. Yep.

12 Q. Now, what happened as a result of that?

13 A. What happened as a result of that is that both myself and
14 a guy called Jim Shepherd, who's one of my old research chums,
15 we started to work on trying to improve the butt method, because
16 there were some issues about it and it wasn't as good as it
17 could be.

18 Q. And you said one of the issues was this very low 1- to
19 3-milligram smoker?

20 A. That's exactly the point. It was with the 1-milligram
21 highly ventilated cigarettes where we were having problems. So
22 we in Southampton did some work to try to resolve that. Kelly
23 St. Charles in Macon also did some work. And between us, we
24 actually came up with an approach which is far superior to the
25 one we were using at that time.

1 Q. Now, you were asked about the -- going on down to the
2 sentence that begins with the word "Such": "Such a study would
3 probably be done at a medical university, would involve many
4 smokers in a complex text design, be very expensive and a step
5 beyond what we've done with butt studies."

6 Now, why was Dr. Honeycutt suggesting that that's what
7 would be needed?

8 A. Dr. Honeycutt was saying that you can do a butt study and
9 that will tell you something about what the cigarette is
10 delivering to the smoker, but --

11 MS. EUBANKS: Your Honor, I'm going to object. The point
12 that was made with this document -- while that sentence was read
13 into the record, the point that was made with this document, with
14 both transmissions of e-mails, had to do with the full-time
15 litigation witness statement, and that's what it was used for. I
16 didn't explore with him, anything about butt studies and the
17 precise nature of what was undertaken with respect to any of
18 those studies.

19 THE COURT: Sustained. It's also pure hearsay or
20 speculation as to what Dr. Honeycutt meant or was thinking about.

21 BY MR. SHEFFLER:

22 Q. Well, let me go to your e-mail then. You also read about
23 from your e-mail, that "I have also heard via Sharon Boyse that
24 Nick Brooks is keen for us to publish the outcome of the joint
25 behavior study conducted in Atlanta. As you know, aspects of

1 this study were presented by Nikki at Corseta and Nalini at
2 TCRC." Those are two open public forums for tobacco chemists
3 and scientists.

4 A. Exactly.

5 Q. And another paper that appeared in the Coresta Bulletin.
6 "I agree that we should produce a full paper publication in a
7 peer-reviewed journal and we would be more than happy to work
8 with Kelly in its preparation."

9 Now, what became of that?

10 A. What became of that was that Hugh Honeycutt wrote back to
11 say, as you can see there, saying that he had some concerns
12 about the method and he mentioned that we needed to do this
13 validation study. And I agreed with him. And I think his point
14 was right. So as a result of this and also our own thinking,
15 that we went ahead and we revised the filter method --

16 MS. EUBANKS: Objection, Your Honor.

17 THE WITNESS: -- to validate it.

18 MS. EUBANKS: I think he answered the question. This is
19 going back into the question that I objected to.

20 THE COURT: Sustained. He has answered that there were
21 technical problems. Go ahead.

22 BY MR. SHEFFLER:

23 Q. And were those technical problems pursued and tried to be
24 resolved?

25 A. Yes they were.

1 Q. And as a result, was there data gathered, at this time,
2 for the purpose of the eventual publication, with respect to
3 this issue raised in these correspondences?

4 A. Exactly, yes.

5 Q. Tell us about that.

6 A. What that was a study using a filter analysis.

7 MS. EUBANKS: Your Honor, this is --

8 THE COURT: Sustained. Let me ask one final question on
9 this subject. Was there ever a publication?

10 THE WITNESS: We're preparing one at the moment, Your
11 Honor.

12 THE COURT: All right. Go ahead.

13 BY MR. SHEFFLER:

14 Q. Well, Your Honor, I think we'll ask one more question and
15 I'll conclude.

16 You were asked a bit about your work with lawyers and your
17 interaction with the internal lawyers at BATCo, you said a good
18 portion of your time was spent on that, doing regulatory work?

19 A. Yeah.

20 Q. But you never got a chance to explain what that was.
21 What is a scientist like you doing advising on regulatory work?

22 THE COURT: Mr. Sheffler, let me be clear when I said one
23 more question, I meant only on that topic.

24 MR. SHEFFLER: Thank you.

25 THE COURT: I saw the look on your face.

1 MR. SHEFFLER: Thank you, thank you.

2 BY MR. SHEFFLER:

3 Q. Go ahead, give me your answer.

4 A. BATCo is an international company with many many
5 operating regions and obviously tobacco sales and manufacture is
6 regulated in many of these countries. I, as a scientist, have
7 expertise which can be used for some of the issues involved in
8 tobacco regulation. Especially when it comes down to things
9 like FTC or ISO measurements and it comes down to what smokers
10 do with light cigarettes, and ingredients and additives, those
11 sort of issues.

12 So in BATCo, we have a science and regulation group which
13 is actually headed up by my boss. That group has two legal
14 people who are assigned to that group because we have to deal
15 with external health authorities, external regulators. They may
16 ask us to produce a recommended regulation and we may have to
17 respond to that and provide a consultation to it. Now, a lot of
18 that is based on science. My role in that respect is to look at
19 the scientific content of that, to then produce critiques,
20 consultation documents from the scientific point of view. That
21 then goes to other people in the group and then there also will
22 be legal aspects of that, because regulation is a legal issue.
23 So the legal people will be involved in that side of it, but my
24 role is to provide the science based information for that group
25 to be able to deal with the regulators.

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1 Q. Was one example of this what you discussed in your
2 direct, as your presentation to the Department of Health on
3 ammonia and acetaldehyde and other things?

4 A. That's exactly the type of thing I'm talking about,
5 that's a good example, yes.

6 Q. That's part of this -- a proportion of the time you spent
7 working with the lawyers.

8 A. Exactly.

9 MR. SHEFFLER: Your Honor, I think we'll conclude.

10 THE COURT: All right. Let me raise a couple of things at
11 this point. I received an inquiry, at this point, regarding the
12 Monday after Easter, which is I do believe March 28th; is that
13 right, everybody?

14 Court's in recess. I had not been planning to take a
15 recess. First of all, I didn't think you all would want me to,
16 that's number one, and number two, on general principles, I
17 thought we should just keep plowing forward. I don't know
18 whether I hear a request. I see various looks in the courtroom
19 amongst people on different sides of the fence. Not all the
20 looks on one side are the same, by the way.

21 MS. EUBANKS: We'd like to keep going forward, Your Honor.

22 THE COURT: The sacrificial lamb, Mr. Minton (sic).

23 MR. NEWBOLD: That would be appropriate, Your Honor, for
24 Easter. I have volunteered to speak to the issue because I
25 raised the issue, and that is Easter is somewhat of an unusual

1 holiday, because religious portions of it are normally in the
2 morning and family portions are normally in the afternoon with
3 Easter egg hunts and so forth. And for those of us who live out
4 of town and have children and grandchildren that we would like to
5 be with on Easter, it makes travel very difficult to get back
6 first thing Monday morning. And that was the only reason for the
7 request.

8 THE COURT: Do you think we could somehow compromise
9 and -- I'm very worried about timing.

10 MR. NEWBOLD: I understand, Your Honor.

11 THE COURT: I do have other cases to get to, everybody,
12 but at the same time, I'm very much in favor of children, I have
13 grandchildren. My sense is that most of the non-D.C. people are
14 coming from Chicago, where there are -- I can see Mr. Bernick
15 looking very unhappy because he has a feeling of where I'm going.
16 But there's constant planes from Chicago. Could we start at 1:30
17 and get in a good afternoon of testimony?

18 MR. NEWBOLD: Yes, Your Honor, I think that would work.
19 There are people from Chicago and St. Louis are the two major
20 metropolitan areas and there are frequent flights that would
21 accommodate that and that would be helpful.

22 MR. BERNICK: This is not a -- I think that it's people
23 that make connections. We don't have a problem coming in from
24 Chicago.

25 THE COURT: Well, I don't know much about St. Louis

1 connections, I must admit, but you're saying you could get here
2 for the afternoon.

3 MR. NEWBOLD: Yes.

4 THE COURT: So we will certainly lose three hours, but we
5 would have a solid afternoon, 1:30 to 4:30, with just one short
6 break. And if we had to go a little bit later, we could that
7 afternoon. So let me make a note of it, that we'll begin at 1:30
8 that day.

9 MR. NEWBOLD: Thank you, Your Honor.

10 THE COURT: All right. Next. Has the government reached
11 any conclusion about its position on the issue that we discussed
12 yesterday. Mr. Brody, have you been able to think that through
13 and talk it through?

14 MR. BRODY: We have, Your Honor. We talked through it
15 yesterday evening. And in response to the specific question of
16 how much lead time would we need if there's a witness that comes
17 off of defendants' list and then is going to reappear and come
18 back on, three weeks for an expert witness and two weeks for a
19 fact witness. And that is -- the times are in advance of when
20 the written direct would be filed.

21 THE COURT: So it would really be, for a fact witness,
22 four weeks in advance of their actual testimony.

23 MR. BRODY: I think it would work out to be -- well,
24 three weeks in advance of their actual testimony, upwards to --
25 it would be between 21 and 24 days in advance of their actual

1 testimony.

2 THE COURT: I thought you said three weeks in advance --
3 maybe I misunderstood you, of the written direct?

4 MS. CROCKER: On an expert, and two weeks on --

5 THE COURT: Did you mean submission of the written direct?

6 MR. BRODY: Yes. I'm sorry, I heard you asking if that
7 will be three weeks or four weeks in advance of when any fact
8 witness actually testifies. It would be four weeks in advance
9 for an expert, three weeks in advance for a fact witness.

10 THE COURT: Right. That's what I understood. And then
11 for an expert, three weeks in advance of the submission of the
12 written direct; for a fact person, two weeks in advance of the
13 submission.

14 MR. BRODY: That's correct, Your Honor.

15 THE COURT: All right. That's good.

16 MR. BERNICK: I don't know where Your Honor wants --
17 wishes to go with that.

18 THE COURT: Well, where I want to go is to factor that
19 into my thinking about the two submissions that each side has
20 submitted, and so that defendants have an answer by tomorrow in
21 terms of what the final procedure is going to look like, so that
22 you can tailor your witness list to the determinations I make
23 tomorrow.

24 MR. BERNICK: I had thought that Your Honor was going to
25 entertain some discussion before the Court on that issue, that

1 is --

2 THE COURT: Well, I have time. The only problem is --

3 MR. BERNICK: I don't mean to impose upon the ordering
4 here. I mean, if Your Honor would prefer to take up other
5 matters, we're prepared to address that.

6 THE COURT: No, I would just as soon hear you all on this.
7 Sometimes I don't bring in everything. Just a minute. That's
8 all right, I can listen to everybody and that will give me an
9 extra evening to do some thinking. Who wants to go first?

10 MR. BRODY: Well, Your Honor, I assume you had the
11 opportunity to read each side's submission on the issue.

12 THE COURT: Oh, yes. I had done that by yesterday when we
13 talked about it.

14 MR. BRODY: I think the positions set forth in our
15 response and the specific provisions in our proposed order, for
16 the reasons that we state in our response, are things that are
17 going to more realistic, in terms of providing a procedure that
18 will allow sufficient disclosures to take place and allowing
19 everything to be specifically targeted to the issues that
20 confront the parties at this time.

21 You know, I have to be honest with you, it was very
22 disappointing, as we've said in our papers, to have the issue
23 raised in the manner in which it was raised by defendants. There
24 was no opportunity for any discussion. As you can see, what you
25 have before you is not that far apart, in terms of structure,

1 from each side. I think the differences, however, in the two are
2 significant. And the two primary differences, the first is the
3 date for the United States to provide to defendants any expert
4 disclosure, and we feel very strongly that the date of March
5 16th, Wednesday of next week, that was proposed by defendants, is
6 not workable at this point in time and is only going to lead to a
7 situation where there are going to be disputes over whether
8 disclosures were adequate, over whether something was, in terms
9 of reliance list or documents considered list, was complete or
10 not.

11 In pushing that aspect of it forward to the point where
12 defendants wish, you're going to have disputes down the line. So
13 what we have done is, as you know, moved up the date to this
14 Friday for identifying witnesses, all the witnesses for the
15 remedies phase, and that would be everybody that we plan to call
16 in the remedies phase of the trial would be identified in
17 something like the witness lists that the parties filed under
18 Order 470 on Friday of this week by the United States, four weeks
19 later by defendants, giving them adequate time to respond and
20 also providing them notice and an opportunity to start shaping
21 whatever response they're going to make from a subject matter and
22 a personnel witness perspective, right away, while also allowing
23 sufficient time for the expert reports to be prepared, submitted
24 in a way that is going to be helpful to the parties and helpful
25 to the process.

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1 And what we have proposed in terms of any deposition
2 discovery that needs to go forward is a schedule that is
3 consistent in terms of end date with what defendants propose, so
4 there is no disagreement between each side as to a drop-dead date
5 for bringing the entire process to conclusion. I think that what
6 we have proposed in terms of dates is realistic, in terms of the
7 schedule going forward and the presentation of the liability case
8 that the defendants are putting on now. And I also think it is
9 very realistic, in terms of allowing the disclosures that need to
10 be made to take place, and at the same time making sure that
11 things don't get out of hand, making sure that we don't have
12 disputed motions practice related to this at this point in time,
13 which is something that I think everyone can agree, we don't need
14 on these types of issues.

15 THE COURT: We certainly don't. Mr. Bernick.

16 MR. BERNICK: Your Honor, this turns out to be,
17 unfortunately, a somewhat complicated issue, I think. What I
18 would like to do is walk through the basic schedule but then
19 raise a series of very specific points about the government's
20 proposed order. I'll work off their order, because there is a
21 lot of similarity, but there is some important language
22 differences.

23 I'll -- this is something I just wrote, I was going to do
24 it on the chart, but this probably would be almost just as good.
25 The idea is that -- I've got in the middle the basic calendar,

1 going from where we are today, the 9th of March through the 1st
2 of April, and ultimately.

3 THE COURT: Not one of the more sophisticated
4 presentations, Mr. Bernick.

5 MR. BERNICK: I was going to get up there, but I think
6 Your Honor will -- as soon as you saw me walking to that chart
7 you said, "now wait a minute," so I thought I would go halfway
8 and do it this way. The two go from where we are today, to the
9 1st of April, to the 2nd of May. So that's the basic time line.
10 And right now we provided the estimate that we're going to be
11 done around the 11th of April. So if there is to be no gap,
12 that's kind of an important date. I then have the government's
13 proposal on this side here, and our proposal on this side here.
14 And this tees up the basic problem you face in trying to get
15 everything done in an orderly sequence and still not produce a
16 major delay in the trial. It's true that we would get the
17 witness statement, which is the government's first point on the
18 11th of March. Frankly, Your Honor.

19 THE COURT: Not the witness statement, just the list of
20 witness.

21 MR. BERNICK: The list of witnesses, fact and expert, plus
22 some kind of written statement of the subject that they would
23 cover. Now, we'd obviously like to have that. On the other
24 hand, it really doesn't advance the cause very much, because as
25 Your Honor well appreciates, the devil is in the detail on a lot

1 of this material, particularly from the experts. The most
2 meaningful thing from our view is the expert report. If you
3 follow through on their proposal, they wouldn't turn over the
4 expert reports until the 28th of March. Expert depositions
5 would --

6 THE COURT: Which is only three weeks away.

7 MR. BERNICK: That's correct, and I'd come back to that in
8 a moment, because counsel says that they need more time. I think
9 under the circumstances of this case, that's a very difficult
10 concept. They have known about this issue for a long time now,
11 the better part of a month or more. They've got experts in this
12 area, people that they've already retained, have spoken to the
13 issue of remedy. This has been out there since the very
14 beginning of the case. So they've got the people, they know what
15 it is they want to do. They told us about that in the brief they
16 filed before Your Honor on remedies. So we don't understand why
17 it should take long to put out the expert reports. I'll come
18 back to that.

19 But just following through the flow logic, expert
20 depositions would begin that same day, under their proposal,
21 which means we would end up facing the prospect of deposing their
22 experts with no real notice of their expert reports. Two days
23 later, two days later, we would also have to make our election.
24 We would have to know enough about their expert reports and the
25 underlying analyses to make any requests for additional time that

1 we want, with respect to statistical models and evaluations,
2 which is, both we and they recognize, is kind of a uniquely
3 difficult aspect on the case.

4 Our experience is when people come in with statistical
5 models, it takes an awful lot longer to even understand what
6 they've done. And that's just not enough time. It would be hard
7 for us even to put their electronic disks into a computer, into
8 the hands of the right people and be able to identify exactly
9 what the problem is in two days. But we don't have any time to
10 prepare for the depositions. The depositions then commence and
11 they allot time all the way to the 22nd of April for those
12 depositions. This is depositions of their people. Now, what
13 happens in the meantime? Even before those depositions are
14 complete, we have to A, identify our own witnesses and give
15 witness statements. B, we have to do their expert reports, and
16 C, we have to start to offer up our own experts to be deposed,
17 even before we're done deposing their experts.

18 So we take a real risk under this scenario of not only
19 being whipsawed, but there's no way that we're going to be able
20 to have a full record of what it is that they're saying in time
21 to prepare the expert reports. And again, to say that all we
22 have to do is identify people by the 8th doesn't really say
23 anything. We have a total of two weeks, in comparison to the
24 weeks that they've now had. We have a total of two weeks from
25 receiving their expert reports, doing our expert reports, and we

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1 haven't even -- we're not even halfway through the period of
2 time -- we're two-thirds through the way through the period of
3 time for even completing our depositions of their experts.

4 The net result is that we are in no way going to be on
5 equal footing with them. They are able to proceed, they know
6 what they're going to do, we don't know what their case is by the
7 time that we have to make irretrievable commitments on what our
8 case is. And the idea that we could then continue the trial, the
9 trial is -- there is no way that the trial could start anywhere
10 before -- not the 5th or the 2nd of May, but probably well into
11 the middle of May. Why? Well, that is the consequence. We
12 won't even be done with their experts until the 22nd of April.

13 So, between the time that we're done with their experts
14 and that we have to start trial, a week, 2 weeks, 3 weeks, and
15 then it's our people that are still being produced during the
16 course of trial, and that's why fundamentally, we had a very
17 different approach.

18 THE COURT: You are projecting a trial that will go into
19 the month that I don't even want to even mention. And I know
20 everybody in this courtroom, at least on counsel's side, knows
21 what I'm talking about, and it would go into June.

22 MR. BERNICK: Yes, and we don't want that at all, which is
23 why it ended up with a very different proposal, because we are
24 every bit as anxious as Your Honor not to have that happen. So
25 we have the expert reports on the 16th.

1 THE COURT: Is this in your papers now?

2 MR. BERNICK: This is in our papers.

3 THE COURT: All right.

4 MR. BERNICK: We have the depositions starting a week
5 later, so that there's a little time that they have -- that we
6 have to digest those reports. We would get all of the discovery
7 of their people done by April the 6th, which then means that if
8 we're done with our case by April the 11th, we will be prepared
9 to cross-examine their witnesses as they're put on in their part
10 of the remedies case. The idea being we wouldn't have to have a
11 gap, because we would have completed our discovery with respect
12 to the people that they would be using as part of their remedies
13 case in chief. We would then do our expert reports beginning --
14 they will all be due a week after the depositions are done, and
15 we would produce them for deposition promptly thereafter, and as
16 those people are deposed, we would obviously have to organize it
17 so that if they were actually done with their remedies case
18 before the 18th, or before, let's say, the 22nd, that we would
19 produce our people in our case, obviously only after the
20 governments had an opportunity to depose them.

21 But in this way, we don't have a gap, we are not required
22 to predict what the ultimate outcome of depositions are that have
23 not yet been taken, when it comes to producing our own material,
24 we don't interfere with the flow of witnesses and we get the job
25 done.

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1 I don't know of any other sequence that really preserves
2 that, to say nothing of the idea that we get their expert reports
3 and we start depositions that day. That's like a TRO process.
4 This is not a TRO process. The only other remark that I would
5 make with respect to the overall schedule, gets back to the
6 schedule of how much time is really necessary.

7 There are basically three areas that I think we're talking
8 about here. We're talking about area 1, which is, are they still
9 going to produce experts to express the same opinions based upon
10 the same evidence in certain areas? For example, Dr. Eriksen had
11 a whole series of requests that he was prepared to support for
12 nonmonetary injunctive relief. That's there, it's in the can,
13 he's been deposed on it. In our view, there should be no
14 deviation beyond it. There shouldn't be any evidence beyond
15 that. But question one is: Are they going to change that? If
16 they're not going to change that, then we know that Dr. Eriksen's
17 already taken care of and they can certainly tell us what the
18 report is and that's not a problem at all.

19 With respect to the second area, which is: What is the
20 tailoredness to those requests, that kind of relief to the
21 government's theory of what the reasonable likelihood of
22 liability is; that is, what's the underlying problem or conduct
23 that they're trying to prevent or restrain? Again, they produced
24 witnesses in that area. We don't see any need for that to
25 change. That also can be promptly turned over. The only area we

1 should be talking about any kind of new evidence -- and, again,
2 we preserve all of our objections with respect to new nonmonetary
3 injunctive relief, which doesn't pertain to Nexus, doesn't
4 pertain to the areas that they've already covered, but are
5 generally new.

6 And those are areas where they've already identified
7 presumably what they want to do, and we don't understand why it
8 should be so difficult to get their experts to turn out an expert
9 report that says what's the basis for the relief? What is the
10 need to have -- if you took their day of March 28th, they will
11 have had essentially six or seven weeks to develop expert work,
12 and Your Honor has put them on notice that if they want to have a
13 new case, they've got to put that case together. So presumably
14 they've been working on that already.

15 Now, I have a series of additional comments with respect
16 to the order itself, and I'll just go through it very, very
17 quickly. I've marked it in the margin and I'd be happy to also
18 turn it over to the Court, if it's appropriate. With respect to
19 the expert reports, it says "Expert reports for all expert
20 witnesses that the United States will seek to call in its
21 remedies case in chief regarding" -- and they say "All opinions
22 that have not previously been disclosed." I'm very worried about
23 that. Because then we get into the argument of what was the real
24 scope of the prior opinion. Is this really a new opinion? Is it
25 an old opinion? The trigger should not be a new opinion, it

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1 should be new evidence. Any kind of new evidence at all, either
2 opinion evidence, or factual evidence or supporting evidence for
3 an opinion. If it's new, it should be disclosed, so we don't
4 have to sit there and quarrel about what was in the scope of a
5 prior opinion. That's one.

6 Two, they say all such reliance materials will be
7 produced, so long as it's not publicly available. Why, if they
8 have it in their position -- all we're doing is saving each other
9 an awful lot of ferreting around. We should just exchange it.
10 We can exchange huge volumes of documents. There's no reason why
11 photocopying should be a problem, particularly given the need for
12 expedition here.

13 C, it says "The United States shall make all expert
14 witnesses who will offer testimony regarding remedies that were
15 not previously disclosed available." Well, again, the problem
16 is, what was previously disclosed? Is it this kind of remedy or
17 that kind of -- again, it should be the same kind of thing. If
18 they're going to produce Dr. Eriksen and he's going to say
19 exactly what he said before, exactly the same way, they can tell
20 us that. And if you confirm that, then we don't have to sit
21 there and redisclose it, they can just -- but if it's something
22 that that's clean, it just ought to be regarding remedies.

23 THE COURT: All right, Mr. Bernick, time is moving on.

24 MR. BERNICK: Okay. D is -- this has got to be -- simply
25 an oversight. On fact witnesses, they'll make those people

1 available "Who were not previously identified and has not
2 previously been deposed in this action." Well, what if they've
3 been identified but they were -- they were not previously
4 identified, but they had been deposed. In other words, why do we
5 have to be so, you know, narrow about it?

6 THE COURT: How could they have been deposed if they
7 weren't identified?

8 MR. BERNICK: The question of what the nature of their
9 deposition was for. Were they deposed as an expert witness but
10 not identified to talk about this particular -- I don't want to
11 get involved into parsing, this just ought to be clear. If
12 you've got a fact witness that they intend to use in connection
13 with the remedies case, they should just tell us who they are and
14 make them available, Your Honor, we will not ask them any
15 questions that pertain to things that they've said before, but I
16 don't want to quarrel about whether we're entitled to a
17 deposition and have motion practice on that subject.

18 Last couple points. We propose that the witnesses be made
19 available in D.C. because everybody's here in D.C. It's going
20 work to everybody's benefit. They don't want that either, with
21 respect to the experts or fact witnesses. Depositions shall not
22 exceed seven hours a day. I think that's probably right, but we
23 also ought to have flexibility if there's a special showing of
24 cause, and then they want a disclosure of the proposed order of
25 witnesses a week in advance. Again, we don't see why they can't

1 be before that. We should have that two weeks in advance. So
2 those are the issues that I think we have before us.

3 THE COURT: Mr. Brody, any comments?

4 MR. BRODY: Yes, Your Honor, as to walking through that
5 order, I'm a little bit confused, because Mr. Bernick was
6 criticizing provisions in our order that was taken directly from
7 defendants' proposal and the -- you know, the order -- we took
8 the language, "Its a remedies case-in-chief regarding all
9 opinions that have not been previously disclosed". This is their
10 order, directly from it. We took the language on opinions
11 regarding remedies that were not previously disclosed available
12 for deposition directly out of their order, and we took the
13 language about one week prior to the start of the case in chief
14 directly out of their order as well. So, I'm a little confused
15 by the criticisms.

16 MR. BERNICK: Probably due to a lack of failure to
17 communicate on our side.

18 THE COURT: Mr. Brody, go ahead.

19 MR. BRODY: As to the schedule for disclosures and
20 depositions, three -- I think it's three primary points.

21 One, the projection that defendants will be finished with
22 their liability case on April 11th is wholly unrealistic unless
23 they plan to call 29 witnesses to the stand in three and a half
24 weeks. Second, the objection to the deposition schedule and the
25 fact that they would have to potentially submit an expert report

1 for completing any deposition of a corresponding expert is
2 identical to that employed in this case, and the process, as it
3 worked, under order 65. Defendants filed every single one of
4 their counter expert reports to the United States' experts before
5 they had deposed that expert.

6 In fact, I don't think there were any depositions of
7 experts taken before the February 1st date, where their
8 noncomplex statistical reports were due and there were none of
9 the depositions of the statistical experts -- it may have been
10 the first day of Dr. Gruber's deposition that took place before
11 the counter to his. But if that's the case, it's the only one
12 that fell into that category.

13 Third, the United States' proposed schedule is
14 specifically designed to ensure that there is absolutely no
15 interruption in the trial schedule, and as I pointed out, the end
16 date of May 2nd is the same in both of them, and if defendants do
17 finish their liability case in chief before the start of May, and
18 I hope they do, I hope they cut enough witnesses to do it, we
19 still won't have any interruption because that May 2nd date is
20 for any, you know, counter opinions that they tell us they're
21 going to offer that we need to then depose that expert on.
22 That's the kind of thing that we will be doing, we anticipate
23 doing, as we are presenting our own witnesses here in court on
24 the stand on remedies issues.

25 It's going to happen with each side. They're going to be

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1 deposing our people while their liability case is going on and
2 we're going to be deposing their people at the same time, so it
3 works the same way with each side. And so all of the problems,
4 alleged problems that Mr. Bernick pointed out are not problems,
5 and are, in fact, consistent with Order 65 and the procedures
6 that have been followed in the case thus far.

7 THE COURT: Three things I want to leave you with tonight.
8 Number one, there's no reason in the world that people can't
9 confer this evening to see if there are any areas that you can
10 narrow, in terms of disagreement, or that you can come to
11 consensus on. I will, of course, be working on the schedule
12 tonight, but that doesn't mean I'm not going to take into account
13 any further suggestions that you have tomorrow. That's number
14 one.

15 Number 2, I hate to even mention this, but it's better
16 that I mention it now, than it rear its ugly head out of nowhere.
17 It really pains me to mention this, but certainly the scheduling
18 orders that I've issued in this case take into recognition or
19 acknowledge the possibility -- and I know Mr. Brody knows where
20 I'm going -- of a government rebuttal case, awful as that may be.
21 If there's going to be one, I want to know about it sooner rather
22 than later. I haven't said a word about it thus far because we
23 just started with the defense case, but clearly the government's
24 thinking about it. I have long had a view in my own mind as to
25 how much time will be allotted, if any, and the government may

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1 decide you don't need it. But I certainly want a presentation
2 about that. I don't know if it's fair to ask you for it after
3 only one week of liability testimony from the defense side, but
4 obviously the government's done some thinking about. That I
5 don't know if you want to say anything about it at this time.

6 MS. EUBANKS: Well, Your Honor, you're right, we have done
7 considerable thinking about it, and one of the issues that
8 concerns us, of course, is what is in and out. And based upon
9 your ruling earlier this week about closing, I think we have a
10 pretty good idea where the parties are with respect to work that
11 the Court will be doing later.

12 We don't intend to bring any rebuttal witnesses unless
13 that's absolutely necessary. I can say that, you know, with only
14 two witnesses, you're absolutely correct, we're not in a position
15 to assess that we will need a rebuttal case. If we have to base
16 it upon the two witnesses we've had now, I can tell you now no,
17 there's nothing we need to bring in at this point. But what we
18 can do if it's helpful to Your Honor, what we can do is revisit
19 this issue late next week and let you know where we stand at that
20 point. And if we have some ideas -- and, in fact, we can return
21 to it every week and let you know, so you're at least up-to-date
22 on what our thinking is on it.

23 THE COURT: All right. There's a final point I want to
24 mention. The government filed a motion, I think, very late last
25 night. I certainly wasn't aware of it until this morning, a

1 motion for sanctions against BATCo. I want to emphasize that
2 while I know it's been filed, and while I know the general
3 subject matter, I have not read that motion. Ordinarily, I don't
4 read motions until they're fully briefed, although if there are
5 scheduling matters, I look at them the minute they come in.

6 In particular, I am not going to read the government's
7 motion, and the government, as well as the defense, may want to
8 think about their timing on this. And, again, this is not any
9 kind of a critical remark. But whatever it is the government is
10 presenting in that motion, may well be affected by an opinion
11 which I had hoped, I must say, would be out by now, but
12 unfortunately is not, and that's the opinion on the Gulson
13 testimony. I've done a fair amount of work on it. I like to
14 think I'm not an obsessive perfectionist, but it still needs some
15 work and I know the reading for this weekend is 475 pages which
16 is an awful lot of reading.

17 All I can tell you is that, probably, if I could get a
18 half a day to myself, that would be out. I'm going to try to get
19 it out this weekend. I can't promise. I can't promise. The
20 government may very much want to reevaluate where it stands with
21 regard to that motion. But what I do want to emphasize to
22 everyone is, to avoid total confusion, I want it clear that my
23 ruling on the Gulson testimony is going to be in terms of where
24 we are now. And that I don't want to read the government's
25 motion. I don't want to know what's in it at this point. I'll

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1 rule what I rule and then all of you can move on from there, in
2 terms of other things that you have to do.

3 MS. EUBANKS: Well, Your Honor, the -- I hear you loudly
4 and clearly about reevaluating what it is we've done, but one of
5 the reasons we're seeking expedited consideration is that that
6 motion and the remedies that the U.S. is requesting, or at least
7 one of them, would go to further proceedings in the case with
8 respect to upcoming witnesses who are identified.

9 THE COURT: I see.

10 MS. EUBANKS: And so that's why the motion came out late
11 last night.

12 THE COURT: Well, I might have to give you the day after
13 Easter so I can work. But that's not a final decision. I hope
14 to have the Gulson opinion out long before then, long before
15 then.

16 MR. SHEFFLER: Your Honor, they're asking for a response
17 this Friday. Given what you've said, we can take at least until
18 Monday to get that response in.

19 THE COURT: You can take what?

20 MR. SHEFFLER: Until Monday to get that response in.

21 MS. EUBANKS: Your Honor, the request actually goes to
22 possible testimony that could be set forth in upcoming witnesses.
23 I am trying to think of the list that we got last night. And Mr.
24 Brody is shaking his head, he probably is more tuned in than I am
25 to that. But waiting until Monday -- the reason we --

1 THE COURT: Let me say this. Certainly, Mr. Sheffler can
2 wait until Monday to get his response in. I know what's
3 reasonable and what's not, in terms of what I can get out and
4 when I can get it out. And, indeed, at that point, everybody
5 will need to see where they are -- that's all I wanted to let you
6 know. And I do want it clear that I don't want moving targets.
7 I want to rule on what's outstanding, in terms of Mr. Gulson's
8 testimony, and then, as I say, everybody will do what they need
9 to do.

10 MR. BERNICK: Your Honor, I know that we should -- I don't
11 mean to prolong. I have a couple of points to raise with respect
12 to the scheduling in response to what Mr. Brody said, and I'm
13 also happy to wait until tomorrow morning.

14 THE COURT: No. I would rather hear it now so I can work
15 this evening after I finish my meeting.

16 MR. BERNICK: Just three things. One, I did want to make
17 sure that I responded to what the government has indicated is
18 their position with respect to putting people back on the witness
19 list. With that type of approach, we're talking about multiple
20 weeks. If we take somebody off and put them back on the next
21 week, it effectively means they're not going to testify for
22 weeks. And I think the net effect of that will be that we will
23 not take them off the witness list. I think that still, however,
24 what we might do is shift people to the back of the witness list
25 so that we can see how things go. We have to have more

1 flexibility than that kind of procedure will permit. We hope for
2 something else, but I'm not questioning their judgment, it's
3 theirs to make. So for Your Honor's benefit, we're not going to
4 take people off if that's going to be the rule, but we'll still
5 seek to provide an order that is meaningful.

6 Mr. Brody is skeptical that we'll be done by the second
7 week in April. Certainly if we called everybody who's on our
8 list, we would not be. But given the pace we're proceeding right
9 now and the number that we're going to call, our estimate is the
10 second week in April. That has not changed.

11 Thirdly and finally, and this is kind of a little bit of a
12 refinement, and I know that may be somewhat different, as Mr.
13 Brody pointed out, from the practice the Court has adopted
14 previously, where you have the exchange of reports and then the
15 depositions, he also acknowledged then, however, there was a lot
16 of need for a lot of clean up. And there were supplemental
17 reports and the like and indeed he acknowledged that we might
18 have to do that after May the 2nd.

19 We would strenuously object to that. The whole purpose of
20 this exercise is to get everything in the can so that when people
21 are done testifying in deposition, that's it, we don't have to go
22 back and forth. We believe that we're prejudiced as it is by
23 having any new evidence come in. But to adopt a procedure
24 whereby our people are still being deposed, when we don't even
25 know what the full extent of their remedies case is, or they're

1 being deposed before we know -- we have to submit expert reports
2 before we know what their experts really will say in deposition,
3 inevitably will invite the need to have supplemental materials
4 and exchanges, and mean that we will not be done. And it's going
5 to be pretty wild in here. People are going to be on separate
6 tracks taking depositions, having people appear on the same --
7 very much like a preliminary injunction hearing, you can't
8 tolerate, I don't believe -- I don't think it's appropriate to
9 tolerate, you know, responsive reports, rebuttals and
10 supplements. Do it once and get the sequence done. That would
11 be my request, Your Honor.

12 THE COURT: Mr. Brody.

13 MR. BRODY: If Mr. Bernick heard me say that there would
14 be clean up and supplemental reports after May 2nd, he did not
15 hear what I said accurately. There was a specific provision for
16 that in Order 65, there is not a provision for that in anything
17 that either side has proposed here. The only other point on
18 scheduling, Your Honor, is that -- we said two and a half hours
19 for Dr. Langenfeld. I'm told that it may run up to three hours,
20 an extra 30 minutes, but we still should be able to, even
21 breaking a little early, as you have to tomorrow, we should be
22 able to complete his testimony during the day tomorrow.

23 THE COURT: All right. 9:30 tomorrow morning everybody,
24 please.

25 (Proceedings adjourned at 3:33 p.m.)

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1 C E R T I F I C A T E

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3 I, Scott L. Wallace, RDR-CRR, certify that the
4 foregoing is a correct transcript from the record of proceedings
in the above-entitled matter.

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I N D E X

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