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ATOMIC ENERGY AND FREE ENTERPRISE

ADDRESS

BY

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It is indeed a pleasure to meet with you today. This morning, with your permission, I shall depart a bit from accustomed procedure. Instead of discussing general antitrust policy, my plan is to focus on promotion of competition within one field--atomic energy.

Ten years ago this month, the first Federal atomic energy program under civilian auspices began. It was on January 1, 1947, that the Atomic Energy Commission assumed responsibility for civilian atomic development under the Atomic Energy Act of 1946.<sup>1/</sup> Written when fear of the atom's destructive force wholly overshadowed its promise of commercial use, that Act provided for Government monopoly over development of this new energy source.

However, experience under the 1946 Act demonstrated the practical possibilities for its industrial application. And, to accomplish commercial use for the benefit of all, the most effective means, we believed, was free enterprise.

Against this background the Atomic Energy Act of 1954<sup>2/</sup> was adopted providing an effective compromise between the need for close Government control and the desire for the fullest play for free markets. Its implementation presents the Department of Justice with a unique challenge. In this evolving industry, we attempt preventive measures to foster competition, rather than remedial litigation to undo the effect of anticompetitive action already taken.

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<sup>1/</sup> 60 Stat. 755 (1946), 42 U.S.C. §1801-1819 (1952).

<sup>2/</sup> 68 Stat. 919 (1954), 42 U.S.C. §2011-2281 (Supp. III, 1956).

With this in mind, my plan this morning is to begin by detailing the 1946 Act. Building on this Act, I turn, second, to the Atomic Energy Act of 1954. And, finally, I touch on this Department's efforts with the Atomic Energy Commission to promote competition in atomic development.

First, the Atomic Energy Act of 1946. At the time of the 1946 law, the overriding consideration was the need for close Government control. President Eisenhower, in 1954, aptly characterized the atmosphere in which this first Atomic Energy Act was written. As the President put it;<sup>3/</sup>

To harness its power in peaceful and productive service was even then our hope and our goal, but its awesome destructiveness overshadowed its potential for good. In the minds of most people this new energy was equated with the atomic bomb, and the bomb spelled the erasure of cities and the mass death of men, women and children.

Moreover, this Nation's monopoly of atomic weapons was of crucial importance in international relations. The common defense and world peace required that this monopoly be protected and prolonged by the most stringent security safeguards.

Reflecting these views, the 1946 Act established a strict Government monopoly over the use and application of atomic knowledge.<sup>4/</sup> Private industry was barred from owning fissionable material or facilities to produce it.<sup>5/</sup> The use of such materials by private concerns was also barred.<sup>6/</sup> They could participate in the development of atomic energy only under licenses from the Commission.<sup>7/</sup> Moreover, any patents developed, even in the non-military field, were made available to the Government and to all firms operating under Commission licenses.<sup>8/</sup>

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<sup>3/</sup> H.R. Doc. No. 328, 83d Cong., 2d Sess. 1-2 (1954).

<sup>4/</sup> See the report of the Special Committee on Atomic Energy in S. Rep. No. 1211, 79th Cong., 2d Sess. 14-15 (1946).

<sup>5/</sup> 60 Stat. 760 (1946), 42 U.S.C. §1804, 1805 (1952).

<sup>6/</sup> Ibid.

<sup>7/</sup> 60 Stat. 764 (1946), 42 U.S.C. §1807 (1952).

<sup>8/</sup> 60 Stat. 768 (1946), 42 U.S.C. §1811 (1952).

The period of governmental monopoly, however, saw marked changes in the conditions which had determined our policy.<sup>9/</sup> Great strides were made in basic research and in military applications. Equally important, other countries were already turning to development of commercial applications for atomic power. The task of foreign countries was easier than ours. For their higher present cost of power meant that commercial atomic power might compete with conventional power at an earlier state of reactor development. By 1953, Great Britain and the Soviet Union were already making great headway in this effort. The United States was thus confronted with a world-wide race to develop commercial atomic power.<sup>10/</sup>

Against this background, the purposes of the Atomic Energy Act of 1954 became clear. Still necessary was development of atomic weapons within the existing framework of controls and secrecy. Feasible now, however, was international cooperation with our Allies in atomic matters. Finally, it was necessary to open the field to widespread industry participation to achieve rapid development of commercial atomic applications.

Consequently, this legislation sought to end total governmental monopoly. It relaxed the prohibitions over private participation in atomic developments, allowed freer access to hitherto restricted technological data and permitted private ownership and use of production and utilization facilities. In effect, a measure of competition was now permitted within the framework of an industry still closely regulated.

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<sup>9/</sup> See the discussion of the background events against which the 1954 Act was passed in Palfrey, Atomic Energy: A New Experiment in Government-Industry Relations, 56 Colum. L. Rev. 367, 369-372 (1954).

<sup>10/</sup> Hearings before the Joint Committee on Atomic Energy on Atomic Power and Private Enterprise, 83d Cong., 1st Sess., at 58, 65 (1953). Indeed, at the present time, Britain is already considering bids submitted for the construction of its first two commercial atomic power stations. See the article Atomic Contest, The Economist, December 1, 1956, p. 801.

Passage of this legislation occasioned lengthy hearings <sup>11/</sup> and sharp differences of opinion. The legislative history of the Act--bills, hearings, reports and Congressional debates--fills three enormous volumes. <sup>12/</sup>

Several provisions, however, deal directly with safeguards to preserve free competition. It is in the area of licensing and patents that the extent of competition in civilian development of atomic energy will largely be determined.

There were special problems in this area. During the period of Government monopoly, much of AEC operation and research had been performed by private firms under contract. Private firms had thus gained access to a great deal of restricted data, acquired the necessary scientific staffs, and had accumulated a mass of technological know-how. Without effective controls to offset these advantages, it was feared that potential newcomers to the industry would be deterred by the dominant position these firms would quickly achieve. <sup>13/</sup>

Provisions of the Act designed to ensure competition received careful consideration in the light of these special problems. <sup>14/</sup> Many conflicting

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11/ Hearings before the Joint Committee on Atomic Energy on S. 3323 and H.R. 8862, To Amend the Atomic Energy Act of 1946, 83d Cong., 2d Sess. (1954).

12/ U. S. Atomic Energy Commission, Legislative History of the Atomic Energy Act of 1954 (Public Law 703, 83d Cong.), 3 Vol. (1955).

13/ See Adams, Atomic Energy: The Congressional Abandonment of Competition, 55 Colum. L. Rev. 158 (1955), reprinted as Chapter VII in Adams & Gray, Monopoly in America (1955).

14/ Similar problems with respect to Government research and development work generally are discussed in Report of the Attorney General Pursuant to Section 708(e) of the Defense Production Act of 1950, as Amended, November 9, 1956.

proposals were made.<sup>15/</sup> Not surprisingly, therefore, the terms of the resulting statute are, in large part, the product of compromise.<sup>16/</sup>

The statute's most basic competitive safeguard is provision for normal application of antitrust to the civilian atomic industry. Section 105 of the Act<sup>17/</sup> carefully reaffirms our belief that these laws are basic to the maintenance of free enterprise. In addition, that section requires that the Commission report promptly to the Attorney General any indication that any private use of special nuclear material or atomic energy may raise antitrust problems.

Apart from this general affirmation, other provisions of Section 105 treat particular competitive problems. According to that section, for example, any grant of a commercial license, must be preceded by advice from the Attorney General whether its issuance would tend to create or maintain a situation inconsistent with the antitrust laws.

This provision, patterned after earlier surplus property disposal laws<sup>18/</sup> makes available to the Commission analysis of any special anticompetitive considerations presented. Antitrust advice, however, need not be controlling. For the Commission must also weigh the necessities of defense and security and public health and safety. Nonetheless such a procedure provides an effective means to insure that knowledge of possible antitrust difficulties required to foster competition.<sup>19/</sup>

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<sup>15/</sup> See for example: Sec. 106 of H.R. 8862 and its companion bill, S. 3323, 83d Cong., 2d Sess. (1954); Sec. 105 of H.R. 9757 as introduced, 83d Cong., 2d Sess. (1954).

<sup>16/</sup> H.R. Rep. No. 2666, 83d Cong., 2d Sess. 30 (1954).

<sup>17/</sup> 68 Stat. 938 (1954), 42 U.S.C. §2135 (Supp. III, 1956).

<sup>18/</sup> Sec. 207 of the Federal Property and Administrative Services Act of 1949, 63 Stat. 391, 40 U.S.C. §485 (1952).

<sup>19/</sup> See testimony of J. Lee Rankin in Hearings before the Joint Committee on Atomic Energy on S. 3323 and H.R. 8862 to Amend the Atomic Energy Act of 1946, 83d Cong., 2d sess. 712 (1954).

As the Act now stands, then, the Commission must issue commercial licenses on a nonexclusive basis to all applicants who meet the conditions the Act sets forth.<sup>20/</sup> This provision promises the widest possible participation of all interested in entering the atomic field. It reduces the possibility that the limited number of Government contractors already in the field will retain their exclusive position.

That possibility is further decreased by the action of the Commission in permitting vital dissemination of restricted data.<sup>21/</sup> Dissemination opens up to newcomers great areas of technological information hitherto available only to the contractors under the earlier Government program.<sup>22/</sup>

Concern with anticompetitive considerations, let me emphasize, does not end with issuance of any commercial license. Licenses, once issued, are still subject to the antitrust laws. And licenses may be revoked by the Commission if subsequent information would warrant refusal of a license on an original application.<sup>23/</sup> We interpret this language to include instances where a later investigation reveals anticompetitive factors unknown to this Department at the time the license was issued.

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<sup>20/</sup> Sec. 103(b), 68 Stat. 936 (1954), 42 U.S.C. §2133(b) (Supp. III, 1956).

<sup>21/</sup> AEC Regulation "Access to Restricted Data", 21 Fed. Reg. 810. Feb. 4, 1956, amended 21 Fed. Reg. 5733, Aug. 1, 1956.

<sup>22/</sup> However, see the discussion of the problems remaining in this area, involving AEC's use of its discretion, in Green, Information Control and Atomic Power Development, 21 Law and Contemporary Problems 91 (1956).

<sup>23/</sup> Sec. 186(a), 68 Stat. 955 (1954), 42 U.S.C. §2236(a) (Supp. III, 1956).

Considerable discussion arose over the present law's patent provisions.<sup>24/</sup>  
The patent system is a fundamental factor contributing to the outstanding technological development of American industry. Many believed, therefore, that any curtailment of traditional patent rights would obstruct full and speedy development.<sup>25/</sup>

However, technology's importance in this highly scientific field inspired the belief that curtailment of certain patent rights was necessary for competition to flourish. Particularly, the technical advantages gained by AEC contractors before the passage of the Act suggested that important areas might be closed off to newcomers. The President called for temporary provisions to meet this need; as he put it:

Until industrial participation in the utilization of atomic energy acquires a broader base, considerations of fairness require some mechanism to assure that the limited number of companies, which as Government contractors now have access to the program, cannot build a patent monopoly which would exclude others desiring to enter the field. I hope that participation in the development of atomic power will have broadened sufficiently in the next 5 years to remove the need for such provisions.<sup>26/</sup>

The Act, as passed, provides that any patent issued before September 1, 1959, may be declared by the Commission, under certain conditions, to be

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<sup>24/</sup> The patent provisions of the Act are extensively analyzed in Boskey Patents Under the New Atomic Energy Act, 36 J. Pat. Off. Soc'y 867 (1954); Spear, Compulsory Licensing of Patents under the Atomic Energy Act of 1954, 43 Geo. L. J. 221 (1955); Beckett and Merriman, Will the Patent Provisions of the Atomic Energy Act of 1954 Promote Progress or Stifle Invention? 37 J. Pat. Off. Soc'y 38 (1955); Ooms, Some Suggestions Relating to Patent Provisions in Atomic Energy Legislation to Protect the Public Interest, 38 J. Pat. Off. Soc'y 38 (1956); Boskey, Progress and Patents in Atomic Energy: the Military and the Civilian Uses, 34 Texas L. Rev. 867 (1956).

<sup>25/</sup> See, for example, the views of Rep. Cole, Chairman of the Joint Committee, H. Rep. No. 2181, 83d Cong., 2d sess. 96 et seq. (1954).

<sup>26/</sup> H.R. Doc. No. 328, 83d Cong., 2d sess. 7 (1954).



affected with a public interest. The Commission itself may then use or license the invention or discovery covered by the patent.<sup>27/</sup>

This provision has been criticized on the grounds that the condition governing compulsory licensing are too strict and the period during which it may be invoked too short.<sup>28/</sup> Significantly, however, no special problems seem to have arisen under this provision. Moreover, other sections of the Act relating to patents reinforce this section's effort to insure equality of opportunity.

Section 159, for instance, carefully preserves the Government's paramount rights to invention made by the individual concerns in the course of their work under contract.<sup>29/</sup> Similar provisions were included in larger contracts during the period of Government monopoly.

An even more significant protection for the general public is found in Section 152.<sup>30/</sup> It provides a statutory affirmation of the Government's rights in inventions resulting from work under AEC contracts and extends those rights to other areas. Unless the Commission should, in its discretion, waive its claim, any invention made or conceived under any contract, arrangement "or other relationship" with the Commission, regardless of whether the relationship involved the expenditure of funds by the AEC, "shall be deemed to have been made or conceived by the Commission." This means that no person or firm can gain private patent advantages from ideas originating through past or future Government connections.

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<sup>27/</sup> Sec. 153, 68 Stat. 945 (1954), 42 U.S.C. §2183 (Supp. III, 1956).

<sup>28/</sup> E.g., Adams, Atomic Energy: The Congressional Abandonment of Competition, 55 Colum. L. Rev. 158 (1955).

<sup>29/</sup> 68 Stat. 948 (1954), 42 U.S.C. §2189 (Supp. III, 1956).

<sup>30/</sup> 68 Stat. 944 (1954), 42 U.S.C. §2182 (Supp. III, 1956). See Palfrey, Atomic Energy: A New Experiment in Government-Industry Relations, 56 Colum. L. Rev. 367, 383 (1956).

A final patent safeguard is the provision respecting antitrust violations in the use of atomic energy patents.<sup>31/</sup> The statute specifically authorizes the courts to require reasonable-royalty licensing of patents involved in antitrust violations. While courts already have this power included within their general equity remedies, Congress has here clearly directed appropriate use of that remedy in this field.

This brief review has pointed out the various competitive safeguards in the Act. Opinions differ as to their effectiveness. While I recognize that the Act may not be perfect,<sup>32/</sup> I feel that most criticism of the Act's antitrust safeguards lies in the realm of theory. In its actual operation I believe the Act appears adequate for the proper development of our free enterprise system at a time when both atomic developments and regulatory mechanisms to control them are still experimental. It is equally important that it grants the Atomic Energy Commission sufficient flexibility to meet the diverse major objectives of the Act.

The Department of Justice is eager to meet the unique challenge presented by this new industry. We have an important role to play in fostering competition. We here have an opportunity to utilize preventive rather than merely remedial action. We must act to prevent anticompetitive tendencies before they mature into monopolistic patterns.

Since the passage of the 1954 Act, the Department of Justice has worked closely with the Atomic Energy Commission. We have assisted the Commission

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<sup>31/</sup> Sec. 158, 68 Stat. 947 (1954), 42 U.S.C. §2188 (Supp. III, 1956).

<sup>32/</sup> See, for example, the criticism that the Act does not make more specific provision for the thermonuclear development. Walker, Legal Control of Thermonuclear Energy: The Atomic Energy Act and the Hydrogen Program, 52 Mich. L. Rev. 1099 (1954); Walker, Thermonuclear Reactions: Can They Be Used for Man's Benefit? 33 Foreign Affairs 605 (1955).

in formulating regulations <sup>33/</sup> governing civilian participation in atomic energy developments to ensure the implementation of the competitive safeguards in the Act. <sup>34/</sup> We have also consulted on general competitive problems involved in development of this new industry.

An example of the problems so far raised concerns the issuance of research and development licenses to private firms under Section 104 of the Act. <sup>35/</sup> Because of the heavy expenses involved in construction and operation of experimental power reactors and other types of laboratory equipment, there has been a tendency to organize joint participation among a number of firms. Although the companies seeking such licenses jointly may not presently be engaged in the same industries, such activities still require considerable careful study, from a competitive point of view, both as to present actions in the experimental stages and in future activities when the commercial stage is reached. In the case of public utilities, I might add, such licenses for joint activities also raise the possibility of questions under the Public Utilities Holding Company Act. <sup>36/</sup>

The volume of competitive problems in this field has not yet been large. Despite the glowing promise of the atom's commercial development,

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<sup>33/</sup> 10 CFR, 1955 Supp., p. 3 et seq. AEC regulations are also collected in 2 CCH Atomic Energy Law Reporter 15,001 et seq.

<sup>34/</sup> See, for example, Secs. 50.70 and 50.71, concerning inspections, records and reports, 21 F.R. 360, 2 CCH Atomic Energy Law Reporter 15,064.

<sup>35/</sup> 68 Stat. 937 (1954), 42 U.S.C. §2134 (Supp. III, 1956).

<sup>36/</sup> 49 Stat. 838 (1935), 15 U.S.C. §79 (1952). See the general discussion on this subject in Murray, Atomic Electric Energy and the Holding Company Act, 24 Jour. B. Assoc. D.C. 20 (1957).

such promise is still but a hope. Aside from the use of radioisotopes, activities in the field are still completely experimental.<sup>37/</sup>

Yet, this experimental work shows that the industry will not be limited to a mere handful of previous participants. Virtually all segments of industry are alert to the possibilities of this new and dynamic field.<sup>38/</sup> More than 1,000 persons and firms have already been granted access permits by the Commission to obtain technological information.<sup>39/</sup>

Nevertheless, we will keep a close eye on the developing situation in atomic energy. We will continue close consultations with the Commission and will advise them immediately of any situation which, in our judgment, may appear to present a serious tendency toward anticompetitive concentration. We are also prepared to inform the Congress, without delay, of any need which may develop for changes in the basic statutes to provide additional competitive safeguards.

The techniques of preventive action, though not entirely new to anti-trust enforcement, here find their greatest opportunity for useful application. Preventive action must be applied wisely and well if we are to realize the great potential of this new industry for our future industrial well-being. For we are dealing here with a promise of future energy supply

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<sup>37/</sup> A compilation of pertinent data on all current developments in construction of nuclear reactors for research and for experimental power plants in the United States, both Federal and private, is contained in Nuclear Reactors Built, Building or Planned in the United States as of October 1, 1956, 1 CCH Atomic Energy Law Reporter 2721.

<sup>38/</sup> See Ooms, Some Suggestions Relating to Patent Provisions in Atomic Energy Legislation to Protect the Public Interest, 38 J. Pat. Off. Soc'y 38, 46 (1956).

<sup>39/</sup> AEC Press Release No. 948, December 31, 1956, p. 8.

greater than all the unmined coal, all the untapped oil and all the hydroelectric capacity now existing in the United States.<sup>40/</sup> As the estimates of expanding future energy requirements indicate that conventional power sources may not be adequate for the task,<sup>41/</sup> the introduction of this new source of energy becomes a vital necessity to enable us to maintain our industrial pre-eminence among the nations of the world. We are confident that the development of a great new industry in the spirit of full and free competition can be accomplished.

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<sup>40/</sup> Adams, Atomic Energy: The Congressional Abandonment of Competition, 55 Colum. L. Rev. 158 (1955).

<sup>41/</sup> Hearings before the Joint Committee on Atomic Energy on Atomic Power Development and Private Enterprise, 83d Cong., 1st Sess. 5-13 (1953); The President's Material's Policy Commission, Resources for Freedom, Vol. III, p. 32 (1952).