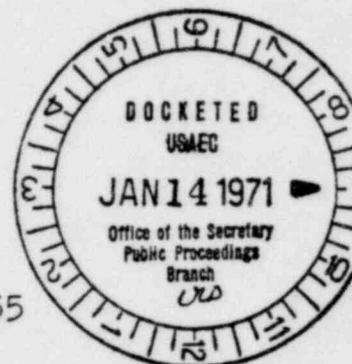


UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

In the matter of
CONSUMERS POWER COMPANY
(Palisades Plant)

Docket No. 50-255



BRIEF OF INTERVENORS REGARDING THE JURISDICTION OF
THE ATOMIC ENERGY COMMISSION TO REGULATE THE EFFECTS
OF THERMAL ENERGY PURSUANT TO THE ATOMIC ENERGY ACT

INTRODUCTION AND STATEMENT
OF ISSUES PRESENTED

On June 24, 1970, Intervenor addressed a series of oral motions to the Atomic Safety and Licensing Board ("Board"), which were reduced to writing at the request of Applicant and the direction of the Board on June 25, 1970.^{1/}

After oral argument by Intervenor, Applicant and the Regulatory Staff of the Atomic Energy Commission ("Staff"), the Board directed Applicant and Staff to file authority in support of their positions and in opposition to Intervenor's Motion No. 1, which authority was to be replied to by Intervenor on or before July 14, 1970. (Tr. pp. 556-59). Applicant has filed a brief in support of its position, but the Staff has chosen not to do so. Intervenor, therefore, direct themselves to the submission made

^{1/} All of Intervenor's motions are reproduced as Appendix A to "Brief of Intervenor Regarding The National Environmental Policy Act and The Water Quality Improvement Act" filed with the Board on July 7, 1970. This Brief concerns Intervenor's Motion No. 1 which is set forth at page 2 of the said Appendix A.

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by Applicant in its "Applicant's Brief To Support Denial Of Intervenor's Motion No. 1" (Applicant's Brief or "Apl. Br.").

Simply stated, Intervenor's position in this Brief is that pursuant to the Atomic Energy Act, 42 U.S.C. §2011 et. seq.,^{2/} ("Act"), the Atomic Energy Commission ("Commission") has the affirmative obligation to consider and regulate the effects of thermal energy in the course of its licensing procedures. This is because the Commission is directed to regulate "atomic energy" and its utilization. Heat or thermal energy is "an energy released in the course of nuclear fission or nuclear transformation," that is, heat is "atomic energy." Therefore, the Act requires the Commission to regulate the effects of thermal energy as part of its regulation of atomic energy.

Intervenors pursue their position herein mindful of the fact that the Commission and the Staff have historically taken the position that the Commission's jurisdiction is "limited." Thus, Intervenors are acutely aware that the Commission has asserted that its obligations to protect the "general welfare" and the "health and safety of the public" are fully discharged solely by consideration of radiological effects.

Intervenors, therefore, have made an exhaustive search of the legislative history^{3/} of the 1946 and 1954 Acts, as well as

^{2/} For the convenience of the Board, we refer to the Sections of the Act as uncodified and at each such reference also provide the parallel citation to the codification in the U. S. Code.

^{3/} For the convenience of the Board, the relevant legislative history is reproduced in pertinent part, and attached hereto as appendices, which appendices are identified throughout this Brief.

their progeny, in advance of filing their motion and in connection with preparation of this Brief. Intervenors' efforts have demonstrated that the precise issues presented herein were never the subject of any previous ruling or decision by the Commission or a court and that the resolution of these issues requires the Commission to reverse its position of long standing.

I.

THE COMMISSION MUST REGULATE THE EFFECTS OF THERMAL ENERGY BECAUSE THERMAL ENERGY IS AN ENERGY RELEASED IN THE COURSE OF NUCLEAR FISSION OR NUCLEAR TRANSFORMATION AND THE ATOMIC ENERGY ACT IMPOSES UPON THE COMMISSION BOTH JURISDICTION AND THE AFFIRMATIVE OBLIGATION TO REGULATE, IN THE COURSE OF ITS LICENSING OF UTILIZATION FACILITIES, ALL FORMS OF ENERGY RELEASED IN THE COURSE OF NUCLEAR FISSION OR NUCLEAR TRANSFORMATION

The historical background of the Atomic Energy Acts of 1946 and 1954, as well as the language of the relevant Sections of the Acts themselves, demonstrate that the Commission is given authority, and hence has the obligation to administer a comprehensive program of government supervision over all aspects of atomic energy, (as defined). Thus the Commission becomes, by virtue of the Act, involved in research grants, patents, international compacts, etc., all with respect to the regulation of atomic energy.

One of the Commission's obligations as the result of the 1954 Act is to license the "utilization" of atomic energy by private sources. Accordingly, although the regulation of private uses of atomic energy takes the form of "licensing utilization facilities," the Commission's domain regarding such "utilization facilities" parallels the scope of the meaning of atomic energy and the purposes of the Act. It would be folly indeed to suggest^{4/} that the Commission does not have to regulate "atomic

^{4/} See Applicant's Brief pages 1-8 and pages 32 to 35, infra, herein.

energy" because its regulation is limited to licensing "utilization facilities," since the "utilization facilities" to which the Act directs itself are facilities utilizing "atomic energy." In other words, the Commission is not interested in all power facilities; it is only interested in those which utilize atomic energy, and any rescission of its licensing jurisdiction can proceed only after defining "atomic energy."

Intervenors shall demonstrate that notwithstanding the National Environmental Policy Act and the Water Quality Improvement Act of 1970, the Commission has the jurisdiction and the obligation to regulate thermal energy and its attendant effects, thermal pollution, pursuant to the Atomic Energy Act.

- A. The Commission has jurisdiction over all forms and utilizations of atomic energy and, within that term's meaning, thermal energy is a form of atomic energy.

The Atomic Energy Act contemplates and requires a comprehensive program of government supervision over all aspects of atomic energy. Since it cannot be seriously contended^{5/} that heat from a utilization facility is not a form of atomic energy, it follows that thermal energy, and hence its effects, is a necessary consideration for the Commission in the course of its licensing functions.

- (1) The Atomic Energy Act requires the Commission to regulate atomic energy.

The purposes and the underlying considerations of the Act^{6/} are set forth in various of its Sections; a reading of these Sections compels the conclusion that the Commission is directed to regulate "atomic energy."

Section 1 of the Act sets forth a broad declaration of the policies of the United States pursuant to which the Act must be interpreted. Section 1 provides:

^{5/} Applicant's Brief does not disagree with Intervenor's assertion that heat is a form of atomic energy and a reading of Applicant's Brief leaves Intervenor with the comforting feeling that Applicant has agreed with them. In fact, Applicant's counsel did agree, during the course of oral argument, that atomic energy included heat. See Tr. p. 447.

^{6/} Unless otherwise indicated, references are to the 1954 Act, as amended.

Declaration.--Atomic energy is capable of application for peaceful as well as military purposes. It is therefore declared to be the policy of the United States that--

(a) the development, use, and control of atomic energy shall be directed so as to make the maximum contribution to the general welfare, subject at all times to the paramount objective of making the maximum contribution to the common defense and security; and

(b) the development, use, and control of atomic energy shall be directed so as to promote world peace, improve the general welfare, increase the standard of living, and strengthen free competition in private enterprise. (Emphasis supplied). (Act, §1; 42 U.S.C. §2011).

This Congressional declaration of policy is directed to the entire area to which atomic energy may have application.

Section 2 of the Act sets forth Congress' findings.

Section 2 provides, in relevant part, as follows:

Congressional findings.--The Congress of the United States makes the following findings concerning the development, use, and control of atomic energy:

(e)...production facilities, and utilization facilities are affected with the public interest, and regulation by the United States of the production and utilization of atomic energy and of the facilities used in connection therewith is necessary in the national interest to assure the common defense and security and to protect the health and safety of the public.

(g) Funds of the United States may be provided for the development and use of atomic energy under conditions which will provide for the common defense and security and promote the general welfare. (Emphasis supplied). (Act, §2 (e) and (g); 42 U.S.C. §2012 (e) and (g)).

There can be no question, therefore, that Congress' findings were directed to the control of atomic energy. Section 2 of the Act does not support a conclusion that jurisdiction conferred upon the Commission regarding atomic energy is diminished ipso facto by the only method by which the Commission can exercise its jurisdiction in the licensing field, i.e. by the licensing of utilization facilities. A method used to implement an obligation cannot validly result in a limiting of the obligation.

To make explicit what it had in mind, Congress provided us with a statement of the purposes of the Act. Again it is clear that the scheme of the Act involves the regulation of atomic energy. Thus, in pertinent part, Section 3 of the Act provides:

It is the purpose of this chapter to effectuate the policies set forth above by providing for--

(c) a program for Government control of the possession, use, and production of atomic energy...[i.e. the licensing of utilization facilities] whether owned by the government or others [i.e. Applicant's Proposed Plant], so directed as to make the maximum contribution to the common defense and security and the national welfare...;

(d) a program to encourage widespread participation in the development and utilization of atomic energy for peaceful purposes to the maximum extent consistent with the common defense and security and with the health and safety of the public;

(e) a program of international cooperation to promote the common defense and security and to make available to cooperating nations the benefits of peaceful applications of atomic energy as widely as expanding technology...will permit....(Emphasis supplied). (Act, §3(c), (d) and (e); 42 U.S.C. §2013(c), (d) and (e)).

These sections make it clear that regulation of atomic energy, whatever this term means, is the task to which the Commission is to direct itself.

Sections which implement policies and purposes---

Remaining Sections of the Act implementing the policies, findings and purposes set forth in its three Sections further demonstrate the Commission's jurisdiction is directed to the regulation of atomic energy.

Section 161 of the Act is entitled "General Duties of the Commission." Under this Section the Commission is required, inter alia, to:

make, promulgate, issue, rescind, and amend such rules and regulations as may be necessary to carry out the purposes of this chapter. (Act, §161(p); 42 U.S.C. §2201(p)).

Pursuant to its duties, the Commission must promulgate rules and regulations which are "necessary" to carry out the purposes of the Act, which involves a comprehensive regulation of atomic energy. Hence, Commission regulations and procedures regarding atomic energy must "pass muster" with the Commission's obligation to carry out the purposes of the Act. It obviously follows that Commission failure to promulgate regulations which are necessary to carry out the purposes of the Act results in a violation of the duties imposed upon the Commission by the Act.

The method by which the Act permits the Commission to regulate private uses of atomic energy is by the licensing of

utilization facilities.^{7/} (Act §§101 and 103; 42 U.S.C. §§2131 and 2133).

Section 101 of the Act provides in relevant part:

It shall be unlawful, except as provided in Section 2121 of this title, [not relevant to the issue herein presented] for any person within the United States to...transfer, acquire, possess, [or] use...any utilization...facility except under and in accordance with a license issued by the Commission pursuant to Section 2133...of this title.

Section 103(a) of the Act provides in relevant part that the Commission:

...may issue licenses to transfer...acquire, possess, [or] use...[a] utilization...facility. Such licenses shall be issued in accordance with the provisions of subchapter XV of this chapter [Procedural Rules] and subject to such conditions as the Commission may by rule or regulation establish to effectuate the purposes and provisions of this chapter. (Emphasis supplied).

Under these Sections, therefore, the Commission is specifically and expressly prohibited from issuing any license which is not conditioned so as "to effectuate the purposes and provisions of this chapter."^{8/}

^{7/} The licensing of utilization facilities is the primary method by which, pursuant to the Act, the Commission regulates significant private use of atomic energy. However, the Commission regulates atomic energy in many other ways. Thus the Commission is empowered to provide grants for research into atomic energy (Act, §31, 42 U.S.C. §2051); to provide for the issuance of patents regarding atomic energy (Act, §153, 42 U.S.C. §2183); to provide for international cooperation regarding atomic energy (Act, §123, 42 U.S.C. §2153); and to provide for the protection in handling of secret information relating to atomic energy (Act, §141, 42 U.S.C. §2161).

^{8/} The word "chapter" refers to the entire Act. See 42 U.S.C. page 3 "Chapter 23-Development and Control of Atomic Energy."

It is also clear that the words "atomic energy" describe the purposes for which the Commission must exercise its regulatory authority.

Thus, the licensing provisions of the Act do not, as well they could not, in and of themselves, tell us anything more than the kinds of licenses which the Commission is permitted to issue. Although we know that a license of a "utilization facility" must comply with the "purposes and provisions of this chapter" to complete the investigation we must define the term "utilization facility." Section 11 of the Act defines this term, in relevant part, as follows:

The term 'utilization facility' means (1) any equipment or device except an atomic weapon...peculiarly adapted for making use of atomic energy in such quantity as to be of significance...or in such manner as to affect the health and safety of the public...(Emphasis supplied). (Act, §11(cc); 42 U.S.C. §2014(cc)).

Since the definition of utilization facility includes the term atomic energy, it is obvious that we cannot determine whether a utilization facility license complies with the purposes and provisions of the Act, i.e. the regulation of atomic energy, unless we define the term atomic energy.

With the jurisdiction of the Commission firmly in mind, we proceed to an examination of that term.

(11) Atomic energy includes thermal energy.

Although atomic energy may seem strange and mysterious, it will find its application in the power fields as a source of heat. The fission chain reaction makes the pile get hot. Some heat exchanger fluid must go through the pile to get out the heat. The hot fluid will then be directly used as the working fluid in a standard heat engine; e.g. a steam turbine, possibly of special design. In other words, the pile is a new kind of boiler, and however mysterious it may seem now, it will not require a revolution in the well-known engineering practice by which heat is converted into mechanical effort and thence into electrical power.

* * * * *

All reactors, in the course of burning nuclear fuel, produce heat. The quantities of heat can be extremely large and can be converted by conventional means into mechanical or electrical energy, as in the atomic-powered submarine Nautilus and in the Shippingport project. The expectation is that this characteristic can be exploited to develop economical atomic power.

These quotations respectively come from the Senate Report^{9/} which forms part of the legislative history of the 1946 Act and a commentary by two writers^{10/} who issued a publication shortly after the passage of the 1954 Act summarizing its meaning.

^{9/} Appendix to S. Rep. No. 1211, 79th Cong., 2nd Sess. (1946), which is reproduced and attached hereto in pertinent part as Appendix A.

^{10/} H. S. Marks and G. F. Trowbridge, "Framework for Atomic Industry, a Commentary on the Atomic Energy Act of 1954," p. 5, (Bureau of National Affairs, Inc. 1955).

What the authors of these quotations recognize is that heat is indeed the major form of energy released in the course of a nuclear transformation; and indeed the production of heat is the primary, if not the sole, purpose of a "utilization facility" licensed by the Commission.

Accordingly it is not astounding to note that the Congressional definition of atomic energy in the 1954 Act includes heat in its definition.

Section 11 of the Act defines atomic energy as follows:

The term 'atomic energy' means all forms of energy released in the course of nuclear fission or nuclear transformation. (Act, §11 (c); 42 U.S.C. §2014 (c)).

Since heat is "a form of energy released" and all such forms are atomic energy, heat is atomic energy.

(iii) Conclusion

We have seen that the purposes and policies of the Act require the Commission to regulate atomic energy and that atomic energy includes thermal energy. We have also seen that in licensing utilization facilities, the Commission must condition the license upon compliance with the purposes of the Act including the regulation of thermal energy. The definition of utilization facility relies upon this definition of atomic energy, which is essential to the determination whether a license is so conditioned as to comply with the purposes of the Act. It is

clear that no license may issue for a utilization facility making use of atomic energy unless it is conditioned upon the regulation of thermal energy, thereby complying with the requirement in the licensing provisions that the license comply with the purposes of the Act, that is, the regulation of atomic energy.

It follows, therefore, that the failure of the Commission to promulgate regulations to control thermal energy and its effects results in a violation of the Commission's duty, pursuant to Section 161(p) of the Act, to "make, promulgate, issue, rescind and amend such rules and regulations as may be necessary to carry out the purposes of this chapter."

B. The Atomic Energy Act's legislative history since 1946 supports the proposition that the Commission must regulate effects of thermal energy as part of its obligation to regulate atomic energy.

A careful and thorough examination of the legislative history of the 1946 Act, the legislative history of the 1954 Act, the legislative history of amendments to the Act since 1954 and the history of legislation proffered to the Joint Committee on Atomic Energy ("Joint Committee") demonstrates that the intent of Congress was to establish one agency which was responsible for the comprehensive regulating of atomic energy.

Intervenors shall demonstrate that Congressional intent regarding the regulation of atomic energy since 1946 was grounded in the recognition that as our experience broadened the scope of available information about atomic energy would enlarge. So as not to hamper the Commission with outdated tools, Congress provided the Commission with a mandate broad enough to permit the Commission to respond promptly and creatively so as to regulate atomic energy to protect the "general welfare" and "the health and safety of the public."

Intervenors shall further demonstrate that to limit the Commission's jurisdiction solely to radiological effects is an insupportable conclusion.

We now proceed to an examination of each phase of the relevant legislative history, insofar as is applicable to the discussion at pages 6-13 above regarding the jurisdiction of the Commission and the meaning of atomic energy.

(1) The 1946 legislative history

A full reading of the legislative history of the 1946 Act and an understanding of the climate in 1946 reasonably leads one to the propositions that Congress, by the passage of the 1946 Act, directed the Commission to concern itself with "atomic energy" and that atomic energy includes thermal energy.

(a) Jurisdiction was given to the Commission over all forms of atomic energy.

Uppermost in the minds of Congress when the 1946 Act was passed was the need to control this new and foreboding visitor --- atomic energy. As it observed our Nation moving almost without pause into the atomic age Congress had little experience with the tremendous energy unleashed by the splitting of the atom. The one thing Congress knew, however, was that this energy must be controlled. Thus when Senator McMahon introduced S. 1717, later to become the 1946 Act he said:

In the blinding flash of that bomb men saw the birth of a new era in the history of civilization. When the smoke and the dust had settled over the rubble men discerned in the red sky above the ruins the shape of a huge question mark: What can be done to control this powerful giant of the split personality? (Cong. Rec., p. 6094, June 1, 1946).

What Senator McMahon was saying was that the first use of atomic energy posed an infinite number of questions. The answer the Senator provided in 1946 was the introduction of legislation comprehensively to regulate atomic energy so that a single agency would have the obligation to formulate answers to those questions as they arose.

As Newman and Miller put it:

We can no more undo what has already been done than we can reverse the course of the earth about the sun.

Since we have no power to thrust back into its bottle the jinni so rashly uncorked, we have no choice but to attempt to control it. To be effective, this attempt must enlist the efforts of all men--or at least of men in all technologically advanced states. In this problem, in the long run there can be no partial success. If we are candid, we must conclude that, unless we succeed completely, we will in the end be overwhelmed in utter failure. Newman and Miller, "The Control of Atomic Energy," pp. 2-3, (McGraw-Hill 1948.)

It is undeniable that in 1946 Congress might not have foreseen that peaceful uses of atomic energy would involve problems such as thermal pollution. It is also undeniable that Congress did not seek to limit the jurisdiction of the Commission to prevent consideration of difficulties which had not yet arisen.

Portions of the Preface of the book by Messrs. Newman and Miller place in perspective precisely what Congress faced in 1946:

The Act is broad in sweep and bold in conception. Most striking is the extent to which both Congress and the President in this instance rejected the cautious and timid voice of tradition and paid heed instead to the radical demands of this tremendous scientific eruption. The Act represents an attempt to lay out a complex blueprint of controls on the basis of present knowledge, incomplete though it is on the scientific side and almost non-existent in the fields of social science, economics, and politics. The decision to draft legislation on such slender foundations was not made without reluctance; it met heavy opposition in Congress and among those members of the Executive Branch who believed that until much more was known about atomic energy its control and development should remain with the War Department, which had well demonstrated its capacities as manager and steward of the new resource. In most people's minds, however, there seemed no alternative to setting up machinery for the civilian control and development of atomic energy on the basis of facts already known. (Emphasis supplied). (id. Preface p. vii).

Thus, to suggest limitations to the Commission's over-all jurisdiction, is to suggest either that Congress considered certain aspects of potential Commission jurisdiction but rejected them or that Congress was unaware that it was moving into an area about which its precise knowledge was limited.

Neither of these suggestions is correct.

Congress did not reject the notion that the Commission should be concerned with the thermal pollution created by a utilization facility. Congress did not enter the atomic age so well versed that it could pronounce sagely that the "general welfare" and the "health and safety of the Public" would be satisfied by a regulation of but part of atomic energy --- radiation.

One cannot persuasively argue that Congress intended the regulation of atomic energy to encompass no more than radiological effects and then find support for the argument by asserting that in 1946 Congress directed themselves to but one of many potential problems.

It is clear that in 1946 Congress intended to delegate responsibility over peacetime uses of atomic energy to the Commission and that this jurisdiction is inclusive of the effects of thermal energy on the environment.

(b) Atomic energy includes thermal energy.

Intervenors acknowledge that Congress in the 1946 legislative history did not recognize all the problems with which future generations would be confronted as a result of atomic energy; but this is understandable. The 1946 Act was passed in the early moments of the atomic age when Congress did not know what experience would bring. However, it is significant to point out that even in 1946 Congress recognized that heat was an energy produced in the course of a nuclear transformation and that accordingly the exercise of jurisdiction over atomic energy must include an exercise of jurisdiction over thermal energy.

The Congressional debate of 1946 reveals a concern with the uses and effects of the heat energy released by the splitting of the atom insofar as knowledge had then progressed. In the course of this debate, Congresswoman Luce made the following remarks:

We believe that the development of rather large power units for heat and conversion to electrical energy is a program for the near future, that operating units which will serve to demonstrate the usefulness and limitations can be in existence within a few years (Emphasis supplied) (Cong. Rec. 9263, July 17, 1946).

This "program" for the near future was of course to be supervised by the Commission. Moreover, Congresswoman Luce, in her remarks, expressly cited the lack of knowledge by directing Congress' attention to future "operating units" (utilization facilities) which will serve to demonstrate atomic energy's "usefulness" (production of electricity) and its "limitations" (pollution of our lakes and streams). Congresswoman Luce was not suggesting limitations to a scheme of regulatory jurisdiction, the specifics of which could not yet be fully defined.

Representative Durham, speaking in favor of the Senate Bill, boldly predicted that heat energy wasted into the Columbia River in 1946, would one day be successfully managed by the Commission as the regulatory agency in charge of atomic energy. He said:

The Nagasaki bomb was made of a brand new chemical element, plutonium, manufactured in the uranium pile at Hanford. We are told that for every pound of plutonium produced there were about 10,000,000 kilowatt-hours of heat energy released by nuclear fission and carried away by the Columbia River. Now work is proceeding on a pilot plant for the utilization of such energy. (Emphasis added) (Cong. Rec. p. 9253, July 17, 1946).

Likewise Senator McMahon, one of the chief drafters of the Atomic Energy Act, expressed the concern of Congress with problems of heat energy.

The heat released from time to time during the operations at Hanford, Wash., raised perceptibly the temperature of the Columbia River. What could this kind of energy, properly harnessed, do for us in our daily lives in the heating and lighting of our cities, in running engines and turbines? What could it do, this energy-releasing uranium, this portable, packaged source of power, if it were introduced in those rich and remote regions of the earth now far removed from sources of power? The possibilities are almost beyond imagination, but the scientists assured our committee, they will certainly come to pass within our own lifetime if free development in atomic energy is able to continue. (Emphasis 11/ added) (Cong. Rec. p. 6094, June 1, 1946)

Certainly Senator McMahon was not limiting the jurisdiction of the Commission; rather he recognized that the future would bring an increased awareness of the problems to be resolved by the Commission.

As a further example of Congressional awareness in 1946 of the problems of thermal effects created by the use of atomic energy, we point to the remarks of Congressman Voorhis who saw the 1946 Act as the beginning of a search for methods to control thermal energy.

11/ Certainly, Senator McMahon did not mean that the atomic energy which would some day light our cities would be "radio-active" heat energy.

At the atomic-energy plant in the State of Washington there is at the present time a considerable amount of this by-product energy [heat energy], that the gentleman described when he read the report, that is being produced and wasted into the Columbia River. The fact of the matter is that the temperature of that great stream is being considerably raised. (Emphasis supplied) (Cong. Rec. 9468, July 19, 1946).

It is unreasonable to deny that in 1946, Congress was acutely sensitive to its desire to occupy the entire field of atomic energy and provide a comprehensive plan for its regulation. In the light of this understanding, Congress intended that future problems could be dealt with as they arose in the orderly processes of the administration of the Act by the Commission. Any suggestion that the Congress in the 1946 Act (an Act of far-reaching significance) was explicitly or implicitly limiting the functions of the only agency to have control over atomic energy is totally insupportable.

(ii) The 1954 legislative history

It was the intention of Congress that these extraordinary kinds of power that we have given to the government, both on the operating side and on the patent side, would be restored to private enterprise at the very first time that it can be done, consistent with safety and the national welfare.

* * * * *

The new law makes a pivotal change in the McMahon Act. Under the 1946 law, private ownership and operation of most nuclear reactors was impossible. Private ownership or use of significant quantities of fissionable material was forbidden.

The new law permits private ownership under license from the Commission of facilities which make and use fissionable material;
...

In place of the absolute prohibitions of the McMahon Act, the new legislation sets up an elaborate scheme of control. The system applies to facilities and materials which are uniquely necessary to atomic energy work. (Emphasis supplied)

The first quotation is from remarks made by Senator Millikan in January of 1947, when he summarized the Congressional intent of the 1946 Act.^{12/} The second quotation is taken from a book, cited earlier, by two commentators writing shortly after the passage of the 1954 act.^{13/}

These quotations demonstrate that the jurisdiction of the Commission over atomic energy created in 1946 was not limited by the passage of the 1954 Act; rather the 1954 Act, by the creation of private opportunities in the field of atomic energy, directed the Commission to broaden its jurisdiction over atomic energy to include not only government but also private uses of atomic energy. If the 1954 Act limits the Commission's jurisdiction over atomic energy, then Congress was remiss in not telling us where that jurisdiction went.

Intervenors shall now demonstrate that the legislative history of the 1954 Act, as does its predecessor, supports the conclusions that atomic energy is regulated by the Commission and that atomic energy does include thermal energy.

^{12/} Joint Committee hearings, 80th Cong., 1st Sess. 16 (1947).

^{13/} Marks and Trowbridge, supra., n. 10, at p. 12.

- (a) By the 1954 Act, all jurisdiction over atomic energy remains with the Commission except jurisdiction over energy "as a result of" nuclear fission or nuclear transformation.

In passing the 1954 Act, Congress was moving once again into an area in which there was no experience. It is by virtue of the 1954 Act that Congress expanded the dimensions of atomic energy by making available opportunities for the private use and development of atomic energy. Therefore, as in 1946, there is no support in the legislative history for a conclusion which would limit the Commission's jurisdiction with respect to the regulation of private uses of atomic energy. The 1954 Joint Committee Report makes this clear:

Considered in their entirety, the amendments, in our opinion, make our Nation's atomic energy legislation a more responsive and adequate instrument for dealing with the problems posed by the advent and evolution of this epochal new force.

Yet we are aware that legislation, standing by itself, can never substitute for prudent and courageous administration of our atomic enterprise by the responsible officials of the executive branch, for continuing understanding and support of our atomic program in the Congress, and--most of all--for that enlightened and informed public opinion which is the bedrock of wise national policy in our democratic society.

We have every confidence that the domestic problems created by atomic energy can be resolved through the application of wisdom, willingness of compromise, and good will. (Emphasis supplied) Joint Committee Rep., H. Rep. No. 2181, S. Rep. No. 1699, 83d Cong., 2d Sess. (1954) (Appendix B hereto)

The Joint Committee Report did not set forth what "domestic problems" would be created by private uses of atomic energy, because the Joint Committee did not know the full extent of these domestic problems. However, the Joint Committee believed that the 1954 Act gave the Commission the tools it needed to resolve these "problems" as they occurred "through the application of wisdom, willingness of compromise, and good will." Ibid.

The 1954 Act did, however, clarify an ambiguity in the Commission's jurisdiction over atomic energy. This clarification involved the foreclosing of the possibility that the Commission would have concurrent jurisdiction with agencies already established for the regulation of energy sources created "as a result of" a nuclear fission or transformation. Congress was concerned that electricity, already under the jurisdiction of the Federal Power Commission and various state and local agencies, could be considered as in the Commission's regulatory domain. Thus, the definition of atomic energy was rewritten to eliminate this possibility.

The 1946 Act had defined atomic energy as follows:

The term atomic energy shall be construed to mean all forms of energy released in the course of or as a result of nuclear fission or nuclear transformation. (Emphasis supplied) (1946 Act, §18(a))

The 1954 Act eliminated the underlined words "as a result of."

The Joint Committee Report explained the reason for the change:

Section 11(c): 'Atomic energy' is defined to mean 'all forms of energy released in the course of nuclear fission or nuclear transformation.' This definition includes both fission and fusion types of nuclear reactions. It has been clarified to mean only that energy released 'in the course of' nuclear fission or nuclear transformation. The definition in the act [1954 Act] also includes energy released 'as a result of' such fission or transformation, and is scientifically broader than is necessary or desirable. Its deletion in the bill will not change the intended scope of the act or jurisdiction of the Atomic Energy Commission. (Emphasis supplied), (Sen. Rept. No. 1699, 83d Cong. 2d Sess., p. 11 (1954), I Leg. His. p. 759) (Appendix B hereto)

In order to make the Joint Committee's intention quite clear, the 1954 Act added new Sections 271 and 272 (42 U.S.C §§2018 and 2019). These sections provide that the 1954 Act does not impair the existing jurisdiction of any other Federal, state or local agency over persons who generate, sell or transmit electrical power and that licensees of the Commission who sell electricity are subject to the jurisdiction of the Federal Power Commission.^{14/}

The 1954 Act did not affect the substance of the Commission's jurisdiction to regulate atomic energy but only clarified an area of potential ambiguity. Congress' intent to provide for a comprehensive regulation of atomic energy was reaffirmed.

^{14/} See Appendix E hereto for a selection of correspondence between the Federal Power Commission and the Atomic Energy Commission relating to this issue.

(b) Atomic energy still includes thermal energy.

After the reason for the change in the definition of atomic energy is understood, it becomes quite clear that thermal energy is still included within "atomic energy." Thermal energy or "heat" is still "energy produced in the course of a nuclear fission or nuclear transformation."

The 1954 legislative history demonstrates further that Congress still considered heat to be within the definition of atomic energy. This is made clear from a Senate Report of a debate, the resolution of which is not relevant to this proceeding: ^{15/}

In view of the enormous power needs, which will come to represent an outlay of \$150 million to \$200 million a year, one would expect the AEC to show initiative and enterprise in adapting its own facilities to supply a substantial portion of these needs rather than to waste the heat energy created by nuclear fission. (Emphasis supplied). (Separate views of Reps. Holifield and Price, Sen. Rept. No. 1699, 83d Cong. 2d Sess. (1954))

Since the Commission, by virtue of the 1954 Act, maintained jurisdiction over atomic energy, and since the change in the definition of atomic energy did not affect the inclusion within its terms of thermal energy, there is no support for an argument that the 1954 Act results in radical change in the Commission's jurisdiction or the elimination of any responsibility for regulating thermal effects of the operation of utilization facilities.

^{15/} The debate involved whether the Commission should sell heat energy created by atomic power plants. Although the 1954 Act did not, in this regard, go as far as some Congressmen wished, it is clear from the discussion that the Congress considered heat as included within the definition of atomic energy as redefined.

It is Intervenor's position that the 1946 Act gave the Commission jurisdiction over "atomic energy," and that atomic energy includes thermal energy. The 1946 legislative history supports this position. The 1954 Act does not disturb this conclusion; indeed, as the analysis of the 1954 legislative history demonstrates, Intervenor's position is strengthened.

- C. Logic and the Commission's procedures demonstrate that the Commission has jurisdiction to regulate the effects of thermal energy caused by the operation of utilization facilities.

Intervenor has demonstrated by analysis of both the 1946 and 1954 Acts, as well as their legislative histories, that thermal energy and its attendant effects must be regulated by the Commission if it is to adhere to Congress' mandate.

We now demonstrate that logic and Commission action support Intervenor's position.

Throughout the Commission's technical specification regulations^{16/} and "Final Safety Analysis Reports," filed by applicants with the Commission are clear indications that thermal energy, per se, is indeed the subject of Commission regulation.

^{16/} See e.g. Guide to Contents of Technical Specifications for Nuclear Reactors, 10 C.F.R. Part 115, App. A following Section 115.90, page 331.

For example, in Volume I of this Applicant's Final Safety Analysis Report there are 223 pages devoted to demonstrating to the Staff and the Commission that certain precautions and safeguards have been taken by Applicant to assure against adverse effects from thermal energy. These pages contain a multitude of references to safeguards built into the design of Applicant's plant to protect "the general welfare" and the "health and safety of the public" from adverse effects of the thermal energy released in the course of the Proposed Plant's nuclear transformations. Thus the Commission, in requiring such assurances, itself has recognized that thermal energy--heat is subject to regulation at the primary cooling stage, at the secondary cooling stage and at the condenser cooling stage; yet the Commission has taken the position that once adverse effects from thermal energy have been regulated to the condenser cooling stage, it need not be concerned with adverse effects of thermal energy thereafter--thermal pollution. A critical examination of this position demonstrates that it is without logic or merit.

As we have demonstrated, atomic energy includes all forms of energy released in the course of a nuclear transformation. Within this definition radiation and heat are two forms of atomic energy. So long as these forms of energy are intermingled the Commission accepts jurisdiction to regulate their effects. However, the current position of the Commission is that one of these forms of atomic

energy, i.e. heat, does not have to be regulated once it is singled out from its sibling---radiation. Yet, in the same breath, the Commission continues to regulate the other form of atomic energy, radiation, when that form of atomic energy is unmixed with the former---heat.

The Commission's position can be set forth as follows; its examination reveals its logical failings:

1. The Commission is obligated to regulate all forms of atomic energy;
2. Radiation and heat are forms of atomic energy;
3. The Commission will regulate radiation and heat where intermingled;
4. The Commission will regulate radiation unrelated to heat;
5. The Commission will regulate heat, unrelated to radioactivity, within the physical perimeter of a utilization facility;
6. The Commission will regulate radiation emissions from a utilization facility; B U T
7. The Commission has no jurisdiction to and will not regulate heat "emitted" from a utilization facility.

Legislative history and rhetoric aside, does the argument as set forth above make any logical sense at all? The Commission's response is a feeble one; "We will regulate heat at 525° F. but our jurisdiction magically eludes us

when that heat is reduced to 28° F. above normal Lake Michigan temperature."

Intervenors submit that the logic of their position belies any support for the Commission's "time-honored" and "self-serving" interpretation of its own jurisdiction.

As the Joint Committee Report stated:

We have every confidence that the domestic problems created by atomic energy can be resolved through the application of wisdom, willingness of compromise, and good will.
Joint Committee Rep., H. Rep. No. 2181,
S. Rep. No. 1699, 83d Cong., 2d Sess. (1954)^{17/}

^{17/}

Appendix B hereto.

II.

THE ARGUMENTS ADVANCED IN APPLICANT'S BRIEF FILED ON JULY 7, 1970 ARE INSUFFICIENT TO SUPPORT A DENIAL OF INTERVENORS MOTION NO. 1

Intervenors believe that the first portion of this Brief is ample answer to all the arguments advanced by Applicant in its Brief filed on July 7, 1970. However, Intervenors choose here to deal directly with some portions of Applicant's Brief.

A. Pages 1 through 8 of Applicant's Brief.

These pages of Applicant's Brief attempt to prove that the 1954 Act was a "substantial departure from the regulatory scheme which was provided in the 1946 Act and the earlier drafts of the 1954 Act," (Apl. Br. p. 4), primarily because Applicant had difficulty in excluding heat from the definition of atomic energy. Thus, what Applicant attempts to tell this Board is that because it cannot get around the definition of atomic energy, this Board must hold that the 1954 Act directs the Commission not to regulate "atomic energy" but rather "utilization facilities." This "distinction without difference" is supported by Applicant as follows.

Applicant admits that the 1946 Act regulated all atomic energy; however, it continues, since the 1954 Act was primarily concerned with the development of private uses of

atomic energy, the 1954 Act presents a "substantial departure," and the Commission no longer regulates atomic energy but rather regulates "utilization facilities" through licensing. From this Applicant argues that one can only determine the jurisdiction of the Commission by references to the definition of "utilization facility." What Applicant fails to point out is how a licensing agency directed to license private uses of atomic energy could possibly discharge those responsibilities without a regulatory scheme which licenses the facilities which use the atomic energy. Finally, what Applicant does not explain is the effect of the use of the term atomic energy in the definition of "utilization facility" itself (Apl. Br. p. 4). Certainly Applicant cannot be arguing that the Commission is regulating all power plants; once it becomes clear that "utilization facilities" licensed by the Commission mean those facilities which utilize atomic energy, Applicant's argument falls of its own weight.

Applicant's contrived argument regarding the "classes of facilities and materials subject to the Act" as opposed to "purposes of the Act," (Apl. Br. p. 1), attempts to find support in the 1954 Act's change of the definition of "atomic energy," as well as in the Act's additions of Section 271 and 272 dealing with the regulatory domain of the Federal Power Commission over electricity.

It is clear, however, that the change in the 1954 definition of atomic energy was directly related and indeed singularly related to the additions of Sections 271 and 272 which made it clear the Commission has no jurisdiction over electricity or any other "energy released as a result of a nuclear fission or nuclear transformation."^{18/} Thus, as the Joint Committee Report stated:

Section 271 preserves the regulatory power of any appropriate agency with respect to the generation, sale or transformation of electric power. (Joint Committee Report, H. Rep. No. 2181 S. Rep. No. 1699, 83d Cong., 2d Sess., (1954)). (Appendix B hereto)

The definitional section was changed, therefore, to accommodate the additions of Sections 271 and 272 and not to limit the Commission's jurisdiction over all forms of atomic energy, as redefined.

Applicant's Brief (Apl. Br. p. 5) attempts to use a quotation from Dr. Higinbotham to argue that the 1954 Act eliminated the Commission's jurisdiction over atomic energy. What Applicant fails to point out, however, are two sentences which immediately precede the quoted material at page 5 of Applicant's Brief. These sentences are:

I think there is nothing wrong with the definition of atomic energy. I will agree that this is a good definition.

^{18/}

See N. 14, supra, and Appendix E hereto.

What Dr. Higinbotham was saying in his testimony was that in the course of the Commission's obligation to regulate all atomic energy it should exercise that jurisdiction so that licenses will be issued only in connection with utilization of atomic energy as redefined. Dr. Higinbotham was concerned that "the Commission would be required to license everyone that [sic] made use of radium in therapy for example," and the complete quotation from Higinbotham's remarks demonstrate that his concern was only that the licensing provision of the Act (Section 101) not include such activities as therapeutic use of radium. Higinbotham's apparent problem was resolved by Section 11 (cc) of the Act which defines utilization facilities as those which use atomic energy, as does Applicant's Proposed Plant, "in such quantity as to be of significance..."

B. Applicant's brief pages 8-15 and 19-21.

At pages 8-15 and 19-21 of Applicant's Brief it is argued that thermal effects are not included within the term "public health and safety." However, the major support for Applicant's conclusion is its own assumption.

(i) Page 11.

On page 11 of Applicant's Brief is set forth quotations from a 1957 study of the Joint Committee. As is obvious from a reading of these quotes, the Joint Committee discussed "the special problem" and "a major objective" of

Commission jurisdiction. Intervenors do not suggest that regulation of radiological effects is not "a special problem" or does not involve "a major objective." What Intervenors do reject is Applicant's citation of these quotations as dispositive of the issues before the Board. Thus, the term "special problem" indicates that there are "other problems" and the term "major objective" indicates that there are more objectives.

(ii) Page 12.

At page 12 of its Brief Applicant sets forth a portion of Section 274(k) of the Act, as amended in 1959. Applicant correctly points out that this Section was inserted so as to make certain that the jurisdiction of state and local agencies to regulate, pursuant to their authority, activities for purposes other than the protection of radiological hazards, was left unimpaired. From this premise Applicant concludes that, therefore, the Commission has no jurisdiction over effects other than radiological.

But Applicant's argument is a non-sequitur.

All Section 274(k) says is that any concurrent jurisdiction as to the effects of atomic energy other than radiological effects is to stay exactly where it is. There is no suggestion, as well as there could not be, that Section

274(k) limits the Commission's jurisdiction.^{19/}

(iii) Page 14.

At page 14 of Applicant's Brief appear two quotations. These quotations, read in the context of the entire Committee comments of which they are a part,^{20/} do not address themselves to the issues before the Board. These quotations were taken from a report which discussed the effect of a lawsuit in California wherein the State of California had asserted jurisdiction over a utilization facility in such a way as to prevent the Commission from discharging its obligations. The Committee was therefore speaking to the question of the Commission's exclusive jurisdiction, i.e. the protection of the "special hazards" and not to the totality of the Commission's jurisdiction part of which, as we have pointed out, is concurrent with state and local agencies. The question discussed by the Committee was not "what is the jurisdiction of the Commission?" but rather "who has exclusive jurisdiction over radiological effects?"

^{19/} See relevant portions of Joint Committee Report regarding the 1959 addition of Section 274, which portions are reproduced and attached hereto as Appendix C.

^{20/} See relevant portions of House Report No. 567 regarding the 1965 amendment to Section 271, which portions are reproduced and attached hereto as Appendix D.

(iv) Pages 19-20.

At pages 19 and 20 of its Brief, under the title "Thermal Effects Legislation" Applicant asserts that in 1968 there was an attempt by some members of the Joint Committee to introduce an amendment to "expand" the jurisdiction of the Commission to include jurisdiction over thermal effects. From the introduction of this legislation and its "apparent" failure of passage, Applicant concludes that, therefore, the 1954 Act does not give jurisdiction to the Commission over thermal effects. Finally in support of its conclusion, Applicant cites the self-serving statement of one of the gentlemen who is responsible for this limiting interpretation, AEC Commissioner Ramey.

We now proceed to a more accurate version of the 1968 hearings.

The 1968 hearings were primarily concerned with the introduction of a bill to "compel" the Commission to exercise jurisdiction over thermal effects. The motive behind the sponsors of the bill was grounded in the expressed recognition of the Commission's failure to have exercised jurisdiction as to thermal effects, jurisdiction which these sponsors knew the Atomic Energy Act gave to the Commission.

Members of the Joint Committee and others, e.g. Representatives Dingell, Holifield, Price and Anderson, and Senators Muskie, Aiken and Anderson who favored the bill,

and were responsible for its introduction, supported the bill by the following remarks made by Rep. Anderson before the Joint Committee on September 6, 1968.

Both men, [a reference to Rep. Dingell and Sen. Muskie], and they are not alone, have repeatedly taken the AEC to task for its position that it is without legal authority to regulate [sic] nuclear plants...[in connection with thermal pollution]. Finally, after the AEC sought and obtained a Justice Department legal opinion supporting that position and continued to show no particular interest in seeking whatever legislative authority it [claimed it] lacked, Messrs. Muskie and Dingell took the steps I have described. (Emphasis supplied). (Hearings Before the JCAE on "Participation By Small Electric Utilities in Nuclear Power," Part 2, p. 1217, (1968)).10/

10/ We note in passing that Rep. Anderson in characterizing Sen. Muskie's bill stated:

The bill would spell out the authority of the Commission to withhold or to condition a license on the basis of thermal effects considerations, but would make it unequivocally clear that the authority to control thermal effects is merely another tool which the AEC would employ to regulate the nuclear industry from the standpoint of what Congress deems to be the national interest. (Hearings Before the JCAE on "Participation By Small Electric Utilities in Nuclear Power," Part 2, p. 1217, (1968)).

Thus Sen. Muskie's bill was introduced as an amendment to the 1954 Act. Although Sen. Muskie's efforts were unsuccessful, we note he was successful in having legislation to the same effect passed in 1970 with respect to, not only the Commission, but all Federal agencies. See Section 21(b)(9)(A) of the Water Quality Improvement Act of 1970 which provides in pertinent part:

The licensing of permitting agencies shall impose, as a condition of any license or permit, a requirement that the licensee or permittee shall comply with the purposes of this Act [that is elimination, among other things, of thermal pollution].

See also "Brief of Intervenors Regarding the National Environmental Policy Act and the Water Quality Improvement Act" at pages 53 and 54.

Not satisfied with the distortion of why Sen. Muskie's Bill was introduced, Applicant proceeds to find additional support for its position by virtue of the fact that "these bills failed of enactment." (Apl. Br. p. 20). What really happened, according to the Congressional Record, was that written comments requested of various agencies were received too late to hold additional hearings in that congressional session. Thereafter Sen. Muskie chose to follow the route of the Water Quality Improvement Act of 1970 and voluntarily withdrew the bill. Thus, in a report on why these bills "failed of enactment," the Congressional Record states:

The written comments of the various agencies interested in or affected by this legislation were received too late to permit the scheduling of additional hearings. (Cong. Rec., p. 30868 October 11, 1968).

(v) Pages 20-21 Department of Justice Opinion.

Perhaps the Board is privy to why the Department of Justice chose to take a position mirroring that of the Commission but inconsistent with the Atomic Energy Act. Intervenor's only have the opinion to go by, and a reading of the full opinion^{21/} indicates that the Department of Justice was very careful not to issue a dispositive statement and included within its opinion several very carefully guarded

21/
Appendix F hereto.

phrases. A reference to parts of the Attorney General's opinions serves to demonstrate its uselessness in any critical examination of the Commission's jurisdiction. Thus the following statements are made in the Attorney General's opinion:

1. Both nuclear fueled and fossil fueled power plants may cause thermal pollution, but there is reason to believe that the problem is more serious with respect to nuclear fueled plants.

2. The Atomic Energy Commission has taken the position that its regulatory and licensing jurisdiction is limited essentially to matters of radiological health and safety and the common defense and security.

3. There is a strong implication in the language of section 182, as well as elsewhere in the Act that in issuing licenses the Commission is ordinarily to confine its consideration to factors relating to the common defense and security and protection of the public health and safety. Furthermore, it is reasonable to conclude that the health and safety factors which should concern the Commission are those peculiar to the operation of nuclear facilities. (Emphasis added) See Attorney General's Opinion, pp. 249-51; (App. F hereto).

These quotations from the Attorney General's opinion clearly demonstrate that the Attorney General couched his "opinion" in vague and self-protecting language. And as perhaps dispositive of the entire opinion itself, we call attention to the inconsistency of an opinion which states that thermal pollution is a more serious problem for nuclear-fueled plants; that the Commission should concern itself with those health and safety facts peculiar to the operation of nuclear facilities; and that therefore the Commission does not have jurisdiction over thermal pollution. Intervenors fail to see the logic of such an argument.

C. Applicant's Brief pages 15-19

The major purpose, we presume, of pages 15 through 19 is to tell us that the Commission has taken a position for several years that it has no jurisdiction over thermal effects. We agree that this is the Commission's position. However, in a discussion of the Commission's jurisdiction, of what real value are statements by the Commission itself, particularly when none of the statements discuss the specific arguments raised by Intervenor^{22/}s.

Applicant's reliance upon the Supreme Court's opinion in Power Reactor Development Co. v. International Union of Electrical Workers, 367 U.S. 396 (1960), is misplaced.

In the Power case the Supreme Court was faced with the issue of whether an administrative agency's method of procedure established to implement the policies of that agency's congressional mandate was to be given controlling weight in an adversary situation. The Supreme Court, as do Intervenor^s, agreed that in such an instance the special expertise of administrative agencies should be heeded. In the Power case, however, the Supreme Court was not talking about an administrative agency's interpretation of its ultimate jurisdiction or congressional mandate. In other words, although weight is accorded to an administrative agency's determination of how it will proceed to the implementation of its

^{22/} During the course of oral argument, Chairman Jensch specifically asked Applicant to provide the Board with authority that Intervenor^s arguments are not novel or unique and that they have already been considered by the Commission (Tr. p. 419). Applicant was unable to provide such authority during the hearing and it has not provided any such authority in its Brief.

congressional mandate, an administrative interpretation of its congressional mandate is not to be accorded any special or significant weight. Thus, an administrative agency is given peculiar latitude in moving from point A to B, but it is not given, as well it should not be, conclusive powers to determine what are points A and B.

To state the Power case in terms of the issues before this Board, controlling weight perhaps ought to be accorded to the Commission's Regulations or interpretations insofar as they determine the order of issues to be considered in the course of hearings considering the issuance of operating licenses. However, the Commission has no greater expertise than Congress and the Judiciary of the United States to determine the meaning of the Commission's obligations as to what issues must be considered, not their order, prior to the issuing of any provisional operating license.

D. Applicant's Brief pages 21-24

At pages 21-24 Applicant asserts that the issues before this Board have been clearly settled by the case of New Hampshire v. Atomic Energy Commission, 406 F. 2d 170 (1st Cir. 1969). The New Hampshire case, however, is not dispositive of the issues presented here.

Throughout the New Hampshire opinion there is not one single reference to the precise issues raised by Intervenor. The New Hampshire court proceeded to a determination under the

misimpression that we had to find explicit legislative references to thermal pollution before it could hold with the State of New Hampshire. The New Hampshire court fails to recognize Congress' intention to control all problems which would occur as a result of the use of atomic energy.

New Hampshire ascribes a limitation to the Act by virtue of the fact that Congress discussed in more-or-less specific detail radiological problems; however, New Hampshire fails to recognize that radiological problems were foremost in Congress' mind only because, since the Acts were respectively passed at the beginning of eras, there was little else to go by.

Finally, we note in passing the absence of any citation in Applicant's Brief to Siegel v. Atomic Energy Commission, 400 F. 2d 778 (D.C. Cir. 1968). The Siegel case defined the health and safety of the public to include only "industrial accidents." (id. at p. 784). As Applicant points out, the New Hampshire case defines this phrase to mean "only radiological problems." New Hampshire and Siegel, therefore, are just two opinions of Courts of Appeals which have not as yet had the opportunity critically to review the scope Commission's jurisdiction. The conflict between Siegel and New Hampshire lifts the barriers each one of them may have placed in Intervenor's way.

III

CONCLUSION AND
REQUEST FOR RELIEF

For the above reasons Intervenor's respectfully request the Board to enter orders consistent with Intervenor's request for relief as to Motion No. 1 and Motions Nos. 1 through 5 reproduced at pages 1, 2, 5 and 6 of Appendix B attached to "Brief of Intervenor's Regarding the National Environmental Policy Act and the Water Quality Improvement Act" filed with the Commission July 7, 1970.

Respectfully submitted,

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CERTIFICATION

I certify that copies of "Brief of Intervenors Regarding the Jurisdiction of the Atomic Energy Commission to Regulate the Effects of Thermal Energy Pursuant to the Atomic Energy Act" were filed with the Secretary of the Commission and served upon the Members of the Atomic Safety and Licensing Board hearing this matter, the Atomic Energy Commission Regulatory Staff and counsel for Applicant, by depositing a copy, or copies, of the Brief in the United States Mail, postage prepaid and properly addressed, on Tuesday, July 14, 1970.

One of the Attorneys
for Intervenors

ATOMIC ENERGY ACT OF 1946

For text of Act see p. 722

SPECIAL SENATE COMMITTEE ON ATOMIC ENERGY

Senate Report No. 1211, April 19, 1946

THE Special Committee on Atomic Energy, to whom were referred various bills for the control of atomic energy, report back to the Senate S. 1717 with amendment and recommend that the bill do pass.

ANALYSIS OF S. 1717 BY SECTIONS

Section 1. Declaration of policy

Subject to the paramount objective of assuring the national defense and security, it is the purpose of the bill to direct the development of

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atomic energy in such a way as to improve the public welfare, increase the standard of living, strengthen free competition in private enterprise, and promote world peace. To carry out these purposes, the bill provides for Government control over atomic energy and for Government programs of information, production, research, and development. It provides a program of administration to exercise this control and carry out this development, subject to international agreements of the United States and to such further legislation as the Congress may enact. It is recognized that many unforeseeable developments may arise in this field requiring changes in the legislation from time to time.

Section 2. Organization

(a) Atomic Energy Commission.—The Atomic Energy Commission is the principal administrative body established in the bill. As such, it is responsible for administering domestic controls over atomic energy, for carrying on production, research, and development programs, and for stimulating and supporting private research and development. The Commission is composed of five full-time civilian members, appointed by the President and confirmed by the Senate.

The provision for full-time Commissioners was urged by many witnesses at the committee hearings, especially by experts in Government administration. These witnesses emphasized the grave responsibility for national security and welfare devolving upon the Commissioners, the need for continuous study of changing technical developments, and the many innovations in administrative techniques that will be involved. While the Commissioners need not be scientists or technical experts, they must combine clear judgment with imagination and courage, and they must, like the members of the judiciary, be so divorced from private and competing concerns as to give complete, disinterested, and undivided attention to their tasks. A salary of \$17,500 per annum for the Chairman and \$15,000 for the other Commissioners has been set to indicate that the duties and responsibilities of these positions are comparable to those on the highest level of Government administration.

The decision to limit membership eligibility to civilians was adopted by the committee in keeping with established traditions of our Government. It accords with principles cherished and maintained throughout American history. Departure from these principles has occasioned judicial, executive, and legislative disapproval. This is not to say that the committee fails to recognize legitimate and important areas of atomic energy development and control touching on the responsibilities of the military departments. Indeed, throughout the bill, wherever these areas are involved, provision is made for full military participation, and independent activities of the military departments, especially in research and development, are not infringed but expressly encouraged.

The tenure of the Commissioners is such that eventually they will serve for 5-year terms, with one member appointed each year. Initially, it seems advisable to allow for a complete reappointment of Commissioners after the act has been in force for 2 years and the President has had the opportunity of reviewing their work. Reappointments are then staggered to avoid disruption of the Commission's activities.

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The organization subordinate to the Commission consists of a General Manager appointed by the President with the advice and consent of the Senate, and four Division heads, appointed by the Commission. The divisions specified are: Division of Research, Division of Production, Division of Engineering, and Division of Military Applications. This form of organization is based on administrative experience developed in both Government and industry. Such experience points to the need for a high-level policy group which can discharge its functions without the additional burden of passing on current operations. Day-to-day administration is best directed by a single manager. While the scope and importance of his duties are such as to require his appointment directly by the President, the manager is to work under the general supervision and direction of the Commission, "to discharge such of the administrative and executive functions of the Commission as the Commission may direct."

(b) **General Advisory Committee.**—A board of civilian advisers is to be appointed by the President to meet at least four times a year and consult with the Commission on scientific and technical matters relating to materials, production, research, and development. The committee's intention in adopting this device is to enlarge the panel of talent and experience on which the Commission can draw in performing its varied and complex duties.

(c) **Military Liaison Committee.**—A Military Liaison Committee appointed by the Secretaries of War and Navy is to consult with the Commission on all activities relating to the military applications of atomic energy. This provision has been adopted to give the armed forces a proper voice in such matters as development, manufacture, storage, and use of bombs; allocations of fissionable materials for military research; control of information relating to the manufacture and use of atomic weapons. Upon receiving the recommendations of the Military Liaison Committee, the Secretaries of War and Navy may at their own discretion carry to the President a protest against any of the Commission's actions or failures to act in reference to the matters described. In such event, final decisions as to the course of action of the Commission relating to matters for which the War and Navy Departments have responsibility are made by the President.

Section 3. Research

The committee recognizes that only by continued progress in science can the purpose of the bill be achieved. It is firm in its opinion that continued progress will depend, in the future as in the past, upon the free and disinterested work of the thousands of scientists and research workers in private laboratories and universities throughout our country and the world. Science is not made by its titans alone.

In drafting the bill the committee has been particularly careful to refrain from inserting prohibitions or restrictions of any nature on scientific research. The committee confines the powers of the Commission over independent research to the minimum necessary to protect national security and to prevent hazards to the public safety and health. The Commission is directed to assist private and public institutions in the acquisi-

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tion of an ever-expanding fund of theoretical and practical knowledge in the following fields:

(1) nuclear processes; (2) the theory and production of atomic energy, including processes, materials, and devices related to such production; (3) utilization of fissionable and radioactive materials for medical, biological, health, or military purposes; (4) utilization of fissionable and radioactive materials and processes entailed in the production of such materials for all other purposes, including industrial uses; and (5) the protection of health during research and production activities.

The means of assistance provided in the bill are varied and extensive. The Commission is to make arrangements (including contracts, loans, grants-in-aid) with private or public institutions or persons and may place equipment and facilities at their disposal. Under section 5 the Commission is directed "to distribute sufficient fissionable material to permit the conduct of widespread research and development activity, to the maximum extent practicable," and is directed in the distribution of byproduct material to "give preference to applicants proposing to use such materials in the conduct of research and development activity."

The Commission is also directed to carry on, supplementary to these aids to private and public institutions, its own program of research, in the fields specified above through its facilities and under its supervision.

Section 4. Production of fissionable material

From the start of its deliberations, the committee has been convinced that an absolute Government monopoly of production of fissionable materials is indispensable to effective domestic control of atomic energy. A number of factors point unmistakably in this direction:

1. Fissionable material is the principal ingredient of the atomic bomb. Thus, to permit private manufacture of fissionable material would be to permit private manufacture of material of enormous destructive potentialities.
2. The production of fissionable material is attended by serious hazards to public health and safety. The responsibility for minimizing these hazards is clearly a governmental function.
3. The future production of fissionable material is closely interrelated with the possibility of achieving effective and reciprocal international safeguards against the use of atomic weapons. It is undesirable, therefore, to permit private development in an area which may soon be placed under Government control by reason of international agreements.
4. The production of fissionable material is technologically in its infancy; unforeseen and unforeseeable factors may play a great part in its development. To permit decontrol and decentralization of this activity, and weaken continuing Government supervision, would be contrary to the principle of prudent stewardship demanded of the Government by considerations of national defense and national welfare.
5. The technology of fissionable material production teaches that even a slight interruption in the manufacturing process may occasion great loss and damage to the entire operation. Government control is more likely to assure continuity of operation than is private control.

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Wherever possible, the committee endeavors to reconcile Government monopoly of the production of fissionable material with our traditional free-enterprise system. Thus, the bill permits management contracts for the operation of Government-owned plants so as to gain the full advantage of the skill and experience of American industry. Industrial research in the field of atomic energy is left to private initiative, even where it relates to methods of production. Prospecting for and mining of source materials are at every stage to be encouraged and supported.

Section 5. Control of materials

1. Fissionable materials.—Fissionable materials are those capable of releasing substantial quantities of energy through nuclear chain reaction. Included are U—235 and plutonium; the Commission may, by regulation, add other materials to this class. Consistent with section 4, which provides for Government ownership of all production facilities and a Government monopoly of production, the ownership of all fissionable material is vested in the Commission and private ownership is forbidden. The bill provides, of course, that just compensation shall be made to private owners.

While title is vested in the Commission, it is authorized to distribute fissionable material, with or without charge, for conducting research and development activities, for use in medical therapy, or for use in devices utilizing atomic energy, pursuant to licenses under section 7. The Commission is authorized to purchase or acquire fissionable material outside the United States but the export of fissionable material is prohibited.

Since fissionable material is produced incident to research and development, appropriate provision is made in the bill to permit the conduct of such activities subject to the maintenance of security, and health and safety standards.

2. Source materials.—A source material is any material determined by the Commission to be peculiarly essential to the production of fissionable material. The relation of source material to nuclear energy may be thus portrayed:

Fissionable material.
Atomic (i. e., nuclear) energy.

Source material plus processing _____
Fissionable material plus processing _____

Source materials include uranium and thorium and ores containing uranium and thorium in such proportions as may be set by the Commission.

The principle of Government monopoly which the committee has adopted as essential in reference to the production and ownership of fissionable materials is not extended to the ownership, mining or refining of source materials. Nevertheless, the committee recognizes the necessity of giving to the Commission the power to control supplies and transfers of source material by means of licensing procedures.

While source materials in their natural state are not capable of dangerous misuse, they are, as their name indicates, the source of all fissionable material and must accordingly be conserved as the Nation's most valuable mineral resource. The Commission must be assured an adequate and continuing supply of source materials for the operation of

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its production facilities for military or developmental purposes. The Commission is therefore empowered to take, in return for just compensation, supplies of source materials wherever found, or interests in real property containing such materials.

Deposits of source materials in the public lands are reserved to the Government except where such reservation would deprive any person of existing rights on a location, entry, or settlement made prior to the enactment of the bill. The Commission is authorized to conduct investigations and inspections on private property for the purpose of determining the location, extent, mode of supplies or occurrence, use, or conditions of supplies or deposits of such materials, but may not conduct mining operations of an exploratory nature on private property without the owner's consent. It is not the intent of the committee to authorize the Commission to engage in mining operations in competition with private mining activity unless such operations are necessary to insure to the Commission a supply of source materials adequate for carrying out its duties and responsibilities under the provisions of the bill.

In framing these provisions the committee has been alive to the necessity of encouraging the activities of independent prospectors. The traditional rights of and incentives to prospectors are substantially preserved and they are relieved of burdensome reporting requirements.

3. Byproduct materials.—Testimony before the committee indicates that the radioactive materials yielded in the production of fissionable material are of enormous scientific and industrial value and their distribution involves no danger to the national security. The Commission is required to distribute these materials with or without charge for research and development activities, medical therapy, and industrial and other uses, giving priority to medical uses and research.

Section 6. Military applications of atomic energy

Under section 4, the Commission is made the exclusive producer of fissionable material. For reasons set forth in the analysis of section 4, and because the two operations are closely connected, the Commission is also made the exclusive producer of atomic weapons. In view of their enormous military significance, atomic weapons are subject, under the bill, to full control by the President as Commander in Chief. All determinations as to production rates, custody, and transfers are to be made by him.

In military research, as distinguished from production of atomic weapons, the committee has adhered to the general principle of allowing great latitude and freedom. The armed services, as well as private individuals, are permitted to engage in independent military research and under the provisions of section 3 are to be assisted by the Commission in their activities. It is not the intent of the committee to restrict the existing powers of military departments in entering into research and development contracts with nongovernmental organizations provided that all such contracts are in all their aspects subject to the provisions of this bill. All military research is subject to inspection and reports as provided in section 10. The Commission itself is directed to engage in military research, working through its Division of Military Application, in close cooperation with the Departments of War and Navy.

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Section 7. Utilization of atomic energy

The committee is anxious to promote the use of atomic energy in all possible fields for peacetime purposes. Testimony before the committee has shown that numerous benefits, in the field of medicine for example, are now or shortly will become available. Other uses, as yet relatively undeveloped, promise to bring about vast changes in the industrial technology which underlies our economic life.

In order to stimulate development, the bill extends the principle of free research to research on devices utilizing atomic energy. The committee is aware, nonetheless, that the sudden introduction of certain devices utilizing the power released by nuclear fission might precipitate profound economic disorganization. Great industrial installations representing Nation-wide investments, employing many thousands of workers, might be rendered obsolete.

Furthermore, devices utilizing atomic energy, if widely used, would so multiply potential hazards to national health and safety that even careful Government regulation would fail to provide adequate safeguards.

The committee feels, therefore, that the Congress should retain the opportunity of passing upon the introduction of atomic energy devices before the Commission is empowered to license their use. The bill provides:

1. Atomic energy devices can neither be manufactured nor used without a license issued by the Commission.
2. No license for manufacture or use may be issued until the Commission has made a report to the Congress stating all the facts with "respect to the use of such devices, the Commission's estimate of the social, political, economic, and international effects of such use, and the Commission's recommendations for necessary or desirable supplemental legislation."
3. No license for manufacture or use may be issued by the Commission until after a report has been filed with the Congress and a period of 90 days in which the Congress was in session has elapsed after the report has been filed.

The Committee is desirous also that the provisions of the bill relating to licensing of atomic energy devices shall not interfere with the development of free competition in the use of atomic energy. Thus the bill provides that licenses on an atomic energy device, once issued, must be made available to all applicants who can meet the safety and security standards of the Commission. Royalties to be paid the patent owners of such devices are provided for in section 11.

The following additional points are to be noted:

- (a) Licenses are not required (1) for research and development related to the manufacture of atomic energy devices; (2) for manufacture or use of equipment or devices for medical therapy.
- (b) The bill does not permit the Commission to license the use of devices which produce fissionable material in the course of utilizing atomic energy.

Section 9. International arrangements

The committee recognizes that the ultimate solution to the problems posed by the development of nuclear energy and atomic weapons lies in

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the adoption of effective and enforceable international safeguards. The bill therefore seeks to create a system of domestic control designed to protect the common defense and security, without constituting an obstacle to the attainment of satisfactory international controls.

To insure that provisions of S. 1717 do not interfere with the operation of international control machinery, when established, section 8 expressly provides that to the extent any provision of the bill, or any action of the Commission under the bill, conflicts with the provisions of an international agreement hereafter approved by the Senate or the Congress, the provision is to be considered of no further force or effect.

The Commission is specifically instructed to perform its functions so as to give maximum effect to the policies contained in international agreements.

Section 9. Property of the Commission

The Commission is to take over all the resources of the United States Government devoted to or related to atomic energy development. This includes all atomic weapons, all property of the Manhattan Engineer District, and all patents, materials, plants and facilities, contracts, and information relating primarily to atomic energy. The Commission is authorized to reimburse States and municipalities for loss in taxes incurred through its acquisition of property.

Section 10. Control of Information

This provision, of vital importance to the Nation's security, was completed by the committee after weighing carefully the objectives to be attained. The problems are especially difficult because vital objectives in a sense compete with or are in direct conflict with one another. The common defense and security require control over information which might help other nations to build atomic weapons or power plants (until effective international safeguards are established) and, at the same time, sufficient freedom of interchange between scientists to assure the Nation of continued scientific progress. Section 10 expressly states these policy considerations of opposite tendency and attempts to frame a program that will reconcile their apparent divergence.

The dissemination of certain information or the mishandling of certain materials with intent to injure the United States or to secure an advantage to a foreign nation is prohibited, subject to a maximum penalty of 20 years' imprisonment and \$20,000 fine. Dissemination of such information with reason to believe that such injury or advantage will result is also prohibited, subject to a maximum penalty of 10 years' imprisonment and \$10,000 fine.

The information involved in these penalties is defined in the act and placed in a restricted category. But the Commission is empowered and directed to remove information from the restricted category wherever its publication will not adversely affect the common defense and security.

Subsection (c) (5) of this section assures consistency of action between Government agencies. It prohibits any agency from placing information in a restricted category under the authority of this or any other law once such information has been released from the category by official action

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of the Atomic Energy Commission. While the Atomic Energy Commission under this provision determines which information remains in the restricted category, it may not by regulation or otherwise prescribe the persons who may disseminate or receive it. Subsection (b) directs the Commission to aid in the dissemination of unrestricted information.

Subsection (c) (1), providing that no person shall be prosecuted for violation of the provisions of the section unless and until the Attorney General has advised and consulted with the Commission, was inserted as an assurance to scientists working in atomic energy fields that prosecutions would not be initiated without review by persons having the technical and scientific background necessary to determine the significance of the acts complained of.

Subsection (d) authorizes the Commission to keep constantly informed of all activities relating to atomic energy both by reports and actual inspections. The Commission is directed to pay special attention to activities involving the production of fissionable material.

Section 11. Patents and inventions

In sections 4 and 6 the bill provides for a Government monopoly of the production of fissionable material and atomic weapons. In considering the patent implications of these provisions, the committee concluded that private patents can play no role in fields of activity reserved exclusively to the Government. For this reason, and to eliminate risks of disclosure of restricted information, risks which would be certain to arise under normal patent procedures, the bill provides that inventions and discoveries in these fields shall not be patentable matter. To assure the Commission of access to new inventions and to provide inventors with financial inducements in lieu of patent rights, the bill requires that such inventions be reported to the Commission and creates a Patent Compensation Board with authority to make awards to inventors.

In order to make the peacetime benefits of atomic energy widely available, the bill provides that the grant of a license under section 7 carries with it the right to use any patented invention or discovery which the Commission has declared to be affected with the public interest. Any such use is subject to the payment of reasonable royalty fees to be determined by the Patent Compensation Board.

Any person applying for an award or compensation or for the determination of a reasonable royalty fee has the right to be represented by counsel. In each case the Commission's decisions are subject to judicial review.

Section 12. General authority

This section contains various general grants of authority to the Commission to enable it to discharge its responsibilities. These include authority to—

(a) Establish advisory boards to make recommendations on the Commission's various functions.

(b) Establish safety and health regulations for the possession and use of fissionable and byproduct materials to minimize the danger from explosion, radioactivity, and other harmful or toxic effects incident to the presence of such materials.

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(c) Make studies and investigations, and hold hearings and summon witnesses to assist in carrying out its duties.

(d) Appoint officers and employees, use the services and employees of other agencies, and utilize voluntary or uncompensated personnel wherever desirable. Appointments are to be made in accordance with civil-service laws but the Commission may, whenever it deems the action necessary, make appointments without regard to such laws. Reluctant as the committee is to depart from the established framework of the civil-service laws, it considers the grant of this-exempting authority to the Commission essential to assure the Commission sufficient flexibility in the conduct of its large-scale and varied operations, and to insure availability to the Commission of personnel of the highest caliber.

(e) Acquire materials, property, and other equipment, erect buildings and acquire and sell real and personal property.

(f) Dispose of radioactive materials and make other special dispositions for reasons of national security without regard to the provisions of other laws.

As a precaution against unforeseen contingencies, the President is granted limited authority to exempt specific actions of the Commission from applicable laws whenever such action is essential for security reasons.

Section 13. Compensation for private property acquired

Consonant with the broad duties and operating responsibilities assigned to the Atomic Energy Commission, the bill grants to the Commission the appropriate requisitioning powers and powers of eminent domain. Thus, under section 5, the Commission must acquire all fissionable materials and may requisition stocks of uranium ore or lands containing uranium ore; under section 11, the Commission may acquire any invention or discovery or any patent covering an invention or discovery "useful in the production of fissionable material or in the utilization of fissionable material or atomic energy for a military weapon, or which utilizes or is essential in the utilization of fissionable material or atomic energy."

Section 13 provides that compensation for property so acquired is to be determined initially by the Commission. If the compensation determined by the Commission is unsatisfactory to the person entitled to it, half the amount is to be paid to him immediately and he is entitled to sue in the Court of Claims for such balance as the court may determine represents just compensation.

The Commission is granted authority to take immediate possession of property acquired by eminent domain or requisitioning without awaiting completion of litigation.

Section 14. Joint Committee on Atomic Energy

The importance of the field of atomic energy, coupled with the unique character of the problems raised by its development, makes it peculiarly desirable and necessary that the Congress be fully acquainted at all times with the work of the Commission. The bill in section 16 makes provision for reports which will contribute to this end.

More important, however, is the provision for the establishment of a joint congressional committee, to be composed of nine Members of

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the Senate and nine Members of the House of Representatives, directed to make continuing studies of the activities of the Atomic Energy Commission and of problems related to the development, use, and control of atomic energy.

The joint committee is empowered to hold hearings, to act on legislation, and to equip itself with a staff of such experts and technicians as it deems necessary to carry out its functions.

The usefulness of such a committee in focusing responsibility in the Congress and in keeping the legislature informed cannot be overemphasized. The joint committee will be in a position to give substantial aid to the Appropriations Committee; and to give consideration to supplementary and amending legislation as the need arises.

Section 15. Enforcement

This section provides penalties for violation of the several provisions of the bill. These include prohibitions against—

1. The ownership or production of fissionable material.
2. Ownership of production facilities.
3. Manufacture of atomic weapons.
4. Violation of reporting and inspection requirements.

Willful violation of these provisions is made punishable by fine and imprisonment, determined by the seriousness of the offense. Violation with intent to injure the United States or help a foreign power is punishable by a maximum penalty of 20 years' imprisonment and a fine of \$20,000.

The Commission is also given the power to apply to the courts for injunctions. Federal courts are authorized to issue orders enforcing the Commission's subpoenas.

Section 16. Reports

This section is to be evaluated in conjunction with the purposes set forth in establishing a joint congressional committee under section 14. As part of the program for keeping the legislature informed, the Commission is to make semiannual reports to the Congress detailing its activities, and additional reports including recommendations for legislation as the Commission deems necessary or desirable.

Section 17. Definitions

This section states definitions of the following terms: Atomic energy, Government agency, person, United States, research, and development.

Section 18. Appropriations

In providing authority for appropriations, the committee is aware that the nature of expenditures on atomic energy development has, until now, been a military secret. There is no justification in peacetime for continuing this sweeping practice. Certain critical areas of activity will nevertheless continue to touch closely upon the national defense. To assure the maintenance of security in connection with expenditures in such areas, the bill provides that future appropriation acts "may appropriate specified portions thereof to be accounted for upon the certification of the Commission only."

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Funds obligated but not expended during any fiscal year are to remain available for expenditure during four succeeding years. The unexpended balances of the Manhattan Engineer District are to be transferred to the Commission in such portion as the President may determine.

Section 19. Separability of provisions

If any provision of the bill is held invalid, other provisions are not to be affected thereby.

Section 20. Short title

This Act may be cited as the "Atomic Energy Act of 1946."

VOCATIONAL EDUCATION ACT OF 1946

For text of Act see p. 741

SENATE COMMITTEE ON EDUCATION AND LABOR

Senate Report No. 1588, June 26, 1946

THE Committee on Education and Labor to whom was referred the bill (S. 619) to amend the act of June 8, 1936, relating to vocational education, so as to provide for the further development of vocational education in the several States and Territories, having considered the same, report favorably thereon with an amendment in the nature of a substitute and recommend that the bill as amended do pass.

INTRODUCTION

Your committee have been aware of the value of the federally aided program of vocational education. The worth of the program was greatly emphasized immediately preceding and during the war years when several million war production workers were trained for the industries involved in the production of war materials. The necessity for the appropriation of many millions for the vocational training of war production workers emphasized the fact that the program of public vocational education was by no means fully developed in this country.

This bill, S. 619, was introduced in the Senate on February 26, 1945. Public hearings on the bill were held April 30, May 1 and 2, 1945. A subcommittee was designated to study the various provisions of the bill and to report their recommendations to the full committee. This subcommittee has considered the bill through a period of many weeks during which time authorities have been consulted with respect to various sections and provisions of the bill.

It early became evident that there was a real need for the extension of the present program of vocational education. There was also a general feeling on the part of your committee that we must continue the present State and local administration of vocational education, and in any new legislation avoid legal provisions which would tend toward the Federal control of vocational education. In this respect the administration of vocational education under the Smith-Hughes and George-

Joint Committee Report

House Report No. 2181, Senate Report No. 1699, 83d Congress, 2d Session

OFFICIAL TEXT

The Joint Committee on Atomic Energy, to whom was referred to bill (H. R. 9757) to amend the Atomic Energy Act of 1946, as amended, and for other purposes, having considered the same, unanimously report favorably thereon and recommend that the bill do pass. Some individual members of the Joint Committee hold divergent views on certain sections of the bill which are attached hereto or will be presented appropriately in their respective Houses.

This report describes the background of H. R. 9757 [S. 3690], which is the committee-approved revision of H. R. 8862 [S. 3323] on which public and executive hearings have been held, sets forth the basic considerations which impelled the Joint Committee to report it favorably, and furnishes a section-by-section analysis of the bill. ♪

Changing Perspectives in Atomic Energy

The primary purpose of H. R. 9757 [S. 3690] is to bring the Atomic Energy Act of 1946 into accord with atomic progress and to make our Nation's legislative controls better conform with the scientific, technical, economic, and political facts of atomic energy as they exist today—almost a decade after S. 1717 became the law of the land (Public Law 555, 79th Cong.).

The organic law was written at the very outset of the atomic era. Those who participated in drafting that law were keenly aware that many unknown factors were involved in measuring the future impact of this new source of energy upon our national life. Indeed, the law warned in its findings and declaration that "any legislation will necessarily be subject to revision from time to time." We deem it a tribute to the special committee which drafted S. 1717, 79th Congress, and to the late Senator Brien McMahon, sponsor of the legislation and subsequently chairman of the Joint Committee, that the organic law has served our Nation so well for nearly a full decade. We would also record our satisfaction with the fact that, at a time when atomic energy was popularly associated only with the atom bomb, the organic law specifically called attention to constructive uses of the atom, by declaring that—

subject at all times to the paramount objective of assuring the common defense and security, the development and utilization of atomic energy shall, so far as prac-

ticable, be directed toward improving the public welfare, increasing the standard of living, strengthening free competition in private enterprise, and promoting world peace.

Under the Atomic Energy Act of 1946, our Nation has developed, in the form of our atomic-weapon stockpile, a degree of deterring power which may well constitute the free world's greatest material asset in its effort to avert another worldwide war. The elementary requirements of national security have compelled us to give military uses of the atom top priority. Yet we have simultaneously developed, to a considerable degree, beneficent applications of this new force.

The past 6 years have witnessed extraordinary scientific and technical achievements in atomic energy, both on the peacetime and military sides. Technological developments—some promising longer and richer lives for all privileged to share in the peacetime benefits of the atom, and others posing grave threats to the very existence of civilization—have proceeded much more rapidly than was expected in 1946. As a result, atomic-energy legislation which was once fully responsive to assuring the common defense and promoting the national welfare must now be revised to take account of existing realities in atomic energy, in our Nation and throughout the world.

When the original act was written, the United States possessed a monopoly of atomic weapons. In a world where just and lasting peace was fervently sought though not yet assured, simple prudence dictated stringent security regulations aimed at prolonging our monopoly. It was widely believed that the Soviet Union might not explode its first atomic bomb for many years to come, and that still more years might pass before it could produce atomic weapons in quantity. In point of fact, however, the Soviet Union broke our atomic monopoly less than 3 years after the Atomic Energy Act of 1946 was put on the statute books. In the fall of 1953, less than a year after our first full-scale fusion-weapon test, the Soviets also achieved a thermonuclear explosion. This clearly does not mean that the security regulations contained in the Atomic Energy Act of 1946 served no useful purpose, or that an indiscriminate relaxation of these safeguards is now in order. It does mean that our provisions for the control of information must now be revised to protect our

national interest in a world where the forces of evil have added to their conventional arms a growing ability to launch a devastating atomic blow against the free world.

When the organic law was enacted, atomic bombs were regarded by most as strategic weapons. Tactical applications of the military atom were but dimly perceived. Still less was it recognized that the time would soon come when tactical atomic weapons could profoundly, perhaps even decisively, affect the operations of the ground forces defending Western Europe. With our Nation the sole possessor of atomic weapons, and with these weapons husbanded for a strategic counterblow against an aggressor, there was no need for acquainting friendly nations with information concerning their effects and military employment of atomic weapons. Today, however, we are engaged with our allies in a common endeavor, involving common planning and combined forces, to dam the tide of Red military power and prevent it from engulfing free Europe. America's preponderance in atomic weapons can offset the numerical superiority of the Communist forces, and serve emphatic notice on the Soviet dictators that any attempt to occupy free Europe, or to push further anywhere into the free world, would be foredoomed to failure. Yet, so long as our law prohibits us from giving our partners in these joint efforts for common defense such atomic information as is required for realistic military planning, our own national security suffers.

To contrast still further differences between the perspective of 1946 and that of 1954: It was commonly believed 8 years ago that the generation of useful power from atomic energy was a distant goal, a very distant goal. Atomic energy then was 95 percent for military purposes, with possibly 5 percent for peacetime uses. The resources of the Atomic Energy Commission and of its contractors appeared fully adequate to develop atomic-power reactors at a rate consistent with foreseeable technical progress. Moreover, there was little experience concerning the health hazards involved in operating atomic plants, and this fact was in itself a compelling argument for making the manufacture and use of atomic materials a Government monopoly.

Today, however, we can draw on the experience acquired in designing, building, and operating more than a score of atomic reactors. It is now evident that greater private participation in power development need not bring with it attendant hazards to the health and safety of the American people. Moreover, the atomic-reactor art has already reached the point where atomic power at prices competitive with electricity derived from conventional fuels is on the horizon, though not within our immediate reach. For more than 2½ years, the experimental breeder reactor has actually

been producing relatively small amounts of electricity at the national reactor testing station in Idaho. The land-based prototype of the atomic engine propelling the U. S. S. *Nautilus* has already produced more than enough power to send an atomic submarine around the world, fully submerged and at full speed. The Westinghouse Electric Corp. and the Duquesne Power & Light Co. are now constructing the Nation's first large-scale atomic-power reactor, which will generate 60,000 kilowatts of electricity—an amount sufficient to furnish light and power for a sizable city.

Many technological problems remain to be solved before widespread atomic power, at competitive prices, is a reality. It is clear to us that continued Government research and development, using Government funds, will be indispensable to a speedy and resolute attack on these problems. It is equally clear to us, however, that the goal of atomic power at competitive prices will be reached more quickly if private enterprise, using private funds, is now encouraged to play a far larger role in the development of atomic power than is permitted under existing legislation. In particular, we do not believe that any developmental program carried out solely under governmental auspices, no matter how efficient it may be, can substitute for the cost-cutting and other incentives of free and competitive enterprise.

Today we are not alone in the drive to achieve peacetime atomic power. Eight years ago, besides the United States, only the United Kingdom, Canada, and—as we have recently come to find—the Soviet Union, had major atomic energy projects in being. The possibility of cooperating with other nations to gain mutual advantage in the area of peacetime power appeared far in the future. As against this, however, more than 20 countries now have vigorous atomic energy programs, and several of them are pressing toward the construction of atomic power plants to turn out useful amounts of electricity.

In 1946, finally, our Nation earnestly hoped that worldwide agreement on international control of atomic energy might soon be secured. It was reasonable, therefore, that the original act should prohibit an exchange of information on commercial uses of atomic energy with other nations until such time as the Congress declared that effective and enforceable international safeguards against the use of atomic energy for destructive purposes had been established.

But our hopes of 1946 have been thwarted by unremitting Soviet opposition to the United Nations plan for the control of atomic energy. Although we would be morally derelict if we abandoned our hopes for the eventual effective international regulation of all armaments, legislative policy cannot now be founded on the expectation that the prospect of such control is either likely or imminent.

In summary: Statutory provisions which were

in harmony with the state of atomic development in 1946 are no longer consistent with the realities of atomic energy in 1954. Legislation not responsive to the needs and problems of today can serve only to deny our Nation, and like-minded nations as well, the true promise of atomic energy—both in augmenting the total military strength of the free world, and in increasing opportunities for beneficent use of the atom.

History of Proposed Legislation

As the committee of Congress required by statute to "make continuing studies of the development, use and control of atomic energy," the joint committee has, since it first met in 1947, concerned itself with the relationship between a changing and growing atomic program and the overall legislative requirements of this new field. As a result, the joint committee has, from time to time, recommended to the Congress certain amendments to the basic law as circumstances have demanded.

In the summer of 1952, the committee decided to begin an intensive study of the problems of atomic power development, and requested the Commission to prepare a statement of its views on this matter. Pending completion of the Commission statement, the committee prepared and issued in December 1952, a 415-page print entitled "Atomic Power and Private Enterprise." This print, the first compilation on the subject, sought to illuminate the problems associated with increased peacetime atomic energy developments.

In the spring of 1953 the Commission submitted its policy statement on atomic power, and the committee held extensive hearings on the subject. During the course of these hearings, the Atomic Energy Commission emphasized that maximum progress in this area required greater contributions in manpower, dollars, and resources from private enterprise, and that legislative revisions would be needed to make this possible. Witnesses from the Department of Defense and the Department of State reported that our nation could invigorate its atomic power development effort without subtracting from our atomic military strength, and that such a broadened attack on peacetime power would advantage our country in its international relations.

The testimony of executive branch representatives and of spokesmen for science, industry, labor, and management heard by the joint committee in the course of the 1953 hearings on atomic power development appears in the 649 page joint committee publication on the subject of Atomic Power Development and Private Enterprise, published in the fall of 1953.

The committee has, in addition, maintained a continuing and active interest in all other phases of the atomic program affected by the proposed legislation. Last spring, its Security Subcommittee inquired into the procedures of the Atomic Energy Commission for safeguarding classified informa-

tion. Its Research and Development Subcommittee held extended hearings on the Commission's 5-year reactor development program and on other related scientific and engineering activities. The weapons program has demanded a large portion of the committee's intense attention.

Thus, through studies, inspections, meetings, hearings, and continuing day-to-day contact with the atomic energy program the committee has amassed a body of information and experience which forms the base underlying the legislation now recommended.

On February 17 of this year, the President of the United States submitted to the Congress a series of recommendations incorporating the proposals of the executive branch for amending the Atomic Energy Act of 1946. These amendments, aimed at "strengthening the defense and economy of the United States and of the free world," sought to accomplish the following:

First, widened cooperation with our allies in certain atomic energy matters;

Second, improved procedures for the control and dissemination of atomic energy information; and

Third, encouragement of broadened participation in the development of peacetime uses of atomic energy in the United States.

Following submission of the President's message to the Congress, the Joint Committee, sitting as a subcommittee of the whole, drafted a series of amendments to the Atomic Energy Act of 1946. On April 15 and 19, the chairman and vice chairman of the Joint Committee introduced into the House and Senate H. R. 8802 and S. 3323, the resulting companion bills. At the time these bills were introduced, attention was drawn to the fact that they would undoubtedly be subject to revision by the Joint Committee during the course of public and executive hearings on the proposed legislation.

The committee met almost daily in its consideration of these bills and held many public hearings, at which witnesses representing Government and industry were heard.

Throughout, our deliberations were marked with the spirit of nonpartisanship which has characterized the work of the Joint Committee from its inception. Virtually all differences of opinion originally existing between committee members concerning specific provisions of the legislation were resolved in the course of our discussions, and through a more complete understanding of the problems and the provisions of the measure, and our hearings ended with essential unanimity having been reached on the general provisions of the bills.

On June 30, new bills incorporating the revisions made during the executive meetings of H. R. 8802 and S. 3323, were introduced. It is these bills, H. R. 9757 and S. 3660, which we now unanimously report favorably.

We are aware of the heavy responsibility we now assume in commending this legislation to the Congress, and thereby to the American people. Many imponderables are still involved in trying to chart the future course of atomic progress, and we presume that the legislative changes we now recommend will themselves undoubtedly require revision from time to time.

It is our deep conviction, however, that this legislation will speed atomic progress and will promote the security and well-being of the Nation. It accomplishes the purposes set forth in the President's February 17 message to the Congress. It addresses itself to a needed, across-the-board modernization of the Atomic Energy Act of 1946. It proposes changes wherever 8 years of testing the organic law in the hard crucible of actual experience has led the committee to conclude that revisions would make for greater security, efficiency, and economy in the operation of our national atomic energy program.

The President's Message and the Proposed Amendments

Widened cooperation with our allies in certain atomic energy matters

H. R. 9757 and S. 3690 authorize the negotiation of bilateral agreements for cooperation with foreign nations in the area of peacetime uses of atomic energy under carefully stipulated safeguards. The Commission may transfer and exchange restricted data dealing with industrial, nonmilitary uses of atomic energy. Also, under explicitly stated safeguards, the Commission may transfer to another nation, party to an "agreement for cooperation," atomic materials in quantities needed for the development or utilization of atomic energy for nonmilitary and research purposes. Besides allowing bilateral agreements in this field, the legislation also authorizes the President to enter into an international arrangement with a group of nations for the purpose of international cooperation in nonmilitary applications of atomic energy and thereafter to cooperate with that group of nations, pursuant to agreements for cooperation. The legislation provides a mechanism to implement the President's peacetime International Atomic Pool Plan, outlined in his speech before the United Nations on December 8, 1953.

On the military side, the legislation permits the Department of Defense, under comprehensive security safeguards, to transfer to another nation, or to a regional defense organization of which we are a member, restricted data concerning the tactical employment of atomic weapons. Such information includes data necessary to the development of defense plans, the training of personnel in the employment of, and defense against, atomic weapons, and the evaluation of the capa-

bilities of potential enemies in the employment of atomic weapons. The types of information that may be communicated to others to achieve these objectives are carefully delineated, and it is made clear that no information which would reveal important or significant data on the design or fabrication of the nuclear portions of atomic weapons, or on the detailed engineering of other important parts of atomic weapons, can be revealed.

We believe that peacetime international atomic energy cooperation on the basis of the terms set forth in this legislation will redound to the mutual benefit of all concerned in such common undertakings. We believe also that the degree of military atomic cooperation envisaged in these amendments will increase the effectiveness of our joint defense planning with other nations in our mutual defense. We further believe that the attendant gains to our own security will more than offset the risks taken when any classified military information, irrespective of its sensitivity or quantity, passes beyond our exclusive control.

In making our recommendations for international cooperation, we have proceeded under the policy that security restrictions which prove to be onerous or unnecessary can always be relaxed, whereas the act of abandoning exclusive control over any item of information is irrevocable. Accordingly, we have approached these sections of legislation with great circumspection—preferring to resolve any doubts on the side of caution.

Improvement of procedure for the control and dissemination of atomic energy information

The information control provisions of the organic law and of these bills are built around the concept of restricted data, which the Atomic Energy Act of 1946 defines as "all data concerning the manufacture or utilization of atomic weapons, the production of fissionable material, or the use of fissionable material in the production of power, but shall not include any data which the Commission from time to time determines may be published without adversely affecting the common defense and security."

Clearance for access to restricted data has been contingent upon an investigation as to character, associations, and loyalty of the individual. The same investigative requirements have applied to all personnel employed by the Atomic Energy Commission or its contractors, whether such employees would in fact have subsequent access to only small amounts of classified information of little security significance, or whether their positions required broad and continuing access to the most sensitive data in the atomic program. The amended legislation would permit the Atomic Energy Commission, on the basis of established criteria, to relate the scope of background investigation required to the extent and sensitivity of

the classified information to which an employee would have access while on the project. We believe that such a practice will make for greater overall security and greater protection of atomic secrets, by permitting the resources of our investigative agencies to be concentrated on those areas where painstaking and scrupulous background checks are most urgently required.

As atomic weapons have more and more assumed the status of conventional armaments in our military services, an increasing number of Department of Defense personnel have required access to restricted data. The Atomic Energy Commission is now permitted to disclose restricted data to military personnel qualifying for such information on a need-to-know basis and possessing the appropriate service clearance. At the same time, Commission contractors are prohibited from revealing or disclosing restricted data to military personnel on the basis of their military clearance, requiring instead that potential recipients first secure an Atomic Energy Commission clearance—based on investigation by the Federal Bureau of Investigation or by the Civil Service Commission. The amendments would remedy this administrative anomaly by permitting contractors and licensees of the Commission to give Department of Defense personnel access to restricted data under conditions which would assure safeguarding of the information.

Much restricted data concerns the military utilization of atomic weapons. Responsibility for the control of all restricted data, however, is vested in the Atomic Energy Commission. In certain instances, the Department of Defense has desired to remove military utilization information from the restricted data category, and without putting it in the public domain, to handle it under the safeguards used to protect other classified military information. Under the Atomic Energy Act of 1946, however, information can be removed from the restricted data category only through declassification, following a Commission determination that the publication of this data would not adversely affect the common defense and security. To meet this problem, the bill would permit information relating primarily to the utilization of atomic weapons to be removed from the restricted data category after a joint determination by the Commission and the Department of Defense that the data related primarily to military utilization, and that it should and could be safeguarded under the Espionage Act and other applicable statutes. The Department of Defense would also be given a voice with the Atomic Energy Commission in declassification actions involving restricted data which relates primarily to military utilization of atomic weapons.

The joint committee has been keenly aware of the critical role of information control in helping assure this Nation's continued atomic supremacy.

We have recommended legislative changes in this area only after exhaustive consideration of all the factors involved, and on the basis of our carefully considered judgment that these changes will promote our common defense and security.

The domestic development of peacetime uses of atomic energy

The organic law makes the production and use of fissionable material a Government monopoly. Private industry is permitted neither to own nor possess such material, nor to own or operate atomic reactors or other facilities capable of producing or utilizing these same materials. The basic law stipulates that "All right, title, and interest within or under the jurisdiction of the United States, in or to any fissionable material, now or hereafter produced, shall be the property of the Commission, and shall be deemed to be vested in the Commission by virtue of this act." It defines "fissionable material" as "plutonium, uranium enriched in the isotope-235, or any other material which the Commission deems to be capable of releasing substantial quantities of energy through nuclear chain reactions of the material, or any material artificially enriched by any of the foregoing. . . ."

The phrase "fissionable material" is stricken from the proposed legislation, and the new words "special nuclear material" are substituted in its stead. This change is intended to clarify the original provision of the act to give to the Commission, in addition to the power to determine and regulate the use of materials utilizable in the fission process, the power to perform the same functions in respect to materials which can be utilized in fusion processes.

This report has already summarized the considerations underlying the stringent prohibitions of the Atomic Energy Act of 1946 against private participation in atomic energy. It has also made clear that changing conditions now not only permit but require a relaxation of these prohibitions if atomic energy is to contribute in the fullest possible measure to our national security and progress.

The recommended legislation therefore permits the Commission to license private industry, to possess and use special nuclear materials. The United States Government, however, would retain title to such materials. The legislation also permits private persons, under license of the Commission, to own reactors intended to produce and utilize such materials.

It is our firmly held conviction that increased private participation in atomic power development, under the terms stipulated in this proposed legislation, will measurably accelerate our progress toward the day when economic atomic power will be a fact. It is likewise our conviction that the safeguards written into this legislation will prevent special interests from winning undue advantages at the expense of the national interest.

We do not believe that the efforts of free enterprise, using its own resources and moneys, are by themselves adequate to achieve the speediest possible attack on the goal of peacetime power. Neither do we believe that maximum progress toward this objective will be afforded by an effort relying exclusively on governmental research and development, using the public's moneys. We believe, rather, that teamwork between Government and industry—teamwork of the type encouraged by these amendments—is the key to optimum progress, efficiency, and economy in this area of atomic endeavor. In other words, our legislative proposals aim at encouraging flourishing research and development programs under both Government and private auspices.

We are mindful of the fact that in the immediate future, relatively few firms may be involved in this effort. We acknowledge that dangers of restrictive patent practices are present, though not inherent, in such a situation. Accordingly, we recommend to the Congress that holders of patents on inventions of primary importance to the peacetime uses of atomic energy be required to license such patents to others in return for fair royalties. This requirement of compulsory licensing will apply to all patents in the field which are sought in the next 5 years.

Other matters

During the course of its deliberations on these amendments, the committee has scrutinized the entire organic law, revising it in such instances where 8 years of experience have argued that changes were desirable. As a result, all of the 21 sections of the Atomic Energy Act of 1946 have been changed. Some of the proposed revisions affect matters of substance—they attempt to afford legislative answers for problems not existing at the time the organic law was drafted. Many of the suggested changes are minor—they are in the nature of perfecting amendments, or else they resolve possible ambiguities in the construction of the language of the original law. These revisions are set forth in the section-by-section analysis, and in the columnar comparison sections of this report.

Considered in their entirety, the amendments, in our opinion, make our Nation's atomic energy legislation a more responsive and adequate instrument for dealing with the problems posed by the advent and evolution of this epochal new force.

Yet we are aware that legislation, standing by itself, can never substitute for prudent and courageous administration of our atomic enterprise by the responsible officials of the executive branch, for continuing understanding and support of our atomic program in the Congress, and—most of all—for that enlightened and informed public opin-

ion which is the bedrock of wise national policy in our democratic society.

We have every confidence that the domestic problems created by atomic energy can be resolved through the application of wisdom, willingness of compromise and good will. We are no less confident that the critical international problems arising out of the growth of nuclear stockpiles could likewise be amenable to resolution through these same means.

We in America cannot be held accountable for the failure of the Communist rulers to join with the free nations of the world in ushering in an era of true atomic peace. We in America are accountable, however, for what we ourselves do, or do not do, in our strivings toward this goal.

We of this generation have been visited with a new form of energy which can ravage this planet beyond recognition, or make it fair beyond the wildest dreams of our fathers. It is the hope, it is the prayer of those of us who now commend this legislation to the Congress that the atom will be not the destroyer but the servant of humanity.

Chapter 1. Declaration, Findings, and Purposes

In this chapter are set forth the basic statements of policy and aims of the legislation and the constitutional findings in support of the legislation.

Section 1: The aim of the bill is to assure that atomic energy makes the maximum contribution to the general welfare of the Nation, subject to the paramount objective of having it make the maximum contribution to the common defense and security. The ends toward which the development of atomic energy are directed are further stated to be "to promote world peace, improve the general welfare, increase the standard of living, and strengthen free competition in private enterprise."

Section 2: The legal basis of the proposed legislation is the constitutional powers of the United States including, among others, to provide for the common defense; to raise and support armies; to provide and maintain a navy; to make all needful rules and regulations respecting the territory or other property belonging to the United States; and to regulate commerce with foreign nations and among the several States.

Title to special nuclear material is vested in the United States so that there is adequate means of providing the United States with the materials for weapons or other preempting national uses in times of need. The use of the special nuclear material by others in facilities which, for the first time, are permitted to be owned by persons other than the United States Government, is regulated under the power, among the others cited, of the United States to provide for the regulation of its own property. In view of the broad powers

conferred upon the Congress by article 4, section 3, clause 2, of the Constitution, there can be no doubt of the authority of the Congress to exercise its powers to provide for any manner of regulation needed to protect the national interests, and the interests of the public.

Section 3: The bill specifies that the Commission shall carry out programs of encouraging research; of disseminating technical information and controlling and declassifying restricted data; of controlling atomic energy and special nuclear material; of encouraging widespread participation in the atomic-energy program; and of international cooperation, subject to suitable safeguards; and of administration.

Chapter 2. Definitions

All definitions set forth in the bill are collected in this chapter. Those portions of the definitions which require substantive action have, in most cases, been separated from the definitions and have been put into the appropriate section of the bill. Some of the definitions which merit particular attention are:

Section 11 e: "Atomic energy" is defined to mean "all forms of energy released in the course of nuclear fission or nuclear transformation." This definition includes both fission and fusion types of nuclear reactions. It has been clarified to mean only that energy released "in the course of" nuclear fission or nuclear transformation. The definition in the act also includes energy released "as a result of" such fission or transformation, and is scientifically broader than is necessary or desirable. Its deletion in the bill will not change the intended scope of the act or jurisdiction of the Atomic Energy Commission.

Section 11 d: "Atomic weapon" is defined for the first time to express the intent of Congress in using the phrase in the act. The definition specifically excludes airplanes, submarines, or rockets which may carry the weapons, unless the propulsive power is an integral part of the weapon itself. It also makes clear that devices that are the developmental forerunners of any atomic weapon are classed as atomic weapons.

Section 11 i: "Design" is defined for the first time to mean the documents containing specifications of any item, the information contained on the documents, and the data from research and development pertinent to the information contained on the documents.

Section 11 m: "Operator" is defined as any person who manipulates the controls of a production facility or a utilization facility. This definition is incorporated in order to permit the Commission to license the actual operators of nuclear reactors under section 107 in the same way that the Civil Aeronautics Board licenses airplane pilots and the way the Federal Communications

Commission licenses radio engineers. The owners of the facilities would be licensed under other sections of the bill.

Section 11 p: "Production facility" is defined as any facility which is determined to be capable of the production of special nuclear material in such quantity as to be of significance to the common defense and security or in such manner as to affect the health and safety of the public, or any important component part especially designed for such facility. This determination must be made by rule of the Commission. A facility which is not found by rule of the Commission to fall within the above definition is exempt from licensing as a facility, though the owner must still have a license for any special nuclear material involved.

Section 11 r: "Restricted data" is defined to include all data concerning (1) the design, manufacture, or utilization of atomic weapons; (2) the production of special nuclear material; or (3) the use of special nuclear material in the production of energy. The definition provides that data declassified or removed from the category is removed from the definition. While this definition differs from that of the act by specifically including the "design" of atomic weapons, it was always intended that this be included within the definition of restricted data, since it is perhaps the most important area of secret information in the atomic energy field that this Nation possesses. The Commission has always considered that the design of the weapons was covered under the definition of restricted data included in the act, and the Congress has concurred in that belief. Thus, by Public Law 235, 82d Congress (65 Stat. 692), the Congress permitted the interchange of limited portions of restricted data information with other nations with the very first proviso "that no such arrangement shall involve the communication of restricted data on design and fabrication of atomic weapons."

Section 11 t: "Special nuclear material" is defined to mean plutonium, uranium enriched in the isotope 233 or in the isotope 235 or any other material which the Commission determines to be special nuclear material pursuant to the provisions of section 51. The latter section is so constructed that materials essential to fusion processes could be found to be special nuclear materials in addition to materials essential to fission processes. Because the bill covers such materials used in fusion processes, the restrictive term "fissionable material" used in the act has been changed to "special nuclear material."

Section 11 v: "Utilization facility" has a definition parallel to that of "production facility" but based on the utilization of atomic energy or special nuclear material rather than on the production of special nuclear material.

Chapter 3. Organization

This chapter establishes the Atomic Energy Commission and certain various subordinate and auxiliary units to assist the Commission in the discharge of its statutory duties.

Section 21 establishes the Commission as a five-man body, and gives the President the power to designate one member as the Chairman of the Commission. The Chairman is authorized to designate an Acting Chairman. In providing that all members shall have equal responsibility and authority and that all members shall have one vote in Commission actions, the five-man rule of the Commission's activities is maintained and strengthened. The right of the members to have access to all information within the Commission flows from this responsibility and authority. The Chairman is given the task of being the official spokesman for the Commission (which does not ban the holding or expression of separate or dissenting views by any member) and of seeing to the faithful execution of the policies decided on by the Commission. This status should centralize the responsibility for carrying out the wishes of the Commission.

Section 22 provides for 5-year terms of the members of the Commission and for the rotation of these terms. It provides for the removal of the members by the President only for cause. It also provides for the compensation of the members at \$18,000 per annum, and for the compensation of the Chairman at \$20,000 per annum—as does the present act.

Section 23 provides that the principal office of the Commission may be in or near the District of Columbia, but requires the Commission, in any event, to maintain an office for the service of process in the District of Columbia in view of the many new licensing activities established by the bill.

Section 24 provides for the appointment of a General Manager to perform those administrative and executive functions of the Commission that the Commission may direct; provides that his service shall be at the pleasure of the Commission; and provides that the annual salary of the General Manager shall not exceed \$20,000.

Section 25 establishes certain important program and statutory divisions and offices within the Commission. There are 11 program divisions permitted by the bill, including the Division of Military Application. The latter is required to be headed by an active member of the Armed Forces. All program division directors are to receive an annual salary of not to exceed \$16,000. In addition, the Office of the General Counsel is recognized as meriting statutory recognition, especially in view of the many new complex legal problems entering the program with the many new licensing and regulatory provisions in the bill. There is also a statutory Inspection Divi-

sion established by the bill with the duty of gathering information to show whether or not contractors, licensees, and officers and employees of the Commission are complying with the provisions of the act, and the rules and regulations of the Commission. This Division will be responsible for those provisions of the act not supervised by the Federal Bureau of Investigation. This is the Division to which complaints can be referred when there is concern about the operations of licensees under the new provisions. It is not intended that the Inspection Division replace other necessary management inspection services such as auditing of contractor books and Commission records except as such activities may be necessary to fulfill the responsibilities of the Inspection Division in particular instances.

Section 26 establishes the General Advisory Committee. This Committee consists of nine members appointed by the President and advises the Commission on technical matters involved in the operation of the Commission.

Section 27 establishes the Military Liaison Committee. This Committee acts as a communication link between the Department of Defense and the Commission, through which each keeps the other fully and currently informed of relevant developments. It was originally established in the Atomic Energy Act of 1946 so that the military departments would be sure of having an adequate means of voicing any concern about the activities of a civilian Commission if those activities adversely affected the common defense and security.

Since the passage of the act, the Department of Defense has been established to integrate the various military responsibilities. Therefore, the bill specifies that the Department of Defense (rather than the Military Liaison Committee) shall have the responsibility of taking exception to action or proposed action of the Commission, and provides that in such cases the matter shall be referred to the President for resolution.

Section 28 permits the appointment of active officers to serve as director of the Division of Military Application, and of active or retired officers to serve as the Chairman of the Military Liaison Committee. In either case the bill clearly provides, as has always been congressional intent, that the total amount of compensation to be paid to any such officer is the amount prescribed by sections 25 and 27, respectively.

Chapter 4. Research

This chapter provides the Commission with the statutory authority to see that adequate research is performed in the program.

Section 31 provides the Commission with the authority to enter contracts or other arrangements to have research work performed for the Commission within very broad scientific areas.

Section 32 provides the Commission with au-

thority to engage in research within those areas if it so desires.

Section 30 permits the Commission to have research within those same areas performed in its facilities for other persons if adequate facilities are not available elsewhere to those persons. The Commission is permitted to make such charge for the performance of this work as it may deem desirable.

Chapter 5. Production of Special Nuclear Material

This chapter provides the Commission with the authority to produce special nuclear material, or to have such material produced.

Section 41 provides that the Commission, as the agent of the United States, shall be the owner of all production facilities for the production of special nuclear material other than those which are useful for the types of research specified in section 31 above, and do not have a capacity sufficient to permit an operator to manufacture enough special nuclear material to produce an atomic weapon. It also permits licensees to the Commission to own production facilities. This provision requiring Commission ownership of all other production facilities is part of the basic requirements for having civilian rather than military control of the atomic energy program. In connection with its own production facilities, however, the Commission is permitted to have the actual operation carried on by other persons under contract to it and under its direction and control. The total amounts of special nuclear material to be produced each year in Commission-owned facilities are to be determined by the President who also determines the amount of special nuclear material to be available each year for distribution by the Commission to licensees of the Commission.

Section 42 permits the irradiation of materials in facilities lawfully producing or utilizing special nuclear materials.

Section 43 permits the Commission to acquire production facilities or to acquire real property for the construction of production facilities for its own needs.

Section 44 permits the Commission to dispose of usable energy generated in the production facilities or in the experimental utilization facilities owned by the Commission. If the energy is sold to publicly or privately owned utilities or users, the price is to be subject to regulation by the appropriate agency, State or Federal, having jurisdiction. This section will permit the Commission to dispose of that utilizable energy it produces in the course of its own operations, but does not permit the Commission to enter the power-producing business without further con-

gressional authorization to construct or operate such commercial facilities.*

Chapter 6. Special Nuclear Material

This chapter deals with activities involving materials capable of releasing substantial quantities of atomic energy. For all purposes of the bill, such materials are defined as special nuclear material.

Section 51 provides that any material capable of releasing substantial quantities of atomic energy may be found by the Commission to be special nuclear material, provided that the determination is found to be in the interests of the common defense and security. In that case the President must agree with the determination and it must come before the joint committee before it can be effective. In view of the potentially great impact any future declaration of the addition of further materials to the category of special nuclear material could have on the economy of the Nation, these statutory steps were deemed to be necessary. Furthermore, at any such time the United States would be required to pay just compensation to the then owners of the material, and this might require large appropriations. It is believed that this provision gives the Commission the statutory basis it needs for including new materials within this category, and still provides adequate safeguards to assure that this power is not abused. It should be noted that the scientific basis on which the first Commission determination is to be based—namely, the release of substantial quantities of atomic energy—permits the inclusion in this category for the first time materials essential to fusion processes as well as those essential to fission processes.

Section 52 provides that title to all special nuclear material is to be in the United States, with the Commission acting as the agent of the United States in this connection. The provision requires the payment of just compensation to those who own special nuclear material at the time it is later determined to be special nuclear material. It also provides that those who hereafter lawfully produce special nuclear material, except under a contract with the Commission, are to be paid a fair price for the production of such material, as determined by section 56.

Section 53 sets forth the uses for which the Commission may license and distribute special nuclear material. These include research of the type specified in section 31, research and development or medical therapy under a license under section 104, or commercial operation under a license issued under section 103. The Commission is authorized to issue general or special licenses for the possession of special nuclear material.

paid to make a charge for the use of such material. The Commission is required to make a charge for such use if it is in connection with a commercial license issued under section 102. An additional charge for special nuclear material consumed by a licensee under section 103 is based on the cost to the Commission of producing or acquiring the special nuclear material. The charges for the other uses are in the discretion of the Commission, but must be established by rule so as to be fair to all in similar situations. The statutory conditions on permitting the use or possession by others of special nuclear material are set forth, and include:

1. Title shall remain in the United States.
2. Only those rights specified in the license are to be granted to the licensee.
3. No license is transferable except pursuant to the bill.
4. All special nuclear material is subject to the right of recapture or control in the event of war or a national emergency.
5. Special nuclear material may be used or produced in utilization and production facilities only in accordance with the provisions of the bill.
6. The possession shall be subject to such terms that no user will be permitted to construct an atomic weapon.
7. The possession is subject to the health and safety standards established by the Commission.
8. The licensee will hold the United States and the Commission harmless from damages resulting from the use or possession of the material.

In distributing the material, the Commission is directed to encourage independent research.

Section 54 permits the Commission to cooperate with any nation pursuant to an agreement for cooperation and to distribute special nuclear material to that nation. (See sec. 123.)

Section 55 permits the Commission to acquire special nuclear material outside of the United States.

Section 56 provides that the fair price to be paid to those lawfully producing special nuclear material (other than under contract) is to be based primarily on the value to the United States of the intended use of the material, and only secondarily to the actual cost of producing the material in licensed facilities. The fair price is to be uniform to all producers at any one time, and the Commission is authorized to guarantee fair prices for periods of up to 7 years. This authorization permits the Commission to announce guaranteed prices at any time for a period extending beyond that specified in any earlier guaranty, but not beyond 7 years from such subsequent announcement.

Section 57 contains prohibitions against having or using special nuclear material except in accordance with the provisions of the bill. One special provision prohibits any person from di-

rectly or indirectly producing special nuclear material outside of the United States, except under an agreement for cooperation (see sec. 123), or upon an express determination that such activity will not be inimical to the interests of the United States. This provision is designed to permit those who might teach abroad, or who might wish to sell unclassified services or parts of facilities (not including those parts found by the Commission to be production or utilization facilities because of their special characteristics), or who might wish to help build facilities abroad have an opportunity to do so with prior Commission approval. This section would not permit the disclosure of restricted data, or the export of production or utilization facilities. These are permitted only under section 144a and sections 103 and 104, respectively. This section also contains prohibitions and limitations on the activities of the Commission with respect to the distribution of special nuclear material.

Chapter 7. Source Material

This chapter specifies the provisions for the location, mining, production, and distribution of source materials.

Section 61 gives the Commission the authority to designate new materials as source materials if the Commission finds that such materials are essential to the production of special nuclear materials. The Commission must also find that the determination of an additional material as source material is in the interest of the common defense and security, and the President must concur in these determinations. Any such determination comes before the joint committee before it can become effective.

Section 62 prohibits any person from transferring any source material except pursuant to a license issued by the Commission.

Section 63 specifies the criteria under which the Commission is authorized to distribute source material within the United States. In addition to such distribution for use in research of the type specified in section 31, for use in a research and development facility, or for medical therapy, licensed under section 104, or for use in a commercial facility licensed under section 103, as is permitted for special nuclear material, source material may also be distributed for any other use approved by the Commission as an aid to science or industry. The criteria for having the Commission establish general or specific licensing provisions are set forth. Also, the method of establishing prices for the source materials so sold is specified. This is tied to the method of charging for materials generally furnished to licensees under section 101 m., and the price is to be such that the Government will receive reasonable compensation, and yet will not discourage the development of sources of supply independent of

the Government. The Commission is given authority to determine whether or not charges shall be made for the use of such material, depending, among other factors, upon whether or not a profit is to be made from such use by the distributee.

Section 64 permits the Commission to distribute source material to another nation which is party to an agreement for cooperation (see sec. 123). It also authorizes the Commission to distribute source materials outside of the United States upon a finding that such distribution will not be inimical to the interests of the United States.

Section 65 permits the Commission to require reports on the handling of source material as it deems desirable, but no such report is to be required for amounts before they are removed from their place of deposit in nature, or if they involve amounts deemed by the Commission to be insignificant.

Section 66 gives the Commission authority to condemn or acquire supplies of source material, interest in real property containing source material, or rights of entry into property believed to have possibilities of containing source material.

Section 67 gives the Commission authority to lease lands belonging to the United States for mining or prospecting for source materials. The Commission has exercised this right in the past based on the reservation to the United States of all rights to source materials in the public lands. This reservation is contained in the act. The Commission believes that it needs to have the power to lease expressly granted to it, now that this reservation is no longer carried in the bill. Three situations can be envisioned when it might be desirable to lease land belonging to the United States which might contain deposits of source materials: (1) Those lands which are withdrawn from mining locations; (2) those lands which in the opinion of the Commission are not reasonably susceptible of mining development under the mining laws; or (3) those lands on which source materials have been discovered as a result of exploratory work performed under the direction of any Government agency.

It is the intent of Congress that this leasing power should be invoked only where it is the only means of achieving private development of deposits of source material in lands belonging to the United States. It is not intended to supplant the mining laws in any normal situation.

Section 68 prohibits any person connected with the program who acquires confidential official information concerning deposits of source material in the course of his duties from gaining any private benefit from this information. This section also directs the head of any Government agency that heretofore has issued any conveyances of lands belonging to the United States containing reservations to the United States of all rights to source material to reissue such con-

veyances upon application of the present holder without any such reservation. Any rights issued to others under those reservations have been preserved. The bill deletes the reservation of source materials in public lands to the United States. With respect to this deletion, the Atomic Energy Commission has observed:

This deletion of the reservation would represent no economic loss to the Government since at no time has the Atomic Energy Commission paid less for source materials originating on lands subject to the reservation than it has for source materials originating on lands to which the reservation had no application. The principal practical effect of the reservation thus far has been detrimental to the Commission's program in that although neither the Commission nor the Department of the Interior believes there is legal ground for it, doubt has arisen in the mining industry as to whether a mining claim based on the discovery of a source material alone is legally valid. Complete deletion of the reservation would place source materials on the same footing as any other materials within the scope of the mining laws of 1872, as amended, and thereby leave no doubt whatsoever on this score.

Provision is also made to assure that mining claims involving source materials located during the period from 1946 to the present, under the mining laws, are recognized as valid. This provision is proposed because of a 1947 ruling in a Government agency which cast doubt on the validity of these claims. This provision has been approved by the Senate and House Committees on Interior and Insular Affairs, by the Commission, and by the Department of the Interior.

Section 69 prohibits the Commission from licensing any person to have source material if such licensing would be inimical to the common defense and security or to the health and safety of the public.

Chapter 8. Byproduct Material

Section 81: This section permits the Commission to distribute and permit other persons producing byproduct materials to distribute such material to licensees of the Commission who will abide by Commission regulations on the use of those materials, the regulations having been imposed to protect the common defense and security and the health and safety of the public.

Section 82 permits the Commission to distribute byproduct materials abroad under an agreement for cooperation (see sec. 123), or upon an express finding that each such distribution will not be inimical to the interests of the United States. The Commission is also permitted to license others to make foreign distribution of byproducts upon the same terms as the Commission makes such distribution (except as to the charges to be made for the material).

Chapter 9. Military Applications of Atomic Energy

This chapter sets forth the authorizations and limitations relating to atomic weapons.

Section 91 authorizes the Commission to engage

in the research, development, and production of atomic weapons, except that the President must at least once each year give his express consent to the activities of the Commission in such production. The President, furthermore, is authorized to direct the Commission to transfer special nuclear material or atomic weapons to the Department of Defense. The President may also authorize the Department of Defense to manufacture or acquire any atomic weapon or utilization facility for military purposes. However, the Department of Defense is prohibited from manufacturing special nuclear material except incident to the operation of any utilization facility for military purposes that is authorized pursuant to this section.

Section 92 prohibits any person from having or dealing with any atomic weapons except as authorized in section 91.

Chapter 10. Atomic Energy Licenses

This chapter sets forth the provisions and conditions for licensing the facilities which utilize or produce special nuclear material.

Section 101 contains a prohibition against having or dealing with any utilization or production facility except pursuant to a license issued by the Commission.

Section 102 requires the Commission to find that a type of utilization or production facility is of practical value before it can issue licenses for commercial installations of such facilities under section 103. This finding separates the issuance of research and development licenses for any facility under section 104 b, and the issuance of commercial licenses under section 103. This finding of practical value is required by the act, which also requires a report to be filed with Congress with respect to the social, political, economic, and international effects of the utilization of special nuclear material before the issuance of any license. In view of the provisions in the act requiring the Commission to keep the joint committee fully and currently informed, the addition provisions in the bill requiring the joint committee to investigate the development of the atomic-energy industry during the first 60 days of each session of Congress, and the amount of study that has already been put into this proposed legislation, it is felt that the requirement for the report to Congress should be discontinued.

Section 103: This section specifies the conditions for the issuance of licenses for types of utilization or production facilities that have been found to be of practical value. For each such type, the Commission is required to issue licenses to all qualified applicants without other discretion on its part. The licensed operations are subject to regulation by the Commission in the interest of the common defense and security and in order to protect the health and safety of the

public. The Commission is authorized to issue licenses for specified periods up to 40 years. Licenses cannot be granted to any person where the issuance of such a license would be inimical to the common defense and security or the health and safety of the public.

Section 104 provides the conditions for the issuance of licenses for medical therapy purposes, and for research and development facilities. With respect to the use of utilization facilities in medical therapy, the Commission is required to permit the widest amount of effective medical therapy possible with the amount of special nuclear material available for the purposes. The Commission is directed to impose only the minimum amount of regulation on medical therapy licenses.

With respect to utilization and production facilities which are in the research and development stage, but which look toward the demonstration of any type of facility as having practical value, the Commission is authorized to issue licenses and is directed to impose only those regulations which would be compatible with any regulations which might be imposed later if that type of facility is shown to be of practical value. The Commission is directed to issue licenses giving priority to those facilities which will lead to major advances in the application of atomic energy for industrial or commercial purposes.

With respect to other research and development facilities, the Commission is authorized to issue licenses for them and to impose the minimum amount of regulation.

All of the facilities authorized to be licensed under this section are subject to the same general conditions as facilities licensed under section 103, namely, ownership and control in United States citizens, and operation to be consonant with the common defense and security and with the health and safety of the public.

Section 105 contains the antitrust provisions relating to licensing. It declares the antitrust laws to be applicable to the atomic-energy program even though title to special nuclear material is vested in the United States. It requires the Commission to report apparent antitrust violations to the Attorney General. It also provides for hearings and judicial review in case there is any claim by the Attorney General or the Federal Trade Commission* that a proposed license of any production or utilization facility would violate the antitrust laws.

Section 106 authorizes the Commission to group production and utilization facilities together for licensing purposes since there is no facility known today which is purely a production facility, or purely a utilization facility. It also permits the

Commission to define the activities to be carried on by any licensed facility.

Section 107 requires the Commission to license the operators of utilization or production facilities in a manner similar to the Civil Aeronautics Authority licensing of airmen and the Federal Communications Commission licensing of radio operators.

Section 108 provides the Commission with the authority to recapture any special nuclear material licensed or to operate any facility licensed under section 103 or 104, if Congress declares that a state or war or national emergency exists and if the Commission finds that such recapture or operation is needed in the interest of the common defense and security.

Section 109 permits the Commission to exercise less stringent regulation over those component items which are defined as production or utilization facilities merely because the Commission finds that they are important component parts of such facilities.

Section 110 clearly excludes the contract operations of the Commission from the licensing provisions of the bill, and also excludes the activities of the Department of Defense authorized by section 91 from the licensing provisions.

Chapter 11. International Activities.

This chapter provides for international arrangements in the field of atomic energy, and also includes statutory provision for agreements for cooperation which do not rise to the stature of international arrangements. An international arrangement is defined to be a treaty or an executive agreement approved by both Houses of Congress.

Section 121 declares that the provisions of the statute are to be superseded by the terms of any international arrangement during the time that such terms conflict with the provisions of the statute. The force of this section is, of course, in existing law even without any statutory provision. It is, however, reincorporated from the act.

Section 122 provides that the Commission shall give maximum effect to the policies contained in international arrangements, and is in the act.

Section 123 contains the provisions to be included in, and the procedures to be followed in entering into, agreements for cooperation with another nation or with a regional defense organization. The provisions to be incorporated in any such agreement for cooperation include:

(1) The terms, conditions, duration, nature, and scope of the cooperation;

(2) A guaranty by the cooperating party that security safeguards and standards as set forth in the agreement for cooperation will be maintained;

(3) A guaranty by the cooperating party that

any material to be transferred pursuant to any such agreement will not be used for atomic weapons, or for research or on development of atomic weapons, or for any other military purpose; and

(4) A guaranty by the cooperating party that any material or any restricted data to be transferred pursuant to the agreement for cooperation will not be transferred to unauthorized persons or beyond the jurisdiction of the cooperating party, except as specified in the agreement.

The procedures that any such agreement for cooperation must take is:

(1) It must be approved by the Commission, or, in the case of the transfer of restricted data for the development of military plans pursuant to section 144 b., the Department of Defense.

(2) The President must approve the agreement for cooperation. He must also make a determination in writing that the performance of the agreement for cooperation will promote and will not constitute an unreasonable risk to the common defense and security.

(3) The proposed agreement for cooperation together with the Presidential approval and determination must lie before the joint committee for 30 days while Congress is in session.

Through the provisions that are required to be incorporated in the agreement for cooperation and through the procedures set forth in this section, there are ample and sufficient statutory safeguards on the international cooperation. Almost any cooperation with any foreign country can be said to involve some risk to the common defense and security of the United States. The provisions incorporated in section 123 are designed to permit cooperation where, upon weighing those risks in the light of the safeguards provided, there is found to be no unreasonable risk to the common defense and security in permitting the cooperation.

It should be specifically pointed out that no cooperation is permitted which would disclose the basic secrets involved in the design or fabrication of atomic weapons. In section 144 a., the section dealing with cooperation relating to restricted data, the subject matter in which such cooperation is possible, is specified to include only:

(1) Refining, purification, and subsequent treatment of source material;

(2) Reactor development;

(3) Production of special nuclear material;

(4) Health and safety;

(5) Industrial and other applications of atomic energy for peaceful purposes; and

(6) Research and development relating to the foregoing.

This subsection provides further that "no such cooperation shall involve the communication of

Restricted Data relating to the design or fabrication of atomic weapons."

In section 144 b., the section permitting cooperation with a nation or regional defense organization with respect to restricted data, the subject matter includible in that cooperation is limited to that restricted data necessary to:

- (1) The development of defense plans;
- (2) The training of personnel in the employment of and defense against atomic weapons; and
- (3) The evaluation of the capabilities of potential enemies in the employment of atomic weapons.

This subsection provides further that "no such cooperation shall involve communication of restricted data relating to the design or fabrication of atomic weapons except with regard to the external characteristics, including size, weight, and shape, yields and effects, and systems employed in the delivery or use thereof but not including any data in these categories unless in the joint judgment of the Atomic Energy Commission and the Department of Defense such data will not reveal important information concerning the design or fabrication of the nuclear components of an atomic weapon."

The cooperation permissible under this section, then, is the transfer of that information which will permit those who are our allies to participate intelligently in planning the defense of the free world against any atomic attack from Russia, and to know the effects of any weapons that will be available for use by the United States in helping those other nations join in defending the free world against any such attack.

Section 124 permits the President, if an international atomic pool has been established by an international arrangement (which must be approved by the Congress), to cooperate thereafter with the group of nations involved in that pool by means of agreements for cooperation. This gives the President a means of implementing an international atomic pool plan.

Chapter 12. Control of Information

This chapter sets forth provisions for the protection of secret information relating to atomic energy.

Section 141 sets forth the policies for dealing with restricted data; namely, that the Commission shall control the dissemination and classification of restricted data in such a manner as to assure the common defense and security; that the exchange of restricted data with other nations before enforceable international safeguards against the use of atomic energy for destructive purposes have been established are forbidden except pursuant to agreements for cooperation under section 144; and that dissemination of technical information is to be encouraged so as to have the free

interchange of ideas and criticism which is essential to scientific and industrial progress and public understanding and to enlarge the fund of technical information.

Section 142 directs the Commission to declassify that information within the definition of restricted data that can be published without undue risk to the common defense and security. It also directs the Commission to make continuous reviews of restricted data and of the classification guides so as to determine which information can be so declassified and published. That restricted data which the Commission and the Department of Defense jointly agree relate primarily to the utilization of atomic weapons, and which they jointly determine can be published without undue risk to the common defense and security can be removed from the classification of restricted data. The President is authorized to settle any disputes respecting such determinations. In addition, the Commission with the concurrence of the Department of Defense, can remove from the category of restricted data any information which they jointly determine relate primarily to the utilization of atomic weapons and which they determine can be adequately protected as defense information. However, any restricted data so classified as defense information cannot be transferred to any other nation except pursuant to an agreement for cooperation in accordance with subsection 144 b. The Commission is also authorized to remove from the category of restricted data any information relating to the atomic-energy programs of other nations that the Commission and the Director of Central Intelligence jointly determine to be necessary to carry out the provisions of section 102 d. of the National Security Act of 1947.

Section 143 authorizes the Commission to permit those in its program to provide access to restricted data to persons associated with the Department of Defense, where such access is required in the performance of the duties of the person to whom such access is to be granted, and the head of the agency or department in the Department of Defense so certifies. Furthermore, the head of that agency in the Department of Defense must certify that it has been established in accordance with the usual procedures of that agency that permitting such person to have the access permitted will not endanger the common defense and security, and the Secretary of Defense must find that the security procedures are adequate and in reasonable conformity with the standards established by the Commission.

Section 144 permits the President to authorize the Commission, pursuant to agreements for cooperation, to communicate certain types of restricted data which relate to the nonmilitary aspects of atomic energy to other nations. (The specific fields are described in the discussion of

sec. 122 above.) This section also permits the President to authorize the Department of Defense to cooperate with another nation or with a regional defense organization, pursuant to an agreement for cooperation and to disclose certain limited types of restricted data relating to the use of atomic weapons. (The specific areas of disclosure permitted are also set forth in the discussion of sec. 123 above.) This section also requires that the other nation or regional defense organization participate with the United States pursuant to an international arrangement by making substantial and material contributions to the mutual defense and security.

Section 145 requires personnel investigations by the Federal Bureau of Investigation or by the Civil Service Commission of persons who will be employed by the Commission or given access to restricted data. It permits the Commission or the General Manager (and this permission rests solely with those named) to exempt persons from this requirement where such exemption is clearly consistent with the national interest. The Federal Bureau of Investigation is required to handle any cases in which the Civil Service Commission finds any information which indicated questionable loyalty. It is also required to conduct investigations for those groups or classes of persons specified by the President, or for those positions certified by the Commission to have a high degree of importance or sensitivity. The Commission is authorized to establish the scope and extent of the less sensitive investigations permitted to be conducted by the Civil Service Commission, depending upon the degree of importance to the common defense and security of the restricted data to which access will be permitted.

Section 146 continues the application to restricted data and to persons in the atomic energy program of other laws relating to the protection of information. It also forbids the Commission from controlling or restricting any information outside of any powers granted by any law.

Chapter 10. Patents and Inventions

This chapter sets forth the provisions under which patents may be issued, and used in the atomic energy field.

Section 151 forbids the issuance of any patent on an invention or discovery useful solely in the utilization of atomic energy or of special nuclear material in an atomic weapon. Where inventions or discoveries have uses other than in weapons, patent rights are forbidden to the extent that the fields set forth above are involved. Any person making any invention or discovery generally useful in the field of atomic energy, is required to report that invention or discovery to the Commission, or to file a patent application on it within 90 days. The Commissioner of Patents is required to

keep the Commission fully informed of all applications in the field of atomic energy. These latter provisions are to keep the Commission fully and currently aware of all technology in the field of atomic energy.

Section 152 [153] permits the Commission to find that a patent is of primary importance in the production or utilization of special nuclear material or atomic energy, and that the licensing of the invention is of primary importance to effectuate the policies and purposes of the act. Upon making such a finding, the Commission may declare the patent to be affected with the public interest. Thereafter the Commission itself is licensed to use the invention, and other persons engaged in activities authorized by the bill may apply to the Commission for and may be granted a patent license to use the patent if the Commission finds that such a patent license is of primary importance to the conduct of such activities.

The bill also authorizes any person engaged in an atomic energy activity authorized by the bill to apply to the Commission for a license on a patent which has not been declared to be affected with the public interest. In such cases, the Commission is required to grant a patent license to such person after hearing all materially interested parties, if the Commission finds (1) that the idea or invention involved is of primary importance in the production or utilization of special nuclear material or atomic energy; (2) that the licensing of such patent is of primary importance to the activities of the applicant; (3) that the activities to which the patent license is to be applied are of primary importance to the furtherance of the policies of the bill; and (4) that the applicant cannot obtain a patent license from the owner of the patent on terms which the Commission deems reasonable. The Commission is required to see that the owner of any patent declared to be affected with the public interest, or licensed by this section, receives a reasonable royalty fee for any such use of the patent.

Section 153 [154] provides that no injunction may be issued against the holder of a patent license issued under the provisions of section 152 and that in any court action brought against such a patent licensee, the action is to be stayed until the royalty is determined pursuant to those provisions of this bill.

Section 154 [155] provides that no patent may be issued on an invention or discovery known before in this country even though such invention has been known or used in the atomic program in secret.

Section 155 [156] requires the Commission to

establish standard specifications for the issuing of any patent license for any patent held by the Commission.

Section 156 [157] establishes a Patent Compensation Advisory Board to consider applications under this chapter. The members are to be paid a per diem and may serve without regard to the conflict of interest statutes except as atomic energy matters may be involved. The Board may hear applications from the owners of a patent licensed under the compulsory licensing provisions or from the owners or persons seeking to obtain just compensation for patent rights eliminated by the statute and may also hear applications for awards by persons who have made any invention or discovery not otherwise entitled to compensation or royalty. The Commission is permitted, upon the recommendation of the General Advisory Committee and with the approval of the President, to grant an award for any especially meritorious contribution to the development, use or control of atomic energy.

In determining the reasonable royalty to be paid, the Commission is required to consider the advice of the Patent Compensation Advisory Board, any defense which might be pleaded in an action for infringement, the extent of any Federal financing involved, and the degree of utility, novelty, or importance of the invention, and may consider the cost of developing or acquiring the patent. In determining just compensation and awards, the Commission is required to consider the extent of actual use of the invention or discovery as well as those considerations involved in royalty determinations.*

Section 157 [159] declares that the Commission may continue to require that patents made or conceived during the course of federally financed research or operation be assigned to the United States.

Section 158 [160] permits any person who had applied for a patent which was earlier prohibited by the act, and which would now be permitted by the bill, to reinstate his application for the patent. No patent so reinstated can form the basis of a claim against the United States.

Chapter 14. General Authority

This chapter sets forth the general powers of the Commission in operating or regulating any of the activities authorized by this bill.

Section 161 permits the Commission to: Establish advisory boards; to issue rules on the possession of dangerous materials; to hold hearings; to appoint officers and employees; to acquire property; to use the personnel or services of any other Government agency; to acquire real or personal property including patents; to combine in one

license one or more of the activities of which licenses are required by the bill; to prescribe regulations to protect restricted data, to guard against the loss or diversion of special nuclear material, and to govern activities authorized pursuant to the bill, including health and safety regulations; to dispose of radioactive materials or property where special disposition is needed in the interests of national security; to authorize its personnel to carry firearms and also to authorize employees of the contractors who protect the property of the United States to carry firearms; to import, duty free, source and other material obtained abroad; to enter agreements with licensees under section 103 or 104 to provide services or materials to such licensees where those services and materials are not otherwise commercially available; to permit small numbers of its employees to obtain further instruction and training outside of the Commission each year; to delegate to its employees and officers all functions authorized by the act except those specified functions which have the highest degree of importance to the program; to require persons in the program to keep records and reports and to authorize the inspection of the activities of persons in the program and to make rules and regulations necessary to carry out the purposes of the act.

Section 162 permits the President to exempt any action of the Commission that he deems essential to the interests of common defense and security from the provisions of law relating to contracts.

Section 163 permits members of the General Advisory Committee and members of the advisory boards to serve without regard to the conflict of interest statutes.

Section 164,* which is unchanged from present law, permits the Commission to enter into contracts for electric utility services for periods not exceeding 25 years in connection with the construction or operation of Oak Ridge, Paducah, and Portsmouth. The contracts may provide cancellation costs for termination of the contracts.

Section 165* prohibits the Commission from using cost-plus-percentage-of-cost contracts in its operations.

Section 166 requires the Commission to require its contractors and their subcontractors to submit to auditing of their books by the Comptroller General of the United States.

Section 167 permits the Commission to settle damages arising out of its program for testing atomic weapons, where the amounts do not exceed \$5,000, where the claim is submitted within

1 year, and where the damage is not caused in whole or in part by negligence of the claimant.

Section 168 requires the Commission to make payments in lieu of taxes to States or localities where activities of the Commission are carried on, and where the Commission has acquired property previously subject to State and local taxes. The Commission is to make the payments it deems appropriate but is to be guided by the policy of not making payments in excess of taxes which would have been payable on the property in the condition in which it was acquired except in cases where special burdens have been cast upon a State or local government by the activities of the Commission.

Section 169 provides that no funds of the Commission are to be employed in the construction or operation of production or utilization facilities licensed under section 103 or 104, except pursuant to contract entered into in accordance with the provisions of section 31.

Chapter 15. Compensation for Private Property Acquired

This chapter establishes the rules for acquiring property condemned and used for public purposes.

Section 171 requires that, where the United States takes any interest in property for which just compensation is required to be paid under the terms of this bill, the Commission shall determine and pay such just compensation except in the case of real property. If that determination is not satisfactory, the Commission is required to pay 75 percent of the amount and the claimant is entitled to sue in the Court of Claims, or in the district court for the district in which he resides, for such further sum as added to the 75 percent will constitute just compensation.

Section 172 requires that real property shall be condemned pursuant to the normal condemnation statutes and procedures.

Section 173 requires the Commission to pay just compensation for the disclosure of restricted data to any foreign nation where such restricted data is based on a patent application owned by a person other than the United States. If the claimant does not believe the Commission's determination of the amount to be just compensation is a proper amount, the Commission is required to pay 75 percent of the amount, and the claimant can sue for such further sum as added to the 75 percent will constitute just compensation.

Section 174 requires the Commission to receive the approval of the Attorney General on the title of any real property to be occupied, used, or improved by the Commission except where the President determines that prior approval of the title by the Attorney General is not required in the interest of the common defense and security.

Chapter 16. Jurisdictional Review and Administrative Procedure

This chapter describes the procedures and conditions for issuing licenses under the bill.

Section 181 makes the provisions of the Administrative Procedures Act applicable to all agency actions of the Commission. Where publication of data involved in agency action is contrary to the national security and common defense, then identical secret procedures are required to be set up within the Commission. The Commission is required to grant a hearing to any party materially interested in any agency action.

Section 182 sets forth the information that the Commission may require in any application for a license so as to assure the Commission of adequate information on which to fulfill its obligations to protect the common defense and to protect the health and safety of the public.

With respect to a production or utilization facility to be licensed under a commercial license under section 103, notice is required to be given to the applicable regulatory agency having jurisdiction over the rates and services of the proposed activity and notice is also required to be published once each week for 4 consecutive weeks in the Federal Register. No license may issue until 4 weeks after the last such notice.

In issuing commercial licenses for utilization or production facilities under section 103 where all other conditions are equal and there are conflicting applications for a limited opportunity for a license, the Commission is required to give preferred consideration to facilities which will be located in high-cost power areas.

Section 183 provides that the licenses shall include a term reserving title to all special nuclear material to the United States; a term granting no right to special nuclear material save as defined by the license; a term prohibiting the assignment of the license in violation of the act; and a term reserving the right to recapture or control, contained in section 108, and submitting the license to any changes of the act or to any changes in the rules and regulations of the Commission.

Section 184 prohibits any license from being transferred, assigned, or disposed of, directly or indirectly, unless the Commission finds that the transfer is in accordance with the provisions of the act. The Commission is permitted to consent to the creation of a mortgage, pledge, or other lien on any facility licensed under the act.

Section 185 permits the Commission to issue construction permits to applicants for a production or utilization facility, describes the terms of the construction permit, and requires the issuance of a license if the construction is carried out in accordance with the terms of the construction permit.

Section 186 sets forth the grounds on which

the revocation of a license may be based; brings the revocation procedures under the provisions of the Administrative Procedure Act (without limiting the procedures specified in that act in their application to any other section of the bill); and permits the Commission, upon revocation of a license, to retake special nuclear material held by the licensee. In cases of extreme importance, the Commission is permitted to recapture the special nuclear material or to operate any facility even before the procedures of the Administrative Procedure Act have been initiated.

Section 187 requires that all licenses shall be subject to amendment, revision, or modification by reason of amendments to the act or by reason of rules, regulations of the Commission issued in accordance with the terms of the act.

Section 188 permits the Commission to continue the operation of facilities whose licenses are revoked, if public convenience and necessity, or the production program of the Commission require continued operation of the facility. The Commission is required to consult with the appropriate regulatory agency having jurisdiction in cases concerning the public convenience.

Section 189 provides for judicial review of a final order of the Commission entered in certain agency actions. The review is provided by the act establishing judicial review for the actions of other regulatory agencies.

Chapter 17. Joint Committee on Atomic Energy

This chapter establishes the joint committee and sets forth the provisions governing its operations.

Section 201 establishes the joint committee consisting of 9 Members of the Senate and 9 Members of the House with a limitation that not more than 5 Members of each House shall be members of the same political party.

Section 202 requires the joint committee to make continuing studies of the activities of the Commission, and of problems relating to the development, use, and control of atomic energy. The committee is directed during the first 60 days of each session to conduct hearings on the state of the atomic-energy industry but this is not intended to limit the activity of the joint committee with respect to the industry throughout the balance of the year. The Commission and the Department of Defense are required to keep the joint committee fully and currently informed with respect to all atomic-energy matters. It is the intent of Congress that the joint committee be informed while matters are pending, rather than after action has been taken. All Government agencies are required to furnish any information relating to atomic energy requested by the joint committee. All matters in the Congress relating primarily to the Commission or to the development, use, or control of atomic energy are re-

quired to be referred to the joint committee, and the members from the joint committee from the Senate and from the House are required to report to their respective Houses their recommendations with respect to matters within the jurisdiction of the Houses which are referred to the joint committee.

Section 203 permits the joint committee to operate regardless of any vacancies in the membership. The joint committee is required to select a chairman and a vice chairman from its members with the chairmanship alternating between the two Houses with each Congress. Only those members of that House entitled to the chairmanship vote on the election of the chairman. The vice chairman, who must be a Member of the other House, is selected in the same way.

Section 204 permits the joint committee to hold hearings, meetings, investigations, to require the attendance of witnesses, to make rules for its organization, to issue subpoenas, to administer oaths, to use a committee seal, and to pay for necessary expenses from the contingent fund of the Senate from funds appropriated for the joint committee.

Section 205 permits the joint committee to appoint experts, consultants, technicians, and staff employees, and to utilize the services, facilities, and personnel of the departments of Government. The joint committee is permitted to authorize its personnel to carry firearms in the discharge of their official duties.

Section 206 permits the joint committee to classify information originating within the committee in accordance with the standards used generally for the classification of restricted data or defense information.

Section 207 requires the joint committee to keep a record of all committee actions and requires that the committee records are the property of the joint committee to be kept in the offices of the joint committee under such security safeguards as the joint committee shall determine in the interest of the common defense and security.

Chapter 18. Enforcement

This chapter establishes the provisions for enforcing the bill.

Section 221 permits the President to utilize the services of any Government agency to protect the property of the Commission or to prevent the unlawful dissemination of restricted data. The Federal Bureau of Investigation is required to investigate all alleged or suspected criminal violations of the bill. No action may be brought for any violation of the act until the Attorney General has advised the Commission with respect to such action. All actions are required to be brought by the Attorney General as the legal representative of the Commission before the courts. In those cases involving the death penalty, action

may be brought only on the express direction of the Attorney General himself.

Section 222 establishes criminal penalties for violation of certain of the prohibition sections within the act. The maximum penalty, if the offense is committed with intent to injure the United States or with intent to secure an advantage to any foreign nation, is, on recommendation of the jury, death or imprisonment for life.

Section 223 establishes the criminal penalties for violation of all of the balance of the provisions of the act or for rules and regulations issued under certain specified limited statutory authority. There are lesser penalties attached to this section, though the maximum penalty, if the offense is committed with intent to injure the United States or with intent to secure an advantage to any foreign nation, is, \$20,000 or 20 years or both.

Section 224 establishes the penalties for the disclosure of restricted data with intent to injure the United States or with intent to secure an advantage to a foreign nation. The maximum penalty is, on recommendation of the jury, death or imprisonment for life.

Section 225 establishes criminal penalties for acquiring restricted data with intent to injure the United States or with intent to secure an advantage to any foreign nation. The maximum penalty is, on recommendation of the jury, death or imprisonment for life.

Section 226 establishes criminal penalties for altering or changing any restricted data with intent to injure the United States or with intent to secure an advantage to any foreign nation. The maximum penalty is, on recommendation of the jury, death or imprisonment for life.

Section 227 prohibits any person authorized to have restricted data from knowingly communicating, or whoever conspires to communicate or to receive, restricted data to any person known not to be authorized to receive restricted data, knowing that the information communicated is restricted data. The penalty is a fine of \$2,500.

Section 228 establishes a 10-year period of limitation for noncapital offenses described in sections 224, 225, and 226.

Section 229 continues the applicability of any other laws (including the espionage law) to the field of atomic energy.

Section 230 permits the Attorney General to

petition a court on behalf of the Commission for the injunction of any act which the Commission believes will violate any provision of the bill.

Section 231 permits the Attorney General to petition a court for an order requiring any witness to obey a subpoena served upon the witness by the Commission or to obtain an order of the court punishing the witness for contempt in the event the order of the court is disobeyed.

Chapter 19. Miscellaneous

This chapter includes several sections of general applicability.*

Section 251 requires the Commission to make an annual report to Congress on its activities including recommendations for legislation.

Section 261 authorizes appropriations necessary and appropriate to carry out the provisions of the act, except such sums as may be necessary for the acquisition or condemnation of real property or for plant construction or expansion, and keeps the sums appropriated available for expenditure for 4 years following the expiration of the fiscal year for which the sums were appropriated. The Commission is required to obtain congressional approval of new construction, or expansion, of its plants.

Section 271 preserves the regulatory power of any appropriate agency with respect to the generation, sale, or transmission of electric power.

Section 281 is the standard separability section.

Section 291 provides the short title of the act as the "Atomic Energy Act of 1954."

Section 2 of the bill amends the act establishing judicial review from certain regulatory agencies by adding final orders of the Atomic Energy Commission to the provisions of the act.

Section 3 of the bill retrocedes exclusive jurisdiction of the residential area of the Commission's establishment at Sandia Base, Albuquerque, N. Mex.

Section 4 of the bill continues in effect the provisions of the section of the Atomic Energy Act requiring all governmental properties relating to atomic energy to be transferred to the Commission.

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ATOMIC ENERGY—COOPERATION WITH STATES

For text of Act see p. 777

Senate Report No. 870, Sept. 1, 1959 [To accompany S. 2568]

House Report No. 1125, Sept. 2, 1959 [To accompany H.R. 8755]

The Senate bill was passed in lieu of the House bill.

The Senate Report is set out.

Senate Report No. 870

THE Joint Committee on Atomic Energy, having considered S. 2568, an original committee bill to amend the Atomic Energy Act of 1954, as amended, with respect to cooperation with States, report favorably thereon with amendments and recommend that the bill as amended do pass.

EXPLANATION OF COMMITTEE AMENDMENTS

The amendments adopted by the committee are all minor or technical in nature, and are not intended to change the basic purposes and objectives of the bill as proposed by the Atomic Energy Commission.

Amendment No. 1, in subsection b., strikes out the words "and license" after the word "regulate". The words "and license" were not considered necessary because, as used elsewhere in the bill, the word "regulate" includes the licensing function. Thus, for reasons of consistency, the words "and license" in this subsection were deleted as being unnecessary.

Amendment No. 2 corrects a typographical error in changing the word "of" to the word "or".

Amendment No. 3, in clause (1) of subsection e., requires that the terms of a proposed agreement and proposed exemptions shall be published in the Federal Register each week for 4 consecutive weeks, rather than 3, in order that all interested persons, including State officials and the general public, may be fully informed and have opportunity to comment to the Commission.

Amendment No. 4 deleted clause (2) of subsection e., which would have provided a 45-day review period by the Joint Committee on Atomic Energy of any proposed agreement or amendment. The Commission has the responsibility, under section 202 of the Atomic Energy Act, of keeping the Joint Committee "fully and currently informed." Under section 202, it is intended that the Commission shall inform the committee of all pending agreements with individual States, including the proposed certifications and findings under subsection d. as to the adequacy of State programs, as well as operations under agreements after they may become effective. The Joint Committee does not consider it necessary to provide for formal review of each individual proposed agreement or amendment, but does believe it important that the committee be kept fully informed by the Commission of the operations under the provisions of this bill.

ATOMIC ENERGY

Amendment No. 5 in subsection h. amends the composition of the Federal Radiation Council in the bill, as introduced, in certain respects. First, it substitutes the Secretary of Health, Education, and Welfare for the Surgeon General as a member of the Council. The Department of Health, Education, and Welfare includes both the Public Health Service, under the Surgeon General, and the Federal Food and Drug Administration, which also has an interest in radiation matters. It is intended that the Secretary will receive advice from both of these agencies. The Secretary may, of course, if he so desires, designate the Surgeon General to serve on the Council as his designee.

As amended, subsection h. names five members of the Council; namely, the Secretary of Health, Education, and Welfare, the Chairman of the Atomic Energy Commission, the Secretary of Defense, the Secretary of Commerce, and the Secretary of Labor, or their designees, and such other members as shall be appointed by the President. It provides that the Council shall consult qualified scientists and experts in radiation matters, including the President of the National Academy of Sciences, the Chairman of the National Committee on Radiation Protection and Measurement, and qualified experts in the field of biology and medicine and in the field of health physics. In this manner, persons named in the statute are all appointees of the President, and members of the President's official family, and the President may appoint additional members, including representatives of the public, and State or local agencies. The bill emphasizes that the Council shall consult qualified scientists and obtain their advice before advising the President on radiation matters.

The Joint Committee was informed that subsection h., as amended, would meet with no objections by the Director of the Bureau of the Budget or the Secretary of the Department of Health, Education, and Welfare.

Amendment No. 6 deletes the first sentence of subsection k. as unnecessary. As explained in more detail subsequently in this report, the Commission now regulates and licenses the materials covered by the Atomic Energy Act (byproduct, source, and special nuclear materials) to protect against radiation hazards. With or without this sentence, in order for a State to so regulate or license such materials, it must first establish an adequate program for this purpose and enter into an agreement with the Commission.

SUMMARY OF BILL

This bill, including the minor amendments approved by the Joint Committee, contains the principal provisions of its predecessor, S. 1987, as proposed by the Atomic Energy Commission, and introduced by Senator Anderson (by request) on May 19, 1959. The objectives of the predecessor bill were explained by the letter dated May 13, 1959, to Chairman Anderson from A. R. Luedecke, General Manager of the AEC, as follows:

Essentially, the objectives of this proposed bill are to provide procedures and criteria whereby the Commission may "turn over" to individual States, as they become ready, certain defined areas of regulatory jurisdiction. Certain areas, as to which interstate, national, or international considerations may be paramount,

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would be excluded. In addition, certain areas would be excluded because the technical safety considerations are of such complexity that it is not likely that any State would be prepared to deal with them during the foreseeable future.

To assist the States to prepare themselves for assuming independent regulatory jurisdiction, the new bill (like the 1957 bill) specifically authorizes the Commission to provide training and other services to State officials and employees and to enter into agreements with States under which the latter may perform inspections and other functions cooperatively with the Commission.

The bill includes criteria which would need to be met before the Commission could turn over any of its responsibilities to a State; and provisions pursuant to which the Commission might reassert its authority. The bill provides that the Commission may, upon request of the Governor or upon its own initiative, terminate or suspend its agreement with the State and reassert its regulatory authority if the Commission finds that such termination or suspension is required to protect public health and safety. Opportunity for hearing is provided.

The bill also contains specific provisions designed to remove doubt as to the relative responsibilities of the Commission and the States * * *

In summary, the principal provisions of the bill authorize the Commission to withdraw its responsibility for regulation of certain materials—principally, radioisotopes—but not over more hazardous activities such as the licensing and regulation of reactors. The bill requires compatibility of Federal and State radiation standards, and authorizes programs to assist the States to assume independent regulatory jurisdiction.

This bill, as amended by the Joint Committee, contains all the principal provisions, and is intended to accomplish the objectives of the bill proposed by the Commission. In addition, it contains certain revisions made by the Joint Committee as follows:

First, the bill has been redrafted by the Joint Committee to make it clear that it does not attempt to regulate materials which the AEC does not now regulate under the Atomic Energy Act of 1954. Such other sources such as X-ray machines and radium also present substantial radiation hazards, but have been for many years the responsibility of the States, the Public Health Service, or other agencies.

Secondly, as a drafting change, subsection b. in the bill as originally proposed by AEC (S. 1987) contained two clauses—(1) and (2). Because of their substantive importance, these clauses were redrafted as subsections b. and c., and certain other subsections renumbered accordingly.

Thirdly, subsection h., added by this bill, establishes a Federal Radiation Council to advise the President on radiation matters, similar to the Council recently established by Executive order. It does modify the basic functions of the Council, but increases its membership from four to five members, including the Secretary of Labor, and provides that the Council shall consult qualified Scientists and experts in radiation matters.

Fourth, a sentence was added by the Joint Committee in new subsection i., pertaining to training and assistance, that in providing assistance to

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the States, the Commission shall take into account the additional expenses that may be incurred by the State as a consequence of the State's entering into an agreement with the Commission.

In summary, this bill provides the basic authorization requested by the Commission, and also incorporates certain additional features considered desirable by the committee, after hearings and careful consideration of all the provisions of the bill.

BACKGROUND

The need for an amendment to the Atomic Energy Act of 1954 with respect to Federal-State cooperation, and to permit increased participation by the States, has been a subject of concern to the members of the Joint Committee since passage of that act in 1954. In 1956 and 1957, bills were introduced by Senator Anderson and Congressman Durham, and the AEC also submitted to the Joint Committee in 1957 a proposed bill to amend the Atomic Energy Act of 1954 with respect to Federal-State cooperation. S. 4298, 84th Congress, 2d session, introduced by Senator Anderson in 1956, would have authorized the Commission to enter into compacts or agreements "delineating the separate responsibilities" of the AEC and the States with respect to the health and safety aspects of activities licensed under the act, and to transfer to States such regulatory authority as it finds them competent to assume. H.R. 8676, 84th Congress, 2d session, introduced by Congressman Durham in 1956, would have directed the AEC to transfer jurisdiction over health and safety in areas in which a Governor certifies that his State has a competent agency, within 6 months after receiving such certification.

The AEC-proposed bill, forwarded to the Joint Committee in late June 1957, would have authorized concurrent radiation safety standards to be enforced by the States "not in conflict" with those of the AEC. It provided that the States might adopt, inspect against, and enforce radiation standards for the protection of health and safety in areas regulated by AEC. Thus, the bill proposed by the AEC in 1957 would have permitted dual regulation by both Federal and State Governments of by-product, source, and special nuclear materials for protection against radiation hazards.

At the conclusion of the 85th Congress, the chairman and the vice chairman of the Joint Committee instructed the staff to make a study of existing laws and regulations, at the Federal, State, and local level in the atomic energy field in preparation for hearings by the Joint Committee on Federal-State cooperation in the spring of 1959. Accordingly, the Joint Committee staff, with the assistance of an informal advisory panel, studied the matter thoroughly and collected materials published in March 1959 as a 520-page Joint Committee print entitled "Selected Materials on Federal-State Cooperation in the Atomic Energy Field." The committee print included special reports requested by Senator Anderson from various Federal agencies, summaries of the activities of State and local governments, and certain nongovernmental organizations. It also reprinted excerpts from articles and materials on Federal-State relationships in the atomic energy field, including a report prepared by the

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Council of State Governments entitled "Intergovernmental Relationships in the Fields Other Than Atomic Energy."

As background for the hearings on Federal-State cooperation, the Joint Committee held two prior sets of hearings as follows:

1. From January 28 to February 3, 1959, the Special Subcommittee on Radiation of the Joint Committee held public hearings on industrial radioactive waste disposal. Representatives from both Federal and State agencies presented statements on their activities in regulating or handling radioactive waste materials.

2. From March 10 to 18, 1959, the Subcommittee on Research and Development held public hearings on employee radiation hazards and workmen's compensation. Witnesses from Federal and State agencies, as well as nongovernmental organizations, testified during these hearings.

In order to inform all State Governors of the plans of the Joint Committee and the hearings which led to this bill, Chairman Anderson and Vice Chairman Durham, and three other ranking members of the committee (Senator Hickenlooper, Congressman Van Zandt, and Congressman Hollifield as chairman of the Subcommittee on Legislation) sent a letter on February 11, 1959, to each Governor of the then 49 States. Subsequently, copies of the Joint Committee print on "Selected Materials on Federal-State Cooperation in the Atomic Energy Field" and "Selected Materials on Employee Radiation Hazards and Workmen's Compensation" were also sent to each Governor, as well as to all other persons on the Joint Committee mailing list, and other interested persons.

At the request of the Joint Committee, the Commission, on March 5, 1959, forwarded to the Joint Committee a proposed bill for the purposes of inclusion in the Joint Committee print, and the Joint Committee scheduled hearings to be held in May 1959. On May 13, 1959, the Commission formally transmitted its proposal to amend the Atomic Energy Act with respect to cooperation with States, which was identical to the March 5 version, except for minor revisions. This bill was introduced (by request) by Senator Anderson as S. 1987 and by Congressman Durham as H.R. 7214.

From May 19 to 22, 1959, the Joint Committee held hearings, as summarized below in the next section of this report. Thereafter, it was announced that the Bureau of the Budget was coordinating a study within the executive branch concerning allocation of radiation control responsibilities among Federal agencies and transfer of functions to States, and the committee deemed it advisable to take no further action on the bills until the results of such study were announced. On August 14, the White House issued a press release announcing establishment of a Federal Radiation Council, and stating, in addition, as follows:

In addition, the President approved a series of recommendations to be carried out upon enactment of proposed legislation endorsed by the administration (S. 1987 and H.R. 7214) under which certain regulatory responsibilities of the Atomic Energy Commission will be transferred to the States by agreement with the Commission as the States equip themselves to assume them. The recommendations were that—

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(a) The Atomic Energy Commission have the principal Federal responsibility for preparing the States for the proposed transfer of certain of its regulatory responsibilities.

(b) The training programs necessary for such transfer be financed and planned by the Commission, and in order to make maximum use of existing facilities and competence, such programs be conducted under cooperative arrangements between the Atomic Energy Commission and the Department of Health, Education, and Welfare.

(c) At the termination of this special training program any training of State personnel be conducted within the continuing programs of the Department of Health, Education, and Welfare and other Federal agencies.

(d) The Department of Health, Education, and Welfare continue as the Federal focal point for guidance and assistance to the States with respect to contamination by and biological effects from radiation sources not now under control of the Commission.

After announcement of the August 14, 1959, Executive order which established the Federal Radiation Council, and reaffirmed the administration's support of S. 1987 and H.R. 7214, Senator Anderson introduced on August 19, 1959, this bill as S. 2568, to incorporate the principal provisions of S. 1987, plus certain other provisions, including recognition of the Federal Radiation Council. On the next day, August 20, 1959, Congressman Durham introduced an identical bill as H.R. 8755. On August 26, 1959, the committee received comments from the AEC on S. 2568 and H.R. 8755. The committee met to consider the bills in executive meetings on August 26 and 31, 1959, and voted to report the bills out, with certain minor amendments as summarized in this report.

HEARINGS

From May 19 to 22, 1959, the Joint Committee held public hearings on the bills proposed by AEC, and on the subject of Federal-State cooperation in the atomic energy field. Testimony was received from the following persons and organizations:

May 19, 1959

Dr. G. Hoyt Whipple, University of Michigan
Dr. Lauriston Taylor, chairman, National Committee on Radiation Protection and Measurement
Commissioner John S. Graham, U. S. Atomic Energy Commission
Dr. Charles H. Durham, U. S. Atomic Energy Commission
Dr. Joseph Lieberman, U. S. Atomic Energy Commission
Mr. Oscar S. Smith, U. S. Atomic Energy Commission
Mr. Curtis A. Nelson, U. S. Atomic Energy Commission
Mr. Harold Price, U. S. Atomic Energy Commission
Dr. Clifford Beck, U. S. Atomic Energy Commission
Dr. David Price, U. S. Public Health Service
Dr. Francis J. Weber, U. S. Public Health Service

May 20, 1959

Gov. Robert E. Smylie of Idaho
Mr. Lee Hydeman, University of Michigan Law School

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Dr. W. L. Wilson, State of Texas
Dr. Morris Kleinfeld, State of New York
Mr. P. W. Jacoe, State of Colorado
Dr. Maurice B. Visscher, State of Minnesota
Mr. Harold Sandbank, American Municipal Association

May 21, 1959

Commissioner John S. Graham, U. S. Atomic Energy Commission
Mr. Robert Lowenstein, U. S. Atomic Energy Commission
Dr. John D. Porterfield, U. S. Public Health Service
Dr. Francis J. Weber, U. S. Public Health Service
Mr. Jo M. Ferguson, Association of Attorneys General
Mr. Charles F. Schwan, Council of State Governments
Mr. Frank Norton, Southern Governors Conference
Mr. Raymond I. Rigney, representing the Governor of Massachusetts
Mr. Clement R. Bassett, representing the Governor of West Virginia
Mr. Karl R. Allen and Mr. George Kinsman, representing the Governor of the State of Florida

May 22, 1959

Mr. John Curran, AFI-CIO
Mr. Leonard English, Firefighters Union
Mr. Frank Norton, Southern Governors Conference
Mr. William McAdams, U. S. Chamber of Commerce
Mr. Oliver Townsend, Atomic Energy Coordinator, State of New York
Mr. William Berman and Mr. Lee Hydeman, University of Michigan
Mr. Otto Christenson, Conference of State Manufacturers Association
Prof. George Frampton, University of Illinois Law School
Dr. Roy Cleere, Colorado Department of Health
Mr. Leo Goodman, United Automobile Workers

In addition the Joint Committee received comments from the AEC concerning possible revisions to the bill at a hearing on August 26, 1959.

COMMENTS BY THE JOINT COMMITTEE

1. This proposed legislation is intended to clarify the responsibilities of the Federal Government, on the one hand, and State and local governments, on the other, with respect to the regulation of byproduct, source, and special nuclear materials, as defined in the Atomic Energy Act, in order to protect the public health and safety from radiation hazards. It is also intended to increase programs of assistance and cooperation between the Commission and the States so as to make it possible for the States to participate in regulating the hazards associated with such materials.

2. The approach of the bill is considered appropriate, in the opinion of the Joint Committee, for several reasons:

(a) The approach is on a State-by-State basis. It authorizes the Commission to enter into agreements with Governors of individual States, after proper certifications and findings by both the Governor and the Commission as to the adequacy of the State's program. A few States have indicated they will be ready in the near future to begin discussions leading to an agreement to assume regulatory responsibility for such materials.

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Others will not be ready without more effort, more assistance, and more experience for several, or perhaps many, years. The bill does not authorize a wholesale relinquishment or abdication by the Commission of its regulatory responsibilities but only a gradual, carefully considered turnover, on a State-by-State basis, as individual States may become qualified.

(b) The bill applies to some, but not all, atomic energy activities now regulated exclusively by AEC. It applies principally to radioisotopes, whose use and present licensing by AEC is widespread, but whose hazard is local and limited. Moreover, the radiation hazard from radioisotopes has similarities to that from other radiation sources already regulated by States—such as X-ray machines and radium. Licensing and regulation of more dangerous activities—such as nuclear reactors—will remain the exclusive responsibility of the Commission. Thus a line is drawn between types of activities deemed appropriate for regulation by individual States at this time, and other activities where continued AEC regulation is necessary.

(c) The bill authorizes increased training and assistance to States, and thus enhances the protection of the public health and safety, because most citizens look to their local health officers for advice and protection against hazardous materials used in the community. The capacity of such officials to control hazards from byproduct, source, and special nuclear materials would be increased by the training and programs of assistance authorized under this bill. Presumably the capacity of such officials to deal with other materials already under their responsibility—such as X-ray machines and radium—would also be increased, thus further protecting the public health and safety.

3. It is not intended to leave any room for the exercise of dual or concurrent jurisdiction by States to control radiation hazards by regulating byproduct, source, or special nuclear materials. The intent is to have the material regulated and licensed either by the Commission, or by the State and local governments, but not by both. The bill is intended to encourage States to increase their knowledge and capacities, and to enter into agreements to assume regulatory responsibilities over such materials.

4. The bill authorizes the Commission to provide training and other services to State officials and employees and to enter into agreements with the State under which the latter may perform inspections and other functions cooperatively with the Commission. By these means, it is intended to assist the States to prepare themselves for assuming independent regulatory jurisdiction.

5. The Joint Committee believes it important to emphasize that the radiation standards adopted by States under the agreements of this bill should either be identical or compatible with those of the Federal Government. For this reason the committee removed the language "to the extent feasible" in subsection g. of the original AEC bill considered at hearings from May 19 to 22, 1959. The committee recognizes the importance of the testimony before it by numerous witnesses of the dangers of conflicting, overlapping, and inconsistent standards in different jurisdictions, to the hinderance of industry and jeopardy of public safety.

6. The bill establishes, in subsection h., a Federal Radiation Council to advise the President with respect to radiation matters. It is hoped

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that this Council will assist in obtaining uniformity of basic standards among Federal agencies, as well as in programs of cooperation with States. The Council, as established in the bill, increases the membership from four to five, including the original four members and the Secretary of Labor, or their designees, and such other members as shall be appointed by the President. The President, if he deems it appropriate, may appoint representatives of the public, or State or local agencies. The bill provides that the Council shall consult qualified scientists and experts in radiation matters, including the President of the National Academy of Sciences, the Chairman of the National Committee on Radiation Protection and Measurement, and qualified experts in the field of biology and medicine, and in the field of health physics.

7. The bill recognizes that this is interim legislation. The committee believes that the uses of atomic energy will be so widespread in future years that States should continue to prepare themselves for increased responsibilities.

SECTION-BY-SECTION ANALYSIS

Section 1 of this bill adds a new section 274 to the Atomic Energy Act of 1954, as amended, with respect to cooperation with States. The recommended new section 274 consists of subsections a. through n., each of which will be briefly summarized below.

Subsection a. sets forth the purpose of the new section 274. As redrafted by the committee, the purpose is clearly limited to the materials already regulated by the Commission under the Atomic Energy Act of 1954; namely, byproduct, source, and special nuclear materials. The purpose, as redrafted by the committee, also provides for coordination of the development of radiation standards for the guidance of Federal agencies and cooperation with States, and recognizes that this is interim legislation in that, as the States improve their capabilities, additional legislation may be needed, perhaps in approximately 5 years.

Subsection b. is the principal substantive section of the bill. It authorizes the Commission to enter into agreements with Governors of individual States providing for discontinuance of the regulatory source material, and special nuclear materials, in quantities not sufficient to form a critical mass. During the duration of such an agreement, it is recognized that the State shall have the authority to regulate such materials for the protection of the public health and safety from radiation hazards. Prior to such an agreement, the Commission has the responsibility for the regulation of such materials. Subsection b. permits the Commission to discontinue its authority and encourages States, when qualified, to assume the responsibility. The hazards from the types of materials encompass by far the greatest part of the Commission's present licensing and regulatory activities. They are areas which are susceptible to regulation by the States, after the State has established a program for the control of radiation hazards. Subsection b. provides that so long as the agreement is in effect the State shall have regulatory authority over these materials.

Subsection c. of the bill excludes certain areas from an agreement under subsection b. between the Commission and the Governor of a State. These are areas which, because of their special hazards, or for reasons of

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Federal responsibility, are believed desirable for continued responsibility by the Commission. They include the construction and operation of production or utilization facilities, including reactors; the export or import of such materials or facilities; the disposal into the ocean or sea of such materials; and the disposal of such other materials as the Commission determines because of hazards or potential hazards should not be disposed of without a license from the Commission. The last sentence of subsection c. provides that the Commission, notwithstanding any agreement under subsection b., is authorized to require that the manufacturer, processor, or producer of any equipment device, commodity, or other product containing such materials shall not transfer possession or control of such products, except pursuant to an AEC license. The Commission, in its section-by-section analysis of the bill, forwarded by the May 13, 1959 letter, explained the purpose of this sentence as follows:

The controls which would be exercised by the Commission under this provision would apply only to "transfer of possession or control" by the "manufacturer, processor, or producer." The Commission would not be authorized under this provision to regulate any radiation hazards which might arise during manufacture, transportation, or use of a product.

Under the provision, the Commission will be in a position to assure that articles containing byproduct, source, or special nuclear material will not be distributed unless they meet the Commission's minimum safety requirements, including appropriate manufacturing and processing specifications and labeling requirements. Manufacturers of such devices as gages, luminous markers, radiograph and teletherapy devices, electronic tubes, and so forth sell their products throughout the United States and in many foreign countries. It is important to assure that controls with respect to such products should be uniform and should be uniformly applied.

There is an additional reason why it is important for the Commission to continue the exercise of control over the distribution of articles containing source, byproduct, or special nuclear material. As the supply of such radioactive materials, particularly byproduct materials, increases, there may be increasing proposals by manufacturers and processors to incorporate such materials in articles (such as consumer products) that receive widespread distribution. Although it is not a present problem, the extent to which the widespread distribution of radioactive materials should be permitted in this country may in the foreseeable future present questions of public policy which can be resolved, and the hazards controlled, only at the Federal level.

Subsection d. provides for certification by the Governor, and a finding by the Commission, before any agreement may be entered into. It is intended to protect the public health and safety by assuring that the State program is adequate before the Commission may withdraw its regulatory responsibilities.

Subsection e. provides for publication in the Federal Register of such proposed agreements or exemptions, and provides an opportunity for comment by interested persons.

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Subsection f. authorizes the Commission to grant exemptions from the licensing requirements.

Subsection g. provides that the Commission is authorized and directed to cooperate with the States in the formulation of standards for the protection of public health and safety from radiation hazards and to assure that State and Commission programs for protection against radiation hazards will be coordinated and compatible. In most cases, it is intended that State and local standards should be the same as Federal standards in order to avoid conflict, duplication, or gaps.

Subsection h. establishes a Federal Radiation Council, consisting of nine members. The first seven are identified in the bill. By the use of the words "or their designees," it is indicated that qualified subordinates, particularly those with technical competence, may serve on the Council. The Federal Radiation Council was recently established by Executive order of the President. It is not intended to interfere with the functions of the Council as established, but to recognize it by statute, add the Secretary of Labor, provide for consultation with scientific experts, and authorize it to advise as to programs of cooperation with States. As in the Executive order, it provides that the Council shall advise the President with respect to certain radiation matters, including guidance for all Federal agencies in the formulation of basic radiation standards and in the establishment and execution of programs of cooperation with States. It is provided that the Council shall also perform such other functions as the President may assign to it by Executive order.

Subsection i. provides that the Commission is authorized to provide training with or without charge, and such other assistance to employees of any State or political subdivision thereof, or groups of States, as the Commission deems appropriate. The last sentence added by the Joint Committee, after hearings, provides that any such assistance shall take into account the additional expenses that may be incurred by the State as the consequence of the State entering into an agreement with the Commission. It is not intended that a cash grant shall be provided to pay for the administration of State regulatory programs. It is anticipated that training, consulting, and similar arrangements may be made by the Commission to reimburse State or State employees for expenses, or pay salaries of such employees while associated with the AEC.

Subsection j. of the bill provides that the Commission, upon its own initiative after reasonable notice and opportunity for hearings, or upon request of the Governor of a State, may terminate or suspend its agreement with the State and reassert the licensing and regulatory authority vested in the Commission under the Atomic Energy Act, if the Commission finds that such termination or suspension is required to protect the public health and safety. This provision represents a reserve power, to be exercised only under extraordinary circumstances.

Subsection k. provides that nothing in the new section 274 shall be construed to affect the authority of any State or local agency to regulate activities for purposes other than protection against radiation hazards. This subsection is intended to make it clear that the bill does not impair the State authority to regulate activities of AEC licensees for the manifold health, safety, and economic purposes other than radiation protection. As

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indicated elsewhere, the Commission has exclusive authority to regulate for protection against radiation hazards until such time as the State enters into an agreement with the Commission to assume such responsibility.

Subsection l. provides appropriate recognition of the interest of the States in activities which are continued under Commission authority. Thus, the Commission is required to give prompt notice to the States of the filing of license applications and to afford reasonable opportunity for State representatives to offer evidence, interrogate witnesses, and advise the Commission as to the application.

Subsection m. of the bill is the same as subsection c. of the original AEC bill and is designed to make it clear that the bill does not affect the Commission's authority under the Atomic Energy Act to issue appropriate rules, regulations, or orders to protect the common defense and security, to protect restricted data, and to guard against the loss or diversion of special nuclear materials.

Subsection n. defines the term "State" as meaning any State, Territory, or possession of the United States, the Canal Zone, Puerto Rico, and the District of Columbia. In addition, it is understood that the term "Governor" means the chief executive officer of any such entity.

Section 2 of the bill amends section 108 of the Atomic Energy Act of 1954, by deleting the phrase "distributed under the provisions of subsection 53a." from the second sentence. The purpose of this amendment is to assure that the authority of the Commission to recapture special nuclear material whenever the Congress declares that a state of war or national emergency exists, shall not be impaired by reason of the Commission's having entered into an agreement with the Governor of any State.

SAVINGS AND LOAN ASSOCIATIONS—REGULATION OF HOLDING COMPANIES

For text of Act see p. 781

Senate Report No. 810, Aug. 25, 1959 [To accompany H.R. 7244]

House Report No. 679, July 16, 1959 [To accompany H.R. 7244]

The Senate Report is set out.

Senate Report No. 810

THE Committee on Banking and Currency, to whom was referred the bill (H.R. 7244) to promote and preserve local management of savings and loan associations by protecting them against encroachment by holding companies, having considered the same, report favorably thereon with amendments and recommend that the bill, as amended, do pass.

PURPOSE OF THE BILL

The purpose of the bill, as amended by the committee, is to halt for a 2-year period the accelerating trend of acquisitions of stock savings and loan associations by savings and loan holding companies. During this waiting period the Federal Home Loan Bank Board will be asked to sur-

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This means that a person, after completing a tour of 5 years, would have to wait 5 years before being appointed again to the staff of the Peace Corps. Any person who after serving 5 years, had his appointment extended for 1 year under special circumstances, could not be given a job with the Peace Corps staff until 6 years after the termination of his extended appointment. In agreeing to these modifications in the House bill, the managers on the part of the House believe they are in accordance with the policy of the Director of the Peace Corps that the staff of that agency not be organized on a career basis and that 5-year appointments under normal circumstances are the maximum desired. If circumstances develop during the next year, indicating that these limitations impede the operation of the program, the Congress will have an opportunity to give further consideration to this matter.

THOMAS E. MORGAN,
CLEMENT J. ZABLOCKI,
EDNA F. KELLY,
WAYNE L. HAYS,
FRANCES P. BOLTON,
E. ROSS ADAIR,
W. S. MAILLIARD,
Managers on the Part of the House.

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For text of Act see p. 603

House Report (Atomic Energy Committee) No. 567,
June 30, 1965 [To accompany H.R. 8856]

Senate Report (Atomic Energy Committee) No. 390,
June 30, 1965 [To accompany S. 2103]
Cong. Record Vol. 111 (1965)

DATES OF CONSIDERATION AND PASSAGE

House July 29, 1965

Senate August 10, 1965

The House bill was passed in lieu of the Senate bill.

The House Report is set out.

HOUSE REPORT NO. 567

THE Joint Committee on Atomic Energy, having considered H.R. 8856, to amend section 271 of the Atomic Energy Act of 1954, as amended, report favorably thereon without amendment and recommend that the bill do pass.

SUMMARY OF THE BILL

The bill, as recommended by the Joint Committee on Atomic Energy, would amend section 271 of the Atomic Energy Act of 1954, as amended,

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for the purpose of clarifying the language of that section to conform to the intent of Congress. As amended, this section would provide that nothing in the Atomic Energy Act of 1954, as amended, shall be construed to affect the authority of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power produced through the use of nuclear facilities licensed by the Atomic Energy Commission. However, nothing in section 271 shall be construed to confer on any Federal, State, or local agency any authority to regulate, control, or restrict activities of the Atomic Energy Commission.

BACKGROUND

In 1961, after several years of study, Congress authorized construction of a \$114 million linear accelerator facility on the property of Stanford University in California (SLAC). Thereafter, construction of the SLAC facility began and is continuing today. In order to obtain the large amounts of electric power necessary for this facility, the Atomic Energy Commission and Pacific Gas & Electric Co., the local utility, signed a contract in January 1963, which stipulated that a 220-kilovolt overhead powerline, suspended from conventional towers, would be constructed and maintained to service SLAC.

In 1963 and early 1964, two local governmental authorities in the State of California—the town of Woodside and the county of San Mateo—refused to issue land use permits to Pacific Gas & Electric Co. to construct an electric transmission line to bring electric power to serve SLAC unless the line was placed underground. The SLAC facility was, and is, under construction for the account of the U.S. Government. As the result of this barrier to the supply of power for the operation of this national facility, the Department of Justice, representing the Atomic Energy Commission, instituted judicial proceedings in 1964 to condemn certain electric transmission line easements within the county of San Mateo and the town of Woodside. It was the intent of the AEC to acquire these easements in order to construct and maintain an overhead electric power transmission line for the purpose of receiving electricity for SLAC from Pacific Gas & Electric Co. and the Bureau of Reclamation.

In this connection, it is significant that at the time land use permits were denied to Pacific Gas & Electric Co. for overhead powerlines there were no ordinances of the town of Woodside or of the county of San Mateo prohibiting overhead transmission lines. However, on March 9, 1964, the town of Woodside enacted a temporary interim zoning ordinance prohibiting overhead powerlines of 50,000 volts or greater. This action was taken after the town was advised by AEC that condemnation action would be instituted shortly. This ordinance was followed on April 13, 1964, by another temporary interim zoning ordinance, valid for 1 year, which prohibited all overhead transmission lines. According to representatives of the town of Woodside, the town's interim zoning ordinance has been renewed for another year, but has never been made permanent legislation. Variances for local residents have been granted since the temporary ordinance was enacted. Since March 9, 1964, while the controversy over construction of an overhead powerline for SLAC continued, 59 new poles were erected within about 5 miles from the proposed overhead line route. The county

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of San Mateo does not at this time have an ordinance requiring underground powerlines.

The defendants in the above-mentioned condemnation actions argued that section 271 of the act, which reads as follows:

SEC. 271. AGENCY JURISDICTION.—Nothing in this Act shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power.

deprived the AEC of authority to condemn these easements for the purposes stated above, since ordinances of the town of Woodside and the county of San Mateo had the effect of preventing construction of the overhead transmission line. A Federal district court dismissed this argument. The defendants in the condemnation actions then appealed to the U.S. Court of Appeals for the Ninth Circuit.

On May 20, 1965, the court of appeals reversed the order of the lower court. The court of appeals, contrary to the opinion of the Federal district court, was of the view that section 271 of the act subjected AEC itself to the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power. According to the court, the town of Woodside and county of San Mateo ordinances pertained to the transmission of electric power. The court ruled, in effect, that although AEC could take the proposed action pursuant to the supremacy clause of article VI of the Constitution, section 271, by necessary implication, precluded AEC from constructing and operating this overhead line.

On May 25, 1965, three identical bills (H.R. 8443, H.R. 8444, and S. 2035) were introduced by Chairman Holifield, Mr. Hosmer, and Vice Chairman Pastore (for himself and Senator Hickenlooper), respectively, for the purpose of reiterating the intent of Congress underlying section 271 and clarifying the meaning of this section. Public hearings on these bills were held on May 27, 1965, and June 2, 1965, before the Subcommittee on Legislation, as summarized in the next section of this report.

The Subcommittee on Legislation met in executive session on June 8, 1965, and after careful deliberation, voted without dissent to adopt certain perfecting amendments to these bills which had been suggested as the result of several informal conferences between the staff of the committee and representatives of the Department of Justice and the AEC. The subcommittee also voted to file identical "clean bills," which were introduced on June 8, 1965, by Chairman Holifield (as H.R. 8856), Mr. Hosmer (as H.R. 8857), and Vice Chairman Pastore (for himself and Senator Hickenlooper, as S. 2103).

The full committee met to consider these bills on June 16 and 29, 1965. After full discussion, the committee voted unanimously on June 29, 1965, to report out the bills as approved by the Subcommittee on Legislation (H.R. 8856 and S. 2103), without amendment, with a recommendation that they do pass, and to adopt this report thereon.

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HEARINGS

On May 27, 1965, the following witnesses appeared before the Subcommittee on Legislation concerning H.R. 8443, H.R. 8444, and S. 2035:

Representing the Atomic Energy Commission:

Commissioner Gerald F. Tape.

Joseph F. Hennessey, General Counsel.

Lawrence G. Mohr, area manager, Palo Alto area office.

Representing Stanford University:

Dr. W. K. H. Panofsky, director, Stanford Linear Accelerator Center.

Representing the town of Woodside:

Paul N. McCloskey, Jr., special counsel.

Donald J. Graham, mayor.

In addition to the above-mentioned witnesses the Honorable J. Arthur Younger, a Representative in Congress from the State of California, testified before the subcommittee.

On June 2, 1965, the Subcommittee on Legislation received testimony from the following witnesses:

Representing the Atomic Energy Commission:

Commissioner Gerald F. Tape.

E. J. Bloch, Deputy General Manager.

Representing the town of Woodside:

Austin Clapp, special counsel.

Paul N. McCloskey, Jr., special counsel.

Representing the county of San Mateo:

E. R. Stallings, county manager.

Mrs. Jean Fassler, member of the board of supervisors, San Mateo County.

Representing Stanford University:

Lyle Nelson, director of university relations.

Representing Pacific Gas & Electric Co.:

Frederick T. Searls, general attorney.

In addition to the above-mentioned witnesses, the subcommittee received testimony from the Honorable Thomas H. Kuchel, a U.S. Senator from the State of California, and the Honorable J. Arthur Younger, a Representative in Congress from the State of California.

These hearings were published by the Joint Committee under the title "Proposed Amendment to Section 271 of the Atomic Energy Act of 1954."

COMMITTEE COMMENTS

A. General purpose of the bill

Section 271 was included in the national atomic energy law for the first time in 1954, with the enactment of H.R. 9757, the "Atomic Energy Act of 1954." Virtually nothing was said about this section in the Joint Committee's report on the bill, although there was considerable discussion of the meaning of this section during the Senate debates.

A review of the legislative history of this section makes it quite clear why it was placed in the law. The Atomic Energy Act of 1954 established the framework for significant private participation in the development of

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nuclear energy for peaceful commercial purposes. Among the most important provisions in the 1954 act are those authorizing private ownership and operation of nuclear reactors, including those useful in the generation of electric power. The act also established a comprehensive pattern of Federal regulation over these privately owned power reactors, which would be exercised by the AEC. As part of this regulatory pattern, the AEC was authorized to license privately owned power reactors under section 103 and section 104 of the act, for the purpose of protecting the health and safety of the public and the common defense and security.

Because of these unique provisions in the act pertaining to AEC's licensing and regulation of persons operating reactors which could be used to produce electricity, there was some feeling of uneasiness among the drafters of the legislation over the effect of the new law upon other agencies—Federal, State, and local—having jurisdiction over the generation, sale, and transmission of electric power. It was recognized by the drafters that the authority of these other agencies with respect to the generation, sale, and transmission of electric power produced through the use of nuclear facilities was not affected by this new law; and that AEC's regulatory control was limited to considerations involving the common defense and security and the protection of the health and safety of the public with respect to the special hazards associated with the operation of nuclear facilities. Nevertheless, section 271 was added to make it explicit that licensees of the AEC who produced power through the use of nuclear facilities would otherwise remain subject to the authority of all appropriate Federal, State, and local authorities with respect to the generation, sale, or transmission of electric power.

Several other points should be noted concerning section 271. The first is that it was not intended to affect another section of the statute—section 46—which sets forth conditions under which the AEC may dispose of energy produced at the AEC's production facilities or experimental utilization facilities. Second, there was no intention, by including section 271 in the act, in any way to limit the sovereign immunity possessed by the AEC as a Federal agency, by virtue of the supremacy clause of article VI of the U. S. Constitution. In this connection, see the statement by Senator Hickenlooper on page 51 of the hearings of the Joint Committee entitled "Proposed Amendment to Section 271 of the Atomic Energy Act of 1954."

The decision of the U. S. court of appeals handed down on May 20, 1965, overruling a lower Federal court, has raised doubts concerning the interpretation to be given by the courts to the intent of Congress underlying section 271. As noted above, this decision arose out of the condemnation proceedings involving an electric powerline for SLAC. However, the decision of the court has far-reaching implications which go to the very heart of the AEC's entire program.

The holding of the court was based upon the following line of reasoning: The general sovereign immunity of the Federal Government, its agencies and instrumentalities (e. g., the AEC), from State or local control of its governmental functions, is established under the supremacy clause of article VI of the U. S. Constitution. Therefore the activities of the AEC in connection with the construction and operation of the transmission line in question are wholly immune from local control, unless it can be established

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that Congress has directed that AEC subject itself thereto. The court found that no Federal statute contains such an express limitation of this kind. However, in the opinion of the court:

Section 271 requires AEC to accede to the authority or regulations of any Federal, State, or local agency with respect to the " * * * generation, sale, or transmission of electric power." The line which AEC proposes to construct and operate in Woodside and adjacent San Mateo County, is for the transmission of electric power. The zoning and other ordinances of Woodside and the county, here in question, pertain to the transmission of electric power, for if they are complied with AEC may not transmit such power through an overhead line. Looking at the face of the statute, then, it would appear that section 271, by necessary implication, precludes AEC from constructing and operating this overhead line.

If the interpretation of section 271 set forth in the court of appeals decision became binding generally, major adverse consequences throughout the entire range and scope of all of the AEC's programs could result. In the final analysis, all of the AEC's essential activities, including those vital to the defense and security of the United States and the entire free world, involve the generation, sale, and transmission of electric power. If all of these activities became subject to the control of local agencies of government, through the enforcement of local ordinances and regulations concerning generation, sale, or transmission of electric energy, an intolerable burden would be placed upon the effective performance of the AEC's responsibilities under the Atomic Energy Act of 1954. In the passage of section 271 of this act the Congress did not intend to divest a Federal agency (i. e., the Atomic Energy Commission) of its inherent powers to carry out its duties under the Constitution. It is equally obvious that a single agency with vital defense missions—the AEC—should not be subjected to local controls which are constitutionally void with respect to other Federal agencies.

There remains, of course, the possibility of further judicial review of the court of appeals' decision which the Government could pursue. The Government can and probably will proceed to obtain such review. However, it is scarcely reasonable for Congress simply to leave to the courts the resolution of a problem involving solely the determination of the intention of Congress. It is a responsibility of Congress to assist the courts by spelling out that intention.

The bill recommended by the committee would clarify the language of section 271 so as to correct any such erroneous conclusion that Congress intended that AEC's activities, as authorized by Congress, be limited by the authority or regulations of local authorities with respect to the generation, sale, or transmission of electric power. It would accordingly reaffirm the intent of Congress that AEC possess the same sovereign immunity, under the supremacy clause of article VI of the Constitution, that other Federal agencies possess. This is the major purpose of this bill.

This bill has nothing to do with regulatory control over radiation hazards pertaining to nuclear facilities licensed by AEC; this is covered by other provisions of the Atomic Energy Act of 1954 which are left unimpaired by

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this bill. Moreover, consistent with the original intent of section 271, this bill would have no effect with regard to AEC's authority to dispose of energy.

B. Effect of bill on SLAC powerline dispute

The committee is, of course, aware that this bill would have an immediate impact on the specific controversy involving construction of a powerline to service SLAC. The bill would make it clear that Congress did not intend to strip AEC of the power it would normally possess, under the Atomic Energy Act of 1954 and in accordance with the supremacy clause of article VI of the Constitution, to construct and operate an overhead transmission line to service this facility. Accordingly, the AEC could condemn the necessary easements for an overhead electric power transmission line for this purpose, and could construct and maintain such powerline, either with its own forces or through contractual arrangements, notwithstanding any State or local laws or regulations to the contrary, including those of the town of Woodside and the county of San Mateo at issue in the case before the court of appeals.

In order that this subject be viewed in the proper perspective it is essential to recount some of the history of the controversy over the SLAC powerline. This is not the first time that the committee has considered the supply of electric power to the Stanford Accelerator. As early as July 1959, the committee considered the availability and source of the needed power in connection with the proposed authorization of the SLAC project. Again in March and April 1960, the committee reviewed this subject in connection with authorizing design money for the accelerator. In 1961, another such comprehensive review was undertaken by the committee in the course of consideration of AEC's authorization bill for fiscal year 1962, which provided the full authorization for the SLAC project. At each of these stages in the authorization process, careful attention was devoted to the overall costs of the project, including electrical power costs.

In January 1964, after difficulties arose between the AEC and the local communities adjoining Stanford concerning construction of an overhead powerline to SLAC, the committee held a full day of hearings devoted solely to this subject. Included among the witnesses were representatives of the town of Woodside and the county of San Mateo. In addition, members of the committee visited the Woodside area to study this subject first hand. Individual informal meetings were also arranged by committee members to determine possible compromise arrangements. The hearings before the Subcommittee on Legislation, discussed earlier in the section of this report entitled "Hearings" (p. 3), afforded still another opportunity for this matter to be aired. It is clear from the history of this controversy that the local residents have been given every opportunity to present their case to the executive branch and Congress concerning construction of the powerline.

The purpose of the bill recommended by the committee is to remedy a problem which extends far beyond the dispute over the SLAC powerline. The committee believes it would be desirable for this legislation to be enacted even if there were no outstanding disagreement over this line, to avoid future erroneous interpretations of congressional intent underlying section 271. However, it should be pointed out that the committee also unanimously

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favors this bill because it will allow the AEC to proceed expeditiously with its present plans to construct an overhead line to service SLAC. A brief explanation of the committee's views on this matter is as follows:¹

(a) The line in question is a high-voltage (220 kilovolts) *transmission* line. Unlike the case of lower voltage electric *distribution* lines which carry electricity directly to homes, stores, and so forth, the experts have concluded that burial of high-voltage transmission lines for so-called esthetic reasons is not warranted, because the cost for burying *high-voltage transmission lines* is very much greater than the relatively low cost for burying *low-voltage distribution lines*.

This point was brought out recently by the Panel on Underground Installation of Utilities of the White House Conference on Natural Beauty (May 24, 1965). High-voltage transmission lines which have been buried are those used in densely populated urban areas. The White House Conference panelists on natural beauty were very careful to differentiate between underground installation of relatively low-voltage distribution systems and high-voltage transmission lines. The Panel pointed out the very high cost of high-voltage underground transmission lines at present compared to the much lower costs for the lower voltage underground distribution lines. The cost, for example, for a 220,000-volt (planned for the SLAC facility) underground transmission line is 10 to 20 times as expensive per mile as a typical 12,000-volt underground distribution line. The estimated cost of such an underground high-voltage transmission line is approximately \$500,000 per mile and the comparable cost for an underground low-voltage distribution line is approximately \$30,000. In other words the "beautification dollar" would be much better spent on undergrounding the lower voltage distribution lines.

(b) The AEC has taken several unusual steps to improve the appearance, from an esthetic standpoint, of the proposed overhead powerline. This is consistent with the recommendation of the above-mentioned Panel on Underground Installation of Utilities. At an additional cost of several hundred thousand dollars, the AEC has agreed to utilize modern, relatively short, esthetically designed, thin metal poles to carry a single transmission line, although a double line suspended from conventional 120-foot transmission towers would have been more advantageous from a project standpoint. A total of 36 of these pole structures are involved in this controversy, three of which are within the town of Woodside. The AEC is willing to accept the substantial added cost of these more attractive pole structures, although the net effect is actually to provide less reliable service for SLAC. In addition, the plans and specifications for this line call for clearing of land only at the pole structure sites themselves, and for access to the sites. There will be no clearing to the ground of the trees and underbrush beneath the overhead wires although some tall trees that would interfere with the wire would have to be removed or trimmed. Accordingly, there will be no unsightly swath of felled trees and underbrush such as is common for most overhead powerlines. The AEC has testified that stringing of wires will be accomplished by helicopters to avoid cutting of trees and other growth for stringing corridors. Trees to be cut have been carefully selected and their

¹ Additional information pertaining to this subject will be found in app. 1 and 2 of this report.

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number held to a minimum. The Commission has further testified that every effort will be made to preserve the natural terrain of the area.

(c) The estimated difference in cost between a 300-megawatt, single circuit, overhead powerline of the type AEC proposes (\$1,052,000) and 180-megawatt, single-circuit, underground powerline of the type suggested by the local residents (\$2,770,000) is \$1,718,000. However, to this amount must be added a minimum of \$2,640,000, representing the estimated cost of another underground line to supply additional power estimated to be needed in the early 1970's. (If the proposed overhead 300-megawatt line were constructed, it would not be necessary to construct a second line.) The net additional cost to the taxpayers of this country of going underground must therefore, be viewed as well over \$4 million. Moreover, this amount does not take into account the costs associated with delaying completion of the SLAC project. At this point, constructing the line underground could take about 12 to 18 months longer than constructing an overhead line. Unless power is available when the facility is completed its full use will not be possible.

(d) No adequate reason has been provided to the committee, during all the hearings held on this subject, why the taxpayers of the United States should be asked to shoulder this extra cost for the benefit of the local residents, in view of the present appearance of the Woodside area from an esthetic standpoint. By the count in February 1965, of an official agency of the State of California, the state public utilities commission, there were 2,488 powerline and telephone poles in Woodside. The town of Woodside has informed the committee that 277 poles were erected between 1956, when the town was incorporated, and 1964. According to evidence presented to the committee by Stanford University, 26 poles were erected in Woodside between June 1963, when the Pacific Gas & Electric Co. applied for a land use permit for the SLAC powerline, and April 1964. Moreover, according to the AEC, five poles have been erected in Woodside since March 1964, the date of enactment of the first ordinance prohibiting construction of overhead wires, and an additional 59 poles were erected within about 5 miles from the proposed overhead line route. Many of these poles are unsightly wooden structures which are much less pleasing in appearance than the structures proposed by the AEC. The average height of the poles to be used for the AEC's proposed line is about 65 feet. The height of the poles currently located in the town of Woodside range between 35 and 70 feet.

(e) Finally, as of the date of this report, there has been no firm offer made by any party other than the AEC and the local electric utility to pay any part of the added cost of an underground line, although the town of Woodside has taken steps to contribute \$150,000 toward this cost. Thus, although the committee strongly urged almost a year and a half ago that those who favored an underground line should offer to defray the extra cost for going underground, no compromise offer by the proponents of an underground line has been made that approaches the total additional costs involved.

The committee is of the view, which is shared by the Department of Justice and the AEC, that if enacted this bill will eliminate the constraints imposed upon AEC as the result of the erroneous interpretation of the in-

expediently with SLAC. A brief follow

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Underground Installation Beauty (May been buried are House Conference renitate between tion systems and te very high cost compared to the tion lines. The C facility) under- er mile as a typi- ed cost of such imately \$800,000 -voltage distribu- e "beautification he lower voltage

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LEGISLATIVE HISTORY

tent of Congress by the court of appeals. The court of appeals' decision rested squarely upon the court's interpretation that it was the intent of Congress that section 271 be a limitation upon AEC's power to take the action in question. This bill would make it clear that section 271 was never intended to prevent AEC from constructing and maintaining an overhead transmission line, notwithstanding the authority or regulations of the town of Woodside and the county of San Mateo, or other State and local bodies. Accordingly, the AEC could clearly proceed with this action.

SECTION-BY-SECTION ANALYSIS

H.R. 8856 contains a single section, which would amend section 271 of the Atomic Energy Act of 1954, as amended, to read as follows:

SEC. 271. AGENCY JURISDICTION.—Nothing in this Act shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power produced through the use of nuclear facilities licensed by the Commission: *Provided*, That this section shall not be deemed to confer upon any Federal, State, or local agency any authority to regulate, control, or restrict any activities of the Commission.

As amended, section 271 would reaffirm a conclusion already implicit in the Atomic Energy Act of 1954, as amended. Nothing in that act adds to or detracts from any authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power produced through the use of nuclear facilities licensed by the AEC under the Atomic Energy Act of 1954, as amended. The term "nuclear facilities" mean production facilities or utilization facilities, as defined in the Atomic Energy Act of 1954, as amended. Accordingly, persons licensed by the AEC and producing electric power through the use of such facilities are subject to AEC's control with respect to the common defense and security and protection of the health and safety of the public with respect to the special hazards associated with nuclear facilities, and otherwise to any and all applicable Federal, State, and local regulations with respect to the generation, sale, or transmission of electric power.

Section 271, as amended by this bill, does not in any way subject the AEC to the authority of any State, or local subdivision thereof. It in no way serves as a limitation of the powers that AEC otherwise possesses under the Atomic Energy Act of 1954, as amended, and the supremacy clause of article VI of the Constitution. The amendment of this section effected by this bill is intended as a clarification of the meaning of section 271 as originally enacted. Accordingly, it does not represent a change in this law applicable only to future judicial proceedings, but is intended to apply equally to any judicial proceedings currently in existence. The proviso to section 271, as amended, reaffirms that nothing in that section confers any authority on any Federal, State, or local agency to regulate, control, or restrict activities of the AEC.

constructed by E. F. I. and O. V. E. C. and the increase in annual power costs estimated to result directly from the construction cost increases:

	Increase in plant cost over original estimate	Estimated increase in annual power charges, for changes in cost of facilities
Jopps.....	\$5,000,000	\$2,875,000
O. V. E. C.....	37,000,000	1,600,000
Total.....	90,000,000	4,400,000

Payment for power will be based on actual construction costs as determined by audit as soon as practicable after completion of construction. The final Jopps unit is scheduled to be completed in August 1955. Final OVEC unit is scheduled to be completed in June 1956.

We trust this information is sufficient for your requirement.

Sincerely yours,

LEWIS L. STRAUSS, *Chairman.*

MAY 19, 1954.

HON. JEROME K. KUYKENDALL,
*Chairman, Federal Power Commission,
Washington, D. C.*

DEAR MR. CHAIRMAN: In the event electrical energy is produced by the Atomic Energy Commission in atomic facilities pursuant to section 7 (d) of the Atomic Energy Act of 1946, as amended, or any other provision of that act, what jurisdiction, if any, would you consider the Federal Power Commission to have in this field?

I ask the same question with respect to electrical energy produced by electrical utilities in: (a) United States Government-owned reactors, and in the event the law is amended, (b) privately owned reactors, in which title to nuclear materials is retained by the Government.

Kindly specify what laws affecting the Federal Power Commission, if any, are applicable, and the nature of the jurisdictional authority over electrical power from atomic sources, whether applying to rates, investigations, etc.

In the event you consider the Federal Power Commission to have jurisdiction over electrical energy produced in atomic facilities in any respect, would the Commission assert such jurisdiction without further direction from the Congress, if and when such electrical power is produced?

In view of the pendency of legislation proposing to amend the Atomic Energy Act, I would appreciate a prompt reply to this letter.

Sincerely yours,

CHET HOLIFIELD, *Member of Congress.*

FEDERAL POWER COMMISSION,
Washington, May 26, 1954.

HON. CHET HOLIFIELD,
United States House of Representatives, Washington, D. C.

DEAR MR. HOLIFIELD: This will acknowledge receipt of your letter of May 19 making inquiries with respect to the jurisdiction of this Commission in relation to the production of electric energy from atomic sources. We expect to submit a reply promptly.

Sincerely yours,

JEROME K. KUYKENDALL, *Chairman.*

FEDERAL POWER COMMISSION,
Washington, May 27, 1954.

HON. CHIEF HOLIFIELD,
United States House of Representatives, Washington, D. C.

DEAR Mr. HOLIFIELD: This is in reply to your inquiry received May 21 with respect to Federal Power Commission jurisdiction where electric energy may be produced from atomic sources.

In general the FPC now has jurisdiction under Parts II and III of the Federal Power Act (title 16 U. S. C. secs. 791a-825r) to regulate transmission and sale at wholesale of electric energy in interstate commerce by privately owned companies. This jurisdiction does not depend upon who produces the energy, or how. The FPC also regulates the accounting of companies that own or operate any facilities for such transmission or sale, and regulates certain transactions affecting their capitalization, e. g. sale, lease, or other disposition of property; merger or consolidation of facilities; issuance of securities; acquisition of securities of other such companies; declaration of dividends out of capital; and the holding of certain interlocking positions as directors or officers. There are certain limited statutory exemptions from FPC regulation of activities of companies which are subject to State commission or SEC regulation.

The applicability of these general observations to companies producing electric energy from atomic sources is the same as to other companies. If they transmit or sell electric energy at wholesale in interstate commerce, regardless of whether the energy is produced from atomic or conventional sources, their rates and services in such sales or transmission would be subject to FPC jurisdiction. Although no certificate of convenience and necessity is required under parts II and III of the Federal Power Act for the construction or operation of any kind of facilities, they will also have to obtain FPC approval to issue securities for financing construction of atomic facilities in certain cases, the same as any other facilities, and to make any transfer of such facilities after they have been constructed. They will also have to comply with FPC regulation of their accounting for atomic facilities. None of the regulatory jurisdiction of the FPC depends upon any further assertion thereof by the Commission, or direction by Congress, but all of it would apply by virtue of the present provisions of the Federal Power Act to electric energy produced from atomic sources whenever such energy is transmitted or sold at wholesale in interstate commerce.

In addition to the foregoing regulation, the FPC collects and compiles basic information covering all phases of the electric utility industry from all public agencies and private companies, regardless of whether they are otherwise subject to its regulation. This includes full information as to the operations, capabilities, and efficiencies of their facilities. Atomic plants would be subject to the same reporting requirements unless exempted by a new statute. Such reporting would probably require FPC amendment of existing report forms (which now relate only to conventional means of production), but no congressional action would be required.

The FPC has heretofore emphasized that new legislation should not interfere with the gathering of this information, or any other aspect of utility regulation, insofar as interference can be avoided. (Under present circumstances it seems likely that security needs are generally compatible with public disclosure of such information, and indeed such disclosure may be one of the most important aids to industrywide development and utilization of the opportunities which atomic production of electric energy offer.) In addition to recommending avoidance of interference with regulation and gathering of information under the Federal Power Act, the FPC has taken a similar position with respect to State commission regulation of electric utilities. See the printed hearings of the joint committee (83d Cong., 1st sess., pp. 115-116).

A further problem arises from the draftsmanship of sections 103 and 11 (b) of the Cole-Hickenlooper bill (H. R. 8562, 83d Cong., 2d sess.) which we pointed out in our April 28, 1954, report to the Bureau of the Budget. For section 103 provides for licensing by the AEC not only of "manufacture" and "production" but also of "transportation or receipt in interstate commerce . . . or use of . . . atomic energy." Under the section 11 (b) definition of "atomic energy" the AEC's licensing authority would cover all transmission, receipt, and use of electric energy produced from atomic sources. Inasmuch as such electric energy would be transmitted widely throughout interconnected electric utility systems and be received and used by their customers over large areas, the AEC's licensing

jurisdiction would overlap and might conflict with existing utility regulation by both State commissions and the PTC. There seems to be no reason why this cannot be avoided by a slight change in the wording of sections 103 and 11 (b).

No difficulty is expected from the PTC's special licensing jurisdiction under part I of the Federal Power Act over hydroelectric generating plants. That jurisdiction represents one method of regulating the non-Federal utilization and development of a great national energy resource, where Federal permission is required because of previous statutory prohibitions. It may therefore be regarded as offering a parallel to proposals currently under consideration with respect to atomic energy, as we have previously pointed out. However, for the purpose of replying to your present inquiry we may merely say that no conflict is foreseen between the proposals currently under consideration and the hydroelectric licensing provisions of part I of the Federal Power Act.

Sincerely yours,

JEROME K. KUTKENDALL, *Chairman.*

JUNE 9, 1954.

HON. JEROME K. KUTKENDALL,
Chairman, the Federal Power Commission,
Washington 25, D. C.

MY DEAR MR. CHAIRMAN: Thank you for your reply of May 27 to my inquiry with regard to Federal Power Commission jurisdiction where electric energy may be produced from atomic sources.

I am particularly interested in your last paragraph in which you refer to the Commission's special jurisdiction over hydroelectric generating plants under part I of the Federal Power Act. There you point out that such jurisdiction represents one method of regulating the non-Federal utilization and development of a great national energy resource, where Federal permission is required because of previous statutory prohibitions.

I concur heartily in your statement that the Commission's licensing jurisdiction over hydroelectric power developments offers a parallel to proposals currently under consideration with respect to atomic energy. It seems to me that this raises vital questions as to legislative steps which should be taken to protect the public interest in power, along lines similar to the provisions of existing Federal power legislation, before a final decision is made to turn over the new atomic energy power resource to non-Federal developers.

As I read the Federal Power Act, it contains a wide range of provisions designed to assure the people of the country the fullest use of their waterpower resources, at the lowest reasonable rates.

These provisions range from public preference and recapture rights, on the one hand, to elimination of the value which a licensee may claim for ratemaking or compensation for post-license recapture, on the other.

The present proposals for amending the Atomic Energy Act, to the extent that they provide for the licensing of non-Federal agencies to construct, own, and operate atomic-energy powerplants, enable the Atomic Energy Commission to establish conditions safeguarding security and health, but appear to overlook the great public interest in the predominant purpose of power development.

I would, therefore, appreciate your further discussion of the possibility of bringing the development of nuclear power for commercial purposes within the four walls of existing Federal power policy, together with your suggestions as to the legislation necessary to accomplish this purpose.

In your reply, it would be helpful if you would advise me as to any changes in the provisions of part I of the Federal Power Act and subsequent legislation embodying the Federal interest in development of the country's waterpower resources, which would be necessary to adapt them to the inclusion of the country's atomic energy resource within the scope of such legislation.

I will also appreciate receiving copies of any reports which your Commission may have prepared in the matter.

In view of the fact that consideration of legislation in this field is proceeding rapidly, a prompt reply will be most helpful.

Sincerely yours,

CHET HOLIFIELD,
Member of Congress.

EXCERPTS FROM AN ANALYSIS PREPARED UPON BEHALF OF THE FEDERAL POWER
COMMISSION OF THE PROVISIONS OF H. R. 8862, 83d CONGRESS, SECOND SESSION

A BILL To amend the Atomic Energy Act of 1946, as amended

Section 163. Issuance of license.—This section authorizes licensing of "manufacture, production, transportation or receipt in interstate commerce . . . or use of . . . atomic energy . . ." Under the definition of "atomic energy" in sec. 11 (b) such licensing authority covers generation of electric energy by a public utility from steam produced by heat from a nuclear reactor; also the utility's subsequent transmission of that electric energy on its system; and also

¹ It would seem that this language should be exactly parallel to that of section 102, p. 52, lines 21 and 22, although it is not.

the receipt and use of that electric energy by the customers of the utility, whenever the electric energy is consumed in a State other than that in which the nuclear reactor is located. Even if this were corrected so that the licensing authority ended with the delivery of atomic energy in the form of steam, the following comments of Commissioner Doty¹ still seem pertinent:

"If the approach to the problem now before you is to be through the method of issuing licenses authorizing the production of electric energy from atomic power it is suggested that legislation should provide that the conditions of such licenses should not be governed solely by standards relating to the use of fissionable materials and the protection of those interests of national defense and security which are particularly associated with the development of atomic power for military purposes.

"We believe, as was provided for in the issuance of licenses for hydroelectric development under the Federal Power Act, that provision should also be made in any such legislation for the consideration of private and public interests in the production, transmission, and distribution or utilization of electric power.

"If, on the other hand, it is decided that the consideration of such interests should be left to existing utility regulatory agencies operating as at present, any legislation with respect to the development of atomic power should be designed to facilitate and not hamper such regulation. Thus under both Federal and State statutes, electric utilities are required to report detailed information and data regarding their finances, facilities, and operations. Under section 311 of the Federal Power Act, for example, this Commission has the responsibility and duty to secure information * * * regarding the generation, transmission, distribution, and sale of electric energy, however produced, throughout the United States and its possessions, whether or not otherwise subject to the jurisdiction of the Commission, including the generation, transmission, distribution, and sale of electric energy by any agency, authority, or instrumentality of the United States, or any State or municipality or other political subdivision of a State."

"Under this and other provisions of the act the Federal Power Commission collects financial, engineering, and operating information and data which are used by the financial community in marketing, and in investing in, electric utility securities by the industries planning developments dependent upon power supply; and by the Federal Government for national defense and many other purposes in addition to the regulation of utility rates and services.

"If such information and data are to be of real utility for these purposes they must include information with respect to production of electric energy from atomic power sources corresponding to that obtained with respect to production from coal, gas, oil, other fuels, and waterpower. Therefore we feel that in any such legislation under which the development or utilization of atomic power is licensed it should be made clear that the so-called atomic energy licensees which are engaged in the electric utility operations or which supply electric energy for that purpose shall not be exempt from regulation and reporting requirements under otherwise applicable State and Federal statutes. Consideration should also be given to the possibility of conflicts which may arise between the present requirements of such State and Federal regulatory statutes and the security requirements which might be imposed in the legislation authorizing the use of atomic power. In this regard we suggest that the Atomic Energy Commission should be authorized and directed to work out methods and procedure for eliminating such conflicts or accomplishing the essential objectives of the State and Federal regulatory statutes in a manner compatible with the accomplishment of the development of the use of atomic power."

It may be seriously doubted that policy is defined by providing (p. 33, lines 15-16) that licenses shall be issued to licensees (sic, should be: "applicants for licenses") "(1) whose proposed activities will serve some useful purpose proportionate to the quantities of special material to be consumed." The critical words "some useful purpose" avoid rather than enunciate a congressional determination of the policy to be followed, in violation of the principle that legislative power may not be delegated by Congress (*Schechter Corp. v. United States*, 295 U. S. 495, 529-542, 553). As the Court there said with respect to the codes of fair competition authorized by the National Industrial Recovery Act (295 U. S. at p. 550):

"* * * we look to the statute to see whether Congress has overstepped these limitations, whether Congress in authorizing 'codes of fair competition' has

¹ Statement of Hon. Dale E. Doty, member of the Federal Power Commission, before the Joint Committee, Hearings, 85d Cong., 1st sess., June 29, 1953, pp. 115-116.

itself established the standards of legal obligation, thus performing its essential legislative function, or, by the failure to enact such standards, has attempted to transfer that function to others."

The bill itself recognizes that "some useful purpose" is, as a practical matter, no real standard, for section 182, which prescribes the data to be furnished to the Commission so that it can be determined whether to issue a license, does not require any information whatever as to the applicant's purpose.

So also H. R. 8802 is entirely silent on the major policy question of charging for the license privilege. If persons are to be permitted to use the energy resource resulting from the Government's expenditure of billions of dollars on atomic research and production, are they to pay anything for that privilege? In the legislative history of the Federal Water Power Act of 1920, the question of whether to impose annual charges for the license privilege of using the water-power of streams subject to the jurisdiction of the Federal Government, was vigorously debated over a period of several years.³ It can therefore scarcely be said that the problem is not a question of congressional policy, now. Hence a bill which leaves that question to the AEC without fixing the policy which the Commission should apply, would seem to be gravely deficient under the Schechter case.

Pricing of special materials.—Not only does H. R. 8802 fail to fix congressional policy as to charging for the privilege of using atomic energy, but it also fails to fix congressional policy as to the prices to be charged licensees for their atomic fuel (special materials) and the price the Government will pay for their atomic ashes. For all the bill now provides, the AEC may pay more for the ashes than it charges for the fuel. If the Government is thus to subsidize the electric utilities and other persons developing atomic energy by paying operating costs in addition to giving them the license privilege without charge, it would seem that Congress should fix that policy—not attempt to pass the responsibility to the AEC, the Review Board, the courts, or anyone else.⁴

But section 51 authorizes the AEC to "distribute special material . . . for use pursuant to a license . . . and charge a fair price." "Fair price" is nowhere defined or its meaning indicated in the bill. Furthermore, there is not and probably never will be a free market to provide a standard of what a "fair price" would be, and H. R. 8802 provides no congressional determination, or guide for Commission determination, of how much of the billions spent or to be spent by the Government shall be deemed to be cost of producing the special materials supplied to licensees. In the absence of such a guide, there is little, if anything, in the legally established concepts of utility regulation that can be deemed to provide meaning for the term "fair price", and section 107 doesn't help.

The same is true of the provisions of section 52 of H. R. 8802 for AEC payment of "just compensation" for atomic ashes: "Any person . . . who lawfully produces any special material incident to privately financed activities shall be paid just compensation therefor."

Pricing of byproduct energy.—The provisions of section 104 authorizing the AEC to sell byproduct energy "at reasonable and nondiscriminatory prices," present similar questions although the provision against discrimination is good as far as it goes. (Incidentally the question arises why that standard was omitted in authorizing issuance of licenses and pricing of special materials in secs. 52, 54, and 103.)

The sale of byproduct power is not a new problem. One Congress after another in authorizing Federal development of irrigation, water conservation, flood control, and navigation improvement projects, has provided detailed and explicit standards and limitations governing the disposition of such electric power. Beginning with the Reclamation Act of 1902⁵ Congress has defined the policy to be followed in the sale of byproduct electric power with respect to such matters as duration of contracts of sale;⁶ allocation of project costs to

³ See Kerwin, *Federal Water-Power Legislation* (Chicago, 1926), pp. 111-216; Rept. No. 61, Committee on Water Power, 65th Cong., 1st sess., p. 4.

⁴ If subsidies are to be permitted, consideration should be given to the question of the desirability of provisions for passing the benefits of such subsidies on to the public. The Federal Water Power Act of 1920 contained dual provisions to assure a similar result (1) by providing for Federal regulation of the rates charged in all sales of the electric energy output until the ultimate consumer receives it, where the States do not regulate or are unable to agree (secs. 19, 20 Federal Power Act); (2) by providing for expropriation or recapture of excess profits (secs. 10 (e), 10 (d), 3 (13), 14, and 20 of the Federal Power Act).

⁵ 34 Stat. 117.

⁶ E. g., Salt River Act of 1922, 42 Stat. 847; Boulder Canyon Project Act of 1928, 45 Stat. 1000; TVA Act of 1933, 48 Stat. 53.

reflect separate costs allocable to power phase of multiple-purpose projects as a basis for pricing the power;¹ pricing electric power to recover operating charges and capital investment allocable to electric power;² preference to municipal and other public bodies in sale of electric power;³ and encouragement of diversified and widespread use of electric power.⁴ In recent years Congress has gone so far as to subject the rates proposed by the marketing agency to the review of the Federal Power Commission.⁵

Corresponding enunciation of policy in the sale of byproduct power from Government atomic energy installations may present some new or different problems, but the precedents cited are sufficient to suggest that Congress has been jealous to enunciate the policy to be effectuated by the agency marketing the power and has not been willing to leave the responsibility for policy to the agency.

Lack of standards to guide other Commission action.—The failure of H. R. 8862 to fix the policy to be followed by the AEC, and the consequent danger of invalidity under the Schechter case, are not confined to the provisions already discussed, but extend to numerous provisions not so directly related to the subject of electric utilities. The following examples may be noted:

Section 33 (p. 18, lines 3-5) authorizes the AEC to charge "fair prices" for research and development activities performed for others, with no guidance from Congress as to how to determine such "fair price."

Section 42 (b) (p. 19, lines 5-6; cf. line 29) authorizes the AEC "to make, or to continue in effect, contracts" for the production of special materials—with no guide as to duration, dollars, and all other terms and conditions, including ownership of patents on any inventions or discoveries. (See Patents and Inventions, below.)

The same section (p. 20, lines 8-10) leaves the quantities of special materials to be produced to be decided by the President without any guidance or determination by Congress of the policy he is to effectuate or the standards to guide his decision.

Section 54 (p. 23, lines 6-10) authorizes the AEC to sell or give away "special materials" for research or medical therapy, without fixing policy as to when they shall be given away, when sold, or how any charge shall be determined upon, or even that the distribution shall be nondiscriminatory.

Section 55 (p. 24, lines 7, et seq.) authorizes the AEC "to purchase or otherwise acquire" special material from abroad or facilities for production of special material, with no limit on price or standards to guide the Commission as to what the national policy is.

Section 67 (p. 27) confers even broader powers with respect to some materials and deposits thereof, with no more definition of policy or guide to decision.

Section 71 (p. 29, lines 13-18) authorizes licensing of use of byproduct materials "with or without charge" but provides no policy and no standard as to when there shall be no charge and when a charge shall be made, or how much of a charge, or even that charges shall not be discriminatory, except as a provision is made for preference of certain uses.

Section 105 (p. 35, lines 9-12) authorizes the AEC to deny a license for research and development "for good reason" without stating what would constitute "good reason" and what would not.

Section 108 (pp. 36-37) authorizes licensing requirements for operators of atomic facilities with no standards to govern the AEC, no fixing of policy, no prohibition, even, of discrimination.

Effect of revocation of license on electric utility service.—Section 186 (p. 61) gives the AEC broad power to penalize violations by revoking licenses. Where atomic energy is relied upon to carry utility loads it should be recognized that such a penalty may hurt the public more than the licensee, unless provision is made for continuance of the supply of atomic energy until alternate sources of power supply can be built or acquired.

Patents and inventions.—Chapter 14 of H. R. 8862 opens the door to private ownership of patents covering improvements in the utilization of atomic energy

¹ E. g., TVA Act of 1933, 48 Stat. 58; Bonneville Act of 1937, 50 Stat. 733.

² E. g., Boulder Canyon Project Act of 1928, 45 Stat. 1030; Reclamation Act of 1930, 53 Stat. 1163.

³ Reclamation Act of 1906, 34 Stat. 117; Baker Act of 1913, 38 Stat. 241; Salt River Act of 1922, 42 Stat. 847; Boulder Canyon Project Act of 1928, 45 Stat. 1030.

⁴ E. g., Reclamation Act of 1906, 34 Stat. 117; Tennessee Valley Authority Act of 1933, 48 Stat. 58; Bonneville Act of 1937, 50 Stat. 733; Fort Peck Act of 1938, 52 Stat. 463.

⁵ E. g., Bonneville Act of 1937, 50 Stat. 733; Fort Peck Act of 1938, 52 Stat. 463; Flood Control Act of 1934.

by electric utilities or as a substitute for electric utility services. There is no provision for compulsory licensing of privately owned patent rights. Thus, the present bill might allow private ownership of patent rights on such improvements to stand in the way of substantially reducing electric utilities' production costs, as long as the patents remain in effect. And it is to be borne in mind that the cost of producing energy by atomic processes today is higher than by conventional methods. Hence the hope that the Government's expenditures on atomic energy would bring about a substantial reduction in the Nation's power bill may by this bill be deferred for 34 years—the life of the initial patents and their renewal. This will be true whether the patent owners withhold the patents from use or license their use at the best royalties obtainable.

A related question may be noted with respect to the failure of H. R. 8862 to provide for Government ownership of all patents on inventions and discoveries made by others working under contract at Government expense or as a result of such work.

Power supply contracts.—Section 161¹ authorizes the AEC to enter into new contracts for the supply of electric power to the Oak Ridge, Paducah, and Portsmouth installations of the Commission, or to modify or confirm existing contracts. Here again the grant of power is without any definition of governing standards, any policy guide, or any limitation of any kind. Apparently this may ratify or authorize ratification of existing contracts. The Federal Power Commission has not indicated any position as to the terms of the contracts heretofore entered into.

Draftsmanship.—We have not undertaken a critical consideration of the draftsmanship of the bill. Certain questions of that nature have been noted, however.

Page 26: Is Sec. 63 "Issuance of Licenses" meant to apply only to the licenses referred to in Sec. 62, or also to those referred to in Secs. 63, 71, 101-103, 105, and 108?

Page 2, line 29: Change "shall be" to "must be".

Page 2, line 25: Change "to" to "of".

Page 3, line 5: "Interstate damage" is an ambiguous term.

Page 6, line 14: Add "municipal corporation" in addition to "political subdivision".

Page 23, line 25: Change "and" to "all".

Page 33, lines 6-8: Paraseology leaves it unclear whether "in interstate commerce" is intended to modify (1) "production", and (2) "transportation", as well as "receipt". Should not this wording correspond exactly to p. 32, lines 21-22?

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Needless, a copy of your letter
is in the Public Document Room.

JENN T. SEABORG, *Chairman*.

dated; on file with the Joint

DEPARTMENT OF JUSTICE,
Washington, D.C., April 25, 1968.

Hon. JOSEPH F. HENNESSEY,
General Counsel, U.S. Atomic Energy Commission,
Washington, D.C.

DEAR MR. HENNESSEY: You have asked for our opinion as to whether the Atomic Energy Commission has authority under the Atomic Energy Act of 1954, the Federal Water Pollution Control Act, or Executive Order 11288 to impose restrictions regarding so-called thermal pollution caused by discharges from nuclear power plants licensed by the Commission. You have concluded that the Commission does not have such authority. We concur in your conclusion.

The term "thermal pollution" is used to refer to the adverse effects upon a body of water of changes in temperature caused by discharge into it of heated water. In certain industrial installations, including electric generating plants, water is used for cooling purposes. The water is generally pumped from a lake or stream and returned unchanged, except that it may be a few degrees warmer. This warmer water may have adverse effects on the stream by reducing its oxygen content or altering its ecology. See *Water Pollution—1967 (Part I)*, Hearings before a Subcommittee of the Senate Public Works Committee, 90th Cong., 1st Sess., 461-63. Both nuclear fueled and fossil fueled power plants may cause thermal pollution, but there is reason to believe that the problem is more serious with respect to nuclear fueled plants.

Executive Order 11288 of July 2, 1966, 31 F.R. 9231, was issued in furtherance of the purpose and policy of the Federal Water Pollution Control Act, as amended, 33 U.S.C. 405 *et seq.* Section 7 of the order provides:

and establishment shall conduct a review of its organization to determine whether it is similar to those set forth in the Act. The Commission shall adhere to the standards established by borrowers, or operations in the United States. The establishment shall review all such matters for reduction of water pollution and for accomplishing such reduction. All assistance should be sought from other appropriate Federal agencies. The matters submitted to the Director of the

and establishments are encouraged to use contract practices designed to

provision of the executive order the nuclear power plants to conform to section 4 of the order for federal establishment of procedures to prevent has been suggested that licenses issued contracts within the meaning of section contracts entered into by the Commission in Act, 42 U.S.C. 2210, are contracts

not in terms direct each federal standards on all borrowers, grantees, the extent to which (such standards) section 7 is not intended as an interference a direction to the several agencies may have for the purpose of requiring standards. Therefore, before we need of the Commission with respect to its the Commission has to impose water

needed, 42 U.S.C. 2011-2281, grants to license various activities involving nuclear material, *etc.*, material capable of producing energy, 42 U.S.C. 2071, as well as to this authority the Commission to use special nuclear material in the operation of a facility. In order to operate, a license under section 104 of the Act, the operator of the facility has not been deemed to be a licensee. In either event, prior to the issuance of a license, the applicant must comply with 42 U.S.C. 2205.

When the position that its regulatory authority extends to matters of radiological health and safety. Examination of the Act leads to the conclusion that Congress expressed its intent in the production and utilization of nuclear energy in connection therewith is necessary for the common defense and security and to protect the public health and safety. "Common defense and security" respectively in substantially the same meaning as used in section 101(d), 42 U.S.C. 2071(b), 2091(b), and section 102, 42 U.S.C. 2202, dealing

with the operation of production or utilization of nuclear energy. "Common defense and security" respectively in substantially the same meaning as used in section 101(d), 42 U.S.C. 2071(b), 2091(b), and section 102, 42 U.S.C. 2202, dealing

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its consideration to factors relating to the common defense and security and protection of the public health and safety.¹ Furthermore, it is reasonable to conclude that the health and safety factors which should concern the Commission are those peculiar to the operation of nuclear facilities.

It is consistent with the general structure of the Act, and particularly its licensing provisions, to limit the Commission to consideration of defense and radiological safety factors. A license is merely a permit to build and operate a facility using nuclear power. It is not a certificate of public convenience and necessity,² and it neither creates any exclusive rights in the licensee nor insulates the licensee from any other form of Federal, State, or local regulation applicable to the operation.³ This being so, we would hesitate, even if this were a matter of first impression, to construe the Act to authorize the Commission to apply licensing standards which would implement policies other than those set forth in the Act and which might involve conflicts with or duplication of the responsibilities of other governmental agencies.

The Commission has maintained in its regulations and in its adjudication the position that its regulatory authority is confined to considerations of common defense and security and radiological health and safety.⁴ This position has already been expressed by the Joint Committee on Atomic Energy:

"It was recognized by the drafters [of the Act] . . . that AEC's regulator control was limited to considerations involving the common defense and security and the protection of the health and safety of the public with respect to the special hazards associated with the operation of nuclear facilities." S. Rep. No. 300, 82nd Cong., 1st Sess., p. 4.

It is well established that the practical construction of a statute by an agency charged with its administration is customarily entitled to respect. *Power Reactor Development Co. v. Electrical Union*, 367 U.S. 393, 405 (1961); *Norwegian Nitrogen Products Co. v. United States*, 298 U.S. 294, 315 (1933), particularly where, as in this case, the construction is acquiesced and concurred in by a Congressional committee with a peculiar responsibility and place in the statutory scheme. *Power Reactor Development Co. v. Electrical Union*, *supra* at 400. For these reasons we concur in the conclusion that the Commission has no authority under the Atomic Energy Act to impose upon its licensees water pollution standards unrelated to considerations of radiological safety.⁵

There remains for consideration the Federal Water Pollution Control Act, 33 U.S.C. 460-469n. This statute, first enacted in 1948 and frequently amended thereafter,⁶ provides a comprehensive system for Federal-State cooperation in preventing and controlling water pollution. This system includes authority of the Federal Government to institute abatement proceedings against pollution of interstate and navigable waters, 33 U.S.C. 462(g), to prescribe water quality standards for interstate waters in cooperation with the States, and to enforce

¹ Where other factors are to be considered in connection with the issuance of a license, the Act makes specific provision. Thus, the Attorney General must advise the Commission with respect to possible antitrust law violations, § 105, 42 U.S.C. 2105. Where there are conflicting applications for a license for a facility to generate commercial power, preference is to be given to public or cooperative bodies and to facilities to be located in low cost power areas, § 102(d), 42 U.S.C. 2202(d).

² 100 Cong. Rec. 11659.

³ Section 271, 42 U.S.C. 2015, specifically preserves the jurisdiction of Federal, State, and local agencies "with respect to the generation, sale, or transmission of electric power."

⁴ 10 C.F.R. Parts 50-56, 40, 50, 70. In 10 C.F.R. 50.42 and 50.43 provision is made for the factors noted in footnote 1 *supra*. See also, *Matter of Jersey Central Power Light Co.*, 2 Atomic Energy Law Reports ¶ 11,249 (1954) at p. 17,422; *Matter of Vermont Yankee Nuclear Power Corp.*, 2 Atomic Energy Law Reports ¶ 11,567 (1958).

⁵ For the same reasons we do not believe that the Commission may impose water pollution standards as a condition for entering into indemnity agreements with licensees under the Price-Anderson Amendment, Atomic Energy Act, § 170(c), 42 U.S.C. 2210(c). Section 170 provides that licensees must maintain financial protection, in the form of insurance or otherwise, against public liability claims arising out of nuclear incidents. It provides further that the Commission shall enter into agreements to indemnify licensees from such liability claims in excess of the level of financial protection required of the licensee. Section 170(b) provides that the agreement of indemnification may contain "such terms as the Commission deems appropriate to carry out the purposes of this section." It does not purport to authorize the imposition of terms extraneous to the purposes of the section. Since the Commission is required by subsection (c) to enter into the indemnity agreement with the licensee, and since the agreement is at least as much for the benefit of the general public as for the benefit of the licensee, we do not believe that the Price-Anderson Amendment furnishes authority to impose conditions relating to water pollution.

⁶ Water Pollution Control Act Amendments of 1955, 70 Stat. 498; Federal Water Pollution Control Act Amendments of 1951, 75 Stat. 204; Water Quality Act of 1955, 75 Stat. 903; Clean Water Restoration Act of 1966, 80 Stat. 1246.

such standards by abatement proceedings, 33 U.S.C. 492(e). Responsibility for the administration of the Federal Water Pollution Control Act is now in the Department of the Interior, Reorganization Plan No. 2 of 1953, 59 Stat. 1908, although abatement suits are brought by the Department of Justice.

Section 11 of the Water Pollution Control Act, 33 U.S.C. 491, assigns to other Federal agencies certain responsibilities for preventing and controlling water pollution. That section provides:

"It is hereby declared to be the intent of the Congress that any Federal department or agency having jurisdiction over any building, installation, or other property shall, insofar as practicable and consistent with the interests of the United States and within any available appropriations, cooperate with the Department of Health, Education, and Welfare, and with any State or interstate agency or municipality having jurisdiction over waters into which any matter is discharged from such property, in preventing or controlling the pollution of such waters. In his summary of any conference pursuant to section 10(d) (1) of this Act, the Secretary shall include references to any discharges allegedly contributing to pollution from any Federal property. Notice of any hearing pursuant to section 10(f) involving any pollution alleged to be effected by any such discharges shall also be given to the Federal agency having jurisdiction over the property involved and the findings and recommendations of the Hearing Board conducting such hearing shall also include references to any such discharges which are contributing to the pollution found by such Hearing Board."

It has been suggested that the Atomic Energy Commission has jurisdiction over the installations of its licensees within the meaning of this Section 11 and consequently that the Commission may, either generally or in specific cases, impose restrictions on water pollution, including thermal pollution, as a condition of its licenses. We do not believe that the language and legislative history of Section 11 support this conclusion, but rather that the phrase "jurisdiction over any building, installation, or other property" refers to proprietary jurisdiction and not to regulatory jurisdiction.

The first sentence of Section 11 was added in its present form to the Water Pollution Control Act by the amendments of 1959, 79 Stat. 563. The conference reported stated with respect to that provision (then numbered Section 9):

"This section * * * declares the congressional intent that Federal agencies discharging matter into any waters shall cooperate with the Department of Health, Education, and Welfare and State, interstate, and local agencies, in preventing or controlling the pollution of such waters." (102 Cong. Rec. 11154.)

See also remarks of Congressman Wolverton, 102 Cong. Rec. 10479.

Nowhere in the legislative history of the 1959 amendments or of subsequent amendments to the Water Pollution Control Act have we found a suggestion that the first sentence of Section 11 was intended to apply to city property other than Federal installations. Furthermore, the second and third sentences of Section 11, added in the 1951 amendments, 75 Stat. 210, obviously refer only to Federal property and installations. H. Rept. No. 396, 87th Cong., 1st Sess. 18. To read "jurisdiction" in the first sentence of Section 11 to include regulatory jurisdiction would not only create an inconsistency of terminology within Section 11 but would alter entirely the framework of the Act. For if the Atomic Energy Commission has jurisdiction over the installations of its licensees, the Federal Communications Commission has similar jurisdiction over radio and television stations, the Interstate Commerce Commission has jurisdiction over railroads and motor carriers, and various other Federal agencies have jurisdiction to regulate certain activities of various categories of private businesses. We do not believe that Congress in 1959 intended to grant to an unspecified group of Federal agencies authority to employ their regulatory powers for purposes of enforcing the Act. Such an unusual grant of authority should not be lightly inferred, and in this case neither the language of the statute nor its legislative history supports such an inference.¹

As we stated earlier, Section 7 of Executive Order 11288 does not purport to be an independent source of agency authority. In our view, neither the Atomic Energy Act nor the Federal Water Pollution Control Act authorizes the Atomic Energy Commission to require its licensees to conform to standards relative to

¹We do not suggest that a Federal agency may not employ its regulatory authority for the prevention of water pollution where it is expressly or impliedly empowered to do so by the statute it administers. See, e.g., 16 U.S.C. 865(a); *Udall v. Federal Power Commission*, 387 U.S. 425, 430 (1967).

U.S.C. 405(e). Responsibility for
Pollution Control Act is now in the
Title 2 of 1956, 50 Stat. 1068,
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No. 896, 87th Cong., 1st Sess. 15. To
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U.S.C. 505(a); *Udall v. Federal Power*

water pollution, and we know of no other source for such authority. Of course,
Congress has ample power to grant such authority to the Commission by appro-
priate legislation.

Sincerely yours,

FRANK M. WOLFE, JR.,
Assistant Attorney General, Office of Legal Counsel.