

RETURN TO REGULATORY CENTRAL FILES
ROOM 016

UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

In the Matter of)
Consumers Power Company)
(Midland Plant))

Docket No. 50-329
Docket No. 50-330

12-15-70

APPLICANT'S BRIEF IN OPPOSITION TO INTERVENORS' MOTIONS
FILED AT THE MIDLAND HEARING HELD ON DECEMBER 1, 1970

At the hearing convened on December 1, 1970, Intervenors, Saginaw Valley Nuclear Study Group, et al., filed eight motions "Directed to the Sufficiency and Adequacy of the Proposed Hearing Concerning the Issuance of Any License or Permit to Construct the Proposed Midland Plant, Units 1 and 2, of Applicant Consumers Power Company" and two separate motions as follows:

- 1) A motion requesting the Board to enter an order requiring that all issues of law be determined in advance of pretrial discovery and other steps preliminary to the hearing.
- 2) A motion requesting the Board to enter an order requiring the reporting service to deliver to the named Intervenors a copy of the transcript ordered by the AEC for use by the public.

The Board has in effect ruled on Intervenors' motion respecting the resolution of all issues of law in advance of other prehearing procedures. The Board has ordered the parties to proceed with matters of pretrial discovery while issues of law are

8006190 780

G

being briefed and considered by the Board.* In view of the Board's ruling to proceed simultaneously with the resolution of issues of law and other prehearing matters, it does not appear that any further ruling of the Board on Intervenor's motion is required.

Intervenor's motion relating to the delivery of transcripts to Intervenor was also disposed of at the hearing and, therefore, no additional ruling is required of the Board.**

Motions No. 1 - 8 relate to a variety of issues. Those motions which are directed to questions relating to the National Environmental Policy Act of 1969 (NEPA) (Motions No. 3a, 4 and 5) have not been included in this brief. These NEPA questions are matters which the Board has stated will be deferred until such time as the AEC staff files its environmental statement.

The law pertaining to Motions Nos. 1, 2, 3(b)-(f), 6, 7 and 8 is set forth in this brief. It is Applicant's position that all of these motions should be denied. The bases for Applicant's position are set forth below under headings conforming to the motion numbers set forth in Intervenor's Statement of Motions.

Before proceeding with a discussion of each motion, Applicant believes it appropriate to briefly discuss the propriety of challenging AEC regulations in a proceeding before an Atomic Safety and Licensing Board, since in connection with almost every motion Intervenor has questioned the legality of an AEC regulation. The Commission has determined that a contested proceeding before a Board is not the proper place to challenge regulations:

*See rulings of the Board at the hearing held on December 1, 1970, Transcript pp 430-442

**Transcript n. 414

" . . . the Commission's licensing regulations establish the standards for reactor construction permit determinations; and . . . the findings in proceedings such as the instant one must be made in accordance with those regulations. Further, it should be clear that our licensing regulations - which are general in their application and which are adopted in public rule-making proceedings wherein the Commission can draw on the views of all interested persons - are not subject to amendment by boards in individual adjudicatory proceedings." In the Matter of Baltimore Gas & Electric Company; Memorandum, Docket Nos. 50-317, 50-318, August 8, 1969.

While there are exceptions to this ruling, it is clear that the ability to challenge AEC regulations in each individual licensing proceeding could very well lead to the breakdown of the whole administrative process. The Board is bound to conduct its hearing pursuant to the regulations established by the AEC. A Board cannot decide for itself the validity of the regulations. Where there is a clear regulation in effect, the Commission has clearly determined that it is the duty of the Board to follow such regulation.

For this reason and for the reasons cited below, Intervenors' motions should be denied.

INDEX

Brief in Opposition to:

Motion No. 1	1-1
Motion No. 2	2-1
Motion No. 3(b)	3-1
Palisades Brief on Commission Jurisdiction	
Motion No. 3(c)	3-6
Motion No. 3(d)	3-8
Motions Nos. 3(e) and (f)	3-13
Motion No. 6	6-1
Motion No. 7	7-1
7(e)	7-3
7(f)	7-5
7(g)	7-10
Palisades Brief on Radiation Standards	
Motion No. 8	8-1

Conclusion

MOTION NO. 1

Motion No. 1 asserts, in effect, that the application for licenses to construct and operate the Midland Plant Units 1 and 2 is filed erroneously under §104 b. ("Research and Development") and should instead be filed under §103 ("Commercial Licenses") of the Atomic Energy Act of 1954, as amended (hereinafter "the Act"). It is further contended, on this rationale, that the Notice of Hearing as well as this hearing are in violation of sundry provisions of the Act. The argument is totally without merit and, in any event, the issue is likely moot.

I.

THE APPLICATION IS PROPERLY FILED UNDER
§104 b. OF THE ACT AND THE MATTER IS PROP-
ERLY NOTICED FOR HEARING PURSUANT TO §104 b.

There are two sections of the Act under which nuclear power reactors may be licensed. All licenses heretofore--and presently being--issued have been under §104 b., which covers plants engaged in "the conduct of research and development activities leading to the demonstration of the practical value of such facilities for industrial or commercial purposes." Licenses may also be issued pursuant to §103 of the Act ("Commercial Licenses") but only "subsequent to a finding by the Commission as required in section 102" that any type of facility "has been sufficiently developed to be of practical value for industrial or commercial purposes."

To date, the Commission has not made a finding of "practical value" although it has considered the matter on two separate occasions. On July 10, 1964, the Commission published a notice in the Federal Register (29 F.R. 9458) that it had under consideration the matter of a finding of "practical value" with respect to certain types of light water

nuclear power plants. An extensive rulemaking proceeding culminated in a Commission determination of December 29, 1965, that because nuclear power plant operating experience to that date was limited to small-scale facilities that were not economically competitive, a finding of practical value was not justified. (31 F.R. 221) A second rulemaking proceeding, similarly initiated, (31 F.R. 16732) resulted in a Commission determination that a section 102 finding should not be made pending a reliable estimate of the applicable economics based upon a demonstration of plant performance and the nuclear technology involved. Recently, the Commission announced its intention to take the matter under consideration once again (35 F.R. 10460) but the proceeding was cancelled because of the pendency, and final enactment of, the "practical value" legislation discussed below.

The Commission's actions have been the subject of consideration by the Congress on many occasions* and the Joint Committee on Atomic Energy has recognized that, "In accordance with chapter 10 of the 1954 Act, because there has not yet been a finding of practical value, no license for a nuclear power plant or other nuclear facility has been issued under section 103.**"

Notwithstanding the clear state of the law in this regard, which is obvious from a reading of the statute and which has been expressly recognized by the Congress, intervenors in several cases before the Atomic Energy

* "Prelicensing Antitrust Review of Nuclear Powerplants", Hearings before the Joint Committee on Atomic Energy, November 18-20, 1969 (Part I), April 14-16, 1970 (Part II).

** Senate Report No. 91-1247, 91st Cong. 2d Sess., September 27, 1970, Report of the Joint Committee on Atomic Energy on S. 4141, p. 9.

Commission have sought to challenge the Commission's jurisdiction to consider and issue licenses for light water nuclear power plants under §104 b. The grounds asserted in these cases are those asserted by Intervenors in the present proceeding. The challenge has been rejected by the Commission in every case and the Commission's determination has been upheld in the courts.

In the leading case on the question, In the Matter of Duke Power Company (Docket Nos. 50-269, 50-270 and 50-287), Decision of the Commission, January 3, 1968, 2 Atomic Energy Law Reporter Par. 11,266.03, the Commission held:

" . . . We have already stated our view that the 'research and development' about which Section 104 b. speaks encompasses as 'development' a demonstration that will provide a basis for commercial evaluation"

"In the context, then, of the statutory language and our construction of it, until there has been a demonstration of the practical value of such facilities for industrial or commercial purposes', utilization facilities which will provide a basis for commercial evaluation in connection therewith (. . .) may be licensed under Section 104 b. . . ., this clearly places the Oconee reactors within the compass of Section 104 b."* (Emphasis Added)

The rule of the Duke case has been followed uniformly in cases before the Commission involving the Vermont Yankee Nuclear Power Reactor,** the Peach Bottom Atomic Power Station,*** the Crystal River Unit 3 Nuclear

*2 Atomic Energy Law Reporter at pp 17,501-8 and 17,501-9. It should be noted that the Oconee reactors referred to in the Duke case, are plants built by Babcock and Wilcox of essentially the same design as the Midland Plant Units 1 and 2.

** In the Matter of Vermont Yankee Nuclear Power Corporation (Docket No. 50-271) Memorandum and Order of the Atomic Energy Commission, April 8, 1968, 2 Atomic Energy Law Reporter Par. 11,267.03.

*** In the Matter of Philadelphia Electric Company (Docket Nos. 50-277 and 50-278), Memorandum and Order dated September 6, 1968, 2 Atomic Energy Law Reporter Par. 11,269.03.

Generating Plant,* and the Maine Yankee Atomic Power Station.**

The decision of the Atomic Safety and Licensing Board in the Maine Yankee case, supra, includes language which is particularly germane in disposing of the jurisdictional argument raised by Intervenor herein:

"Commission determinations in two recent cases are pertinent [citing Duke and Philadelphia Electric, supra]. Since these cases, the Section 104 b. licensability issue has lost its novelty and its potential for occasioning a meaningful contribution to a licensing proceeding." 2 Atomic Energy Law Reporter pp. 17,693-17,694

The Commission's position on the jurisdictional question under §104 b. of the Act has been upheld in the courts. In considering "Whether, in both the Duke Power and Vermont Yankee cases, the Commission properly awarded the grant of authority under section 104 (b)", the Court of Appeals held "the action of the Commission in proceeding under section 104 (b) to be within its expertise, substantially supported in the record, reasonable and valid." Cities of Statesville, et al, v. AEC; Docket Nos. 21,706 and 21,844, Slip Op. (D.C. Cir. 1969), pp. 13, 17.

The issue sought to be raised by Intervenor here is indistinguishable from the issue considered and disposed of in the aforementioned cases. Intervenor here state that the rationale for raising the issue is that the facility which is the subject of this proceeding should be subject to a degree of regulation more stringent than that contemplated by Section 104 b --an argument wholly without support in the statute or

*In the Matter of Florida Power Corporation (Docket Nos. 50-277 and 50-278), Memorandum and Order dated September 6, 1968, 2 Atomic Energy Law Reporter Par. 11,571.

**In the Matter of Maine Yankee Atomic Power Company, (Docket No. 50-309), Decision of the Atomic Safety and Licensing Board, October 17, 1968, 2 Atomic Energy Law Reporter Par. 11,574.

its legislative history.* They argue that the issue is novel because the interest of intervenors in other cases arose out of economic and antitrust considerations. Reduced to its substance, however, the question is the same in all cases; namely, is the Commission authorized to consider and act upon applications for the construction and operation of nuclear power plants of the type represented by the Midland units pursuant to §104 b. of the Act? The affirmative answer is clear beyond peradventure.

II.

THE ISSUE RAISED BY INTERVENORS AS TO THE
LICENSABILITY OF THE PLANT UNDER SECTION
104 b. IS, IN ANY EVENT, LIKELY A MOOT
QUESTION

The issue raised by the Intervenor as to the licensability of the Midland plant under section 104 b. is, in any event, likely a moot question as a result of recent congressional action eliminating the requirement for a finding of practical value and providing, with exceptions not here relevant, that "any license hereafter issued for a utilization . . . facility shall be issued pursuant to section 103." (HR. 18679, S. 4141, 91st Cong. 2d Sess.)** Upon approval by the President, the

*Note also that Sections 50.42 and 50.43 of the Commission's regulations on additional standards for class 103 licenses relate only to procedures and requirements for the consideration of antitrust issues. In all other respects affecting health and safety there are common standards for Class 103 and 104 b. licenses (See Section 50.40).

**The bill was passed in the House of Representatives on September 20, 1970 (116 Cong. Rec. H9451). The Senate approved the bill with an amendment not here germane on December 2, 1970. (116 Cong. Rec. S19257). The Senate version was adopted by the House on December 3, 1970 (116 Cong. Rec. H11086). References are to daily edition of the Congressional Record.

new law will be applicable in this proceeding and the Midland license, upon approval by the Commission, will be issued pursuant to new §103 of the Act. Certain procedural requirements related to antitrust review come into play as a result of this change but the legislation makes express provision for cases such as Midland in order to avoid hardship and unnecessary delay:

"Sec. 105. Antitrust Provisions.--

c.

(8) With respect to any application for a construction permit on file at the time of enactment into law of this subsection. . . . The Commission, after consultation with the Attorney General, may, upon determination that such action is necessary in the public interest to avoid unnecessary delay, establish by rule or order periods for Commission notification and receipt of advice differing from those set forth above and may issue a construction permit. . . .in advance of consideration of and findings with respect to the matters covered in this subsection, provided that any construction permit. . . .so issued shall contain such conditions as the Commission deems appropriate to assure that any subsequent findings. . . .of the Commission with respect to such matters will be given full force and effect."

Lest this change in the law, in terms of its effect on pending cases be misinterpreted or otherwise used for procedural delay, the Managers of the bill on the floors of the House and Senate made abundantly clear their intention with respect to pending cases:

". . . I must mention for the record another important committee concern and related intention. It is not intended that a construction permit proceeding that is in progress at the time the bill becomes law be begun anew procedurally because of the new section 103 status. That would be foolish and self-defeating. . . . We want to see this licensing procedure as an aid in obtaining a safe and adequate supply of power to the people--not an impediment. . . .

[I]t is intended that the Commission, by rule or regulation, provide for a sensible transition into section 103 licensing so that, to the fullest extent practicable, the

measures and substance of the licensing proceeding theretofore conducted will continue to be recognized and utilized and delay held to a minimum." (Statement of Rep. Hosmer, Sept. 30, 1970, 116 Cong. Rec. H. 9446)*

Thus, upon approval by the President, this change in the Act renders moot the issue raised by Intervenor. It is, moreover, abundantly clear that Congress recognized the necessity for, and provided statutory mechanisms to accommodate pending cases to the new law without delay.

CONCLUSION

Intervenor Motion No. 1 should be denied for the reasons stated herein.

*See, also, to the same effect Statement of Sen. Pastore, 116 Cong. Rec. 19253.

MOTION NO. 2

Intervenors' Motion No. 2 alleges that the Notice of Hearing is illegal and insufficient under §2035* of the Act and §§1.25** and 2.104 of the Commission's regulations because it contemplates a hearing and findings on the issues specified in the Notice "prior to the applicant having submitted for consideration a full and final design of the Midland Plants" The argument is at odds with the Act, the Commission's regulations and adjudicatory decisions, and the rulings of the courts.

The Notice of Hearing, dated October 27, 1970, conforms to the provisions required of it by 10 CFR §2.104 and therefore Intervenors' allegation that it is in violation of §2.104 is clearly specious. Intervenors' main contention, therefore, appears to be that, for whatever reasons, the issuance of a construction permit prior to development of a final design is invalid.

It is clear that the Act contemplates a two-step licensing procedure involving, first, a construction permit and, subsequently, an operating license. The Act clearly provides:

"All applicants for licenses to construct or modify production or utilization facilities shall, if the application is otherwise acceptable to the Commission, be initially granted a construction permit. * * * Upon the completion of the construction or modification of the facility, upon the filing of any additional information needed to bring the original application up to date, and upon finding that the

*Apparently intended to be a reference to §185 of the Act, 42 USC §2235.

**This reference appears to be a mistake but it is not apparent what the correct reference should be.

facility authorized has been constructed and will operate in conformity with the application as amended and in conformity with the provisions of this chapter and of the rules and regulations of the Commission, and in the absence of any good cause being shown to the Commission why the granting of a license would not be in accordance with the provisions of this chapter, the Commission shall thereupon issue a license to the applicant."
 §185, 42 USC §2235

Additionally, this concept has been clearly recognized by the U. S. Supreme Court:

"It is clear from the face of this statute -- and all parties agree -- that Congress contemplated a step-by-step procedure. First an applicant would have to construct his facility, and then he would have to ask the Commission to grant him a license to operate the facility." Power Reactor Development Company (PRDC) v. Electrical Workers, 367 U.S. 396, 6 L. Ed 2d 924, 81 S. Ct. 1529 (1961)

The Act leaves to the Commission the task of implementing the step-by-step procedure authorized by the Act.

In implementing this statutory authority, the Commission has established a regulatory scheme which contemplates that construction authorization may be granted on the basis of less-than final design information. Thus 10 CFR §50.34(a) provides that each application shall contain a preliminary safety analysis report which shall include:

"(3) The preliminary design of the facility, including:

(i) The principal design criteria for the facility;

(ii) The design bases and the relation of the design bases to the principal design criteria;

(iii) Information relative to materials of construction, general arrangement, and approximate dimensions, sufficient to provide reasonable assurance

that the final design will conform to the design bases with adequate margin for safety."

10 CFR §50.34(a)(3) (Emphasis Supplied)

The regulation, thus, fully recognizes that the application at the construction permit stage need merely include the "preliminary" design and clearly recognizes that the final design comes at a later stage. The regulations, further, provide that:

"(a) When an applicant has not supplied initially all of the technical information required to complete the application and support the issuance of a construction permit which approves all proposed design features, the Commission may issue a construction permit if the Commission finds that (1) the applicant has described the proposed design of the facility, including, but not limited to, the principal architectural and engineering criteria for the design, and has identified the major features or components incorporated therein for the protection of the health and safety of the public; (2) such further technical or design information as may be required to complete the safety analysis, and which can reasonably be left for later consideration, will be supplied in the final safety analysis report; (3) safety features or components, if any, which require research and development have been described by the applicant and the applicant has identified, and there will be conducted, a research and development program reasonably designed to resolve any safety questions associated with such features or components; and that (4) on the basis of the foregoing, there is reasonable assurance that, (i) such safety questions will be satisfactorily resolved at or before the latest date stated in the application for completion of construction of the proposed facility, and (ii) taking into consideration the site criteria contained in Part 100 of this chapter, the proposed facility can be constructed and operated at the proposed location without undue risk to the health and safety of the public."

10 CFR §50.35(a)

The regulations thus empower the Board to issue a construction permit based on a preliminary design.

The Commission has twice issued interpretations of the regulations. In 1965, the Commission stated:

"The board's role in cases such as (sic) this derived from 10 CFR § 50.35, which prescribes the findings for a provisional construction permit. It must be found that the applicant has described the proposed design of the facility, including but not limited to the principal architectural and engineering criteria for the design, and has identified the major features on which further technical information is required; that this technical information will be supplied; and that the applicant has proposed and will conduct a research and development program reasonably designed to resolve any safety questions requiring research and development. It must also be found that on the basis of these findings there is reasonable assurance that the safety questions will be satisfactorily resolved and that the proposed facility can be constructed and operated at the site selected without undue risk to public health and safety. It is thus apparent that Section 50.35 does not require that all design details of the facility must be supplied, nor that at the construction permit stage every safety question shall actually have been satisfactorily resolved." In the Matter of Jersey Central Power & Light Company, Dkt. No. 50-219, Decision of AEC (5/6/65)

In 1966, the AEC quoted its 1965 decision and stated:

"The foregoing reflects the long-standing approach of the Commission's regulatory process. This approach has received favorable judicial review by the United States Supreme Court (. . .) and has been carefully reviewed by the Congress through the Joint Committee on Atomic Energy. (. . .)" In the Matter of Consolidated Edison Company of New York, Inc., Dkt. No. 50-247, Memorandum and Order AEC (12/20/66)

The Boards have, on numerous occasions, issued decisions authorizing the issuance of construction permits pursuant to these regulations while recognizing, specifically, that additional information relating to the design and features of the plant were yet to be furnished by the applicant. [e.g., In the Matter of Public Service Electric and Gas

Company, Dkt. Nos. 50-273, 50-311, (9/24/68); In the Matter of Arkansas Power and Light Company, Dkt. No. 313 (12/4/68); In the Matter of Commonwealth Edison Company, Dkt. Nos. 50-295, 50-304; In the Matter of Indiana & Michigan Electric Company, Dkt. Nos. 50-315, 50-316 (3/21/69) and In the Matter of Florida Power & Light Company, Dkt. No. 50-335 (6/30/70)]

The AEC regulatory process has been subjected to Congressional review and scrutiny on a number of occasions. JCAE Staff Study, Improving the Regulatory Process, March 1961; JCAE Hearings June 1961; JCAE Hearing on AEC Regulatory Problems, April 17, 1962; JCAE Hearings on Licensing and Regulation of Nuclear Reactors, Parts I and II, April, May and September 1967. In these reviews many discussions were had concerning the Commission's two-step review process. In 1967, Commissioner Ramey specifically informed the JCAE that the PRDC case ". . . cover[s] the two-part licensing process, the construction permit and the operating license" and that that decision was precedent for the present regulations.* This statement was not questioned and on no occasion has the JCAE questioned the legality or adequacy of the AEC regulations.

The procedure of issuing construction permits prior to the completion of final design is necessitated, as a practical matter, by the nature of nuclear technology. As noted by the Supreme Court in the PRDC decision supra:

"For nuclear reactors are fast-developing and fast-changing. What is up to date now may not, probably will not, be as acceptable tomorrow. Problems which seem insuperable now may be solved tomorrow, perhaps in the very process of construction itself." PRDC v. Electrical Workers, supra, p. 408

*1967 Hearings, p. 191

Moreover the regulatory approach reflected in Section 50.35 of regulations was considered and approved by the Supreme Court in connection with an earlier version of Section 50.35. The Court held:

"We think the great weight of the argument supports the position . . . that Reg. 50.35 permits the Commission to defer a definitive safety finding until operation is actually licensed. The words of the regulation themselves certainly lean strongly in that direction. The first finding [on the construction permit] is to be made, by definition, on the basis of incomplete information" (p. 407)

For the reasons stated herein, Intervenor's Motion No. 2 should be denied.

MOTION NO. 3(b)

Intervenors' Motion 3(b) alleges that the Notice of Hearing is "illegal, inadequate and insufficient" in that the Act requires the Commission "to regulate and control all uses of all forms of atomic energy" and under the Act, the Commission's regulatory obligation may not be limited to radiological effects. Intervenors' counsel asserts that "energy produced in the course of nuclear transformation includes both heat and radiation" and that the AEC must therefore, under the Act, regulate thermal effects in the Tittabawassee River as well as other, unspecified, effects of the nuclear reaction. (Transcript, p. 377)

Intervenors' counsel states that this is an issue "which has been the subject of some debate in other cases" and further that it is "an old issue but one I want to return to." (Transcript pp. 377 & 378) The issue is, indeed, one that has been heard in "other cases" and "an old issue." It was raised by counsel for Intervenors, Saginaw Valley Nuclear Study Group, et al, on behalf of another intervenor in the Palisades case (Docket No. 50-255), a matter involving the same applicant. Although in Palisades the issue was limited to thermal effects, the question is the same; namely, under the Act, is the Commission required to consider matters other than radiological effects in evaluating the health and safety aspects of proposed licensing actions? The Board, in Palisades, relying on Commission policy statements, court decisions, and consistent Commission decisions ruled against intervenors. Nothing has occurred in the interim by way of amendments to the Act, the Commission's regulations or decisions, or decisions of the courts to warrant a different result in this proceeding.

Because of the similarity between the issues raised in the Palisades proceeding and Intervenor's Motion No. 3(b) herein and, in the interest of expediting consideration of this matter, we shall not repeat the argument made by Applicant in the earlier case, but only present a summary. Attached hereto, following this section of the brief, is a copy of Applicant's brief on this matter in the Palisades case which contains extensive documentation on the actions of the Congress, the Commission and the courts, all of which establish conclusively that the Commission's regulatory authority under the Act is limited to matters of radiological health and safety.

At the outset, it should be pointed out that under the Act, the AEC does not regulate "atomic energy" but instead regulates defined classes of facilities and materials. A review of the Act and its legislative history leaves no doubt on this point. (See Palisades brief, pp. 1-8.) Arguing to the contrary in Palisades, Intervenor's contended that thermal energy is within the definition of "atomic energy" in Section 11 c. of the Act and is therefore a proper subject for regulation by the Commission. The argument is without merit and, as noted above, was rejected by the Palisades Board.

With respect to the defined classes of facilities and materials for which AEC has regulatory responsibility, the Commission's obligation under the Act is to regulate for the purpose of protecting the health and safety of the public.* The substantive scope of the Commission's authority must therefore be determined by reference to the meaning of "public health and safety" as that standard is expressed in the Act.

*See, for example, Sections 53 b., 63 b., 81, 103 d., 104 b., 104 d., 161 b., 161 i., and 161 p.

The legislative history of the Act makes clear that the Commission's regulatory authority under the Act encompasses only radiological considerations. As noted by the Court of Appeals for the First Circuit:

"The history of the 1954 legislation reveals that Congress, in thinking of the public's health and safety, had in mind only the special hazards of radioactivity."*

The scope and purpose of AEC's regulatory program has been the subject of review on several occasions by the Joint Committee on Atomic Energy (JCAE). The essential limitation on the purposes for which the Commission may regulate under the Act are perhaps best summarized in a 1957 JCAE study of the regulatory process:

"In authorizing a program of private development in 1954, Congress concluded that such activity must be made subject to stringent Government regulation in the interest of the common defense and security and the public health and safety.

"The special problem of safety in the atomic field is the consequence of the hazards created by potentially harmful radiations attendant upon atomic energy operations. These hazards arise at many stages in the chain of production and utilization of special nuclear materials, including fuel fabrication, reactor operation, fuel reprocessing and the disposal of radioactive wastes. In power development activities, the hazard of principal concern relates to the operation of nuclear reactors and associated facilities, and the possibility of widespread damage from a reactor accident involving the release of substantial quantities of radioactive material."

* * * * *

"A major objective of the Commission's regulatory program is the protection of the health, safety, and property of the public, both those who are operating the facility, and those who live in the

*New Hampshire v. AEC, 406 F. 2d. 170, at pp. 173-74 (1st Cir. 1969)

environs, against the potential hazard resulting from the escape of radioactive materials from a nuclear energy facility." (Emphasis added.)

(JCAE Print, "A Study of AEC Procedures and Organization in the Licensing of Reactor Facilities" April 1957, 85th Cong. 1st Sess., pp. 4 and 105)

There are other instances, too numerous to mention, in which Congress has expressly recognized that the Commission in implementing its responsibility for the protection of the public health and safety, is limited to the consideration of radiological effects.*

Moreover, the Commission with the full knowledge of the Congress, and consistent with the legislative history of the Act, has established a regulatory program and interpreted its jurisdiction in a manner confined solely to radiological hazards. Part 50 of the Commission's regulations dealing with the licensing of utilization facilities as well as Parts 20, 70 and 100 are confined solely to radiological hazards. Acting under these regulations, the evaluation conducted by the Commission staff, the ACRS, and the Commission itself with respect to applications for licenses for nuclear reactors is confined to matters bearing on radiological safety.

The Commission has spoken to this matter on repeated occasions in previous licensing proceedings. In the Matter of Vermont Yankee Nuclear Power Corporation the Commission stated:

"In line with our understanding of the authority respecting public health and safety matters which the Act confers upon the Commission, we have consistently

*H. Rept. No. 1125, 86th Cong., 1st Sess., p. 12 (1959);
 Sen. Rept. No. 390, 89th Cong., 1st Sess., pp. 9-10 (1965);
 Sen. Rept. No. 567, 89th Cong., 1st Sess., p. 4 (1965);
 See Also, Appendix , pp. 10-15.

interpreted the Act as confining that authority to considerations of radiological health and safety."*

The Commission's determination in Vermont Yankee was reviewed in the courts where, after an exhaustive examination of the Act, its definitional sections and legislative history, and the regulatory scheme established by the Commission and approved by the Congress, it was held that in licensing nuclear facilities, the Commission, under the Act, has no jurisdiction to consider other than radiological effects.**

In considering an argument essentially the same as the argument made here and in rejecting it in the Palisades proceeding, the ASLB stated:

"The Board is committed to compliance with the Court decisions and Commission determinations, and the arguments for a change in the Commission's position are not adequate to warrant referral of this ruling to the Commission for further consideration."

Intervenors' Motion No. 3 should be denied.

*See, to the same effect, Matter of Jersey Central Power and Light Company, (Docket No. 50-219), 2 AEC 446 at 447 (1964), aff'd. by Commission, 3 AEC 20 (1965); Matter of Consolidated Edison Company of New York, Inc., (Docket No. 50-3), 3 AEC 62 at 65 (1965); See also Appendix A, pp. 15-19.

**New Hampshire v. AEC, 406 F. 2d. 170, at pp. 173-74 (1st Cir. 1969).

UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

In the Matter of
CONSUMERS POWER COMPANY
(Palisades Plant)

)
)
)
)
)

Docket No. 50-255

APPLICANT'S BRIEF TO SUPPORT
DENIAL OF
INTERVENORS' MOTION NO. 1

INTRODUCTION

Intervenors argue that the definition of "atomic energy" (Atomic Energy Act of 1954, Sec. 11c) includes the thermal energy released in the course of a nuclear reaction in a utilization facility. For this reason, Intervenors contend the AEC must consider and evaluate potential thermal effects in considering whether to issue a license for operation of a nuclear power reactor.

The definition of "atomic energy", as shown from an examination of the statute and the legislative history, serves only to define the classes of facilities and materials subject to the Act; it does not describe the purposes for which the Commission may exercise its regulatory authority with respect to such facilities and materials. With respect to a utilization facility of the type under consideration in this proceeding,

the purposes for which the Commission may exercise its regulatory authority are spelled out in other parts of the Act, most particularly the provisions of Sections 104(b) and 182. These provisions, the legislative history of the Act and subsequent Congressional interpretations of the Act, make it clear that the scope of AEC's regulatory authority is limited to matters of radiological health and safety and does not include thermal effects. This conclusion has been presented repeatedly by the Commission to the Joint Committee on Atomic Energy without disapproval by the latter and has been concurred in by the Justice Department.

There is no novelty in Intervenor's argument; the Commission and the Courts in arriving at the determination that AEC does not have jurisdiction over thermal effects have referred specifically in their respective opinions to the definitional sections of the Atomic Energy Act of 1954.

- I. The term "atomic energy" as defined in the Atomic Energy Act of 1954 describes the classes of facilities and materials subject to the Act but not the purposes for which the Commission may regulate such materials and facilities.

The term "atomic energy" was defined in Section 18(a) of the Atomic Energy Act of 1946 to mean:

"all forms of energy released in the course of or as a result of nuclear fission or nuclear transformation."

This definition was important in determining the activities subject to regulation by the Commission. The Act required that licenses be obtained for "equipment or devices utilizing . . . atomic energy' and also for other activities involving the use of "atomic energy" itself. Thus, Section 7(a) provided:

"(a) License Required-- It shall be unlawful, except as provided in sections 5(a)(4)(A) or (B) or 6(a), for any person to manufacture, produce, or export any equipment or device utilizing fissionable material or atomic energy or to utilize fissionable material or atomic energy with or without such equipment or device, except under and in accordance with a license issued by the Commission" (Emphasis added.)

The licensing scheme of the 1946 Act which provided for AEC regulation of "atomic energy" was carried over to the early drafts of the 1954 Act. In an early version of the legislation introduced by Congressman Cole on April 15, 1954, as H.R. 8862, 83d Cong., 2d Sess. (1 Leg. Hist. 105*) the sections of the bill describing the activities subject to the Commission's regulatory authority provided for the licensing of "atomic energy". Thus Section 103 provided

"Issuance of Licenses-- After such ninety-day period, unless hereafter prohibited by law, the Commission may issue licenses to engage in such type of manufacture, production, transportation, or receipt in interstate commerce or import, export, or use of special material or atomic energy within the United States in accordance with such procedures and subject to such conditions as it may by regulation establish to effectuate the provisions of this Act."

* The legislative history of the Atomic Energy Act of 1954 has been compiled in three volumes by the AEC (1955) and is cited herein as "Leg. Hist."

The obvious problem created by a statutory scheme involving the licensing of "atomic energy" itself was addressed in a letter from Jerome K. Kuykendall, the Chairman of the Federal Power Commission, to Congressman Holifield. Mr. Kuykendall stated:

"A further problem arises from the draftsmanship of sections 103 and 11(b) of the Cole-Hickenlooper bill (H.R. 8862, 83d Con. 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 FPC. There seems to be no reason why this cannot be avoided by a slight change in the wording of sections 103 and 11(b):" (Hearings Before the JCAE, Part II of Two Parts, June 2, 3, 4, 5, 7, 17 & 18, 1954, 83d Cong. 2d Sess. p. 1125, II Leg. Hist. pp. 2763-64)

The committee revised the provisions of the bill describing the activities subject to the Commission's regulatory authority to make it clear that certain types of facilities and materials, but not atomic energy, were subject to licensing requirements. This revision represented a substantial departure from the regulatory scheme which was provided in the 1946 Act and the early drafts of the 1954 Act. The 1954 Act represented the considered judgment of the drafters of the legislation that "atomic energy", as such, was not to be the subject of the regulatory authority exercised by the Atomic Energy Commission.

The definition of "atomic energy" did, however, have an important bearing in defining the facilities and materials subject to AEC's regulatory authority and concern was expressed by several witnesses before the Committee that the definition was excessively broad and might "sweep in" activities and devices which should not be subject to the Act. Thus in testimony by Dr. William A. Higintotham, a member of the Executive Committee of the Federation of American Scientists, the point was made:

"(T)his (the term 'atomic energy') is used in other sections of the act, such as sections 101, 102, and 105, where the Commission is directed to control, as I recall, the devices and research and so on, which make use of special material and atomic energy, as defined here. This, as I say, is something which is a definition which exists at the present time, and it has not been interpreted to be as broad as it might be, but if one were strictly literal about this, it seems to me that the Commission would be required to license everyone that made use of radium in therapy for example. And I am sure that this is not the intent."
(Emphasis added.) (Hearings Before the JCAE, Part I of Two Parts, May 10, 11, 12, 13, 14, 17, 18 and 19, 1954, 83d Cong. 2d Sess., p. 387, II Leg. Hist. p. 2021)

The Joint Committee responded to the concern expressed by the witnesses before it regarding the breadth of the definition. It recommended, and the Congress approved, a revised definition of "atomic energy" in Section 11c of the Act as follows:

"The term 'atomic energy' means all forms of energy released in the course of nuclear fission or nuclear transformation."

Congress eliminated the phrase "or as a result of" which had been included in the 1946 Act and in the early versions of the 1954 legislation. Since the 1954 Act, unlike its predecessor, did not provide for the licensing of "atomic energy", the definitional change had no direct effect on the Commission's regulatory jurisdiction. The change did, however, have the indirect effect of limiting the types of devices and materials subject to the Act since the definition, as noted below, was used in further defining the terms "utilization facility" and "special nuclear material." As the Joint Committee explained, the narrower definition clarified the intended scope of the Act:

"Section 113: '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 [1946 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." (Sen. Rept. No. 1699, 83d Cong. 2d Sess., p. 11 (1954), I Leg. Hist. p. 759)

Congress' sole purpose in defining "atomic energy" in connection with the regulatory provisions of the Act is very clear. Since by explicit Congressional action atomic energy per se is not subject to AEC regulatory authority, the definition serves only to describe the facilities and materials subject to the Act. For example, the term "atomic energy" is an

essential and integral part of the definition of "utilization facility" in Section 11 cc:

"cc. The term 'utilization facility' means (1) any equipment or device, except an atomic weapon, determined by rule of the Commission to be capable of making use 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 peculiarly adapted for making use of atomic energy 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 (2) any important component part especially designed for such equipment or device as determined by the Commission."

And in Section 51 the term is used to define special nuclear material:

"Special Nuclear Material.--The Commission may determine from time to time that other material is special nuclear material in addition to that specified in the definition as 'special nuclear material'. Before making any such determination, the Commission must find that such material is capable of releasing substantial quantities of atomic energy and must find that the determination that such material is special nuclear material is in the interest of the common defense and security, and the President must have expressly assented in writing to the determination. The Commission's determination, together with the assent of the President, shall be submitted to the Joint Committee and a period of thirty days shall elapse while Congress is in session (in computing such thirty days, there shall be excluded the days on which either House is not in session because of an adjournment for more than three days) before the determination of the Commission may become effective: Provided, however, That the Joint Committee, after having received such determination, may by resolution in writing, waive the conditions of or all or any portion of such thirty-day period."

Bearing in mind that "atomic energy" is not subject to AEC licensing but rather that the facilities and materials it helps to define are the subject of the Commission's jurisdiction, one must look to other sections of the Act to determine the purposes for which the Commission may regulate such materials and facilities. This matter is addressed below.

II. Consideration of thermal effects resulting from the operation of utilization facilities is not within the purpose of the Commission's authority to protect the public health and safety under the Atomic Energy Act of 1954.

A. Public Health and Safety

The substantive provisions affecting the Commission's regulatory jurisdiction with respect to utilization facilities, as noted above, are contained in Chapters 10 and 16 of the Atomic Energy Act of 1954. Section 104(b) (Chapter 10) requires the Commission to "impose . . . regulations and terms of license as will permit the Commission to fulfill its obligations . . . to protect the health and safety of the public . . ." Section 182 (Chapter 16) sets forth essentially the same standard:

"a...In connection with applications for licenses to operate production or utilization facilities, the applicant shall state such technical specifications, including information of the amount, kind, and source of special nuclear material required, the place of the use, the specific

characteristics of the facility, and such other information as the Commission may, by rule or regulation, deem necessary in order to enable it to find that the utilization or production of special nuclear material will be in accord with the common defense and security and will provide adequate protection to the health and safety of the public." (Emphasis added.)

The Commission's regulatory authority must, therefore, be determined by reference to the meaning of "public health and safety" as that standard is expressed in Sections 104(b) and 182 of the Act.* Although the term is not defined in the Act, the legislative history and subsequent Congressional pronouncements make clear that the Commission's responsibility for the protection of the public health and safety is limited to radiological effects--the Commission's "special area of competence" and the "special problem" associated with the construction and operation of nuclear facilities.

B. Legislative History

AEC Chairman Strauss, testifying before the Joint Committee on the regulatory provisions of the 1954 legislation, stated that the Commission's responsibilities should be limited

* The concern with public health and safety is also evident in the provisions of the Act which establish licensing requirements for nuclear materials and facilities, all of which state as a cardinal consideration consistency with the health and safety of the public. See, Sections 53b., 63b., 81, 103d., 104d., 161b., 161i., and 161p.

to its areas of "special competence" which he stated to be "the review of design criteria, the supervision of construction, and decisions on the technical qualifications of applicants, and on security safeguards." (Hearings Before the JCAE, Part II of Two Parts, June 2, 3, 4, 5, 8, 17, and 18, 1954, 83d Cong. 2d Sess. p. 596, II Leg. Hist., p. 2234) During the course of floor debates, this statement was quoted with approval by Senator Anderson, one of the chief architects of the proposed legislation (100 Cong. Rec. 10079, July 15, 1954, III Leg. Hist. p. 3103).

The legislative history of the 1954 Act was reviewed by the Court of Appeals in New Hampshire v. Atomic Energy Commission, 406 F. 2d 170 (1st cir 1969). The court concluded at p. 174:

"The history of the 1954 legislation reveals that the Congress, in thinking of the public's health and safety, had in mind only the special hazards of radioactivity."

C. Subsequent Congressional Interpretations

Following the passage of the Act the question of the AEC's regulatory authority was the subject of review by the JCAE on several occasions. On each occasion the JCAE stated that the purpose of the AEC's regulatory program was to protect the public health and safety from radiological hazards.

The special safety problem in the atomic field was

perhaps best described in a 1957 study of the Joint Committee on Atomic Energy where the scope of the Commission's regulatory jurisdiction was described in the following terms:

"In authorizing a program of private development in 1954, Congress concluded that such activity must be made subject to stringent Government regulation in the interest of the common defense and security and the public health and safety.

"The special problem of safety in the atomic field is the consequence of the hazards created by potentially harmful radiations attendant upon atomic energy operations. These hazards arise at many stages in the chain of production and utilization of special nuclear materials, including fuel fabrication, reactor operation, fuel reprocessing and the disposal of radioactive wastes. In power development activities, the hazard of principal concern relates to the operation of nuclear reactors and associated facilities, and the possibility of widespread damage from a reactor accident involving the release of substantial quantities of radioactive material."

* * *

"A major objective of the Commission's regulatory program is the protection of the health, safety, and property of the public, both those who are operating the facility, and those who live in the environs, against the potential hazard resulting from the escape of radioactive materials from a nuclear energy facility." (Emphasis added.) (JCAE Print, "A Study of AEC Procedures and Organization in the Licensing of Reactor Facilities" April 1957, 85th Cong. 1st Sess., pp. 4 and 105)

The limited scope of the Commission's jurisdiction was reaffirmed in 1959 in the course of the Joint Committee's consideration of the so-called "federal-state amendments" to the Atomic Energy Act of 1954 (P.L. 86-373). The amendments permitted the states to regulate certain nuclear activities, reserving to the Commission, inter alia, regulation of the construction and operation of utilization facilities (Sec. 274 c.). However Congress specifically recognized that this reservation did not affect the existing role of the states in the regulation of utilization facilities for nonradiological health and safety matters. Thus Section 274 k. provides:

"Nothing in this section shall be construed to affect the authority of any State or local agency to regulate activities for purposes other than protection against radiation hazards."

The Joint Committee report on the legislation explains that the Commission is to have "exclusive authority to regulate for protection against radiation hazards" but this "does not impair the State authority to regulate activities of AEC licensees for the manifold health, safety and economic purposes other than radiation protection." (H. Rept. No. 1125, 86th Cong., 1st Sess., p. 12 (1959))

In 1965, in the course of considering legislation to amend Section 271* of the Act to clarify the authority of

* As enacted in 1954, Section 271 of the Atomic Energy Act provided:

"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."

In 1963-64 several local governmental units in California, utilizing their zoning power, attempted to prevent the construction of overhead electric generating transmission lines to the Stanford Linear Accelerator, a Commission-owned facility. Condemnation actions were thereafter instituted by the Department of Justice on behalf of the AEC.

In the ensuing litigation the Court of Appeals for the 9th Circuit, ruling against the Commission, held that § 271 subjected the AEC itself to the authority and regulations of Federal, State and local agencies with respect to the generation, sale or transmission of electric power. Maun v. United States, 347 F. 2d 970 (9th Cir. 1965)

In response to the holding of the Court of Appeals legislation was introduced and enacted in the 89th Congress (Public Law 89-135) amending Section 271 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 Federal, State, or local agency any authority to regulate, control, or restrict any activities of the Commission." (amendment in italics)

The purpose of the amendment was to make it clear that Section 271 did not provide a basis for the regulation of proprietary Commission activities by State and local governments. At the same time the amendment reaffirmed the intent of the drafters of the 1954 legislation that the Atomic Energy Act was not to be construed as a limitation on the authority of Federal, State or local agencies to regulate Commission-licensed activities for purposes other than radiological hazards. (Sen. Rept. No. 390, July 30, 1965, pp. 9-10)

other agencies to regulate or control Commission activities, the Joint Committee again took the occasion to state emphatically that the Commission's jurisdiction was limited "to the special hazard" presented by nuclear activities:

"The Atomic Energy Act of 1954 established the framework for significant private participation in the development of 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 . . . 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 . . . 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 . . . 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."
(Emphasis added.) (Sen. Rept. No. 567, 89th Cong., 1st Sess., p. 4 (1965))

The pattern so often reflected in Congressional consideration of the scope of the Commission's jurisdiction is evident here again. The Commission's jurisdiction is limited to the "special hazards" involved in the operation of nuclear facilities, i.e., radiological hazards; the authority of other government bodies over nonradiological matters is unaffected.

D. Commission Regulations and Adjudications

It must also be noted that the Commission, with the full knowledge of Congress, and consistent with the legislative history of the 1954 Act, has interpreted its regulatory jurisdiction and established a regulatory program in a manner confined solely to radiological hazards. The regulations promulgated by the Commission in 10 CFR Part 50 ("Licensing of Production and Utilization Facilities") provide the basic framework for the licensing of nuclear reactors and establish health and safety standards dealing exclusively with radiological hazards. Additional regulations relating exclusively to radiological hazards in connection with the licensing of

nuclear reactors are contained in 10 CFR Parts 20, 70 and 100.*

* Until April 2, 1970, the Commission's regulations in 10 CFR Part 2, Appendix A, III (c)(7), did not permit the consideration of thermal effects in regulatory proceedings:

"(7) Objections may be made by counsel to any questions or any line of questioning, and should be ruled upon by the board. The board may admit the testimony, may sustain the objection, or may receive the testimony, reserving for later determination the question of admissibility. In passing on objections, the board, while not bound to view proffered testimony according to its admissibility under strict application of the rules of evidence in judicial proceedings, should exclude testimony that is clearly irrelevant to issues in the case, or that pertains to matters outside the jurisdiction of the board or the Atomic Energy Commission. Examples of matters which are considered irrelevant to the issues in the case or outside the jurisdiction of the board or the Atomic Energy Commission include the thermal effects (as opposed to the radiological effects) of the facility operation on the environment; the effect of the construction of the facility on the recreational, economic or political activities of the area near the site; and matters of aesthetics with respect to the proposed construction. Irrelevant material in prepared testimony submitted in advance under Sec. 2.743(b) may be subject to a motion to strike under the procedures provided in Sec. 2.730."
(Emphasis added.)

The fourth sentence of this provision was deleted on April 2, 1970, 35 Fed. Reg. 5463, as part of the Commission's implementation of the National Environmental Policy Act of 1969, P.L. 91-190. Whether or not thermal effects must be considered under that Act will be discussed in Applicant's response to Intervenor's brief on Motion No. 3.

Acting under these regulations, the information requested by the Commission and the evaluation made by the Commission staff, the Advisory Committee on Reactor Safeguards, and the Commission itself with respect to applications for license for utilization facilities, is confined to matters bearing on radiological health and safety.

Consistent with the foregoing, the Commission, in licensing proceedings has confined the application of the public health and safety standard to matters of radiological health and safety, excluding nonradiological factors such as thermal effects as being beyond the Commission's jurisdiction. For example in Matter of Jersey Central Power and Light Company, Docket No. 50-219, 2 AEC 446 at 447 (1964) aff'd by the Commission, 3 AEC 28 (1965), the Atomic Safety and Licensing Board stated:

"The thermal effects and salt water intrusion possibilities were not considered by the Atomic Safety and Licensing Board in view of the limits of its and the Commission's jurisdiction."

This same position was taken by the Commission in Matter of Consolidated Edison Company of New York, Inc., Docket No. 50-3, 3 AEC 62 at 63 (1965) where the Commission denied intervention where the petition to intervene alleged only thermal pollution considerations. Finally in Matter of Vermont Yankee Nuclear Power Corporation, Docket No. 50-271, 2 Atomic Energy L. Rep.

Par. 11,267, at p. 17,503-14 and 15 (1968), the Commission said:

"In line with our understanding of the authority respecting public health and safety matters which the Act confers upon the Commission, we have consistently interpreted the Act as confining that authority to considerations of radiological health and safety. The provisions of 10 CFR Part 50, which set forth criteria for the issuance of licenses for production and utilization facilities, establish, insofar as public health and safety is concerned, standards which relate to assurance of protection against radiological hazards. (See also, 10 CFR Parts 20, 70 and 100.)"

These Commission regulations and adjudicatory determinations have been brought to the attention of the Joint Committee on Atomic Energy, which has statutory responsibility for reviewing the activities of the AEC. The Commission's consistent interpretation of its governing statute and regulations should be given controlling weight by this Board consistent with the holding of the Supreme Court in Power Reactor Development Company v. International Union of Electrical Workers, 367 U.S. 396, where it was stated:

". . . We see no reason why we should not accord to the Commission's interpretation of its own regulation and governing statute that respect which is customarily given a practical administrative construction of a disputed provision. Particularly is this respect due when the administrative practice at stake 'involves a contemporaneous construction of a statute by the men charged with the responsibility of setting its machinery in motion, of making the parts work efficiently and smoothly while they are yet untried and new.' Norwegian Nitrogen Products Co. v. United States, 288 U.S. 294, 315 (1933). And finally, and perhaps demanding particular weight, this construction has time and again been brought to the attention of the Joint Committee of Congress on Atomic Energy, which

under Sec. 202 of the Act, 42 USC Sec. 2252, has a special duty to 'conduct hearings in either open or executive session for the purpose of receiving information concerning the development, growth, and state of the atomic energy industry', and to oversee the operations of the AEC It may often be shaky business to attribute significance to the inaction of Congress, but under these circumstances, and considering especially the peculiar responsibility and place of the Joint Committee on Atomic Energy in the statutory scheme, we think it fair to read this history as a de facto acquiescence in and ratification of the Commission's licensing procedure by Congress" (Id at 408-09)

E. Thermal Effects Legislation

Finally, it is perhaps dispositive of Intervenors' arguments to refer to recent Congressional consideration of legislation to regulate the thermal effects of electric plants. In 1968 a number of bills were introduced in Congress dealing with the thermal effects of the operation of industrial facilities, including nuclear and non-nuclear electric generating plants. The Joint Committee held hearings on these bills in the spring of 1968 (Hearings Before the JCAE on "Participation by Small Electrical Utilities in Nuclear Power, Part 1", April 30, May 1, 2 and 3, 1968; Part 2, June 11, 12 and 13, 1968). During these hearings there was extensive discussion concerning AEC's lack of authority to regulate thermal discharges. AEC Commissioner Ramey testified, for example:

"The Commission does not have regulatory jurisdiction over the thermal effects of cooling water discharged by nuclear plants. Because the Commission's legal conclusion on this point has been questioned, we sought confirmation of our view from the Department of Justice. The Department has provided us with such confirmation.

"They concluded, as we had earlier, that the Commission does not have the statutory authority to impose restrictions regarding so-called thermal pollution caused by discharges from nuclear powerplants licensed by the Commission." (JCAE Hearings, p. 11)

Following the hearings, members of the JCAE, based on their understanding and AEC testimony that the AEC did not have jurisdiction to regulate thermal effects of the release of liquid effluents from nuclear reactors, introduced H.R. 18667 and S. 3851 (identical bills) which would have amended the Atomic Energy Act to expand AEC's regulatory authority to include thermal effects. These bills failed of enactment. The fact of their introduction, however, as well as the record of the hearing, in our view, make clear that Congress has explicitly recognized the limitations on the Commission's authority with respect to thermal effects under the 1954 Act.

F. Department of Justice Opinion

Moreover, during the same 1968 Congressional hearings an opinion of the Department of Justice on the issue of the

Commission's jurisdiction over thermal effects was made a part of the record. This opinion concluded:

"In our view, neither the Atomic Energy nor the Federal Water Pollution Control Act authorizes the Atomic Energy Commission to require its licensees to conform to standards relating to water, and we know of no other source for such authority." (JCAE Hearings, pp. 252-53)

In reaching this conclusion, the opinion states:

"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 considerations 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." (JCAE Hearings, pp. 250-51)

G. Judicial Consideration

Finally, the question of the Commission's jurisdiction over thermal effects has been the subject of judicial consideration. In New Hampshire v. Atomic Energy Commission, 406 F.2d 170 (1st Cir. 1969) the Court of Appeals for the 1st Circuit, after reviewing the 1954 Act and its legislative history, the subsequent interpretations of the Act by the Joint Committee, and the consistent interpretations of the Act by the AEC, concluded:

"(I)n enacting the Atomic Energy Act of 1946 and 1954, in overseeing its administration, and in considering amendments, the Congress has viewed the responsibility of the Commission as being confined to scrutiny of and protection against hazards from radiation."

Few questions concerning the scope of AEC's regulatory authority have received as much sustained scrutiny in the Congress, the courts and the Executive Branch as the matter of thermal effects. It is now well settled law reflected in decisions of the courts and the Commission and the statements of Congress that the Commission has no jurisdiction under the Atomic Energy Act of 1954 to consider thermal effects.

III. Intervenors' argument raises no novel consideration which warrants re-examination of the conclusion reached by the Commission and the courts that AEC has no jurisdiction over thermal effects.

As noted above, the Congress, the Commission and the courts have consistently concluded that the AEC has no jurisdiction with respect to the thermal effects resulting from the operation of utilization facilities.

Intervenors' argument with respect to the definition of "atomic energy", for the reasons noted in I., above, is without merit. Moreover, it is a part of an argument advanced and rejected on previous occasions by the Commission and the courts.

In the Commission's Memorandum and Order in the Vermont Yankee case (Matter of Vermont Yankee Nuclear Power Corporation, Docket No. 50-271, 2 Atomic Energy L. Rep. Par. 11,267 (1968)), the Commission expressly referred to its examination of the

"definitional sections" of the Act in reaching its conclusion that it had no jurisdiction with respect to thermal effects:

"Stated in other terms, the Commission's regulatory authority in the health and safety areas is limited under the Act to matters of radiological health and safety. That such is the purport of the Act is reflected in its 'Findings' and 'Purpose' (Sections 2 and 3) and in the relevant statutory definitions (see, e.g. Section 11 v. and cc.)." (2 Atomic Energy L. Rep. at p. 17,503-14)

It is especially important to note that one of the definitional sections referred to by the Commission is Section 11 cc.*, a definition which, in turn, incorporates the definition of "atomic energy" in Section 11 c.

The court, in the Vermont Yankee decision referred to above, likewise emphasized its examination of the definitional sections of the Act as follows:

"The Atomic Energy Act itself is replete with many references to 'health and safety of the public'. But in its section on definitions, defining twenty-nine terms, 42 U.S.C. Sec. 2014, including 'common defense and security', any attempt to delimit 'health' and 'safety' of the public is singularly in absentia. There is therefore considerable appeal to New Hampshire's plea that we ascribe to these terms their present day plain meaning, which would not exclude all of the alleged adverse effects attributed to thermal pollution

"Tempting as it may be, we do not presently feel that we fulfill our function responsibly by simply referring to the dictionary.

#

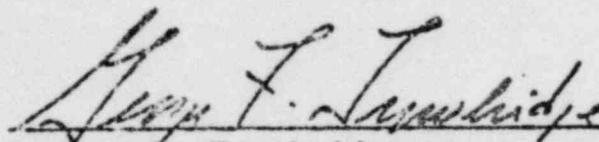
* The definition of "utilization facility" in Section 11 cc. of the Act is set forth at p. 7 of this brief.

"Here we feel a very palpable restriction in the history surrounding the problem addressed by the Congress, the subsequent Congressional confirmation of the limited approach taken by the Commission, the contemporary efforts in the Congress to broaden that approach, and a recognition of the complexity of administrative arrangements which would attend a literal definition of public health and safety as these terms are used in the Atomic Energy Act.

"The history of the 1954 legislation reveals that the Congress, in thinking of the public's health and safety, had in mind only the special hazards of radioactivity." (New Hampshire v. AEC, 406 F.2d 170, at pp. 173-74 (1st Cir. 1969))

There is thus neither novelty nor merit in Intervenor's contention.

Applicant respectfully requests that Intervenor's Motion No. 1 be denied.



George F. Trowbridge
Shaw, Pittman, Fotts, Trowbridge & Madden
910 Seventeenth Street, N.W.
Washington, D.C. 20006

Attorney for Applicant

Dated: July 7, 1970

MOTION NO. 3(c)

Intervenors' Motion No. 3(c) asserts that the Notice of Hearing is defective in that it fails to include consideration of the "environmental effects resulting from radiological uses." It is apparently Intervenors' contention that the Commission, in determining whether to issue a permit or license, does not take into consideration an essential aspect for the "protection of health;" namely, radiological effects on the environment.* This position reflects a misunderstanding of the Notice of Hearing and the Commission's regulations for the licensing of nuclear facilities.

The Notice of Hearing, on its face, requires the Board to make a series of findings involving both the safety and health of the public. See Items 1 (a), 1 (d) and 4 as specified in the Notice of Hearing.

It should be noted that applicant must demonstrate as part of its showing in support of the findings to be made by the Board that there is "reasonable assurance" that the facility and equipment "will comply with the regulations in this Chapter, including the regulations in Part 20"** Part 20 sets forth the AEC's "Standards for Protection Against Radiation." As noted in the answer to Intervenors' Motion No. 7, Part 20, which is based on the recommendations of distinguished national and international groups, sets forth limits on releases of radioactivity

*Intervenors' counsel stated at the hearing on December 1, 1970, (Tr. p. 378):
 ". . . [O]ne of the findings . . . in the Notice of Hearing [is] that there is reasonable assurance that it will be safe and can be operated without undue risk to the health and safety of the public. . . ., I think that safety is but one of the Commission's obligations, and protection of the health is the other. And what I'm saying is that the word 'health' in a fashion includes the health of people who live in the community and therefore solely under the Commission's limited interpretation of its jurisdiction, where it refers to radiological matters, it still must include some environmental evidence"

**10 CFR Part 50.40.

to the environment, taking into account the buildup and accumulation of radioactivity in the environment. In addition, Part 20 standards take into account a variety of significant pathways in the environment through which radioactivity may reach humans.*, **

The environmental effects of radiation are thus already considered in the rules and regulations applicable to the licensing of nuclear facilities. The Notice of Hearing, comprehending as it does, matters of compliance with the rules and regulations of the Commission for the protection of the public health and safety (including Parts 20, 50 and 100), is clearly in accord with the Atomic Energy Act of 1954, as amended.

If, in moving this question, it is the purpose of Intervenors to probe the bases for Part 20 or other Commission regulations, the argument should be rejected since this is not a proper function of the Board. (This question is discussed more fully in the introduction to the brief.)

Motion No. 3(c) does not raise a question of substance for consideration by the Board and, accordingly, should be denied.

*It should also be noted that Applicant's PSAR describes an environmental monitoring program designed to monitor a wide variety of possible radiological effects. PSAR, Amendment No. 5, Item 2.1

**See also 10 CFR Part 100. As noted in the answer to Motion No. 8, Applicant must demonstrate to the satisfaction of the Commission that "taking into consideration the site criteria contained in 10 CFR Part 100" the proposed facility "can be constructed and operated at the proposed location without undue risk to the health and safety of the public." (Notice of Hearing, Item 1 (d)). Included in the consideration of this factor are the calculated doses to offsite populations, a matter clearly related to public health as well as safety considerations.

MOTION NO. 3(d)

Intervenors argue that the "Notice of Hearing is illegal, inadequate and insufficient and is in violation of §§2011 and 2201(p)" of the Act in that Congress has imposed upon the Commission an obligation to protect the health and safety of the public whereas the Notice of Hearing requires a finding that the proposed facility can be constructed and operated at the proposed location without "undue risk to the health and safety of the public." Apparently Intervenors construe the Notice of Hearing as not properly implementing the obligations imposed on the AEC by the Act with respect to the health and safety of the public. Intervenors' construction of the Notice of Hearing is in error.

Various sections of the Atomic Energy Act impose on the Commission the obligation to protect the health and safety of the public. The responsibility for interpreting and implementing the Act has been vested by the Congress in the Atomic Energy Commission.* In the Commission's regulatory process, they have implemented the statutory requirements regarding the health and safety of the public in Commission regulations applicable to nuclear reactors, particularly 10 CFR Parts 20, 50, 70 and 100. Specifically, Section 50.35(a) of the AEC's regulations requires the AEC to find before issuing a construction permit that, among other requirements:

* See Power Reactor Development Corporation ("PRDC") vs. Electrical Workers, 367 U.S. 396, 6 L. Ed 2d 924, 81 S. Ct. 1529 (1961).
See In the Matter of Florida Power & Light Company, Docket Nos. 50-250 and 251, Memorandum and Order of the Commission (Feb. 20, 1967), 2 Atomic Energy Law Reporter Par. 11,259.03.

"There is reasonable assurance that, . . . the proposed facility can be constructed and operated at the proposed location without undue risk to the health and safety of the public."

The AEC's implementation of its health and safety obligations requiring a finding that there is reasonable assurance that the plant can be constructed and operated without undue risk to the health and safety of the public has been considered by the Supreme Court of the United States, which found it to be a valid exercise of the rulemaking power conferred upon the AEC. The AEC in that case had taken the following action pursuant to an earlier version of §50.35(a):

"Admitting that on the basis of the facts before it it was unable to make a definitive finding of safety, the Commission nevertheless found - and respondents do not deny that the finding was supported by substantial evidence - that it had information sufficient to provide reasonable assurance that the general reactor proposed could be operated without undue risk to the health and safety of the public."
Id. p. 933

The Supreme Court stated:

"There is also agreement that the regulation's first required safety finding 'that [the AEC] has information sufficient to provide reasonable assurance that a facility of the general type proposed can be constructed and operated without undue risk to the health and safety of the public,' is a valid exercise of the rulemaking power conferred upon the AEC by statute"*

Thus there is little doubt that the "undue risk" finding required by the Commission regulations and included in the Notice of Hearing in this proceeding is a proper exercise of the Commission's responsibilities with respect to the protection of the public health and safety.

*PRDC vs. Electrical Workers, 367 U.S. 396, 6 L. Ed 2d 924, 81 S. Ct. 1529 (1961).

Since the PRDC decision, the ASLEs have consistently followed the AEC regulations. In the Fort St. Vrain decision the Board stated:

"As we construe the term 'without undue risk,' we are required to find only that--applying the strict standards appropriate to the case--all reasonably foreseeable risks have been provided for, and not that there is no risk whatsoever." In the Matter of Public Service Company of Colorado, 2 Atomic Energy Law Reporter Par. 11,570.01.

In finding that the design of the proposed Malibu plant did not give reasonable assurance that it could be constructed and operated without undue risk, the Board stated:

"The Commission has prescribed that reasonable assurance must be found that no 'undue risk' exists. Obviously, the determination need not be made that there is a guarantee of complete safety. In our view, undue means unreasonable. Both the Department and the Staff cite the case of Power Reactor Development Company v. International Union of Electrical, Radio and Machine Workers, 367 U.S. 396, June 12, 1961 (PRDC), for the contention that reasonable assurance of safety may be required to be established, both at the construction permit stage of the licensing process and before any operating license is issued. The PRDC case, pursuant to the provisions of the Atomic Energy Act, as it was then constituted, endorsed the step by step procedure, with a hearing available at each step, for the determination of reasonable assurance that no undue risk exists." In the Matter of Department of Water and Power of the City of Los Angeles, 2 Atomic Energy Law Reporter, Par. 11,248.01.

The Commission in upholding the Board's decision stated:

"A further comment is in order before we leave this aspect of the case. Both the staff and the applicant have expressed concern that the board, in reaching its determination, has converted our standard of 'reasonable assurance' of no 'undue risk' into one of assurance of absolute safety. We do not take the board's decision to mean this and, if there be a residue of doubt on this point, we wish to make clear that no such implications should be drawn from our action today. As we have stated in the past, both our statute and implementing regulations show that such an absolute guarantee was never contemplated,

and that 'the concept of reasonable assurances of safety must be sensibly, though severely applied'. (In the Matter of Power Reactor Development Company, 1 AEC 65, 73; see also, 1 AEC 128, 147 [2 Atomic Energy Law Reports Par. 11,201].)" (2 Atomic Energy Law Reporter Par. 11,248.02)

Congress has on numerous occasions since the PRDC decision subjected the Commission's regulations to searching review. JCAE Staff Study, Improving the Regulatory Process, March 1961; JCAE Hearings June 1961; JCAE Hearing on AEC Regulatory Problems, April 17, 1962; JCAE Hearings on Licensing and Regulation of Nuclear Reactors, Parts I and II, April, May and September, 1967. In these reviews the concept of a finding of the absence of "undue risk" has been accepted as complying with the Act. In 1967, Representative Hosmer, an experienced member of the JCAE, stated:

"As I see this licensing process and the objectives that are to be achieved, you take them in two steps. One, the technical step in which the general features of the reactor and its parameters and its innards and everything are assessed. Since nothing is absolutely 100 percent safe, including walking down the street, there is always in every activity some element of risk. So, the objective first is to determine what amount of risk exists.

"Then, second is the public policy determination of whether society should accept that amount of risk or should reject it." JCAE Hearings on Licensing and Regulation of Nuclear Reactors, Part I, April 5, 1967, p. 60.

The making of a determination that the proposed facility can be constructed and operated without undue risk to the health and safety of the public is thus clearly a Congressionally accepted and approved procedure.

The responsibility of the Commission with respect to public health and safety in this construction permit proceeding is not fully discharged by its making a finding on the question of undue risk to

public health and safety. The Board, in addition, is required under Item No. 4 of the Notice of Hearing and 10 CFR §2.104 to determine:

"Whether the issuance of a permit for the construction of the facility will be inimical . . . to the health and safety of the public."

Thus a construction permit cannot be issued unless the Board find that (a) there is reasonable assurance that the plant can be constructed and operated without undue risk to the health and safety of the public, and (b) issuance of the permit will not be inimical to the health and safety of the public.

For the foregoing reasons, Intervenor's Motion No. 3(d) should be denied.

MOTIONS NOS. 3(e) AND (f)

Motions Nos. 3(e) and (f) relate to the composition of the Atomic Safety and Licensing Board which has been appointed by the Commission to preside in this proceeding. These motions request that the ASLB disqualify itself on the following grounds:

- Motion No. 3(e) (i) The Board members possess an inherent bias because their backgrounds demonstrate they treat the promotion, rather than the regulation of, atomic energy as paramount.
- 3(e) (ii) One of the Board members is affiliated with an AEC financed and supported facility, and because of this affiliation lacks objectivity.
- 3(e) (iii) The technical members of the Board are not technically qualified within the meaning of Section 191 of the Act in that their backgrounds do not qualify them to rule on the safety, environmental and health hazards inherent in the issues in this proceeding.
- 3(e) (iv) The Board members, because of duties unrelated to the hearing, do not have sufficient time to adequately discharge the duties imposed by the notice of hearing.
- 3(f) The Board is not technically qualified to consider issues arising under the National Environmental Policy Act of 1969.

At the outset it should be noted the Intervenors have failed to comply with the requirements of the AEC regulations* and the Administrative

*10 CFR §2.704(c) provides:

"If a party deems the presiding officer to be disqualified, he may move that the presiding officer disqualify himself. The motion shall be supported by affidavits setting forth the alleged grounds for disqualification. If the presiding officer does not grant the motion he will refer it to the Commission, which will determine the sufficiency of the grounds alleged."

Procedure Act (APA),* both of which require the filing of an affidavit setting forth the alleged grounds for disqualification. Having failed to comply with these requirements, the motion should be dismissed without further consideration.

If, however, the Board wishes to consider the motions of the Intervenor on their merits, the Applicant has responded to each. These motions are, for the most part, identical to motions filed in other proceedings, all of which have been found by the Commission on earlier occasions to be without merit.

MOTIONS NOS. 3(e)(i) AND 3(e)(ii)

Both of these motions question the objectivity of the Board members because of the backgrounds of the Board members, and in the case of one Board member, because of his affiliation with an AEC financed and supported facility. The questions raised in this motion have been previously considered and disposed of by the Commission in the Shoreham proceeding.**

In Shoreham it was asserted that the technical members of the Board "are or have been so closely identified with the development of atomic energy and its technology so as to invest them with a personal bias in favor of the development of nuclear power."*** In addition, it was

*Section 7(a) of the APA provides:

"A presiding or participating employee may at any time disqualify himself. On the filing in good faith of a timely and sufficient affidavit of personal bias or other disqualification of a presiding or participating employee, the agency shall determine the matter as a part of the record and decision in the case."

**In the Matter of Long Island Lighting Company, Docket No. 50-322, Memorandum and Order of the Commission, dated October 28, 1970.

***See Affidavit of Irving Like, Attorney for Intervenor, the Lloyd Harbor Study Group, Inc., par. 10, p. 4.

asserted in Shoreham that the technical members of the Board were not capable of judging the controversy fairly in view of the explicit developmental mission of the AEC and their own personal history of involvement in activities linked with the development of atomic energy.* Finally, intervenors referred to the affiliation of two of the technical Board members with AEC financed facilities as establishing bias in favor of the development of nuclear power.** The Commission disposed of intervenors' contentions by stating that the fact that the Board members "are persons having involvement in the nuclear power field is not a ground for disqualification."

The Commission went on to state:

"Since the inception of the use of Licensing Boards, as authorized by Section 191, the Commission has turned for qualified board members to such sources as persons in the academic community with nuclear experience, technical and scientific personnel from AEC-owned but privately run national laboratories and appropriate persons from private industry.

"In the Commission's view, a bias certainly if it is to be a basis for disqualification, must mean something more than the Study Group has alleged in its affidavit. Philosophic or professional attitudes or similar generalized mental attitudes do not constitute disqualifying bias. See e.g. In Re Linahan, 138 F.2d 650, 651-653 (2d Cir., 1943) and Gilligan, Will and Company v. Securities and Exchange Commission, 267 F.2d 461, 469 (2d Cir. 1959) cert. denied, 361 U.S. 896 (1959). No realist would expect those vested with decisional responsibility to approach their tasks with minds untouched by experience and reflection so as to be obliged to treat every event as unprecedented. The Commission fails to see the basis for the Study Group's presumed conclusion that a Licensing Board's members' broad professional experience in industrial and academic nuclear programs would itself necessarily result in the members being unable, in any proceeding, to reach an impartial

*Affidavit of Irving Like, par. 21, p. 8.

**Affidavit of Irving Like, pars. 11-18, pp. 4-7.

decision based on the adjudicatory record and applicable law."*

Following a lengthy discussion of the role of the Commission and Boards with respect to the regulation and promotion of atomic energy, the Commission concluded that the Act places a dual responsibility on the Commission but as far as the quasi-judicial decision-making process is concerned, the "system provides for an independent exercise of the decisional functions by Licensing Boards."**

Thus the Commission's ruling in Shoreham considers and disposes of all of the matters raised by Intervenor's Motions Nos. 3(e)(1) and (ii) in this proceeding. Accordingly, these motions should be denied.

MOTION NO. 3(e)(iii)

Intervenor's assert in connection with this motion that the technical members of the Board are not technically qualified within the meaning of Section 191 of the Act in that their backgrounds are insufficient to enable them to rule on the factual issues presented in this proceeding. Intervenor's apparently read into Section 191 a requirement that does not exist and fail to read Section 191 in light of its legislative history.

Section 191(a) of the Atomic Energy Act provides:

"Notwithstanding the provisions of sections 7(a) and 8(a) of the Administrative Procedure Act, the Commission is authorized to establish one or more atomic safety and licensing boards, each composed of of three members, two of whom shall be technically

*In the Matter of Long Island Lighting Co., Docket No. 50-322, Memorandum and Order of the Commission, dated October 28, 1970.

**Id at p. 10.

qualified and one of whom shall be qualified in the conduct of administrative proceedings, to conduct such hearings as the Commission may direct and make such intermediate or final decisions as the Commission may authorize with respect to the granting, suspending, revoking or amending of any license or authorization under the provision of law or any regulation of the Commission issued thereunder. The Commission may delegate to a board such other regulatory functions as the Commission deems appropriate. The Commission may appoint a panel of qualified persons from which board members may be selected."

No specific guidance is provided in the statute as to what was intended by the term "technically qualified" member. Guidance is provided, however, in the report accompanying the amendment which added Section 191 to the Act:

"It is expected that the two technically qualified members will be persons of recognized caliber, and stature in the nuclear field."*

In a study conducted by the Staff of the Joint Committee on Atomic Energy,** which provided the basis for the introduction in Congress of the bill which became Section 191 of the Act, the requirements for the technical members of the Board were described as follows:

"Two members of the Board should be specially qualified by training and experience in fields of science or engineering relevant to safety."***

A review of the biographies of the two technical members of the Midland Board establishes beyond any doubt that both Board members are men of recognized caliber and stature in the nuclear field. Further, from their biographies it is apparent that by virtue of their education and

*Senate Report No. 1677, 87 Cong., 2d Sess. (1962).

**Improving the AEC Regulatory Process, Vol. 1, 87th Cong., 1st Sess. (March 1961).

***Id at p. 69.

vast experience in scientific fields relevant to safety they are eminently qualified to consider and rule on the factual issues presented in this proceeding.

Thus, the technical members of the Board are qualified within the meaning of Section 191 of the Atomic Energy Act, to consider and rule on the issues presented in this proceeding. Intervenors' motion should accordingly be denied.

MOTION NO. 3(e)(iv)

Intervenors here allege that the appointment of all of the Board members is in violation of Section 191 of the Atomic Energy Act in that the Board members do not have sufficient time to adequately discharge the duties imposed upon them by the Notice of Hearing. Intervenors' motion is totally lacking merit.

Section 191(b) of the Act clearly authorizes the use of part-time board members. The section provides:

"Board members may be appointed by the Commission from private life, or designated from the staff of the Commission, or other Federal agency. Board members appointed from private life shall receive a per diem compensation for each day spent in meetings or conferences, and all members shall receive their necessary traveling or other expenses while engaged in the work of a board. The provision of section 163 shall be applicable to board members appointed from private life."

In the report accompanying the amendment which added Section 191 to the Act, Section 191(b) was discussed as follows:

"Under the provisions of new Section 191(b), members of the Board can be designated by the Commission from its own staff or from the staff of any other

Federal agency or appointed from private life. Appropriate provision is made for the compensation of Board members appointed from private life and in addition, such members are granted a limited exemption from the conflict of interest laws consistent in scope with that granted under Section 163 of the Atomic Energy Act of 1954."*

In further describing how the membership of the Board was to be composed, the report states:

"The Atomic Safety and Licensing Board is conceived as a flexible experiment in new administrative law techniques. The Commission should be free to use lawyers and nonlawyers, both from within and without the Commission, as the 'person skilled in the conduct of administrative proceedings.'

"In order to permit further flexibility the committee has adopted language in Section 1 stating that the Commission may use a panel of experts from whose membership three could be drawn to sit in any particular case. The Commission may utilize this authority as a means of bringing to bear a broader range of technical disciplines according to the requirements of individual cases. In implementing this authority, the Commission should also weigh the desirability of continuity in the decision-making process. The committee believes that as the Commission's workload increases, a permanent Board may be indicated."

Since Section 191 on its face as well as its legislative history clearly authorizes the use of board members, appointed from private life, Intervenor cannot be heard on this ground to contest the appointment of the Board in this proceeding. If Intervenor is unhappy with this statutory authorization to the Commission, Intervenor must seek relief from Congress, not this Board.

For the reasons stated herein, Motion No. 3(e)(iv) does not raise an issue of substance and should therefore be denied.

*Senate Report No. 1677, 87th Cong., 2d Sess. (July 5, 1962)

MOTION NO. 3(f)

By this motion, Intervenors contest the technical qualifications of the members of the Board to consider issues arising under the National Environmental Policy Act which Intervenors contend are issues with which this hearing will be concerned. This identical question was raised in Shoreham and found by the Commission to be totally lacking in merit.* The Commission in Shoreham stated:

"The Study Group's assertion that the technical members of the Licensing Board 'are not technically qualified to evaluate Shoreham's environmental effects, as mandated by NEPA' is without foundation. The Commission does not read NEPA, its legislative history or its implementing directives as dictating the qualifications necessary for membership on boards, including the presiding Licensing Board which is authorized and constituted under Section 191 of the Atomic Energy Act. In addition, there is an inconsistency in the Study Group's contentions. As noted above, the Study Group asserts professional experience in nuclear matters as being a ground for disqualifying bias. But as regards environmental matters, the Study Group asserts that board members must, under NEPA, have expertise in environmental matters. The Study Group does not explain why in their view expertise should constitute disqualifying bias in the one instance but not in the other.**

The Commission's ruling in Shoreham should be applied here and Intervenors' Motion No. 3(f) should be denied.

*In the Matter of Long Island Lighting Company, Docket No. 50-322, Memorandum and Order (October 28, 1970)

**Id at pp. 5 and 6.

MOTION NO. 6

Intervenors allege that the AEC has thus far failed to discharge its duty by erroneously taking the position that Applicant is relieved for a period of three years from complying with the purposes of the Water Quality Improvement Act of 1970 in contravention of Section 21(b)(7) of this Act, and by not stating that it will require as condition of any license that the licensee will comply with the purposes of the Water Quality Improvement Act of 1970, §21(b)(9)(A).

The Water Quality Improvement Act of 1970, P.L. 91-224 (WQIA) amending the Federal Water Pollution Control Act of 1965, as amended, 33 USCA §1151 et seq. (FWPCA) was enacted on April 3, 1970. WQIA is a completely self-contained mechanism to control nonradiological environmental effects to navigable waters caused by activities within the licensing jurisdiction of federal agencies. If there are applicable water quality standards, the license applicant must obtain certification from either the State or interstate water pollution control agency or the Secretary of the Interior before the license can be issued. 33 USCA §1171(b)(1)

The Michigan Water Resources Commission (WRC) has in effect applicable quality standards for the intrastate waters of the State of Michigan, originally adopted January 1968. Applicant, following a public hearing held August 10, 1970, received an Order of Determination, dated October 15, 1970, from the WRC. This Order of Determination regulates the use by Applicant of the waters of the Tittabawassee River. Applicant intends to receive certification that its activity will be conducted in a manner

which will not violate the applicable water quality standards prior to April 3, 1970, or the issuance of the construction permit. Since Applicant will obtain a certification from the WRC, §21(b)(7) is not applicable.

Because there are applicable water quality standards governing the Tittabawassee River, Intervenors' second argument relating to §21(b)(9)(A) of WQIA, 33 USCA §1173(b)(9)(A), is irrelevant to this proceeding because Section 21(b)(9)(A) is limited in its scope to those situations in which there are no applicable water quality standards.

Intervenors' Motion No. 6 should therefore be denied.

MOTION NO. 7

Intervenors' Motion No. 7 alleges that a construction permit based on the AEC Standards For Protection Against Radiation, 10 CFR 20, may not be issued because such standards are illegal and in contravention of the Atomic Energy Act for an enumerated list of reasons. The first four of the reasons cited by the Intervenors (7a-d) are the same reasons cited by Intervenors' counsel representing different parties in the Palisades proceeding. The last three reasons cited in this case (7e-g) to support Intervenors' motion were not raised in the Palisades case.

As pointed out in the Applicant's Palisades brief, attached hereto, the Standards of 10 CFR 20 are based on the recommendations and reports of the International Commission on Radiological Protection (ICRP), National Committee on Radiation Protection and Measurements (NCRP) and the Federal Radiation Council (FRC). The FRC was established in 1959 by Executive Order No. 10831 to advise the President on radiation matters for the general guidance of executive agencies of the Federal Government. That same year, Congress gave the FRC statutory recognition and provided that the FRC would provide:

" . . . guidance for all Federal agencies in the
formulation of radiation standards"
42 USC 2021(h)

In addition, Congress specifically provided that the FRC should consult the Chairman of the NCRP.

Both the AEC standards and the FRC reports and recommendations which guide the AEC in setting standards are founded on the reports and recommendations of the NCRP and the ICRP (Statement of Considerations -- Amendments to 10 CFR 20, 25 F.R. 8595). Thus the standards of the AEC are

based on extensive scientific and technical literature and must be judged in the light of that literature.

Applicant's Palisades brief pointed out that the statements of fact made by intervenors in motions filed in that case were incorrect. Counsel is now making the same factual allegations on behalf of Intervenor in this case. Applicant's Palisades brief is therefore attached hereto in order to inform the Board that the matters which Intervenor claim have not been considered have indeed been considered by the AEC and the scientific bodies upon whom it relies. The Board in the Palisades case considered the motion filed herein with the first four reasons and ruled against it, stating:

"The Atomic Safety and Licensing Board is committed to the application of the Rules and Regulations of the Commission, and legal arguments presented here are an inadequate basis for referral of the matter to the Commission for its further consideration. The Board, however, is also committed to the application of Commission decisions, and in this instance, the Board will adhere to the ruling of the Commission in the Matter of Baltimore Gas and Electric Company (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), Docket Nos. 50-317 and 50-318, regarding the presentation of evidence."

This brief also considers the three reasons which were not raised in the Palisades case. Intervenor's reasons 7(e) and (g) are of the same type as reasons 7(a) through (d) and as easily refuted. Intervenor's reason 7(f) is not based solely on misstatements of fact and is therefore different in nature from the other six reasons. However, it is equally lacking in merit.

Because of the reasons stated above and on the following pages and because the Board cannot review the validity of Commission regulations

as discussed in the introduction to this brief, Intervenor's Motion No. 7 should be denied.

7(e)

Intervenor's allege that the radiation standards do not adequately protect the public health and safety in that such standards are based on an assumed safe dose of radiation and that there is no scientific evidence for that assumption.

The Standards For Protection Against Radiation, 10 CFR Part 20, are based on the most conservative approach to developing such standards which is to assume a linear relationship between the effects of radiation and the dose of radiation. Although there is no conclusive scientific evidence supporting this approach, which assumes that there is no wholly safe level of radiation, it has been followed by all of the standard-setting agencies because of its conservatism.

ICRP Publication 9, dated September 1965, states:

"The basis of the Commission's [ICRP] recommendations is the cautious assumption that any exposure to radiation may carry some risk for the development of somatic effects including leukemia and other malignancies and of hereditary effects. The assumption is made that down to the lowest levels of dose the risks of inducing disease or disability increases with the dose accumulated by the individual. This assumption implies that there is no wholly safe dose of radiation. The Commission recognizes that this is a conservative assumption and that some effects may require a minimum or threshold dose."

On May 6, 1959, the Ad Hoc Committee of the NCRP in reviewing the radiation standards of the NCRP reported:

"If there is a threshold, there will be no effect at doses below this threshold value. If the true relation is curvilinear with an accelerating effect as the dose increases, such as would occur if the biological effect depended on multiple events or on a mixture of

threshold and nonthreshold causes, the proportional assumption overestimates the effect at low doses. There is the possibility that the curve is concave in the opposite direction, but this seems very remote. Moreover, data that show a dose-rate dependence generally indicate that the effect is less with a low rate of delivery or with intermittent dosage than with the same total delivered in a short time. For these reasons, the committee believes that the proportional assumption is a conservative, and perhaps a stringent one.

"The Ad Hoc Committee emphasizes that this conservative assumption was adopted not because any definitive conclusions were reached as to the true nature of the dose-effect relationship but because the committee would prefer to err on the side of over-caution rather than in the opposite direction. With this assumption (nonthreshold linear dose-effect relationship), or, for that matter, any nonthreshold assumption, it follows that even the smallest dose would involve some risk. This means that the exposure should be kept as low as feasible and that no level of radiation is warranted unless the benefits balance or outweigh the assumed risk."

The Committee emphasized:

"The report takes the line of conservatism. The Ad Hoc Committee felt that there was no other choice until more and better information is available on the effects of low-level chronic radiation exposure. Although a conservative and possibly pessimistic assumption with regard to radiation effects has been made, this should not carry any implication that either the NCRP or the Ad Hoc Committee accepts such assumptions as established facts. These assumptions have been adopted in the interests of prudence."

The FRC in its first memorandum to the President, 25 FR 4402 (5/18/60), stated:

"It is not prudent therefore to assume that there is a level of radiation exposure below which there is absolute certainty that no effect may occur. This consideration, in addition, to the adoption of the conservative hypothesis of a linear relation between biological effect and the amount of dose, determines our basic approach to the formulation of radiation protection guides."

Therefore, contrary to the allegations of Intervenor, 10 CFR 20 is based on reports and recommendations utilizing the most conservative assumptions and reason 7(e) is not grounds for the granting of Intervenor's Motion No. 7. The motion should be denied.

7(f)

Intervenor claims that the Standards for Protection Against Radiation do not adequately protect the public because they are based on a benefit-risk determination.

The radiation standards of 10 CFR 20 are based on a benefit-risk analysis which balances the known tremendous benefits of nuclear power against the hypothesized possible risks from small releases of radioactivity. The radiation standards have been developed by the bodies having expertise so that the risks from the use of radiation using the most conservative assumptions are so low that no detectable injury to the public is likely to result. The NCRP stated in Handbook 59 (NCRP, H59, 1954):

"However, the probability of the occurrence of such injuries must be so low that the risk would be readily acceptable to the average individual. Permissible dose may then be defined as the dose of ionizing radiation that, in the light of present knowledge, is not expected to cause appreciable bodily injury to a person at any time during his lifetime. As used here, 'appreciable bodily injury' means any bodily injury or effect that the average person would regard as being objectionable and/or competent medical authorities would regard as being deleterious to the health and well-being of the individual. . . ."

In reducing the maximum permissible dose in 1958, the NCRP stated:

"The risk to the individual is not precisely determinable but, however small, it is believed not to be zero. Even if the injury should prove to be proportional to the amount of radiation the individual receives, to the best of our present knowledge the new permissible levels are thought not to constitute an unacceptable risk"

FRC Staff Report No. 1 (5/13/60) stated:

"4.8 It is helpful to compare radiation risk to other known hazards in order to maintain perspective or a sense of proportion with respect to the risk. For example, attempts have been made to compare the relative biological risks of various radiation exposure levels to such other industrial hazards as traumatic injuries and to toxic agents employed in industrial processes. Likewise, the possible hazards from various radiation levels have been reviewed in relation to such everyday risks to the general population as the operation of motor vehicles, the possibility of home accidents, and the contamination of our environment with industrial wastes.

"4.9 Effects can also be evaluated in terms of the normal incidence of disease conditions usually present in the population which may also be caused by radiation. In a given instance, the portion of the total number of cases of a given disease which might be attributed to radiation may be quite small. Therefore, the significance of a given radiation exposure can appear superficially to be quite different depending upon whether the data are expressed in terms of the absolute numbers of cases of a given condition which will possibly result, or be expressed as percentages of the normal incidence. However, it is extremely difficult to assign any numerical value to the increase which should be permitted in a given abnormal condition. It is also important to remember that at the present time, any numerical predictions of the number or percentage increase in any given condition anticipated as a result of radiation exposure are based on inadequate data and have extremely limited reliability, even though upper and lower limits can be stipulated.

"4.10 The biological risk attributable to man-made radiation may also be compared with that from natural sources. This approach is also important in maintaining perspective. Man and lower forms of life have developed in the presence of such natural sources in spite of any radiation damage that may have been present. Perhaps one of the more important advantages to this approach is that it makes due allowance for qualitative as well as quantitative ignorance of yet unrecognized radiation effects, if such exist. Weighing for various somatic as well as genetic effects is also inherently included. It automatically includes a consideration of the largest body of human and subhuman data on radiation effects. One disadvantage is the degree

of conservatism introduced by this approach, since it is likely that only a small fraction of the total incidence of disease results from background radiation."
(pp. 24-25)

The FRC recommendation approved by President Eisenhower, May 13, 1960, provided:

"The fundamental problem in establishing radiation protection guides is to allow as much of the beneficial uses of ionizing radiation as possible while assuring that man is not exposed to undue hazard. To get a true insight into the scope of the problem and the impact of the decisions involved, a review of the benefits and the hazards is necessary.

"It is important in considering both the benefits and hazards of radiation to appreciate that man has existed throughout his history in a bath of natural radiation. This background radiation, which varies over the earth, provides a partial basis for understanding the effects of radiation on man and serves as an indicator of the ranges of radiation exposures within which the human population has developed and increased.

"The benefits of ionizing radiation. Radiation properly controlled is a boon to mankind. It has been of inestimable value in the diagnosis and treatment of diseases. It can provide sources of energy greater than any the world has yet had available. In industry, it is used as a tool to measure thickness, quantity or quality, to discover hidden flaws, to trace liquid flow, and for other purposes. So many research uses for ionizing radiation have been found that scientists in many diverse fields now rank radiation with the microscope in value as a working tool.

"The hazards of ionizing radiation. Ionizing radiation involves health hazards just as do many other useful tools."

* * * * *

"It is recommended that:

1. There should not be any man-made radiation exposure without the expectation of benefit resulting from such exposure. Activities resulting in man-made radiation exposure should be authorized for useful applications provided in recommendations set forth herein are followed."

The Congress of the United States has been frequently acquainted with the fact that a benefit-risk analysis is used in setting radiation protection standards and in proceeding with construction of nuclear plants. In 1959, Congress established the FRC to provide ". . . guidance for all Federal agencies in the formulation of radiation standards" 42 USC §2021(h) Congress specifically required the FRC to consult the NCRP, a group which had consistently and explicitly over a long period of years prior to 1959 stated its reliance on benefit-risk analysis.

In 1960, the JCAE held extensive hearings on radiation protection criteria and standards. Literally hundreds of pages of testimony and exhibits were presented dealing with the subject of risk calculations and analysis. See JCAE Hearings on Radiation Protection Criteria and Standards: Their Bases and Use, May and June 1960. Congress made no indication that it considered this method an illegal or unsatisfactory means of establishing standards. In the summary-analysis to these 1960 hearings, it was stated that:

"(1) Development of the uses of atomic energy and other sources of ionizing radiation will inevitably be accompanied by the exposure of persons to man-made ionizing radiation. (2) Enough is known about the biological effects on man . . . to permit agreement (that the most reasonable working assumption) is that all such exposures, however small, have an associated biological risk. . . .the state of our knowledge of the biological effects of radiation compares very favorably with that of other hazards to health" Quoted by Commissioner Ramey in JCAE, Selected Materials on Environmental Effects of Producing Electric Power, August 1969, p. 478.

The benefit-risk analysis was again brought to the attention of the JCAE in 1961 when Mr. C. Rogers McCullough of the Advisory Committee on Reactor Safeguards stated:

"It must be realized that there is no absolute safety. To advance the application of nuclear energy to peaceful purposes, experiments must be performed, new concepts tried, and reactors actually built and operated. This imposes a certain risk upon the public. The decision of how much risk is warranted in the public interest is a policy one rather than a technical one. It is the task of technical men to determine the amount of risk for particular projects and to make sure that it is within the limits that have been set as policy.

"Since we are dealing with a very low probability of an accident and an intangible benefit, such policy decisions are difficult to make and to express. There is a great desire to express the standards or criteria in numerical terms or in precise concepts. As the technology becomes older this will be possible to an increasing extent. With definite numbers of precise concepts the decision as to the acceptability of the risk of a particular project would be easy to make and it would be easily understood. As it is, there is no escape from judgment, technical judgment, as to how well a proposal fits within the limits the policy decisor has set." (JCAE Hearing on Radiation Safety and Regulation, 87th Congress, First Session, June 12, 1961, pp. 21-22)

In 1967, Representative Hosmer of the JCAE stated:

"As I see this licensing process and the objectives that are to be achieved, you take them in two steps. One, the technical step in which the general features of the reactor and its parameters and its innards and everything are assessed. Since nothing is absolutely 100 percent safe, including walking down the street, there is always in every activity some element of risk. So, the objective first is to determine what amount of risk exists.

"Then, second is the public policy determination of whether society should accept that amount of risk or should reject it." (JCAE Hearings on Licensing and Regulation of Nuclear Reactors, Part I, April 5, 1967, p. 60)

Thus Congress fully realizes that very little in this world is done totally without risk. Were the Intervenor's' apparent no-risk philosophy to be adopted, this country would be without any means of transportation, almost all industry, many foods and most medicine, as well as without nuclear plants. Congress however has made a determination that the peaceful use of nuclear power is vital. 42 USC §2012(a) It is also clear from the Congressional hearings that Congress realizes that there is some minimal attendant risk associated with the development of nuclear power. In order to carry out this vital program and protect the health and safety of the public, the radiation protection standards have been set at a level so low that "competent medical authorities would [not] regard [resultant effects] as being deleterious to the health and well being of the individual." NCRP Handbook 59, supra The standards do not, as Intervenor's claim, find atomic energy superior to the prevention of death, injuries and disease but rather set standards low enough to protect the public against the possibility of death, injury and disease.

For the above reasons, Intervenor's' reason 7(f) is not grounds for granting Motion No. 7 and the motion should be denied.

7(g)

Intervenor's allege that the AEC radiation standards were promulgated in violation of and without regard to the Commission's obligation and direction to cooperate with the various States in the formation of standards to assure that the state and Commission standards are coordinated and compatible under §274(g) of the Act. It is unclear why a failure

to cooperate with the States in setting radiation protection standards would necessarily result in a failure to adequately protect the public. Even assuming that such a failure could so result, it does not appear that the AEC has failed in its obligations under §274. This, like the five of the preceding reasons for Intervenors' motion, raises not a question of law but a question of fact with which the Board is not empowered to deal. Section 274(a) and (b) provides for the AEC to enter into agreements with individual states by which regulation of certain materials, i.e., byproduct, source and subcritical masses of special nuclear material, would be transferred to the States. However, in the absence of such an agreement, the States would not have any jurisdiction over these materials:

"During the duration of such an agreement it is recognized that the State shall have authority to regulate the materials covered by the agreement for the protection of the public health and safety from radiation hazards." 42 USC 2021(b)

Section 274 does not permit States to regulate the licensing of nuclear reactors. 42 USC §2021(c)(1); Senate Report No. 870, 2 U.S. Cong. & Admin. News 1959, p. 2879.

In light of the fact that States were to be permitted to regulate certain areas which had previously been regulated exclusively by the AEC, Congress provided in §274(g) that the AEC was directed to cooperate with the States in the formulation of radiation standards to assure that the programs were compatible. However, the purpose of this was primarily to provide assurance that the State standards were acceptable to the AEC. Senate Report 870 makes this clear:

"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." (2 U.S. Cong. & Admin. News 1959, p. 2879)

The AEC has taken its obligations under §274(g) seriously.

Each year it reports to Congress on its progress in this area. The 1969 AEC Annual Report to Congress, for example, states that each agreement for relinquishment to a State of an area of control provides:

" . . . that the AEC and the States will use their best efforts to maintain compatible regulatory programs." p. 151

An example of such a clause is the following from the AEC agreement with the State of Texas:

"Article 1. The Commission will use its best efforts to cooperate with the State and other agreement states in the formulation of standards and regulatory programs of the State and the Commission for protection against hazards of radiation and to assure that State and Commission programs for protection against hazards of radiation will be coordinated and compatible. The State will use its best efforts to cooperate with the Commission and other agreement states in the formulation of standards and regulatory programs of the State and the Commission for protection against hazards of radiation and to assure that the State's program will continue to be compatible with the program of the Commission for the regulation of like materials. The State and the Commission will use their best efforts to keep each other informed of proposed changes in their

respective rules and regulations and licensing, inspection and enforcement policies and criteria, and to obtain the comments and assistance of the other party thereon."

As of December 31, 1969, the AEC had entered into agreements with 22 states.

Additionally:

"To assure the continued adequacy of State regulatory programs, and to promote their continued compatibility with the AEC's program, the AEC conducts: (a) Periodic reviews of each State's program; (b) an annual meeting with the agreement States to discuss regulatory policies and practices; (c) the exchange of information on regulations, licensing, inspection and enforcement data; and (d) consultation on special regulatory problems. An annual formal review of the status of the regulatory program of each agreement State is made by the AEC; such a review was last made in May 1969 with a finding that the programs of the then 19 agreement States continued to be adequate to protect public health and safety, and were compatible with AEC's program for regulating nuclear materials." 1969 Annual Report, p. 151.

Thus, contrary to what Intervenors have stated in their Motion No. 7, the AEC has carried out an active program of cooperation with the States to assure compatibility of Federal and State standards.

Intervenors' reason 7(g) does not support their motion and the motion should be denied.