

NUCLEAR REGULATORY COMMISSION ISSUANCES

OPINIONS AND DECISIONS OF THE NUCLEAR REGULATORY COMMISSION WITH SELECTED ORDERS

January 1, 1979 — June 30, 1979

**Volume 9
Pages 1 - 760**



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PREFACE

This is the ninth volume of issuances (1 - 760) of the Nuclear Regulatory Commission and its Atomic Safety and Licensing Appeal Boards, Atomic Safety and Licensing Boards, and Administrative Law Judge. It covers the period from January 1, 1979 to June 30, 1979.

Atomic Safety and Licensing Boards are authorized by Section 191 of the Atomic Energy Act of 1954. These Boards, comprised of three members conduct adjudicatory hearings on applications to construct and operate nuclear power plants and related facilities and issue initial decisions which, subject to internal review and appellate procedures, become the final Commission action with respect to those applications. Boards are drawn from the Atomic Safety and Licensing Board Panel, comprised of lawyers, nuclear physicists and engineers, environmentalists, chemists, and economists. The Atomic Energy Commission first established Licensing Boards in 1962 and the Panel in 1967.

Beginning in 1969, the Atomic Energy Commission authorized Atomic Safety and Licensing Appeal Boards to exercise the authority and perform the review functions which would otherwise have been exercised and performed by the Commission in facility licensing proceedings. In 1972, that Commission created an Appeal Panel, from which are drawn the Appeal Boards assigned to each licensing proceeding. The functions performed by both Appeal Boards and Licensing Boards were transferred to the Nuclear Regulatory Commission by the Energy Reorganization Act of 1974. Appeal Boards represent the final level in the administrative adjudicatory process to which parties may appeal. Parties, however, are permitted to seek discretionary Commission review of certain board rulings. The Commission also may decide to review, on its own motion, various decisions or actions of Appeal Boards.

The Commission also has an Administrative Law Judge appointed pursuant to the Administrative Procedure Act, who presides over proceedings as directed by the Commission.

This volume is made up of pages from the six monthly issues of the Nuclear Regulatory Commission publication *Nuclear Regulatory Commission Issuances (NRCI)* for this period, arranged in chronological order. Cross references in the text and indexes are to the NRCI page numbers which are the same as the page numbers in this publication.

Issuances are referred to as follows: Commission--CLI, Atomic Safety and Licensing Appeal Boards--ALAB, Atomic Safety and Licensing Boards--LBP, Administrative Law Judge--ALJ, Directors Denial--DD, and Denial of Petition for Rulemaking--DPRM.

The summaries and headnotes preceding the opinions reported herein are not to be deemed a part of those opinions or to have any independent legal significance.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

THE COMMISSION:

Joseph M. Hendrie, Chairman
Victor Gilinsky
Richard T. Kennedy
Peter A. Bradford
John F. Ahearne

In the Matter of

Docket Nos. 50-275 OL
50-323 OL

**PACIFIC GAS AND ELECTRIC
COMPANY**

**(Diablo Canyon Nuclear Power
Plant, Units 1 and 2)**

January 26, 1979

On mootness ground, the Commission declines to review Appeal Board decision, ALAB-514.

MEMORANDUM

The Commission does not review ALAB-514 because the death of the intervenor's witness has rendered moot the question of his qualifications for access to the facility's security plan. No inference may be drawn with regard to our view of either the correctness of the Licensing or Appeal Board decisions or the importance of the issues involved.

FOR THE COMMISSION

Samuel J. Chilk
Secretary of the Commission

Dated at Washington, D.C.,
on January 26th, 1979.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Joseph M. Hendrie, Chairman
Victor Gilinsky
Richard T. Kennedy
Peter A. Bradford
John F. Ahearne

In the Matter of

**Docket No. 70-2738
License No. XSNM-1222**

**EDLOW INTERNATIONAL
COMPANY**

**(Agent for the Government of
India on Application to Export
Special Nuclear Materials)**

January 29, 1979

The Commission determines that oral hearings before the Commission would not be in the public interest and terminates the public proceeding.

ORDER

On December 8, 1978, the Commission ordered a hearing on XSNM-1222, inviting the Department of State, the NRC Staff, the Natural Resource Defense Council, the Sierra Club, the Union of Concerned Scientists, and members of the public to submit written comments on issues raised by that license application. CLI-78-20, 8 NRC 675. In that order we stated that we would consider whether an opportunity for oral presentations would be warranted, after reviewing written comments received.

In response to its order, the Commission has received submissions from the Department of State, the NRC Staff, and a joint statement from the Natural Resources Defense Council, the Sierra Club, and the Union of Concerned Scientists. The Commission has carefully reviewed these and believes they will assist the Commission in making the statutory determinations required by the Atomic Energy Act of 1954, as revised by the Nuclear Non-Proliferation Act of 1978. These pleadings address the issues raised by the application in considerable detail. Taken together with the vast record

already before the Commission on the Tarapur licensing matter, we do not believe that oral presentations before the Commission would substantially assist the Commission in its analysis of this license application. Weighing the small benefits likely to accrue from an oral hearing against the delay and effort which would result from such a proceeding, we have decided not to order oral presentations. Accordingly, the public proceeding in this case is deemed complete upon issuance of this order, and statutory time limits under the NNPA for agency action shall recommence as of this date.

It is so ORDERED.

FOR THE COMMISSION

Samuel J. Chilk
Secretary of the Commission

Dated at Washington, D.C.,
this 29th day of January 1979.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Michael C. Farrar, Chairman
Richard S. Salzman
Dr. W. Reed Johnson

In the Matter of

Docket Nos. 50-450
50-451

DELMARVA POWER & LIGHT
COMPANY

(Summit Power Station,
Units 1 and 2)

January 3, 1979

The Appeal Board agrees to allow applicant to amend construction permit application to focus only on site suitability issues. It accordingly vacates without prejudice Licensing Board decisions granting an LWA (LBP-75-43, 2 NRC 215, as supplemented by LBP-75-44, 2 NRC 251 (1975)), remands the cause, and dismisses as moot the pending appeal and stay motion.

Mr. Donald P. Irwin, Richmond, Virginia, for the applicant Delmarva Power & Light Company.

Assistant Attorney General, Michael J. Scibinico II, Annapolis, Maryland, for the State of Maryland, intervenor.

Mr. Stephen H. Lewis for the Nuclear Regulatory Commission staff.

MEMORANDUM AND ORDER

Over 3 years ago, the Licensing Board issued a partial initial decision sanctioning a limited work authorization in this construction permit proceeding. LBP-75-43, 2 NRC 215, as supplemented by LBP-75-44, 2 NRC 251 (1975). The State of Maryland, one of the parties below, took an appeal at that time. In addition, certain participants in a Delaware ad-

ministrative proceeding involving this same nuclear facility filed a stay motion with us.

Before we could act, the applicant's plans changed: certain contracts were terminated and we were told that its plans for the proposed Summit Station might be altered substantially in other respects as well. The applicant therefore decided not to go ahead with any construction activity; in that circumstance, we honored its request to withhold any action on the paper that had been filed with us.

A long time then passed with the proceeding in abeyance, prompting us ultimately to request a status report. The applicant responded that, having evaluated "a range of options for baseload generation on its system over the coming 10 to 15 years," it wants to "preserv[e] the nuclear option at the Summit site" (Letter of October 26, 1978). But it has not yet selected a new vendor for the nuclear steam supply system, nor has it settled on a particular date for the commencement of operations. Accordingly, it wishes to amend its construction permit application and to focus now only on site suitability issues, seeking an early partial decision on that subject pursuant to Subpart F of Part 2 of the Commission's regulations (10 CFR 2.600, *et seq.*). Although the applicant proposes to submit to the Licensing Board newly available information bearing on site-related issues, it believes that it may be possible to avoid full-scale relitigation of many matters previously resolved by that Board.

We solicited comments on the applicant's report from all the other interested parties.¹ Maryland and the staff responded; both offered essentially no opposition to the applicant's proposal.

Accordingly, as suggested by the applicant, the decisions below are *vacated without prejudice* and the cause is *remanded* to the Licensing Board to await the formal receipt of an early site approval application and then to conduct such further proceedings on that amended application as it deems appropriate.² Concomitantly, the appeal and the stay motion now pending before us are *dismissed as moot*.³

¹We notified not only those who had filed papers with us but also the Attorneys General of Delaware and New Jersey, who had participated in the proceedings below.

²That Board will have before it not only the new proposal and supporting materials (none of which we have seen) but also the record previously developed; it will be for that Board to decide, *inter alia*, to what extent it can summarily reinstate any portions of its prior decision without requiring further hearings. We, of course, are not in position to express any opinion on that score and should not be taken as having done so.

³The State of Maryland (endorsed by the staff) expressed some objection to having its appeal dismissed on this basis. Contrary to its apparent belief, however, this action is not at all inconsistent with its view that "striped bass entrainment remains an issue of key importance in these

Continued on next page

It is so ORDERED.

FOR THE APPEAL BOARD

**Margaret E. Du Flo
Secretary to the Appeal Board**

Continued from previous page

proceedings." The State will be free to prosecute a new appeal if it is dissatisfied with the resolution that issue receives below. But there is no Licensing Board decision now extant to provide a predicate for the appeal previously filed.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Richard S. Salzman, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

Docket No. STN 50-437

OFFSHORE POWER SYSTEMS

(Floating Nuclear Power Plants)

January 4, 1979

Denying intervenor's motion for directed certification, the Appeal Board holds that discretionary interlocutory review is unwarranted in the circumstances.

RULES OF PRACTICE: CERTIFICATION

An appeal board will generally undertake discretionary interlocutory review only where the Licensing Board ruling in question "either (1) threatened the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated by a later appeal or (2) affected the basic structure of the proceeding in a pervasive or unusual manner." *Public Service Company of Indiana, Inc.* (Marble Hill, Units 1 and 2), ALAB-405, 5 NRC 1190, 1192 (1977).

RULES OF PRACTICE: CERTIFICATION

The Appeal Board's certification authority was not intended for use where the question sought to be certified is more factual than legal.

RULES OF PRACTICE: CERTIFICATION

Certification by an appeal board is not warranted where the Licensing Board's ruling is neither at odds with nor lacking support in Commission regulations.

Messrs. Barton Z. Cowan, Thomas M. Daugherty, and John R. Kenrick, Pittsburgh, Pennsylvania, for applicant Offshore Power Systems, *respondent*.

Mr. Anthony Z. Roisman, Washington, D.C., for intervenor Natural Resources Defense Council, *petitioner*.

Mr. Stephen Sohinki for the Nuclear Regulatory Commission staff.

MEMORANDUM AND ORDER

1. Before us once again is Offshore Power Systems' application for licenses to manufacture floating nuclear plants for eventual siting at unspecified shoreline or ocean locations. This time the matter at hand involves intervenor Natural Resources Defense Council's attempt to introduce the following new contention into the case:

The Staff has failed to find any even potentially acceptable estuarine or riverine site for [a floating nuclear plant (FNP)], has identified serious real problems with such sites, has been advised by [the Environmental Protection Agency] that no estuarine, riverine, or barrier island sites would be acceptable for an FNP, and has therefore insufficient basis for concluding that the FNP's can with reasonable assurance be sited at shoreline sites. In effect, the Staff has attempted to justify a programmatic and generic finding of acceptability without having sufficient evidence upon which to base that finding—a programmatic conclusion without programmatic findings.

The Licensing Board refused to admit the contention, resting its ruling on Appendix M to 10 CFR Part 50. These Commission regulations provide that, where manufacturing licenses are being sought, the staff's environmental statement “. . . shall be directed at the manufacture of the reactor(s) at the manufacturing site; and, *in general terms*, at the construction and operation of the reactor(s) at an *hypothetical* site or sites having characteristics that fall within the postulated site parameters” (emphasis by the Licensing Board).¹ The Board construed this as relieving the staff of any obligation in this proceeding to locate or evaluate any specific sites for a floating plant, holding such matters reserved for separate cases involving

¹See Appendix M, para. 3.

applications to place these plants at particular locations. The Board concluded that NRDC's proposed contention amounted to a challenge to the Commission regulations cited and was therefore not cognizable in an adjudicatory hearing by virtue of 10 CFR 2.758. Order of September 11, 1978 (unpublished).

NRDC moved the Board below to reconsider or to refer the matter to us. Instead, that Board reaffirmed its ruling and declined certification as inappropriate and unnecessary. Order of November 9, 1978 (unpublished). NRDC now comes to us directly.²

2. Under the Rules of Practice, the Licensing Board's rejection of NRDC's contention is an interlocutory order and not appealable immediately as a matter of right. These orders do not escape appellate review but, as is common in judicial practice, undergo it upon completion of the trial proceedings.³ Aware of the Commission policy against interlocutory appeals, intervenor invokes our discretionary authority under 10 CFR 2.718(i).⁴ NRDC would have us take up by way of directed certification in advance of a final decision below what it characterizes as

an important legal question, not previously decided by this Board or the Commission, which if not promptly resolved may result in unusual delay and injury to the public interest.⁵

²The questions which NRDC asks be taken up are:

1. May a party contend in an Appendix M proceeding that approval of a manufacturing license and a finding that there is reasonable assurance that FNP's can be sited in a certain category of sites are not permissible where there are no possible sites within the identified category?

2. In promulgating paragraph 3 of 10 CFR Part 50, Appendix M, did the Commission consider whether "hypothetical site or sites having characteristics that fall within the postulated site parameters" could include nonexistent sites and, if not, does the non-existence of such sites constitute "special circumstances" within the meaning of 10 CFR 2.758?

3. Where the opposition to a contention is based upon its legal invalidity, as opposed to its procedural deficiency, should the contending party at least be provided with a reasonable opportunity to reply to the answer?

4. Prior to rejecting a contention as a challenge to a Commission regulation, should the contending party be provided an opportunity to demonstrate that "special circumstances" exist warranting application of the provisions of 10 CFR 2.758?

³*Boston Edison Company* (Pilgrim Station, Unit 2), ALAB-269, 1 NRC 411, 413 (1975) and cases there cited. See also, *Power Authority of the State of New York* (Greene County Plant), ALAB-434, 6 NRC 471 (1977).

⁴See *Public Service Company of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-271, 1 NRC 478 (1975).

⁵Intervenor quotes from our April 19, 1978, order in this case, not published, granting certification of the "Class 9 accident" question.

NRDC asserts that whether a license to manufacture floating plants may be granted in the absence—according to it—of reasonably available places to site them is a matter of first impression. We understand intervenor's papers to argue that if the question is not considered now, a decision below favorable to the applicant will be immediately effective, intervenor's chances of getting such a decision stayed will be slim, and the cost applicant will have "sunk" into the project by the time we can rule in the normal course will possibly tilt the NEPA "cost-benefit" balance in favor of granting the manufacturing license. Intervenor also says that the Licensing Board proceedings in this case are in effect suspended pending a Commission decision on the "Class 9 accident question,"⁶ thereby providing opportunity for us to consider the matter NRDC wishes heard.

3. We have previously explained that "[t]his Board has not the duty, the resources, or the inclination to commence a general practice of arbitrating at the threshold disputes over what are cognizable contentions—either under Section 2.718(i) procedures or otherwise."⁷ For this reason, "almost without exception in recent times, we have undertaken discretionary interlocutory review only where the ruling below either (1) threatened the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated by a later appeal or (2) affected the basic structure of the proceeding in a pervasive or unusual manner."⁸

NRDC's request for certification does not warrant our intrusion into the proceedings below at this juncture. The papers filed with us make plain that what is really involved here is a dispute over the Environmental Protection Agency's judgment about whether estuarine or riverine sites are suitable for floating nuclear plants. (It is not contended that all ocean sites are similarly unsuitable.) NRDC points to comments from EPA regional offices that these inshore locations "would not be environmentally acceptable."⁹ The staff and the applicant, on the other hand, stress a more recent letter from the EPA Administrator to OPS stating that his agency is not seeking a ban on all estuarine and barrier island siting of nuclear plants, but only cautioning that these are sensitive environments which require special considera-

⁶See ALAB-500, 8 NRC 323 (September 29, 1978), *referral accepted by the Commission*, December 8, 1978.

⁷*Project Management Corp.* (Clinch River Breeder Reactor), ALAB-326, 3 NRC 406, 407, *reconsideration denied*, ALAB-330, 3 NRC 613, *rev'd on other grounds*, CLI-76-13, 4 NRC 67 (1976).

⁸*Public Service Company of Indiana, Inc.* (Marble Hill Station, Units 1 and 2), ALAB-405, 5 NRC 1190, 1192 (1977).

⁹*NRDC Request for Certification at 3.*

tion.¹⁰ NRDC responds by questioning the Administrator's understanding of his own agency's position, suggests that his letter provides "an interesting insight into the differences between political operations and technical operations at EPA," and asserts that "we are entitled to an evidentiary hearing at which the principal EPA officials will clarify the EPA position."¹¹

The short of the matter is that what NRDC characterizes as an "important legal question" of first impression is actually a mixed question of law and fact—with the factual element predominant. Our certification authority was not intended for this situation. We note that this is the only proceeding involving floating plants; our resolution of the issue which NRDC presses on us would have little (if any) precedential effect. Secondly, were we to take up the matter and resolve it in intervenor's favor—*i.e.*, direct the admission of its contention—the only consequence would be a trial of this issue now; the proceeding would otherwise continue unaffected. In other words, this is not a situation where the basic conduct of the hearing would be adversely affected unless we acted.¹²

Nor do we perceive that NRDC would be seriously, immediately, or irreparably injured if appellate review is conducted in the ordinary course rather than immediately. If intervenor is entitled to a determination in this proceeding whether suitable estuarine or riverine sites for floating plants exist (a question we do not reach), and if that determination is in the negative, then presumably the Board will not license the manufacture of plants for such sites. But whether the Board below is compelled to consider the issue now as a consequence of our granting certification and ordering it to try intervenor's new contention, or later as a consequence of our reaching the same conclusion in the regular course of our review, the practical result is the same—no license to manufacture floating plants for such sites will be approved. Thus NRDC's arguments about the consequences of this Commission's "immediate effectiveness" rule and its "sunk cost policy" are beside the point here.

Finally, it is not at all patent that the Board below disregarded governing law or acted arbitrarily in ruling as it did. Again without deciding the matter, it does not appear that the Board's rejection of the NRDC's contention places it on a collision course with the Commission's regulations, or that

¹⁰EPA Administrator Costle's letter of November 3, 1978, is reproduced as Exhibit A to *Applicant's Response to the NRDC Request for Directed Certification*.

¹¹NRDC's Reply, *passim*.

¹²See *e.g.*, *Consumers Power Company* (Midland Plant, Units 1 and 2), ALAB-379, 5 NRC 565 (1977).

those it relied upon provide no support for its ruling.¹³

Motion for directed certification *denied*.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo

Secretary to the Appeal Board

¹³In addition to whether its contention was wrongly rejected, NRDC would have us consider certain questions involving procedures for invoking the "special circumstances" exception to the general rule against attacking Commission regulations in adjudicatory hearings. 10 CFR 2.758(b)-(d). See fn. 2, *supra*, items 2-4. We believe those questions were not squarely placed before the Licensing Board; we therefore decline to reach them.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Jerome E. Sharfman, Chairman
Richard S. Salzman
Dr. W. Reed Johnson

In the Matter of

Docket Nos. 50-354
50-355

**PUBLIC SERVICE ELECTRIC
AND GAS COMPANY
ATLANTIC CITY ELECTRIC
COMPANY**

**(Hope Creek Generating Station,
Units 1 and 2)**

January 12, 1979

The Appeal Board affirms the issuance of construction permits subject to certain listed conditions. Jurisdiction over the environmental effects of radon emissions attributable to the mining and milling of radon-222 is retained.

REGULATORY GUIDES: APPLICATION

It is not legitimate for the staff, in a hearing on the application to a particular problem of criteria required by staff's own Standard Review Plan, to base its position on a denigration of the process which it itself had promulgated.

REGULATORY GUIDES: APPLICATION

Implicit in the requirement that the probability of an accident be ascertained is the obligation to determine numerical probability values for each individual event in the accident sequence. When the validity of that determination is subjected to test in an adjudicatory hearing, a reasoned basis must be found for each proposed figure.

OPERATING LICENSE HEARINGS: HEALTH AND SAFETY ISSUES

A construction permit does not make automatic the later issuance of an operating license. The Commission has an obligation to ascertain whether, irrespective of how great or small might be the benefits flowing from the operation of a particular facility, the record established that the health and safety of the public would be adequately protected and the licensing of the facility would not be inimical to it.

NEPA: CONSIDERATION OF ALTERNATIVES

Environmental impact statements need not discuss the environmental effects of alternatives which are deemed only remote and speculative possibilities; nor need they discuss remote and speculative environmental impacts of the proposed project itself.

NEPA: NEGATIVE DECLARATION

A reasonably thorough discussion of the significant aspects of the probable environmental consequences is all that is required by an environmental impact statement.

RULES OF PRACTICE: AMENDMENT TO FES

The environmental impact statement may be modified by the hearing process.

TECHNICAL ISSUES DISCUSSED: Probability of postulated LNG and LPG tanker accidents which could affect plant; formulation and dispersion of vapor clouds.

Mr. Troy B. Conner, Jr., Washington, D.C., for Public Service Electric and Gas Company and Atlantic City Electric Company, applicants.

Mr. Peter A. Buchsbaum, Trenton, New Jersey, (with whom **Mr. Robert Westreich** was on the brief) for the Concerned Citizens on Logan Township Safety, the Boroughs of Paulsboro and Swedesboro, Stanley C. Van Ness (Public Advocate of the State of New Jersey) and David A. Caccia, intervenors.

Mr. Richard L. Black for the Nuclear Regulatory Commission staff.

DECISION

We have before us for the second time the issue of the likelihood that a cloud of flammable vapor might reach the Hope Creek Generating Station as a result of the accidental release of liquefied natural gas (LNG) or a similar highly flammable gas, following a tanker accident on the Delaware River. The two-unit Hope Creek nuclear power plant would be situated on the New Jersey shore of the Delaware, about 1 mile from its deepwater channel.

The history of this issue is fully presented in our earlier decision in this matter—ALAB-429, 6 NRC 229 (1977). We there described the accident being considered in the following way:

The evidence shows that the hypothetical series of events resulting from LNG traffic which would present the most serious threat to the Hope Creek Station is as follows: A tanker accident would occur. One or more LNG tanks would rupture. A vapor cloud composed of methane gas would be formed but would not immediately ignite. The cloud would then be carried to the plant by the wind where flammable concentrations of the gas would ignite, producing a fire of great turbulence and intensity. [Footnote omitted.]¹

We accepted, in the absence of a challenge to them from any of the parties, "the guideline probability values set forth in NUREG-75/087 (10^{-7} for a realistic calculation and 10^{-6} for a conservative calculation) which would permit an applicant not to design a plant to withstand a particular accident due to its low probability."² However, we held that the applicants and the staff had not shown that those standards had been met with respect to potential LNG tanker accidents which might affect the plant.³ We found further that the Licensing Board had not adequately considered the threat posed to the Hope Creek plant by accidents involving tankers carrying liquefied petroleum gas (LPG) and butane.⁴ We therefore remanded the case to the Licensing Board for a further evidentiary hearing and a determination of the scope of these hazards.⁵

¹*Id.* at 232.

²*Id.* at 234. 10^{-7} is a mathematical notation meaning one chance in ten million; 10^{-6} means one chance in one million.

³*Ibid.*

⁴*Id.* at 243-45.

⁵*Id.* at 234, 245-46, and 247.

In a second supplemental initial decision, issued on April 13, 1978,⁶ the Licensing Board again found that the combined likelihood of an LNG or LPG⁷ tanker accident that would affect the Hope Creek Station was so small that such an event need not be considered in the design of the plant. It concluded:⁸

On the basis of the evidence before us, and for the foregoing reasons, we have found that a conservative calculation of the probability that a flammable gas cloud resulting from an accident involving an LNG or LPG tanker could reach the Hope Creek plant is 2.4×10^{-7} occurrences per year. This value is less than 1×10^{-6} , the guideline probability for a conservative calculation set forth in NUREG-75/087. Events which are expected to occur with probabilities less than 1×10^{-6} , based on a conservative calculation, may be disregarded in the design basis of a facility. We therefore conclude, as stated in our order dated January 26, 1978, that the Hope Creek Generating Station, Units 1 and 2, need not be designed so as to protect against flammable gas cloud accidents.⁹

Joint intervenors¹⁰ and David A. Caccia appeal from the Licensing Board's decision on remand, as they did from its prior one. They take the position that the decision is erroneous in three major respects: (1) the Board's finding about the probability of a flammable vapor cloud reaching the plant rests on insufficient evidence; (2) the record is barren of evidence about riverborne traffic in hazardous cargoes other than LNG; and (3) the value found by the Licensing Board to be the probability that a flammable gas cloud will reach the plant is sufficiently close to the 10^{-6} per year standard calculations that design changes which would eliminate or minimize that risk should have been explored. They also argue that a supplemental environmental impact statement, dealing with the risk to the plant from hazardous river traffic, must be filed.¹¹

As we explain in detail in Part I of this opinion, we affirm the Licensing Board's acceptance of the applicants' determination as to three of the five

⁶LBP-78-15, 7 NRC 642.

⁷It defines LPG to include propane, butane, and butadiene. *Id.* at 677.

⁸*Id.* at 698-99.

⁹The Board also considered the threat to the plant posed by an accident involving a tanker carrying vinyl chloride but found it to be negligible. *Id.* at 697-98.

¹⁰Concerned Citizens on Logan Township Safety, Stanley C. Van Ness (Public Advocate of the State of New Jersey), and the Boroughs of Paulsboro and Swedesboro.

¹¹We wish to acknowledge the participation of the Office of the New Jersey Public Advocate, which has represented the joint intervenors throughout and also Mr. Caccia on this appeal. Its efforts have contributed substantially to the development of the record on an important public issue and were appreciated by this Board.

factors which govern the probability of a flammable vapor cloud reaching the Hope Creek plant as the result of an LNG or LPG tanker accident. We hold that the evidence does not support the value found by the Licensing Board for the spills per collision factor and we adopt a higher, more conservative value. However, for reasons given below, we are now satisfied that the LNG traffic, which under our decision in ALAB-429 the Licensing Board was constrained to consider, is unlikely to develop. We are, therefore, able to approve the construction of the plant as proposed—but with the addition of license conditions designed to ensure that the staff will be promptly alerted should circumstances arise which suggest that either LNG traffic or a significant increase in LPG traffic will materialize or that other factors which govern the probability calculation will change. We caution the applicants that, if this occurs, they will either have to (1) demonstrate that the plant nevertheless meets the prescribed probability standard under an improved probability analysis, (2) achieve a strengthening of the Coast Guard's rules for flammable gas tanker traffic in the vicinity of the plant, or (3) adapt the plant so that it is able to withstand an LNG or LPG fire or explosion without endangering the public health and safety.

In Part II, we reject the intervenors' legal position that a supplemental environmental impact statement on the flammable gas cloud hazard must be filed.

I. THE SAFETY ISSUE

In ALAB-429, we stated:¹²

The method used by the applicant to determine the probability that an LNG accident would affect the plant was to consider the chain of events that would have to occur in order for that to happen. Each event in the chain was assigned a numerical value, or conditional probability, and the combined probability was obtained by multiplying together all of these values. [Footnote omitted.] The factors considered in the calculation were (a) number of ships per year; (b) accident rate (accidents per mile); (c) probability of an LNG spill in the event of an accident (spills per accident); (d) probability that, if an LNG spill did occur, the natural gas vapor (methane) would not ignite at the site of the accident but instead form a flammable cloud (vapor clouds per spill); and (e) probability that the vapor cloud produced as a result of a spill along the Delaware River would reach the plant site with a methane concen-

¹²6 NRC at 235.

tration in the flammable range, *i.e.*, 5-15% by volume (the meteorological factor).*

*The calculation of the meteorological factor is illustrated in Applicant's Exhibit 11 at pp. 23-27. It consists of the sum of probabilities that a vapor cloud produced in each 1-mile stretch of the Delaware River channel will reach the plant site. These individual probabilities are based on actual meteorological data for the Hope Creek site. For a one-tank spill, the probability that a flammable cloud would reach the site from distances of greater than 12 miles in either direction on the river was taken by the applicant to be zero. *Id.* at 26.

This methodology would apply as well to LPG vapor clouds, with appropriate changes in the individual factors.

The conclusion which prompted our remand of the flammable vapor cloud issue in ALAB-429 was that some of the conditional probability factors accepted by the Licensing Board were not supported by substantial evidence of record. Those were the accident rate per mile, the spills per accident, and the vapor clouds per spill.¹³ Their inadequacy applied to both LNG and LPG traffic.¹⁴ We did find applicants' meteorological factor for LNG vapor to be reasonable and conservative¹⁵ but were unable to accept the use of the same meteorological factor for LPG vapor.¹⁶

With regard to ships per year, we stated that we were obliged to assume that construction of the proposed LNG terminal at West Deptford would be approved by the Federal Energy Regulatory Commission ("FERC").¹⁷ We also ordered that further information be elicited as to the expected magnitude of river traffic in the various LPG materials in future years.¹⁸

A matter that was raised for the first time at the remanded hearings was the disclosure of the existence of a "flammable object" in the Delaware River close enough to the plant that a flammable vapor cloud resulting from an accident there could reach the plant.¹⁹ The object, the base of a transmission tower numbered 97, was found by the Board to be 8.8 nautical miles upriver from the plant.²⁰ Evidence was taken at the hearings concerning the probability that a flammable vapor cloud caused by an LNG or LPG ship ramming "Tower 97" might reach the plant.

¹³*Id.* at 236-41.

¹⁴*Id.* at 244.

¹⁵*Id.* at 241-42.

¹⁶*Id.* at 244-45.

¹⁷*Id.* at 236. In ALAB-429, we spoke of FERC's predecessor agency—the Federal Power Commission ("FPC"). See n. 111, *infra*.

¹⁸*Id.* at 243.

¹⁹LBP-78-15, *supra*, at 686-95.

²⁰*Id.* at 686-87.

The hearings on remand have materially increased the information in the record concerning the factors from which the probability of the hypothesized accident may be calculated. As in our first decision, we shall address each of these factors individually.

1. Ships Per Year

The Licensing Board decided to use, for the purpose of calculating probability, a value of 360 LNG tankers passing the plant each year.²¹ This number is based on a staff estimate of expected traffic from both the proposed West Deptford LNG Terminal (292 ships per year) and the previously proposed Raccoon Island Terminal, a project which was cancelled (68 ships per year).²² Clearly, it was error to include projected traffic from the cancelled terminal. However, the whole matter of LNG ship traffic is the subject of more detailed discussion later in this opinion (pp. 20-23, *infra*), and thus we defer further comment on the number of LNG ships per year until then.

The Licensing Board adopted the following values for traffic in the various types of LPG: propane—40 ships per year; butane—10 ships per year; butadiene—10 ships per year; propylene—none.²³

The Board based its projection of propane traffic on the maximum number of propane shipments that could be received at an existing Sun Oil Company LPG terminal at Marcus Hook, Pennsylvania, upriver from the Hope Creek site.²⁴ Current propane traffic is reported to be about 12 ships per year.²⁵

For butane, the Board accepted a value of 10 ships per year proposed by the staff, rather than the applicants' figure of two per year.²⁶ The record indicates that there has been only one butane shipment up the Delaware since 1974.²⁷ Butane shipped up the Delaware is used by refineries as a gasoline additive, and the most likely cause for an increase in butane traffic would be an increase in gasoline output by upriver refineries.²⁸ While there was no indication that such an increase would materialize, the Board nevertheless used the staff's larger value.

The figure of 10 ships per year for butadiene was based on applicants'

²¹*Id.* at 644-45 and Table II at 676.

²²*See id.* at 644.

²³*Id.*, Table II at 676 and 677-79.

²⁴*J.* Read Supplemental Testimony, p. 9.

²⁵*Ibid.*

²⁶*LBP-78-15, supra*, at 678.

²⁷Kalelkar Supplemental Testimony, pp. 59-60.

²⁸*LBP-78-15, supra*, at 678.

estimate of current traffic. There was no figure for butadiene traffic proposed by the staff, nor were any projections of future traffic made.²⁹

Intervenors assert that the LPG traffic estimates accepted by the Board do not adequately reflect increases in such traffic that may occur during the life of the plant. In this regard, they note that the number of propane and butadiene shipments has increased significantly in the recent past. Intervenors also complain that the efforts of the applicants and staff to make a quantitative assessment of future LPG traffic were not substantial.

As we see it, the 40 per year propane tanker figure, established on the basis of a yet unfinished terminal facility and more than three times the current traffic, seems to be a reasonable estimate. Moreover, the use of this value does involve a projection into the future. While the applicants and staff might conceivably have done better in trying to predict future traffic, the fact remains that, notwithstanding intervenors' speculation that additional terminal facilities may be built, evidence of plans to build any such facilities is lacking. In light of the low current magnitude of butane traffic and unestablished potential for its future growth, we find the Board's acceptance of 10 butane ships per year conservative, perhaps overly so. On the other hand, the butadiene figure (10 ships per year) is clearly based on current traffic without any serious consideration having been given to future prospects for the shipment of this material.³⁰

However, the per ship risk to the Hope Creek plant is about the same for vessels carrying butane or butadiene³¹ and the potential for future propane traffic was accounted for. On balance, therefore, we accept as reasonable the estimate of total LPG traffic which was adopted by the Licensing Board to assess the potential for hazard at Hope Creek.

2. Accidents Per Mile

The applicants and staff both propose 1.5×10^{-6} per mile as the accident rate for LNG and LPG ships in that portion of the Delaware River appropriate for the analyses of the vapor cloud hazards at Hope Creek.³² The Board accepted this value and undertook an extensive review of the record to explain its reasons for so doing.³³

The applicants' accident data base was determined by taking all the collisions which occurred on the Delaware River for a 7-year period (fiscal

²⁹See *id.* at 678-79.

³⁰See *ibid*; Kalelkar Supplemental Testimony, p. 59.

³¹LBP-78-15, *supra*, Table II at 676.

³²Kalelkar Supplemental Testimony, pp. 21 and 55; J. Read Supplemental Testimony, p. 21.

³³LBP-78-15, *supra*, at 645-63 and 681.

years 1969-75) and eliminating those accidents not likely to take place in the part of the river near Hope Creek (e.g., collisions involving an anchored or moored vessel) and those involving a vessel not large enough to damage an LNG or LPG tanker. An explanation was provided for rejecting particular collisions or groups of collisions. This process yielded 10 relevant collisions out of a total of 67 for the period.³⁴ The applicants' accident rate was determined by dividing the average number of relevant collisions per year by the average number of ship-miles per year traveled on the river, during that same period, by the types of vessels large enough to be considered.³⁵

The collision rate obtained using actual shipping data was characterized by the applicants as being a conservative reflection of the collision rate to be expected for ships following the Coast Guard's "rules of the road" for LNG and LPG ships and having the design features of LNG ships.³⁶ Testimony indicated that the Coast Guard chose not to rely on the alleged impenetrability of LNG and LPG tankers, designed to prevent accidents.³⁷ One of the Coast Guard witnesses testified that, in his opinion, the penalties for violation and the Coast Guard presence will ensure that these regulations are observed.³⁸ On the other side, intervenors' witness, Dr. Fisher, pointed out that some of the collision data were obtained during periods in which some of the same rules of the road now contained in the Coast Guard regulations were already being utilized.³⁹ He also disputed the efficacy of certain design features of LNG tankers which are supposed to improve safety.⁴⁰ Worldwide experience to date is not very helpful on this question, as there have been no LNG tanker collisions and only a statistically valid upper limit to the collision rate (e.g., 95% confidence) can be assigned.⁴¹

Despite the conflicting testimony by seemingly well qualified experts on the conservatism of the collision rate, we are persuaded that all of the special precautions being taken to reduce the likelihood of an LNG accident will have a beneficial effect. We therefore concur with the Board below that applicants' collision rate, determined from conventional ship accident data, is a conservative value to apply to ships following the LNG rules. We are unable to assign a specific magnitude to this conservatism, however, for only with additional LNG experience can the effectiveness of the safety measures be quantitative.

³⁴Kalelkar Supplemental Testimony, pp. 13-18.

³⁵*Id.*, pp. 19-21.

³⁶*Id.* at 19-20 and Appendix C.

³⁷J. Read Supplemental Testimony, p. 25.

³⁸Tr. 3482-83.

³⁹Fisher Testimony, following Tr. 3411, pp. 19-20.

⁴⁰*Id.* at 12-17, 21-23, 28-29.

⁴¹Kalelkar Supplemental Testimony, Appendix D, pp. D-3 and D-5.

We, as did the Licensing Board, accept as reasonable the applicants' assertion that a collision between an LNG or LPG tanker and another vessel of substantial size represent the prevalent type of accident which could lead to the spillage of LNG or LPG.⁴² We believe that the record fairly supports the exclusion of grounding accidents⁴³ from the data base because the bottom of the Delaware River in the region of Hope Creek is not rocky but silty and sandy.⁴⁴ Thus, a grounding would be unlikely to cause loss of cargo from a double-hulled or pressure vessel type of tanker.⁴⁵

Rammings (other than at Tower 97 which was treated separately) were excluded from the accident data base because, in the region of the river within the 24-mile catchment distance of Hope Creek,⁴⁶ there are no ram-mable objects. Intervenors suggest that this might not be the case throughout the 40-year life of the plant, but did not adduce evidence that any objects of this type are proposed for construction on this segment of the river. An assessment of the increase in the flammable vapor hazard due to the construction of additional rammable objects would therefore be an exercise in uninformed speculation in which we are unwilling to engage.

3. Spills Per Collision

The spills per collision factor is in effect a measure of the severity of a collision, for it quantifies the likelihood that LNG or LPG will be released once a collision has occurred. The applicants determined this factor by means of an empirical analytical technique developed by V. U. Minorsky, a naval architect.⁴⁷ This method predicts the depth to which a colliding ship will penetrate the vessel it strikes by evaluating the vessels' size, their

⁴²LBP-78-15, *supra*, at 652 and 659. The applicants excluded collisions between an LNG or LPG tanker and a tug or barge on the ground that such a collision could not cause a spill. *Id.* at 652.

⁴³*I.e.*, the situation where a vessel proceeds into waters insufficiently deep for its draft and runs aground.

⁴⁴Tr. 3059; see Appendix A to Kalelkar Supplemental Testimony.

⁴⁵It is quite true, as intervenors argue, that a grounding on an uncharted rock or at high speed on a hard spot on the river bottom could cause a cargo spill. But the Delaware is a well traveled waterway and there is no showing that the likelihood of a grounding of this type is so large that it should reasonably be included in the accident data base.

⁴⁶As we stated in ALAB-429, *supra*, at 242, applicants' meteorological data showed that "a vapor cloud formed from a one-tank (10,000-ton) spill could reach the site in a flammable concentration from a distance of up to 12 miles in either direction on the river." Applicants have referred to this zone in which a tanker accident could impact the plant as the "catchment distance."

⁴⁷Minorsky, *An Analysis of Ship Collisions With Reference to Protection of Nuclear Power Plants*, JOURNAL OF SHIP RESEARCH (October 1959) (Applicants' Exhibit 13).

relative speeds, their structure, and the angle of collision. When, for a given set of data, the penetration depth equals or exceeds the outermost boundary of an LNG or LPG tank, the method assumes that the tank's contents are spilled.⁴⁸

The method, as used by the applicants, is best outlined in Applicants' Exhibit 10 (Answer to Question 1). The main assumptions used to calculate the spills per collision factor are there stated to be (a) that the relative velocities of colliding ships are uniformly distributed from 0 to 12 knots and (b) that the angles at which the ships collided are distributed uniformly from 0° to 45°. ⁴⁹ Applicants also assume that all of the collision energy is absorbed by the struck ship and that the striking ship suffers no damage.⁵⁰ (This is, of course, a conservatism because inevitably some of the force will be absorbed by the striking vessel.)

Although the depth of penetration also depends upon the mass of the striking ship,⁵¹ applicants did not specify what ship size spectrum they used to calculate spill probabilities. Their calculations yielded spills per collision values of 0.0067 for the membrane type LNG ship and 0.0034 for ships of the spherical, or freestanding, tank design.⁵² Applicants adopted an average value of 0.005 spills per collision in the analysis for LNG ships.⁵³ However, they calculated a spills per collision value of 0.05 for the area adjacent to the Delaware River Ship Canal, where collisions at all angles were deemed possible (*i.e.*, 0°–90°).⁵⁴

On the ground that late model propane tankers, though smaller, are similar to LNG tankers in structural design, applicants adopted the same spills per collision factor for propane tankers.⁵⁵ A spills per collision figure of 0.1 was estimated by the applicants for ships transporting butane and

⁴⁸Appl. Exh. 10, p. 2.

⁴⁹At the confluence of the Chesapeake and Delaware Canal and the Delaware River, an angular distribution of 0° to 90° was assumed in recognition of the fact that at this location collisions at all angles up to 90° (beam-on) were likely, as a colliding ship coming from the canal may strike an LNG or LPG ship plying the Delaware. ALAB-429, *supra*, at 239; Kalelkar Supplemental Testimony, p. 35.

In ALAB-429, *supra*, at 239 (see n. 58), we followed Minorsky's convention of calling the impact angle 0° when the ships are moving perpendicularly to each other and 90° when they are moving on parallel courses. On remand, the applicants' testimony abandoned that convention and so did the Licensing Board. LBP-78-15, *supra*, at 664, n. 27. As should be obvious from the preceding paragraph, we do so as well. We now call the perpendicular relationship 90° and the parallel configuration 0°.

⁵⁰Tr. 2681.

⁵¹See Appl. Exh. 10, pp. 2-3.

⁵²*Id.*, p. 1.

⁵³*Id.*, p. 2.

⁵⁴Appl. Exh. 11, p. 24.

⁵⁵Kalelkar Supplemental Testimony, pp. 54-56.

butadiene—twice as large as the “all-angles” value for LNG and LPG ships.⁵⁶

In ALAB-429, we expressed concern that there was little basis established for the applicants’ assumptions regarding the angle (0°-45°) and speed (0-12 knots) of collisions.⁵⁷ We also pointed out that there were apparent discrepancies between the magnitude of collision effects predicted by the applicants’ analysis and those reported elsewhere.⁵⁸

On remand, applicants’ witness failed to take up our suggestion⁵⁹ that a study of accidents which had occurred under analogous situations might yield information applicable to liquefied gas tanker collisions on the Delaware River. At least with respect to collision angles, Dr. Kalelkar stated that the only relevant data would be that collected within the 24-mile segment of the river adjacent to Hope Creek. At present, there are no such data.⁶⁰ Thus, the speed and angle of collision assumptions were accepted by the Licensing Board primarily on the basis of their reasonableness for ships traveling in narrow waters under rigid Coast Guard speed regulations and with an escort vessel.⁶¹

We are unable to perceive why data on angle and speed of collision gathered from other narrow shipping channels generally comparable in conformation to the stretch of the Delaware River near Hope Creek could not be used to establish a statistically valid and applicable frequency distribution for these two critical collision parameters. Indeed, we have recently endorsed a procedure used by the staff and applicants in another case for the calculation of aircraft crash probability in the vicinity of a particular airport from data as to crashes near all commercial airports where, as here, the small likelihood of occurrence renders it impossible to glean meaningful probability data from accidents at the location in question alone. *Metropolitan Edison Company* (Three Mile Island Nuclear Station, Unit No. 2), ALAB-486, 8 NRC 9, 36 (1978). As for Dr. Kalelkar’s statements about the lack of collision angle data, we note that one collection of data in the record for 12 tanker collisions which took place in rivers and harbors⁶² includes an angle of collision value in degrees for eight of the 12 accidents and the notation “glancing” or “raking” for two others.⁶³

⁵⁶*Id.* at 59 and 60.

⁵⁷ALAB-429, *supra*, at 240.

⁵⁸*Ibid.*

⁵⁹*Id.* at 234.

⁶⁰Kalelkar Supplemental Testimony, pp. 35-36.

⁶¹LBP-78-15, *supra*, at 669.

⁶²SAI Draft (described at p. 27, *supra*), pp. 3-13 to 3-15.

⁶³The angle data there presented does not support a 0°-45° assumption for collision angles but there is no specific information given for the exact channel configuration in each case.

Intervenors' witness (Dr. Fisher) took issue with the angle and speed assumptions, suggesting that a conservative analysis would assume either all angles of collision or speeds near the top of the allowable 12-knot range.⁶⁴ He also testified that Minorsky, in a telephone conversation with him, agreed with his view that the Minorsky technique may not be properly applied to collisions involving double-hulled vessels where the angles of collision are less than 60 or 70 degrees.⁶⁵ In this regard, the Licensing Board's own review of Minorsky's paper led it to conclude that the accuracy of the correlation declines as the collision angle decreases below 90°. ⁶⁶ This is probably due to the fact that the smaller collision angles were not included in the data base upon which the correlation was established.⁶⁷ The Licensing Board accepted the correlation, however, because there was nothing in Minorsky's published paper (Appl. Exh. 13) to suggest that the "method is *invalid* when applied to oblique collisions."⁶⁸

Dr. Kalelkar, on rebuttal, also relied on a privately expressed opinion of Minorsky, obtained during a visit with that gentleman. He stated that Minorsky agreed that the analysis could be used for small collision angles⁶⁹ and that the values derived in applicants' analysis were in the same range as those arrived at by Minorsky himself in a study he had made using his own depth of penetration method to analyze LNG tanker collisions.⁷⁰ However, that study was not introduced into evidence.⁷¹

The document in question, *Collision Study for LNG Tankers—for Marathon Oil Company*, presents a series of calculations performed using Minorsky's correlation to determine the critical collision speed for a variety of ships colliding with an LNG tanker of a particular design. The critical speed is the lowest speed of the striking ship which will result in penetration of the LNG tank, hence causing a spill. The collision angle, though not specified, is presumably 90°, in order to have the minimum critical speed value for each colliding ship.

Although, as stated above, this study was not offered into evidence, it

⁶⁴Fisher Direct Testimony, p. 33.

⁶⁵Tr. 3629-30.

⁶⁶LBP-78-15, *supra*, at 666.

⁶⁷*Ibid.*

⁶⁸*Ibid.* (emphasis in original).

⁶⁹Tr. 3698.

⁷⁰*Ibid.* Unlike the Licensing Board (see LBP-78-15 at 665-66 and 668-69), we believe that it is impossible to resolve the conflict between the hearsay testimony of Drs. Fisher and Kalelkar as to Minorsky's opinion of applicants' use of his methodology. Hearsay evidence may be admitted in proceedings before this Commission only if it is reliable. 10 CFR 2.743(c). In view of the contradictory testimony of Dr. Fisher, Dr. Kalelkar's testimony was, in our judgment, not sufficiently reliable to meet this standard.

⁷¹See Tr. 3703-06.

was made available to us after oral argument, along with two other documents, at our request. In response to our inquiry, the parties stated that they did not object to our supplementation of the record to include these three documents, although the staff and intervenors did say that our reference to or reliance upon the documents should be restricted to "specific facts and data . . . referred to or relied on by any of the witnesses in this proceeding." Staff's letter to Appeal Board of October 18, 1978; intervenors' letter to Appeal Board of October 24, 1978. We found the contents of the Marathon Oil study interesting but without value for our purposes. However, because it may have been implied from Dr. Kalelkar's testimony on rebuttal that this document shows that Minorsky's method may be used for small angle collisions, we note the fact that such use is not mentioned in the report. Indeed, its ultimate conclusions are stated as applying to 90-degree (*i.e.*, beam-on) collisions.

One of the other documents placed into the record by us with the agreement of the parties, and which also relates to spill probability, is a report prepared for the Federal Power Commission by Science Applications, Inc. ("SAI") entitled *Risk Assessment of LNG Marine Operations for Racoon Island, New Jersey*. It comes in two versions—draft and final (hereinafter "SAI Draft" and "SAI Final").⁷² It was referred to by witness Arvedlund of the Federal Energy Regulatory Commission⁷³ and Dr. Kalelkar.⁷⁴

In SAI Final, there is presented an analysis of LNG tanker accident risks which is performed in a manner similar to that done by the applicants.⁷⁵ However, SAI finds it reasonable to assume that collisions at all angles (0° to 90°) are possible in the Delaware River.⁷⁶ And SAI apparently calculates spills per collisions factors of 0.20, 0.13, and 0.10, depending upon the segment of the river being considered.⁷⁷ These factors are substantially higher

⁷²Intervenors objected to our "utilization" of the SAI Draft on the issue of ignition probability because the intervenors were not able to cross-examine with respect to it.

⁷³See his prepared testimony fol. Tr. 3310 at p. 6; Tr. 3319-32.

⁷⁴See his supplemental testimony, pp. 45-46 and 64 (item 6).

⁷⁵Dr. Kalelkar cites the results of the collision rate calculation presented in this document (slightly corrected) as a source of independent support for his 1.5×10^{-6} accidents per mile rate. Supplemental Testimony, p. 26.

⁷⁶SAI Final, pp. 2-21 and 2-24.

⁷⁷The SAI Final report does not present a spills per collision factor *per se*. However, for each of three river segments, Table 2.8 contains values of collision probability (per transit) and tank rupture probability (per transit). Dividing the latter of these two by the former must yield the number of tank ruptures (*i.e.*, spills) per collision, the three values of which are cited above.

The value for the Wilmington-Delaware Bay segment, which includes Hope Creek, is the largest—0.2. Although it is not clear why the values differ from one segment of the river to

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than applicants' value of 0.005.⁷⁸ Counsel for intervenors brought this discrepancy to the attention of applicants' witness Kalelkar but did not press the matter sufficiently to get a definitive explanation for it into the record.⁷⁹

The staff's contribution to the spills per collision issue was nil. The staff rejected Minorsky's method and that of Bovet and Comstock and Robertson.⁸⁰ Indeed, it concluded "that there was no rational method of deriving the required spill-per-accident estimate by *a posteriori* means."⁸¹ Although the staff said it would derive the estimate by "*a priori* techniques,"⁸² it did not make any estimate at all. Instead, it accepted the applicants' spills per collision factor

not because it was likely to be correct, but because there was no basis to believe that any accident that was predictable near Artificial Island would cause the rapid release of LNG gas necessary to endanger the nuclear power plants which are located about 1 mile from the river's deep-water channel. Such a rapid release, however, is not precluded by physical law, and it was therefore determined that 0.005 represented a reasonably conservative estimate of its probability if an accident should occur.⁸³

That explanation is unacceptable. The use of numerical probability criteria to determine whether a nuclear plant must be designed to withstand

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another, a possible explanation is that some segments contain open water, in which collisions near 90° are much more probable (see SAI Final, pp. 2-23 to 2-24). The Wilmington-Delaware Bay segment, including the open bay, would thus have a higher spill probability. The lower values would be appropriate for narrow channels, such as the river segment near Hope Creek.

⁷⁸See p. 24, *supra*.

⁷⁹Tr. 3025-27. Intervenors' counsel asked the witness to explain a discrepancy between a value of spills per mile derived from the SAI report (about 2×10^{-7}) and the value used by the applicants (about 10^{-8}). In his answer, Dr. Kalelkar appeared to assign the discrepancy to a difference in collision rate. However, he already had shown that the SAI collision rate and that derived by the applicants were in close agreement (n. 75, *supra*). Our review of the report leads us to conclude that the difference between the two values is due to SAI's higher spills per collision factor, arrived at using a Minorsky analysis, under the assumption of 0-90-degree angles of collision. SAI Final, pp. 2-17 to 2-24.

⁸⁰J. Read Supplemental Testimony, pp. 23-28. The reference is to D. M. Bovet, *Preliminary Analysis of Tanker Groundings and Collisions*, (U.S. Coast Guard 1973), and Comstock and Robertson, *Survival of Collision Damage Versus the 1960 Convention on Safety of Life at Sea*, 69 SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS TRANSACTIONS 461 (1961). We had asked that these studies be addressed on remand. ALAB-429, *supra*, at 240 and 246.

⁸¹J. Read Supplemental Testimony, p. 24.

⁸²*Ibid.*

⁸³*Id.* at 28-29.

certain postulated accidents is required by the staff's own Standard Review Plan (NUREG-75/087, §2.2.3) (see p. 16, *supra*). It is not legitimate for the staff, in a hearing on the application of those criteria to a particular problem, to base its position on a denigration of the process which it itself had promulgated. Implicit in the requirement that the probability of an accident be ascertained is the obligation to determine numerical probability values for each individual event in the accident sequence. When the validity of that determination is subjected to test in an adjudicatory hearing, a reasoned basis must be found for each proposed figure. The decisionmaking process is not aided when the staff deprecates the basis used by the applicants to support their spills per collision factor, and then accepts applicants' value for that factor because it is "reasonably conservative." Although it is certainly possible to conclude in a given case that either the data or the analytical methodology are not sufficient to make one confident of any specific value, it is hardly responsible in such a case to accept the lowest value presented in the record or referenced literature, which the staff did here by accepting the 0.005 figure.

The applicants' spills per collision factor was determined by the use of the Minorsky analysis, under the assumptions that ship collisions will be uniformly distributed in angle between 0 and 45 degrees and in relative speed between 0 and 12 knots. There is no indication of the assumed size of colliding ships, although collisions involving certain types of ships, such as tugs and barges, were excluded from the data base because they would not rupture the tanks of an LNG vessel (see p. 21-22, *supra*). The value of this factor, 0.005, has significant effect on the resultant yearly probability that a flammable gaseous cloud will reach the Hope Creek site. Stated another way, it reflects the analytical prediction that, of 200 postulated major collisions involving laden LNG or LPG ships on the Delaware River near Hope Creek, only one would be sufficiently severe to cause an LNG or LPG cargo spill.

The validity of the Minorsky analysis itself was questioned by both intervenors and the Licensing Board because, although it is an empirical technique basen on collision data for more or less beam-on situations, it has been employed to compute depth of penetration in accidents occurring at oblique angles. While the correlation as it is formulated clearly accounts for the angle of collision,⁸⁴ there is no body of data to indicate that the empirical correlation will correctly predict penetration at angles far less than 90°. ⁸⁵

⁸⁴Appl. Exh. 13, p. 2.

⁸⁵We do not mean to suggest that the correlation yields erroneous or nonconservative results for acute angles of collision, only that its performance is untested, hence uncertain, in this do-
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The extreme effect of the 0-45-degree angle-of-collision assumption on the results of the analysis is evidenced by the fact that a spills per collision factor 10 times greater was calculated by the applicants when collision in the range 0-90 degrees was assumed.⁸⁶ Moreover, the calculations relied on in the SAI Final report apparently yield an even larger spills per collision factor, 0.1, when all angles of collision are considered.⁸⁷

The record is silent regarding the sensitivity of the spills per collision factor to the 0-12-knot relative speed assumption. Both the applicants and SAI used this range, and both cite Bovet⁸⁸ to indicate that it is reasonable to assume a uniform distribution of impact velocity, from 0 to the maximum allowable speed, in this case 12 knots. Dr. Kalelkar includes in his testimony Figure 17 of Bovet's paper which plots depth of penetration by a striking ship against the striking ship's energy (energy is proportional to velocity squared) for a number of collisions.⁸⁹ The distribution depicted there is skewed in favor of lower velocities. Moreover, in his study for Marathon Oil Company (*supra*, p. 26), Minorsky calculated the speed at which the bow of a wide variety of striking ships, colliding with an LNG tanker at a 90° angle, would reach the inner hull of the LNG tanker without penetrating it. For a variety of heavy ships (we exclude his findings for small vessels because, as he stated at p. 12, there is no danger to an LNG tanker from them), Minorsky found that this "critical speed" ranges from 3.33 to 6.85 knots. Taking into consideration all of this evidence, we find that the 0-12-knot assumption is reasonable.

On the Basis of the foregoing discussion, we conclude that the spills per collision factor calculated by the applicants for LNG and propane tankers (0.005) cannot be accepted as valid or conservative because of the unproven nature of the Minorsky correlation for small collision angles and the lack of

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main. The inclusion of angle of collision in the formula merely reduces the total kinetic energy of the two-ship system to that kinetic energy associated with motion of the colliding ship in the direction normal (perpendicular) to the axis of the struck ship. Otherwise, there is no account made of the degree to which the energy absorbing resistance of a struck ship might change with the angle of collision. Since the correlation was based on a fit to near 90° collisions, there are no data which indicate how well the inclusion of smaller angles in the mathematical formulation is reflected by experience.

Admittedly, those collisions in the 0-45-degree range which could cause deep penetration are most likely to be those in which the collision angle approaches 45°. Thus, the collision angles of interest would be those nearest to the range of angles for which the correlation was established.

⁸⁶P. 24, *supra*.

⁸⁷Pp. 27-28, and n. 77, *supra*.

⁸⁸*Supra*, p. 28, n. 80.

⁸⁹Kalelkar Supplemental Testimony, Fig. 2, p. 41.

verification provided in the record for the assumption that collision angles will lie in the 0°-45° range.

Applicants used a spills per collision factor of 0.1 for butane and butadiene ships.⁹⁰ Although they did not provide any supporting analysis for it, the value is twice as large as for LNG tanker collisions at all angles. Under cross-examination, it was brought out that the ships carrying these products were of the double-bottom design and would thus have a spill resistance comparable to that of the LNG ships.⁹¹ This spills per collision value also is equal to approximately one-half of that obtained from worldwide experience with conventional, single-hull tankers.⁹²

Despite the fact that no specific analysis was performed to obtain a spills per collision factor for butane and butadiene tankers, we believe that the extrapolation from the applicants' all-angles results was conservative⁹³ and we therefore accept it.

4. Vapor Clouds Per Spill⁹⁴

There is apparently no adequate body of experience upon which to base a prediction of the likelihood that LNG or LPG liquid spilled as a result of a tank ship collision will ignite at the site of the accident. Applicants' witness took the position that, because of the large amount of energy that must accompany a collision of sufficient magnitude to cause a spill, there will be numerous ignition sources at the accident site and the vapor cloud will "almost always ignite immediately."⁹⁵ The "almost always" likelihood of ignition is translated into an estimate of 90%, and hence into a nonignition or vapor cloud-per-spill probability of 0.10 (*i.e.*, 10%).⁹⁶ Applicant cites four other analyses of LNG maritime hazards which use this value.⁹⁷ The Licensing Board found this value acceptable and, for the reasons they assign, so do we.⁹⁸

In supporting applicants' probability value for vapor clouds per spill, the staff relied upon a review of vapor cloud explosions by Strehlow.⁹⁹ The

⁹⁰Kalelkar Supplemental Testimony, pp. 59-60.

⁹¹See Tr. 3045, 3060-61.

⁹²See Kalelkar Supplemental Testimony, p. 43.

⁹³The major uncertainties in the use of Minorsky's technique are far less significant when all angles of collision are assumed.

⁹⁴The meaning of this factor is stated in the quotation from ALAB-429 at p. 18, *supra*.

⁹⁵Kalelkar Supplemental Testimony, pp. 49-50.

⁹⁶*Id.* at 50.

⁹⁷*Id.* at 50-51.

⁹⁸LBP-78-15, *supra*, at 669-71.

⁹⁹Strehlow, *Unconfined Vapor Cloud Explosions—An Overview*, presented at the Fourteenth Symposium on Combustion, Pennsylvania State University (August 20-25, 1972).

paper was concerned with land-based events, and it cited cases in which vapor clouds were formed and traveled some distance before ignition. An inspection of the accidents discussed there reveals, however, that in most cases in which ignition was delayed, the event resulting in the release of flammable material was relatively minor (e.g., a burst pipe, a large leak, or an open valve). This information is consistent with the thesis that, when ignition sources are provided by the accident itself, as in a severe ship collision, the vapor will most probably ignite at the collision site. It does not, however, provide any basis for quantification of that proposition.

5. The Meteorological Factor

We found in ALAB-429 that the meteorological factor calculated by the applicants for LNG vapor was reasonable and appropriately conservative.¹⁰⁰ However, we questioned their meteorological factor for LNG because LPG is flammable in much lower concentrations than LNG—2% to 6%, as against 5% to 15% for LNG.¹⁰¹ This matter was resolved at the remanded hearing, as the Licensing Board explained:¹⁰²

Evidence presented in the remanded proceeding demonstrates that flammable limits for gases, when expressed in percentages, are mole-percentages (Kalelkar Supplemental Testimony at 56). In terms of molecular weight, propane is 2.75 times “heavier” than methane (*ibid.*). When the flammable limits of the two are converted from mole-percent to pounds per cubic feet, the lower flammable limits of the two are approximately the same: 2.59×10^{-3} lb/ft³ for propane and 2.24×10^{-3} lb/ft³ for methane (*id.* at 57). The distance that a vapor cloud remains flammable is a direct function of the flammable limit expressed in units of mass. Since in mass units the lower flammable limits of the gases are about the same, the maximum hazard distances for them are about the same (*ibid.*)

6. Tower 97 and Vinyl Chloride Traffic

During the course of the proceedings on remand, the presence of Tower 97 upriver from Hope Creek was disclosed and the question of how much the possibility of a tanker ramming this object adds to the total probability of a flammable vapor cloud reaching the Hope Creek site was the subject of testimony. Using traffic levels of 360 LNG ships and 60 LPG ships, and

¹⁰⁰*Supra* at 242.

¹⁰¹*Id.* at 244-45.

¹⁰²LBP-78-15, *supra*, at 683.

other probability factors developed for this particular incident, the Licensing Board found that the likelihood of a vapor cloud reaching Hope Creek as the result of an LNG or LPG tanker ramming Tower 97 is 3.16×10^{-8} per year.¹⁰³ We accept the Board's findings, noting that the spills per ramming incident factor used, 0.1, was determined using the upper limit of an estimated range of probability that the rammed transmission tower will fall on the tanker and cause a spill.¹⁰⁴

The Board also found that the probability of a flammable vapor cloud reaching the Hope Creek plant as a result of an accident involving a vinyl chloride tanker on the Delaware River is $.9 \times 10^{-8}$ per year.¹⁰⁵ All of this gas is shipped on one vessel, in which the vinyl chloride tanks are 26 feet in-board from the hull and are surrounded by cofferdams and tanks containing nonflammable materials.¹⁰⁶ Furthermore, vinyl chloride tankers must obey the same Coast Guard regulations which govern LNG and LPG traffic.¹⁰⁷ We accept the Board's findings for this type of accident and agree that its contribution to the cumulative probability of a flammable vapor cloud reaching the Hope Creek plant is negligible.

DISCUSSION

With the exception of the spills per collision factor and the number of ships per year, we have accepted the Licensing Board's determinations of the values for the five factors used to calculate the probability of a flammable vapor cloud reaching the plant. The spills per collision factor is of critical importance. If we were to accept the Licensing Board's figure of 360 LNG ships per year and to assume arbitrarily that the spills per collision factor for LNG ships applicable to the entire catchment distance should be 0.05 (*i.e.*, accept applicants' Minorsky method calculation but use a 0-90-degree collision angle distribution), LNG traffic alone would result in a vapor cloud probability which exceeds the 10^{-6} per year standard for a conservative calculation. Moreover, another remand is not likely to yield much better evidence on spills per collision. It could only refine the theoretical models because "no LNG tanker has ever lost its cargo in a marine casualty" or even "been involved in a collision with another ship while underway."¹⁰⁸

We turn, therefore, to the Licensing Board's value of 360 LNG ships per year. We have already held (*supra*, p. 20) that it was error to include traffic

¹⁰³See *id.* at 686-95.

¹⁰⁴*Id.* at 691.

¹⁰⁵*Id.* at 698.

¹⁰⁶*Id.* at 697.

¹⁰⁷*Ibid.*

¹⁰⁸Appendix D to Kalelkar Supplemental Testimony at p. D-3.

from the proposed Raccoon Island Terminal, which was cancelled. This reduces the LNG traffic to 292 ships per year calling at the proposed West Deptford LNG Terminal. We noted in ALAB-429 that the Federal Power Commission staff had recommended that construction of this terminal not be approved because the transportation of LNG on the Delaware River "would result in an unacceptable risk to the public."¹⁰⁹ Nevertheless, we said:¹¹⁰

Since it is our obligation to be conservative on matters of safety, we must assume that it [the application to construct and operate the West Deptford Terminal] will be approved and that the tanker traffic will therefore materialize.

We now question whether it is still wise to make that assumption. A year and a half has passed and the Federal Energy Regulatory Commission ("FERC"), which has inherited the approval responsibilities for the West Deptford plant from the Federal Power Commission,¹¹¹ has yet to act on the matter. As of the time of the oral argument of this appeal last August, the FERC proceeding was in limbo.¹¹² Tenneco (the applicant) "did not want to go ahead with the hearing but neither did they want to dismiss the case."¹¹³ The FERC staff did not want to go forward with its review of the application until Tenneco submitted information as to the source of the LNG and the price to be charged for it.¹¹⁴ Tenneco did not have any LNG under contract for this terminal at that time.¹¹⁵ Lieutenant Stanton of the Coast Guard in Philadelphia testified that "the prospects of receiving LNG [on the Delaware River] at this point are rather remote . . ."¹¹⁶ And FERC staff witness Arvedlund gave the following testimony:¹¹⁷

Q. In the case of the West Deptford site, you suggested alternate sites. Could you list what these alternate sites were?

A. For purposes of the draft impact statement, if memory serves me correctly, the recommendation was that there were possibly better sites in the Chesapeake Bay and other such places.

¹⁰⁹*Supra* at 236, quoting from Board Exh. 2, p. 158.

¹¹⁰*Id.* at 236.

¹¹¹See App. Tr., pp. 11-12 and 86; Natural Gas Act, §3, 15 U.S.C. §717b; DOE Organization Act, §§301(b) and 402(f), 42 U.S.C. §§7151(b) and 7172(f); DOE Delegation Order No. 0204-26, 43 Fed. Reg. 47769, 47772 (October 17, 1978).

¹¹²*Id.*, p. 86.

¹¹³*Id.*, p. 12.

¹¹⁴*Id.*, p. 86.

¹¹⁵*Ibid.*

¹¹⁶Tr. 3443.

¹¹⁷Tr. 3365-66.

For the final environmental statement, we are proposing to look at specific sites in detail and perhaps come up with a site, if such is warranted. That has not been completed to date.

Q. Would it be a fair characterization to say that the chances of a site located in a populated area in an inland waterway would have a small chance of being approved?

A. I certainly think that is the trend. I wouldn't want to assign a probability number to it, but there has certainly been a large number of interventions, a large amount of time and money spent by people promoting that idea, that they not be located in populated areas, one of which includes Mr. Buchsbaum.

I would not be shocked to see down the road that the criteria or a standard like that could in fact be applied. I wouldn't say that is going to be applied in every case, because there may be cases which warrant locating near populated areas.

But I do believe the trend is that way. That trend is certainly very active on the west coast, where they have in fact passed a law in California which prohibits the location of LNG sites, and they relate to some populated [*sic*] density criteria.

The West Deptford site is directly across the river from Philadelphia International Airport. It is 7 miles from Philadelphia itself, even closer to Camden, New Jersey, and adjacent to industrial and residential areas.¹¹⁸ The FPC staff found that the transportation of LNG on the Delaware River to the West Deptford Terminal "would result in an unacceptable risk to the public" and therefore recommended that the terminal site not be approved.¹¹⁹ We therefore deem it unlikely that the FERC will approve that location for an LNG terminal.

But safety considerations are not the only ones which make the building of an LNG terminal at West Deptford unlikely. A recent decision by the Department of Energy's Economic Regulatory Administration ("ERA"), indicates that ERA approval of further imports of LNG, at least in the foreseeable future, is unlikely for reasons of energy policy. *Tenneco Atlantic Pipeline Co.*, DOE/ERA Opinion Number Three (December 18, 1978).¹²⁰ In that case, the ERA rejected a proposal by a Tenneco subsidiary to import LNG from Algeria to a terminal in New Brunswick, Canada,

¹¹⁸See Board Exh. 2, pp. 2, 58, and 96, and Figures 1 and 2 at pp. 4 and 5.

¹¹⁹*Id.* at 158.

¹²⁰Under Sections 301(b) and 402(f) of the DOE Organization Act, 42 U.S.C. §§7151(b) and
(Continued on next page)

there to reconstitute it as gas and bring it into this country by pipeline. Some of the main reasons given for the rejection were (1) that sufficient gas supplies are available from domestic sources in the short term, that long-term needs can be met by domestic, Mexican, and Canadian natural and synthetic gas, and that these sources are preferable to overseas sources; (2) that a real need for the importation of the gas does not exist; (3) that the LNG would be too costly; and (4) that there was no contingency plan covering possible interruptions of consumers' supply.¹²¹ Another decision rejecting an application to import Algerian LNG was rendered 3 days later by the EPA, for similar reasons. *El Paso Eastern Co.*, DOE/ERA Opinion Number Four (December 21, 1978). Although each proposal is treated individually, the ERA said in *Tenneco*: "In the case of proposed LNG import projects, however, national policy dictates the most cautious—even skeptical—assessment of each gas import project on its overall merits, since LNG generally represents a marginal natural gas supply for the U.S.A. at the present time."¹²² In our judgment, these two cases reflect an Administration policy which is generally unfavorable to LNG imports.

For all these reasons, we are unable to persist in our decision of last year that the LNG traffic projected for West Deptford must be assumed to exist. It is our practice to be conservative in assessing safety problems, but it is unreasonable to postulate hazards which neither exist at present nor are likely to come into being.

We therefore conclude that the value for LNG traffic in the Delaware River should be zero. Thus, the likelihood of a flammable vapor cloud from this source will be zero as well. Further, for the purpose of assessing LPG tanker accident hazards, we accept what we consider to be a conservative spills per collision factor for all LPG ships of 0.1.¹²³ Because we have already accepted those values for the other terms in the probability calcula-

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7172(f), the Secretary of Energy must authorize the importation of natural gas pursuant to Section 3 of the Natural Gas Act, 15 U.S.C. §717b. He has delegated this responsibility to the Administrator of ERA. DOE Delegation Order 0204-25, 43 Fed. Reg. 47769, 47772 (October 17, 1978).

¹²¹See pp. 66-67 of the opinion. Another major reason was that the purchase proposed was not a direct one by distribution utilities from the producer. The West Deptford project also contemplates a purchase by the pipeline company. See Board Exh. 2, p. 1.

¹²²DOE/ERA Opinion Number Three, pp. 37-38.

¹²³This is the factor that was proposed by the applicants and accepted by the Licensing Board for butane and butadiene ships, which do not have the same safety features as LNG and propane tankers. LBP-78-15, *supra*, at 682-83. For the liquid propane carriers, 0.1 is 20 times the value assigned to it by the Licensing Board for points other than at the C&D Canal (*id.* at 681-82), twice the value that would be obtained using applicants' all-angles Minorsky method analysis, and is apparently the same value used by SAI for narrow channels. See pp. 27-28 and n. 77, *supra*.

tion which the Licensing Board found to be reasonable, we can summarize the flammable vapor cloud probability from all remaining sources, using a table similar to the Licensing Board's Table VI:¹²⁴

Revised Flammable Vapor Cloud Probability

LNG Traffic	0.0
LPG Traffic ¹²⁵	
Propane	$1.87 \times 10^{-7}/\text{yr.}$
Butane	$.48 \times 10^{-7}/\text{yr.}$
Butadiene	$.38 \times 10^{-7}/\text{yr.}$
LNG Traffic at Tower 97	0.0
LPG Traffic at Tower 97	$.05 \times 10^{-7}/\text{yr.}$
Vinyl Chloride Traffic ¹²⁶	$.09 \times 10^{-7}/\text{yr.}$
	<hr/>
	$.2.97 \times 10^{-7}/\text{yr.}$

The resulting total probability of approximately 3×10^{-7} per year, which we believe to be based on conservative factors, is well within the guideline value of 10^{-6} per year for a conservative calculation. On this basis we find that the construction of the Hope Creek units may continue, without any modification in their design to accommodate the flammable vapor cloud hazard.

However, the construction permit we sanction today "does not make automatic the later issuance of a license to operate." *Power Reactor Co. v. Electricians*, 367 U.S. 396, 411 (1961). We direct that this issue be reassessed by the applicants and staff at the operating license review stage. At that time, it will be known for sure whether the West Deptford Terminal will be built and there may be more data available on LNG/LPG accident rates, LNG/LPG tanker spill resistance, and the behavior of flammable liquefied gases in maritime accident situations. If, by then, hazardous gas traffic has increased significantly or experience teaches that the probability factors used in these analyses are too low, that will have to be weighed very carefully in deciding whether the Hope Creek plant may be licensed to operate. And in making that judgment, the need for power from the plant and the cost of its construction will not influence the decision. Rather, as the Commission has stressed, the obligation will be "to ascertain whether, irrespective of how great or small might be the benefits flowing from the operation

¹²⁴LBP-78-15, *supra*, at 697.

¹²⁵*Id.*, Table II at p. 676, with spills per collision modified as noted above.

¹²⁶See *id.* at 698.

of this particular facility, the record established that the health and safety of the public would be adequately protected and that the licensing of the facility would not be inimical to it." *Maine Yankee Atomic Power Company* (Maine Yankee Atomic Power Station), CLI-74-2, 7 AEC 2, 4 (quoting ALAB-161, 6 AEC 1003, at 1008), *aff'd sub nom. Citizens for Safe Power v. NRC*, 524 F.2d 1291 (D.C. Cir. 1975).

As it is possible that applicants may eventually be faced with the need to modify the plant to accommodate the flammable vapor cloud hazard, it would be best for them to know of such a need at the earliest possible time. We therefore believe that the prudent course is to have those factors which might affect the probability monitored throughout the pendency of the construction permit. In the event that this monitoring indicates a change in the factors which has a significant adverse effect on the probability¹²⁷ (e.g., approval of construction of the West Deptford LNG Terminal), the applicants should report it to the staff and within a reasonable time period indicate how they propose to demonstrate the plant's acceptability in light of it.¹²⁸

II. THE NEPA ISSUE

Intervenors contend that the National Environmental Policy Act ("NEPA")¹²⁹ requires that the staff issue and circulate a supplemental environmental impact statement which discusses alternative methods of protecting the Hope Creek plant from accidents involving vessels on the river. In view of our findings on the probability of such an accident producing a flammable vapor cloud that would reach the nuclear plant, we find no merit in that position.

The Supreme Court has embraced the doctrine, first enunciated in *Natural Resources Defense Council v. Morton*, 458 F.2d 827, 837-38 (D.C. Cir. 1972), that environmental impact statements need not discuss the environmental effects of alternatives which are "deemed only remote and speculative possibilities." *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519, 551 (1978). And the same has been held with respect to remote and speculative environmental impacts of the proposed project itself. As was stated by the court of appeals in *Trout Unlimited v. Morton*, 509 F.2d 1276 at 1283 (9th Cir. 1974):

An EIS need not discuss remote and highly speculative consequences.

¹²⁷In the context of the monitoring conditions which we now impose on the construction permits, a change in one or more probability factors is deemed "significant" if its effect is to increase the total flammable vapor probability by a factor of two or more.

¹²⁸See p. 40 and n. 130, *infra*.

¹²⁹Specifically, 42 U.S.C. 4332.

. . . A reasonably thorough discussion of the significant aspects of the probable environmental consequences is all that is required by an EIS.

Accord, Environmental Defense Fund v. Hoffman, 566 F. 2d 1060, 1067 (8th Cir. 1977); *Concerned About Trident v. Rumsfeld*, 555 F.2d 817, 828 (D.C. Cir. 1977); *Sierra Club v. Hodel*, 544 F.2d 1036, 1039 (9th Cir. 1976); *Carolina Environmental Study Group v. United States*, 510 F.2d 796, 799 (D.C. Cir. 1975).

We have found that the likelihood of the accident about which intervenors are concerned is so low that the plant does not have to be designed to withstand it. We can think of no logical reason why NEPA should require so much more than do the safety provisions of the Atomic Energy Act and this Commission's safety regulations. See *Carolina Environmental Study Group v. United States*, *loc cit. supra*. Intervenors rely on *Hanly v. Kleindienst*, 471 F.2d 823, 830-31 (2d Cir. 1972), but that reliance is misplaced. *Hanly* dealt with the question of whether the environmental impact that will occur by reason of the proposed action is significant enough to require an impact statement, not with whether an impact whose occurrence is highly improbable must be dealt with in an environmental statement.

However, even if intervenors were correct in their position that the environmental statement must deal with the flammable vapor cloud accident, a supplemental statement would not have to be issued in this case. When the original statement was issued, the staff did not know enough about the accident's likelihood or its nature to warrant including a discussion of it. However, the probability of this type of accident has now been considered by the staff, has been the subject of two sets of hearings, and has been discussed exhaustively in two decisions of the Licensing Board and in two decisions of this Board. Under 10 CFR 51.52(b) (3), the environmental impact statement is deemed modified by the second decision of the Licensing Board (LBP-78-15, *supra*) and by this decision to show that this event is so unlikely that its environmental impact need not be considered. *New England Coalition on Nuclear Pollution v. NRC*, 582 F.2d 87, 93-94 (1st Cir. 1978); see *Citizens for Safe Power v. NRC*, 524 F.2d 1291, 1294 (D.C. Cir. 1975).

CONCLUSION

For the reasons stated in Part I of this opinion, the construction permits shall be modified by the addition of the following conditions:

1. Applicants shall monitor all forms of LNG and LPG traffic on the Delaware River. They shall also monitor those activities along the

waterway which might lead to significant traffic of that kind in the future. A yearly report of actual LNG and LPG traffic projections for future traffic shall be made to the staff. However, major changes in either actual or projected traffic, such as approval by the FERC of the proposed West Deptford Terminal, shall be reported within 30 days.

2. The applicants shall monitor existing and planned construction of facilities in or along the Delaware River, within the 24-mile catchment distance and report yearly to the NRC staff as to the existence or planned construction of additional rammable objects, mooring or docking sites, or any other facility that might cause significant change in the probability of a flammable vapor cloud reaching the plant.
3. At intervals of not more than 2 years, the applicants shall submit to the staff a summary of LNG and LPG shipping experience, similar to that contained in Kalelkar Supplemental Testimony, Appendix D. To the extent possible, the data collected should be related to the various pertinent probability factors and their effect on those factors should be indicated.

This review should include the results of pertinent experimental programs and the development of new or existing analytical methods which might similarly be related to those factors and the effect of their application on the probability factors considered in this case.

4. In the event that the monitoring programs disclose a change or changes that might have a significant adverse effect on the flammable vapor cloud probability, the applicants should prepare and submit to the staff an analysis of whether the 1×10^{-6} standard will be met. If it is not, applicants should submit within 3 months a proposed method by which the changed circumstances will be countered to reestablish a sufficiently low probability factor.¹³⁰ Copies of all reports and proposals submitted by the applicants to the staff under these four paragraphs shall be sent to the Office of the Public Advocate of the State of New Jersey.

¹³⁰This might be done by an improved probability analysis or by a proposed redesign of the plant. It might also be accomplished by a modification of the Coast Guard's regulations to prevent LNG or LPG tankers from meeting or being overtaken by other ships in that portion of the river near Artificial Island. These regulations already prevent LNG and LPG ships from overtaking, or being overtaken, and from meeting other ships at "bends in the river channel" (Kalelkar Supplemental Testimony, Appendix B, p. 2).

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There remains open an issue raised by the Commission in this and other cases concerning the environmental effects of radon emissions attributable to the mining and milling of uranium. 43 Fed. Reg. 15613, 15615-16 (April 14, 1978). Final disposition of that question must await the completion of separate proceedings. See ALAB-480, 7 NRC 796 (May 30, 1978), ALAB-509, 8 NRC 679 (December 1, 1978), and ALAB-512, 8 NRC 690 (December 21, 1978).

Except for the radon issue, the Licensing Board's authorization for the issuance of construction permits is **AFFIRMED**, subject to the modifications to the construction permits required herein.

It is so **ORDERED**.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

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The prevention of meeting situations within 3 miles of the plant would reduce the likelihood of collisions in this stretch of the river to near zero. An inspection of Applicants' Exhibit 11 at p. 28 indicates that consideration of only those collisions more than 3 miles from the plant would reduce the meteorological factor to 25% of its current value, and thus cause a similar four-fold reduction in the probability of a flammable vapor cloud reaching the plant. The record indicates that the NRC and Coast Guard are in the process of generating a memorandum of understanding on LNG tanker-nuclear plant interactions (App. Tr. 126-27). That might be an occasion for considering a regulatory change of this nature.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Richard S. Salzman, Chairman
Alan S. Rosenthal
Dr. W. Reed Johnson

In the Matter of

Docket Nos. 50-275 OL
50-323 OL

**PACIFIC GAS AND ELECTRIC
COMPANY**

(Diablo Canyon Nuclear Power
Plant, Units 1 and 2)

January 23, 1979

Granting joint intervenors' petition for directed certification, the Appeal Board holds that significant intervening seismic-related developments concerning the Diablo Canyon facility constitute a showing of "exceptional circumstances" sufficient to make two ACRS consultants amenable to Licensing Board subpoena. It therefore reverses Licensing Board decisions denying the subpoenas, orders the Board below to issue them forthwith, and remands the cause.

RULES OF PRACTICE: SUBPOENAS

Consultants to NRC advisory boards like the ACRS are covered by 10 CFR 2.720, which requires a showing of "exceptional circumstances" prior to issuance of a subpoena.

Messrs. Arthur C. Gehr and Bruce Norton, Phoenix, Arizona, and **John C. Morrissey, Malcolm H. Furbush**, and **Philip A. Crane**, San Francisco, California, for Pacific Gas and Electric Company, *applicant*.

Messrs. David S. Fleischaker, Washington, D.C., and **John R. Phillips and Steven Kristovich**, Los Angeles, California, for San Luis Obispo Mothers for Peace, Scenic Shoreline Preservation Conference, Inc., Ecology Action Club, Sandra A. Silver, and John J. Forster, *joint intervenors*.

Mr. William M. Shields, for the Advisory Committee on Reactor Safeguards, *amicus curiae* (by special leave of this Board).

Mr. Marc R. Staenberg for the Nuclear Regulatory Commission staff.

MEMORANDUM AND ORDER

I

1. A key issue in the ongoing contested proceeding for a license to operate the Diablo Canyon Nuclear Power Plant is whether the facility incorporates sufficient protection against earthquakes. Two of the consultants to the Advisory Committee on Reactor Safeguards expressed sharp criticism of the plant's seismic design and the assumptions underlying it. (The ACRS' collegial opinion was to the contrary.) Joint intervenors sought to subpoena those consultants to testify in these proceedings.¹ The staff and applicant initially objected to their appearance as witnesses, contending that, as "NRC personnel," under the Rules of Practice they were not amenable to subpoena except "upon a showing of exceptional circumstances" and that such a showing had not been made.² Without elaborating its reasons for doing so, the Board below denied the subpoenas. Tr. 4684.³

¹We are given to understand that the two consultants, Drs. Mihailo Trifunac of the University of Southern California and Enrique Luco of the University of California at San Diego, declined to testify unless subpoenaed. See Tr. 7429.

²10 CFR 2.720. The rules define "NRC personnel" for subpoena purposes to include "consultants to the Commission" and "members of advisory boards." 10 CFR 2.4(p). In applying the rule to ACRS consultants, the Board relied upon a November 29, 1978, "Interpretative Statement" of the Acting General Counsel expressing the Commission's view that 10 CFR 2.720 is to be so understood. See Tr. 7508, 7518. We agree that, though Section 2.720 "does not cover consultants to advisory boards like the ACRS in so many words, it may be fairly read to include them" where they have actually served in that capacity. Were ACRS consultants not covered, no "exceptional circumstances" would be needed before they could be subpoenaed. Whether this requirement should be eliminated or broadened is not for us to say.

³The applicant cites transcript pages 4683-86 and 7518-21 as containing the Board's explanation. The former pages, however, contain little more than an announcement from the Board Chairman that "we have determined that exceptional circumstances have not been established." Tr. 4684. To be sure, the Board there placed in the record "Board Exhibit 2," documents submitted by the two consultants to the ACRS purportedly explaining their position on the seismic questions at issue. Tr. 4684-85. But this cannot be why the Board found no exceptional circumstances for it later expunged that exhibit, thus leaving the record barren of both the consultants' papers and their testimony. Tr. 7518. With all deference to the applicant,

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On December 31, 1978, joint intervenors petitioned us for directed certification. Their papers sought immediate reversal of the order denying the subpoenas. Upon our call for expedited responses, the applicant and the staff suggested to the Licensing Board that it reconsider. As a means of moving the proceeding along and of accommodating the intervenors, they offered to withdraw their objections and to stipulate that the two witnesses could be subpoenaed without a formal finding of exceptional circumstances.⁴

For reasons difficult to fathom, intervenors objected to that pragmatic solution; they now insisted on a finding of exceptional circumstances as a predicate to the issuance of the subpoenas.⁵ In the interest of brevity, we dwell no further on this procedural gavotte. We simply note that the Board below, without further elucidation, declined to reconsider its ruling, to make the requested finding, or to issue the subpoenas.⁶

The applicant and the staff thereupon responded to the petition for certification. Both defend the result reached below. As a possible solution to the problem at hand, however, the applicant suggests that we affirm the finding that no "exceptional circumstances" have been shown but rule that the Licensing Board may issue the subpoenas without that finding if all the parties so stipulate. The staff, on the other hand, noting that intervenors rejected this solution when previously offered, would let them stew in their own juice and have us deny the petition.

II

Applicant's pragmatic proposal is at first glance a not unattractive solution, although we can see some justification in the staff's view that intervenors' failure to get their subpoenas is partly their own doing. Be that as it may, the Licensing Board itself ruled out the applicant's suggestion and the ACRS, in its *amicus* brief, tells us that the subpoenas should not issue. We therefore decline the opportunity to come up with a "creative" solution.

(Continued from previous page)

this hardly demonstrates the Board's "careful review of the extensive argument respecting the four reasons on which intervenors relied," much less a reasoned decision for its own actions. In short, *amicus curiae's* observation that "[t]he Licensing Board did not provide the rationale for its finding" is quite justified.

⁴Tr. 7420-21, 7425-26. As staff and applicant's counsel explained, acceptance of their proposal would give intervenors their relief and leave no party free to complain about it later. Tr. 7423, 7434-35.

⁵Tr. 7496-99.

⁶Tr. 7518. Even if all three parties had been willing to stipulate to issuance of the subpoenas as suggested, a majority of the Board would have refused to do so. *Ibid.* It was at this point that the Board also expunged its Exhibit 2. See fn. 3, *supra*.

The question is too important to turn on such niceties. We proceed accordingly to consider whether exceptional circumstances in this case call for subpoenaing the testimony of the two ACRS consultants. In our judgment, they do.

All nuclear power plants must be designed and built to protect the public from the hazards of radioactive releases should the plant be subjected to movements in the earth's crust. And such considerations were taken into account when the Diablo Canyon facility was initially proposed for its Pacific coast site. At that time the Nacimiento fault was taken to be the nearest major active fault, some 18 to 20 miles northeast of the plant.⁷ The facility was designed, engineered, and constructed to withstand earthquake damage on this basis. But, years after construction was approved and well underway, that assumption was discovered to be ill-founded.

Subsequent offshore explorations for petroleum have revealed that, as its closest point, the "Hosgri fault" lies only a few miles off the site of the Diablo Canyon facility. That proximity raised the likelihood that an earthquake in the vicinity of San Luis Obispo might be "considerably more severe" than initially anticipated.⁸ In light of this intervening development, the plant's design was extensively reanalyzed by the applicant, the staff, and the ACRS. Their consensus was the Diablo Canyon facility as constructed, with some design modifications, would withstand safely the more severe earthquake shocks now reasonably anticipatable.⁹

This brings us to the matter at hand. Notwithstanding the ACRS' collegial conclusion, its report to the Commission expresses reservations about the seismic reevaluation undertaken of Diablo Canyon.¹⁰ For example, the July 14, 1978, ACRS report letter notes that, for want of better data, certain calculations were necessarily accepted "largely on [expert] judgment and experience rather than on extensive observations or analyses," judgments not previously applied in approving power plant design.¹¹ The letter also acknowledges "that the design bases and criteria utilized in the seismic reevaluation of the Diablo Canyon station for the postulated Hosgri event are in certain cases less conservative than those that would be used for an original design."¹² The ACRS, however, found "offsetting factors that lead

⁷Diablo Canyon Safety Analysis Report (SER), Supplement No. 1, p. 2-8 (January 31, 1975).

⁸The present estimate of the severest earthquake likely to be encountered along the Hosgri fault is 7.5 on the Richter Scale, according to the ACRS report letter of July 14, 1978, p. B-2. See fn. 9, *infra*.

⁹The staff's "seismic reevaluation" appears in Supplements 7 and 8 to its Diablo Canyon Safety Evaluation Report (SER), issued in May and November 1978, respectively.

¹⁰The ACRS report letters appear as Appendices B and C to SER Supplement 8. It is not our purpose here to pass judgment on the adequacy of those evaluations and we have not done so.

¹¹SER Supp. 8, *supra*, at p. B-2.

¹²*Id.* at p. B-3.

to acceptance of these bases and criteria for an already completed plant.”¹³

The ability of nuclear power plants to withstand earthquake damage is undeniably crucial in California, where seismic phenomena are not uncommon. The Board, the staff, the applicant, and *amicus curiae* have all allowed the procedural undergrowth to obscure the substantive forest. This is more than a run-of-the-mill disagreement among experts. We have here a nuclear plant designed and largely built on one set of seismic assumptions, an intervening discovery that those assumptions underestimated the magnitude of potential earthquakes, a reanalysis of the plant to take the new estimates into account, and a *post hoc* conclusion that the plant is essentially satisfactory as is—but on theoretical bases partly untested and previously unused for these purposes. We do not have to reach the merits of those findings to conclude that the circumstances surrounding the need to make them are exceptional in every sense of that word. Subpoenas to compel the testimony of the two ACRS consultants whose views diverge from the consensus just described are therefore not only permissible under the Rules of Practice, but appropriate. We so hold.

The petition for directed certification is *granted*; the Licensing Board rulings denying the subpoenas for Drs. Trifunac and Luco are *reversed* and the Board instructed to issue them *forthwith*; the cause is *remanded* for further proceedings consistent with this opinion.¹⁴

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

Additional opinion of Mr. Rosenthal, joining in the Board's opinion:

Prior appeal board opinions to which I have subscribed reflect my strong disinclination to monitor the day-to-day conduct of licensing proceedings through the directed certification of interlocutory rulings. Indeed, that reluctance was very recently reiterated in connection with a different ruling below in this very proceeding. See ALAB-514, 8 NRC 697 (December

¹³*Ibid.*

¹⁴The disposition we have made of this matter renders it unnecessary to decide whether, as intervenors also urge, the Licensing Board should be instructed to replace “Exhibit 2” in the record. The substance of that exhibit are papers prepared by the two witnesses which may now be offered, subject to the usual objections, in conjunction with their testimony.

22, 1978). But it is just as plain to me as it is to my colleagues that the matter now at hand is sufficiently exceptional to mandate our intercession at this juncture. Without retreating at all from my view that we should be very slow to undertake the interlocutory review of licensing board orders, I therefore join fully in both the grant of the certification petition and the relief afforded the intervenors on the merits of the controversy.

One further observation is regrettably appropriate. As the Board's opinion notes, and as the ACRS brief *amicus curiae* acknowledges (see fn. 3, *supra*), the Board below failed to explicate its reasons for its ruling on this obviously important matter. Less than 3 months ago, we were constrained to complain of that Board's failure to provide a *reasoned* decision on another key question arising in this proceeding. See ALAB-504, 8 NRC 406 (October 27, 1978). One would have thought that a single admonition would have sufficed. My colleagues share my disappointment that such unhappily has not proven to be the case.¹

¹In ALAB-504, we instructed the Licensing Board to reconsider its inadequately explained ruling and to provide a full explication of the reasons underlying whatever result is reached on that reconsideration. In this instance, such a course would likely be productive of little other than additional and prejudicial delay. This is because it is difficult to perceive any rational basis upon which it might be concluded that the "exceptional circumstances" test is not here met. In my judgment at least, the issue of concern in ALAB-504 was a much closer one as to which reasonable minds could well differ.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

Docket Nos 50-443
50-444

PUBLIC SERVICE COMPANY OF
NEW HAMPSHIRE, et al.

(Seabrook Station, Units 1
and 2)

January 24, 1979

The Appeal Board admits into evidence published municipal ordinances sought to be introduced by applicants but makes no determination as to the exhibit's materiality.

RULES OF PRACTICE: ADMISSIBILITY OF EVIDENCE

NRC adjudicatory boards may follow Rule 902 of the Federal Rules of Evidence (obviating extrinsic evidence of authenticity as a precondition to admitting official government documents) to allow into evidence published municipal ordinances.

RULES OF PRACTICE: ADMISSIBILITY OF EVIDENCE

In administrative proceedings involving no jury, a determination on materiality need not precede the admission of an exhibit into evidence, even though the exhibit's materiality may be questioned.

Messrs. Thomas G. Dignan, Jr., and Robert K. Gad
III, Boston, Massachusetts, for the applicants, Public
Service Company of New Hampshire, *et al.*

Mr. Robert A. Backus, Manchester, New Hampshire,
for the intervenor, Seacoast Anti-Pollution League.

MEMORANDUM AND ORDER

During the course of the evidentiary hearing before this Board last week, the applicants asked us to take official notice of the contents of a document entitled "Revised Ordinances as amended through September 1978," issued by the Town of York, Maine. Alternatively, the applicants sought to have the document admitted into evidence. In light of objections by the other parties to both courses, we reserved judgment to enable us to determine the practice in the Federal courts regarding such matters. Pending our ruling, the document was marked for identification as Applicants' Exhibit 79-1 (Tr. 589).

Our research has disclosed that at least one court of appeals has recently held that municipal ordinances are "proper subjects for judicial notice." *Newcomb v. Brennan*, 558 F.2d 825, 829 (7th Cir. 1977). We need not pause, however, to consider whether this view is universally accepted by the Federal judiciary. For, in any event, Rule 902 of the Federal Rules of Evidence¹ explicitly provides that "[e]xtrinsic evidence of authenticity as a condition precedent to admissibility is not required with respect to," *inter alia*:

- (1) . . . A document bearing a seal purporting to be that of the United States, or of any State, district, Commonwealth, territory, or insular possession thereof, or the Panama Canal Zone, or the Trust Territory of the Pacific Islands, or of a political subdivision, department, officer, or agency thereof, and a signature purporting to be an attestation or execution.

The exhibit tendered by the applicants bears both the seal of the Town of York and the attestation of the town clerk that it is a true copy of the ordinances in effect in the Town of York as of January 8, 1979.

We perceive no good reason why Rule 902 should not be followed in NRC adjudicatory proceedings. Accordingly, the exhibit should be deemed duly authenticated. On that basis, we admit it into evidence. To be sure, both the intervenor and the NRC staff questioned its materiality with respect to the issues which are before us for decision. But we need not pass upon that question at this juncture. Should the applicants choose to place reliance in a posthearing submission on one or more of the ordinances contained in the exhibit, there will be time enough for the other parties to press

¹These rules were approved by Congress in 1975 and are a part of Title 28 of the United States Code. They govern proceedings in the courts of the United States and before United States magistrates except as otherwise provided therein.

by way of responses any points they might wish to make respecting materiality. In short, our ruling today leaves entirely open whether, and if so to what extent, the contents of the exhibit have a bearing upon what must be decided.²

Applicants' Exhibit 79-1 is *admitted* into evidence in accordance with the foregoing.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

²Normally a determination on materiality will precede the admission of an exhibit into evidence (at least where materiality is questioned). But we do not regard this to be an ironclad requirement in administrative proceedings where no jury is involved; in this instance, the determination can be safely left to a later date without prejudicing the interests of any party.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Jerome E. Sharfman, Chairman
Richard S. Salzman
Dr. W. Reed Johnson

In the Matter of

Docket Nos. 50-516
50-517

LONG ISLAND LIGHTING COMPANY
NEW YORK STATE ELECTRIC AND
GAS CORPORATION

(Jamesport Nuclear Power Station,
Units 1 and 2)

January 25, 1979

The Appeal Board denies motion to stay the effectiveness of construction permits for the facility without prejudice to its renewal within 10 days after receipt of the necessary State certificate.

RULES OF PRACTICE: STAY PENDING APPEAL

Where a State permit is still required before construction can commence under an NRC license, a motion to stay the effectiveness of the NRC construction permit pending appeal will be denied, as there is nothing to be stayed.

RULES OF PRACTICE: STAY PENDING APPEAL

The possibility that applicants will continue to make expenditures for engineering and procurement for the project does not constitute irreparable injury for stay purposes because applicants would not be prevented from doing so were the effectiveness of those permits stayed.

Messrs. W. Taylor Reveley III and John B. Vinson,
Richmond, Virginia, for the applicants.

Mr. Irving Like, Babylon, New York, for Suffolk
County, New York, intervenor.

MEMORANDUM AND ORDER

Suffolk County has moved for a stay of the Licensing Board's decision of December 26, 1978. LBP-78-41, 8 NRC 750. That decision authorized the issuance of construction permits for the two units of the Jamesport Nuclear Power Station. The motion is opposed by both the applicants and the staff.

Last year, Suffolk County sought a stay of the Licensing Board's decision of May 9, 1978.¹ "That decision determined all the safety and environmental issues in this case except for the environmental effects of radon-222 emissions resulting from the mining and milling of uranium attributable to this facility."² We denied that relief in ALAB-481, stating in part:³

Because the Licensing Board had not completed its environmental review, it was not able to—and did not—authorize the issuance of a permit to construct the Jamesport plant. Consequently, there is nothing for us to stay and the motion must be denied.

"It is a well established rule of administrative law that 'a party is not ordinarily granted a stay of an administrative order without an appropriate showing of irreparable injury.' *Permian Basin Area Rate Cases*, 390 U.S. 747, 773 (1968) (Harlan, J.)." *Toledo Edison Company* (Davis-Besse Nuclear Power Station, Units 1, 2, and 3), ALAB-385, 5 NRC 621, 626 (1977); cf. *Metropolitan Edison Company* (Three Mile Island Nuclear Station, Unit No. 2), ALAB-456, 7 NRC 63, 68 (1978). See generally 10 CFR 2.788(e), 42 Fed. Reg. 22128, 22130 (May 2, 1977). In an effort to show that it would be injured in the absence of a stay, the county expresses the fear that applicants might spend money or take "incremental steps and decisions towards construction." However, a stay would not prevent any expenditures or management decisions short of actual construction, and as we said, construction itself has not been authorized. Applicant simply remains free to do whatever it might otherwise do without this Commission's permission; the decision sought to be stayed does not affect the *status quo ante* and thus the county will not be injured in any way by the absence of a stay.

The likelihood of irreparable injury to the county in the absence of a stay has not changed significantly as a result of the more recent decision be-

¹ LBP-78-17, 7 NRC 826.

² ALAB-481, 7 NRC 807, 808 (1978).

³ *Ibid.*

low. To be sure, applicants now have construction permits from this Commission. But they do not have approval of the project from the State of New York and they may not commence construction or even site preparation without such approval. See §§141 and 140(6) of the New York Public Service Law (McKinney 1978-79 Supp.). Thus, as we said in ALAB-481, "there is nothing for us to stay and the motion must be denied." The county purports to find injury in the possibility that applicants will continue to make expenditures for engineering and procurement for the project. But, as we made clear in ALAB-481, they were free to do that without construction permits and would not be prevented from doing so were the effectiveness of those permits stayed. See 10 CFR 50.10. Finally, the county points to decisions which hold "that the denial of the right of the citizenry to have Federal projects which affect the environment proceed only on the basis of 'a careful and informed decisionmaking process' provides sufficient irreparable injury to support issuance of a preliminary injunction."⁴ Even assuming *arguendo* that this statement of the law is correct, it is of no avail to the county here. The key word is "proceed." The Jamesport project is not proceeding and it will not proceed without authorization from the appropriate State authority. The county has not only failed to show irreparable injury; it has failed to show any injury at all from the absence of a stay.

Although the county's motion is also defective in other respects, in view of what we have already said on the issue of irreparable injury, we need not go into them. It will suffice to say that the county has not made a strong showing on the other three factors relevant to a stay motion, either. See 10 CFR 2.788(e).

The motion is *denied*, without prejudice to its renewal within 10 days after receipt by the applicants of a certificate of environmental compatibility and public need for the Jamesport plant from the New York State Board on Electric Generation Siting and the Environment.⁵

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

⁴Application for Stay, pp. 6-7.

⁵Applicants should immediately notify us, counsel for the county, and the League of Women Voters of Suffolk County of such receipt, if and when it occurs.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Dr. Lawrence R. Quarles

In the Matter of

Docket Nos. 50-338 SP
50-339 SP

VIRGINIA ELECTRIC AND
POWER COMPANY

(Proposed Amendment to
Operating License NPF-4
to Permit Storage Pool
Modification)

(North Anna Nuclear Power
Station, Units 1 and 2)

January 26, 1979

The Appeal Board reverses and remands a Licensing Board's order denying two organizations leave to intervene in a license amendment proceeding involving proposed expansion of the North Anna Station's spent fuel pool capacity.

RULES OF PRACTICE: INTERVENTION (INTEREST)

In an amendment proceeding where a licensee is seeking permission to expand the capacity of its facility's spent fuel pool—as in construction permit and operating license proceedings—a petitioner's close proximity to the facility is enough to establish the requisite interest for intervention. The Licensing Board should not consider whether the petitioner's stated concerns are justified until it reaches the merits of the controversy.

Messrs. Michael W. Maupin, James N. Christman,
and James M. Rinaca, Richmond, Virginia, for the
licensee, Virginia Electric and Power Company.

Mr. Irwin B. Kroot, McLean, Virginia, for the peti-
tioner, Citizens' Energy Forum, Inc.

Mr. James B. Daugherty, Washington, D.C., for the petitioner, the Potomac Alliance.

Mr. Steven C. Goldberg for the Nuclear Regulatory Commission staff.

DECISION

On May 15, 1978, the Commission issued a notice of opportunity for hearing on an application by the Virginia Electric and Power Company for an amendment to the operating license for Unit 1 of its North Anna Power Station located in Louisa County, Virginia. 43 Fed. Reg. 21957 (May 22, 1978). The amendment would enable the expansion of the capacity of the spent fuel pool for Units 1 and 2 of that facility.¹ In response to the notice, petitions for leave to intervene were filed by two organizations, Citizens' Energy Forum (CEF) and the Potomac Alliance (Potomac). In an unpublished order entered on December 19, 1978, the Licensing Board denied intervention to both organizations for want of a sufficient demonstration of an interest which might be affected by the proceeding.² See 10 CFR 2.714(a).³ CEF and Potomac appeal under 10 CFR 2.714a. Their appeals are supported by the NRC staff and opposed by the licensee. We reverse.

1. CEF. As the Licensing Board acknowledged, the CEF petition asserted that four members of that organization (two couples) reside on the shore of Lake Anna in very close proximity to the North Anna facility. One of the four appeared at the special prehearing conference convened last September to consider the intervention petitions. She specifically confirmed that she had authorized CEF to represent her interest in the proceeding (Tr. 63). The nature of that interest was outlined by her (Tr. 37-40). Among other things, she expressed concern that the expansion of the capacity of the spent fuel pool might bring about ground water contamination which, in turn, might affect a well located on her property.

This concern, and the others either expressed by her at the conference or to be found in the CEF petition as amended, may be devoid of any founda-

¹The latter unit is not yet in operation, but the notice indicated that the amendment would apply to it as well.

²The December 19 order replaced an earlier order (dated December 8, 1978) in which the Board had reached the same result.

³The Board further concluded that the grant of intervention as a matter of discretion was not warranted under the standards laid down by the Commission in *Portland General Electric Company* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610 (1976). See also, e.g., *Public Service Company of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, 1145 (1977).

tion in fact. But that is quite beside the point in evaluating the sufficiency of the asserted interest of the CEF members living little more than a stone's throw from the facility. Contrary to the Licensing Board's seeming belief, we have never required a petitioner in such geographical proximity to the facility in question to establish, as a precondition to intervention, that his concerns are well-founded in fact; *i.e.*, in the words of the December 19 order (at p. 14), "to particularize a causal relationship between injury to an interest of petitioner and possible results of the proceeding."⁴ Rather, close proximity has always been deemed to be enough, standing alone, to establish the requisite interest. See, *e.g.*, *Gulf States Utilities Company* (River Bend Station, Units 1 and 2), ALAB-183, 7 AEC 222, 223-24 (1974), and cases there cited.

The licensee appears to concede the point as applied to construction permit and operating license proceedings. It insists, however, that a different rule should obtain in amendment proceedings involving, as does this one, proposed licensing action of assertedly much more limited potential geographical reach. But although we might agree that, from a "zone of harm" standpoint, this proceeding cannot be precisely equated with one involving issuance of a construction permit or operating license, the distinction is of little assistance to the licensee here. Neither the Licensing Board nor we are in a position at this threshold stage to rule out as a matter of certainty the existence of a reasonable possibility that expansion of the spent fuel pool capacity might have an adverse impact upon persons living nearby. That being so, the question whether CEF's concerns are justified must be left for consideration when the merits of the controversy are reached. *Cf. Mississippi Power & Light Company* (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423, 426 (1973).

This does not perforce mean that there will be a need for an evidentiary hearing on all or any of CEF's contentions. Even those contentions found to be acceptable for admission to the proceeding will be susceptible to a motion for summary disposition under 10 CFR 2.749. If, as the licensee believes, there can be no genuine dispute that the license amendment being sought will not produce harm even to the nearby CEF members, such relief should be obtainable. On the other hand, if a genuine issue of material fact does exist in that regard, then CEF is manifestly entitled to have that issue heard before the amendment is authorized.

2. **Potomac.** We reach the same result with regard to Potomac's inter-

⁴By "particularize," the Licensing Board necessarily had in mind more than the mere averment of a causal relationship. As we have seen, CEF did specify at least one type of harm which it believed its members might sustain as a result of expansion of the spent fuel pool's capacity. What it did not do was to go on to demonstrate that there was substance to that belief.

vention petition, which was denied on essentially the same basis as that of CEF. Potomac's claim of interest is admittedly not as strong; the closest of its identified members reside approximately 35 miles from the facility. A Potomac member residing in Richmond, 45 miles distant, supplied an affidavit, however, to the effect that she engages in canoeing on the North Anna River. It is not immediately obvious that such recreational activity in the general vicinity of the plant perforce would not be affected by the issuance of the sought license amendment. We might, of course, call upon the Licensing Board to take another look at the question, free of the legal error which seemingly infected its prior ruling.⁵ The licensee has pressed upon us, however, its urgent need to have the intervention issue settled at an early date. In the circumstances, the preferable course is to direct the grant of intervention to Potomac, leaving it then to the licensee to pursue its summary disposition remedy if so inclined.⁶

The December 19, 1978, order of the Licensing Board is *reversed* and the cause is *remanded* to that Board for further proceedings consistent with this opinion. In the event that an evidentiary hearing is required, the Licensing Board should consider the desirability of consolidation of the participation of the two organizations. See 10 CFR 2.715a.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

⁵Once again, as we read the December 19 order, the Licensing Board there construed the interest requirement of 10 CFR 2.714(a) as imposing an obligation upon *all* petitioners for intervention "to particularize a causal relationship between injury to [his] interest" and the licensing action being sought. Because we have found that interpretation to be in contravention of our prior decisions under that section, and thus wrong, we do not accept the licensee's invitation to apply the principle that licensing board determinations on the sufficiency of allegations of affected interest will not be overturned unless irrational. See *Duquesne Light Company* (Beaver Valley Power Station, Unit 1), ALAB-109, 6 AEC 243, 244 (1973), and case there cited. That principle presupposes that the appropriate legal standard has been invoked.

⁶The action we have taken with respect to the CEF intervention petition was not influenced to any extent by the fact that, at the special prehearing conference below, the licensee took the position that that organization (albeit not Potomac) had met "the very liberal requirements of intervention." See licensee's brief on the appeal, p. 21. The licensee was clearly entitled to alter its opinion, as it did, following the receipt of the Licensing Board's decision.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

Docket Nos. STN 50-522
STN 50-523

PUGET SOUND POWER & LIGHT
COMPANY, et al.

(Skagit Nuclear Power Project,
Units 1 and 2)

January 29, 1979

The Appeal Board issues a decision supporting its earlier order that vacated the Licensing Board's grant of late intervention to three Indian tribes, explaining that the Board based its result on improper criteria.

RULES OF PRACTICE: INTERVENTION

Late intervention petitions filed by Indians must be measured against the usual criteria of 10 CFR 2.714; their delay in filing is not made irrelevant by any "preferential status" that Indians might have in other contexts.

Messrs. F. Theodore Thomsen and Douglas L. Little, Seattle, Washington, for the appellants, Puget Sound Power & Light Company, *et al.*

Mr. Russell W. Busch, Seattle, Washington, for the Upper Skagit Indian Tribe and the Sauk-Suiattle Indian Tribe, and **Mr. Donald S. Means,** LaConner, Washington, for the Swinomish Tribal Community, appellees.

Mr. Roger M. Leed, Seattle, Washington, for the intervenor, Skagitonians Concerned About Nuclear Plants.

Messrs. Richard L. Black and Daniel T. Swanson for the Nuclear Regulatory Commission staff.

DECISION

This is a construction permit proceeding involving the proposed Skagit nuclear facility, which would be located in the Skagit River Valley in the northwest portion of the State of Washington. In an unpublished order issued on January 12, 1979, we vacated the Licensing Board's decision¹ granting the petitions for intervention filed by three Indian tribes and remanded the issue for further consideration. Stating only our general conclusion that the Board had been unduly influenced by an improper factor in ruling on the tribes' intervention petition, we indicated that we would later supply a full explanation of the reasons underlying that conclusion.² We do so now.

I

Petitioners—the Upper Skagit Indian Tribe, the Sauk-Suiattle Indian Tribe, and the Swinomish Tribal Community—filed their intervention petition on June 13, 1978. The prescribed deadline for filing such petitions had passed on January 20, 1975—three and a half years earlier.³ Consequently, although no one questioned petitioners' stated interest in the proceeding—they are federally recognized tribes with treaty fishing rights in the vicinity of the Skagit site⁴—their extreme tardiness became a bone of contention.

As framed by the parties before the Board below, the dispute focused on the Commission's criteria for granting late intervention, set forth in 10 CFR 2.714.⁵ In their petition, the tribes (1) sought to justify the lateness of their

¹LBP-78-38, 8 NRC 587 (November 24, 1978).

²We issued the January 12 order (4 days after receiving the last brief in the case) in order to assist the Licensing Board and counsel, who were scheduled to participate in a planning conference shortly thereafter.

³See 39 Fed. Reg. 44065, 44066 (December 30, 1974).

⁴Each of the tribes was a party to the Treaty of Point Elliott, 12 Stat. 927, which was proclaimed in 1859. The treaty provides in pertinent part that "[t]he right of taking fish at usual and accustomed grounds and stations is further secured to said Indians in common with all citizens of the territory. . . ."

⁵In relevant part, Section 2.714(a) provides:

Nontimely filings will not be entertained absent a determination by the Commission, the presiding officer, or the atomic safety and licensing board designated to rule on the petition and/or request, that the petition and/or request should be granted based upon a balancing of the following factors in addition to those set out in paragraph (d) of this section:

- (i) Good cause, if any, for failure to file on time.
- (ii) The availability of other means whereby the petitioner's interest will be protected.
- (iii) The extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record.

(Continued on next page)

filing on several grounds,⁶ (2) asserted that application of the other factors enumerated in Section 2.714 favored grant of intervention,⁷ and (3) described the special concerns they want to pursue as intervenors.⁸ The applicants opposed the petition on the ground that application of the Section 2.714 factors did not favor intervention; the NRC staff initially agreed with the applicants but then changed its mind and suggested that the tribes could be permitted to intervene.⁹ Intervenor Skagitonians Concerned About Nuclear Plants (SCANP) also supported the tribes.

Although the Licensing Board discussed the intervention issue in terms that reflected a familiarity with Section 2.714, it ultimately rested its decision on another consideration:

Interesting as it may be to review the scope of the Commission's regulations on late filing of petitions to intervene, the precise issue is whether the Indians come within the broad scope of protection that the legislation and the court decisions have accorded them.¹⁰

(Continued from previous page)

(iv) The extent to which the petitioner's interest will be represented by existing parties.

(v) The extent to which the petitioner's participation will broaden the issues or delay the proceeding.

⁶See *Petition to Intervene*, pp. 6-13. Also see *Tribes' Reply Brief*, pp. 12-34, and *Tribes' Brief on Appeal*, pp. 17-18, 24-25. The tribes explain first that, at the time that they could have made a timely filing, they were deeply involved in litigation that ultimately led to judicial recognition of their treaty fishing rights. *United States v. Washington*, 384 F. Supp. 312 (W.D. Wash. 1974), *affirmed*, 520 F.2d 676 (9th Cir. 1975), *certiorari denied*, 423 U.S. 1086 (1976). Subsequently, they claim, posttrial litigation and efforts to establish effective management and enforcement systems at their fisheries occupied both their time and their limited retinue of legal and scientific experts. Third, they contend that, due to newly available information, difficulty in gaining access to the record, and inadequate environmental statements, they had only recently formed an accurate picture of the potential effects of the Skagit project. Finally, they assert that the United States has a trust responsibility to protect the tribes' treaty resources and that they had therefore reasonably been relying on their trustee—through the NRC, the Department of the Interior, or the Forest Service—to act on their behalf. But, in their view, no Federal entity had fulfilled that responsibility; and they therefore concluded, "faced with the growing realization that they have a great deal to lose, [that] intervention [was] the only practical course." *Petition to Intervene*, p. 13.

⁷See *Petition to Intervene*, pp. 13-18, 39-43; *Tribes' Reply Brief*, pp. 9-12, 34-37; *Tribes' Response to Board's Request of September 26, 1978*, pp. 3-8; and *Tribes' Brief on Appeal*, pp. 21-22, 25-26.

⁸In very general terms, those concerns are (1) the socioeconomic impact of the plant on the tribes' fishery and community; (2) possible unique genetic impact of plant radiation due to the tribes' asserted greater exposure risk and higher than average rate of intermarriage; and (3) the effects of various plant components and of construction work on the Skagit River environment and fish population. See generally *Petition to Intervene*, pp. 18-39; *Tribes' Reply Brief*, pp. 2-9; *Tribes' Brief on Appeal*, pp. 3-4.

⁹See *Staff Response to Board Request*, pp. 7-14.

¹⁰LBP-78-38, *supra*, 8 NRC at 595.

The Board below went on to hold that the tribes' petition should be treated as though filed by the United States on their behalf and that, consequently, "the factors recited in the Commission's regulations for a late filed petition to intervene [should] yield to the public interest which the government represents."¹¹ In other words, the Board's views on the "preferential status" of the tribes controlled its consideration and disposition of the intervention petition.

Appealing from the grant of intervention, the applicants contended that the Licensing Board erroneously brushed aside the Section 2.714 criteria and based its decision on improper factors. They also reiterated their position below that, measured against those criteria, the tribes' petition provides inadequate grounds for permitting intervention; and they asked us to deny intervention without a remand. The staff urged that the Board had correctly granted the petition but had given the wrong reason; its proposed solution was that we affirm the result but disapprove those portions of the Licensing Board's opinion relying on the tribes' purported "preferential status." The tribes argued that the Licensing Board's opinion had a proper basis, *i.e.*, that the Board made well-reasoned findings consistent with a grant of intervention under the Section 2.714(a) criteria and therefore reached the proper result on proper grounds.

II

The decision below shows that the Licensing Board arrived at its result by means of a four-step process. The Board first states that the tribes' particular status and their relationship with the United States Government should be the controlling factors. Then it holds that, because of this unique situation, the petition should be treated as though filed by the United States, the tribes' trustee. As such, the Board goes on, the petition could not be barred by laches because that defense is not available against the United States. Completing the syllogism, the Board concludes that the lateness of the tribes' filing could not block its success.

To be sure, the Licensing Board does touch upon the factors covered in Section 2.714.¹² Nonetheless, the Board leaves no doubt that those factors played at most a supporting role in the crafting of its opinion. Taking that opinion as a whole, we are satisfied that the Board misdirected its focus and, accordingly, failed to answer the right questions.

A. As noted above, the central premise in the Licensing Board's decision is that the doctrine of laches may not bar the tribes' late intervention. In other words, the petition, having been filed by Indians, could not be denied

¹¹*Id.* at 597.

¹²Albeit, as the applicants point out, without specifically referring to that section.

in any circumstances, even if there were inexcusable delay or prejudice to other parties. This conclusion, which the Board expresses as a virtual absolute, pervades the entire opinion. For if delay and prejudice are irrelevant, there is no point in giving thoughtful scrutiny to the lateness of the tribes' petition or to whether there would be unfairness in granting it.

At the heart of the Board's "laches" conclusion is its conception of the trust obligation that the United States purportedly owes the petitioners. We have neither cause nor desire at this point to undertake an exhaustive analysis of the relationship between the United States Government and treaty Indians in general, between the government and the particular tribes seeking intervention here, or between specifically named Federal agencies¹³ and those tribes. All we need do is point out why the Licensing Board's simple synthesis is neither sound nor decisive in this instance.

The Board's application of the trust thesis was its own notion. Although the tribes advanced the proposition that the Federal Government and its agencies owe them a fiduciary duty, they have never suggested that the trust relationship establishes that the delay here was *irrelevant*. Rather, they have urged only that their reasonable reliance on the trustee (*i.e.*, the several Federal agencies involved) to protect their interests is one *justification* for the lateness and that the Licensing Board had the discretion so to find under the Commission's regulations.¹⁴ After reviewing the decision below and the relevant law, we can understand why the tribes themselves received the laches holding with only hesitant cordiality.

The short of it is that none of the decisions relied on by the Board below (see 8 NRC at 595-97) supports its thesis that the delay here does not have to be justified but can simply be ignored.¹⁵ Nor have we been pointed to any

¹³The tribes point at three culprits in this regard: at the Interior Department for failing to follow through, via intervention or independent study, on its own noting of Indian fishing rights on the Skagit River; at the NRC staff and the U.S. Forest Service for failing to contact the tribes and involve them in planning the Skagit project; and again at the NRC staff for issuing Environmental Statements that misled them into believing that the plant would have no substantial adverse effects on them or their fisheries. See, *e.g.*, *Petition to Intervene*, pp. 8-10.

¹⁴*Id.* at 8-10, 39-41; *Tribes' Brief on Appeal*, pp. 18-21. Although in the latter brief the tribes do not disavow the decision below concerning fiduciary duty and laches, neither do they vociferously embrace it. They say simply that "the Licensing Board certainly had sufficient discretion under the circumstances of this case to find that the United States, or the Tribes, would be acting in the public interest in asserting the protection of Indian people and treaty rights." *Id.* at 20. But they also note their agreement with the applicants that Section 2.714 controls; and, finally, they deemphasize the laches argument by saying that "[t]here is no time bar here, rather there is a regulation drafted to assist licensing boards in exercising broad discretion." *Id.* at 21.

¹⁵That is, none of them even suggests—let alone establishes—that, in the context of a pro-

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other foundation for that thesis.¹⁶

This puts us back where the case began—with the tribes claiming not that they are immune from the generally applicable law (specifically 10 CFR 2.714) but rather that they have satisfied it. The Licensing Board has given us no good reason to restructure the contest at this point into something that the parties do not care to argue about. As is ordinarily the case when intervention petitions are filed at a late date, there must be a decision on whether the tribes satisfy the usual criteria set forth in Section 2.714.

B. We decline to accept the applicants' request to take on the task of examining whether the tribes have met the regulatory requirements. As a general matter, it is for the licensing boards to make the initial assessment of how late intervention petitions fare in light of the Section 2.714 factors. Moreover, the Licensing Board in this proceeding not only has all the briefs and other information necessary to make a sound determination in short order, but (at least in the persons of its two technical members) is far more familiar than we are with the lengthy, complex history of the proceeding and how its development bears on the application of Section 2.714.¹⁷

When that Board considers the tribes' reasons for delay and the other components of Section 2.714, it should keep in mind just how we and the Commission have construed that regulation. As we pointed out in our January 12th order, a strong excuse for lateness will attenuate the showing necessary on the other four factors.¹⁸ A modification last year of the language of Section 2.714, far from altering that substantive principle, merely codified it.¹⁹

In seeking to intervene here, the tribes have made frequent mention of new developments not only in terms of the actions of the Federal agency "trustees" but also with respect to the Skagit project itself. To the extent that any such development—whether a change in applicants' plans, a new study or discovery, or any other circumstance—relates to the tribes' inter-

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ceeding governed by a federally imposed, generally applicable time period for taking certain actions, the United States or one of its agencies is free to enter the proceeding at any time with neither regard for the time period nor justification for exceeding it.

¹⁶To repeat, whether the delay is *excusable* is an entirely different question. The tribes' status may come into play in that respect, for in now resolving that question the Board below may take into account, *inter alia*, whether and to what extent the tribes may have for a time justifiably relied on government agencies to protect their interests. In that regard, the Board should examine more closely than before any *specific* trust responsibilities owed the tribes.

¹⁷We do not mean to denigrate the role of the Board Chairman; the fact is, however, that a new Chairman has replaced Chairman Jensch (see January 12th order, fn. 6).

¹⁸See January 12th order, p. 3, citing *Florida Power & Light Company* (St. Lucie, Unit 2), ALAB-420, 6 NRC 8, 22 (1977), *affirmed*, CLI-78-12, 7 NRC 939 (1978).

¹⁹The reworked section became effective May 26, 1978. See statement of consideration, 43 Fed. Reg. 17798, 17799 (April 26, 1978).

ests and contentions, it is relevant here. The Licensing Board will be considering this, as well as the tribes' status (to whatever extent it legitimately comes into play)²⁰ when it measures the tribes' contentions against the criteria of Section 2.714(a).²¹

From the beginning, the parties have put this dispute in the proper framework, viewing the tribes' late intervention petition as one that must be assessed as all others are. They are entitled to have the Licensing Board do the same. We assume that, had the Board not been so intent upon its own "preferential status" analysis, it would have devoted more attention to the §2.714 factors as they relate to this proceeding. In any event, it must undertake the required thorough examination of those factors now.

It was for these reasons, outlined in our January 12th order, that we there vacated the order granting intervention and remanded the question for proper consideration. We stress here, as we did there (see fn. 3), that "our ruling should not be taken as evidencing either approval or disapproval of the *result* the Licensing Board reached. It is as free to grant intervention (or to deny it) as it was initially."

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

²⁰See January 12th order, fn. 4.

²¹See also Section 2.714(d) (incorporated by reference in Section 2.714(a)), attributing significance to "[t]he nature and extent of the petitioner's . . . interest in the proceeding."

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Dr. W. Reed Johnson

In the Matter of

Docket No. 50-344

PORTLAND GENERAL ELECTRIC
COMPANY, et al.

(Control Building)

(Trojan Nuclear Plant)

January 30, 1979

The Appeal Board denies motions to stay the effectiveness of the Licensing Board's decision pending appeal.

RULES OF PRACTICE: STAY PENDING APPEAL

In passing upon stay applications, the Appeal Board must look to the four factors set forth in 10 CFR 2.788(e). Those factors are the familiar four which were set out long ago in *Virginia Petroleum Jobbers Association v. Federal Power Commission*, 259 F.2d 921, 925 (D.C. Cir. 1958).

LICENSING BOARD: RESOLUTION OF ISSUES

NRC adjudicatory tribunals are precluded from entertaining issues which do not come within the reach of the matters which both have been placed and remain before them for decision.

Messrs. Ronald W. Johnson, Portland, Oregon, and
Maurice Axelrad, Washington, DC, for the licensees,
Portland General Electric Company, *et al.*

Mr. Eugene Rosolie, Portland, Oregon, for the inter-
venor, Coalition for Safe Power.

Ms. Elizabeth Scott, St. Helens, Oregon, for the inter-
venor, Columbia Environmental Council.

Assistant Attorney General John H. Socolofsky,
Salem, Oregon, for the State of Oregon.

Mr. Joseph R. Gray and Ms. Marjorie B. Ulman for
the Nuclear Regulatory Commission staff.

MEMORANDUM AND ORDER

I

The Trojan nuclear facility received an operating license in November 1975. The seismic criteria pertaining to the facility assign a peak acceleration value of 0.25g to the safe shutdown earthquake. That is to say, the facility design must be such as to insure that, should there be an earthquake providing that level of vibratory ground motion at the site, the structures, systems, and components necessary to bring about a safe shutdown of the reactor will remain functional.¹ See 10 CFR Part 100, Appendix A, Section III(c). In addition, the criteria assign a peak acceleration value of 0.15g to the operating basis earthquake. That is to say, the facility must be designed so that, should there be an earthquake providing that level of vibratory ground motion at the site, the plant nonetheless could continue in normal operation without undue risk to the public health and safety.² See 10 CFR Part 100, Appendix A, Section III(d).

In April 1978, the licensees brought to the attention of the NRC staff that certain "design errors" had been discovered with respect to the shear walls of the facility's control building. The staff's ensuing investigation of the matter led it to conclude that, as a result of those errors, the design of the control building was not such as to meet the criteria relating to the operating basis earthquake; *i.e.*, there was not the requisite assurance that, should a 0.15g earthquake occur, the reactor could safely continue in normal operation. At the same time, however, the staff determined that the criteria applicable to the safe shutdown earthquake were still satisfied; *i.e.*, notwithstanding the design errors, the reactor structures, systems, and components essential to safe shutdown would continue to function in the event of a 0.25g earthquake.³

¹There is no present dispute that the 0.25g value is sufficiently conservative for the Trojan site. See, in this connection, the discussion of the geology and seismology of the site contained in the initial decision rendered in the construction permit proceeding. *Portland General Electric Company* (Trojan Nuclear Plant), 4 AEC 529, 532-33 (1971).

²The 0.15g value likewise is not in present dispute.

³The basis for these determinations was set forth in a written safety evaluation.

On May 26, 1978, the Acting Director of the Commission's Office of Nuclear Reactor Regulation issued an order which recited the foregoing determinations and directed that the licensees modify the control building to rectify the nonconformance with the seismic criteria. 43 Fed. Reg. 23768 (June 1, 1978).⁴ The order indicated that the staff was prepared to allow the interim resumption of operation of the reactor pending the undertaking and completion of the modifications,⁵ provided that certain conditions were observed:

- (a) no modification which may in any way reduce the strength of the existing shear walls shall be made without prior NRC approval; and
- (b) in the event that an earthquake occurs that exceeds the facility criteria for a 0.11g peak ground acceleration at the plant site, the facility shall be brought to a cold shutdown condition and inspected to determine the effects, if any, of the earthquake on the facility. Operation cannot resume under these circumstances without prior NRC approval.

Id. at 23769-70. The order ended with the notation that the licensees or any other person whose interest might be affected by the order might file a request for a hearing. *Id.* at 23770.

Several organizations and individuals successfully petitioned for intervention and for a hearing. In addition, the State of Oregon was granted leave to participate in the proceeding under the "interested State" provisions of 10 CFR 2.715(c). Thereafter, a notice of evidentiary hearing was issued by the Licensing Board. 43 Fed. Reg. 34847 (August 7, 1978). The notice explicitly stated that the hearing would be confined to two issues:

- (1) Whether interim operation prior to modifications required by [the May 26, 1978] order for modification of license should be permitted; and
- (2) Whether the scope and timeliness of the modifications required by [the May 26, 1978] order to bring the facility into substantial compliance with the license are adequate from a safety standpoint.

On the licensees' motion, the Licensing Board entered an order on August 25, 1978, in which it directed a bifurcated hearing on the two issues. In accordance therewith, the Board took evidence, over a total of 15 hearing

⁴The safety evaluation (see fn. 3, *supra*) was issued contemporaneously with the order.

⁵At the time, the reactor was shut down for refueling.

days, on the issue whether the facility should be allowed to operate pending a determination as to the precise nature of the required modifications. Following the conclusion of the hearing, the licensees, the staff, and Oregon filed proposed findings. But none of the intervenor organizations and individuals did so.

On December 21, 1978, the Licensing Board rendered its partial initial decision on the interim operation question. LBP-78-40, 8 NRC 717. On the basis of the findings contained therein, the Board concluded that reasonable assurance existed that such operation would not endanger the public health and safety so long as the license amendment authorizing such operation contained the following conditions:

- (a) no modification which may reduce the strength of the existing shear walls shall be made without prior NRC approval; and
- (b) in the event that an earthquake occurs that exceeds the facility criteria for a 0.08g peak ground acceleration at the plant site, the facility shall be brought to a cold shutdown condition and be inspected to determine the effects, if any, of the earthquake. Operation cannot resume under these circumstances without prior NRC approval.

8 NRC at 746, 748. The Board further directed that:

Operation of the Trojan facility pursuant to this amendment may commence only after completion of such additions and modifications of pipe supports and pipe restraints as are necessary to assure that piping systems within the control, auxiliary, and fuel building complex required for safe shutdown and to maintain offsite doses from accidents to within the guidelines of 10 CFR Part 100, are qualified to withstand earthquakes up to and including the 0.25g SSE.

Id. at 748

II

Before us now are motions of the two intervenor organizations—Coalition for Safe Power (Coalition) and Columbia Environmental Council (Council)—for a stay of the effectiveness of the partial initial decision pending appeal. At the outset, it must be noted that, although the Coalition has taken an appeal from the decision under 10 CFR 2.762(a), the Council has not. In these circumstances, it is doubtful at best that the Council's motion will lie. As we read the applicable Rule of Practice (10 CFR 2.788), the right to seek stay relief is conferred only upon those who have filed (or intend to

file) a timely appeal from the decision or order sought to be stayed. We need not, however, pursue that point further. For, on an examination of the papers submitted by the two organizations and of the underlying record, we agree with the licensees, Oregon, and the staff that entitlement to stay relief has not been established by either movant.

In passing upon stay applications, we must look to the four factors set forth in 10 CFR 2.788(e):

- (1) Whether the moving party has made a strong showing that it is likely to prevail on the merits;
- (2) Whether the party will be irreparably injured unless a stay is granted;
- (3) Whether the granting of a stay would harm other parties; and
- (4) Where the public interest lies.⁶

Whatever may be the relative weight which normally attaches to each of the four factors, in the circumstances of this case the pivotal consideration must necessarily be the strength of the movants' demonstration that the Licensing Board likely erred in finding reasonable assurance that interim operation of the Trojan facility would not produce a seismic-related danger to the public health and safety. Absent such reasonable assurance, the facility should not be permitted to operate irrespective of any other considerations. By the same token, if the Board's ultimate safety finding has not been shown to be flawed, there is no perceivable reason why the authorization of interim operation should be stayed.

Far from making a reasonably convincing showing of Licensing Board error, neither movant has made any showing at all. As we have seen, control building design modifications are required for the sole purpose of insuring that the facility can continue to operate safely if a 0.15g earthquake were to occur.⁷ Until such time as those modifications have taken place, the plant

⁶"Those factors are the familiar four which were set out long ago in *Virginia Petroleum Jobbers Association v. Federal Power Commission*, 259 F.2d 921, 925 (D.C. Cir. 1958). . . . Even before the promulgation of Section 2.788, the *Petroleum Jobbers* factors were deemed to govern the disposition of applications for stay relief filed with this Board." *Public Service Company of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-505, 8 NRC 527, 529 (November 2, 1978), and cases there cited.

⁷Movants do not appear to challenge the staff's conclusion that the plant's present design would enable a safe shutdown of operations in the event of a 0.25g earthquake. As the Licensing Board noted, that conclusion was supported at the hearing by an expert witness presented by Oregon. 8 NRC at 734-735.

must cease operation in the event of an earthquake having a less than 0.15g effective peak ground acceleration. In concluding that, for the interim operation period, the plant will be required to shut down for inspection if an earthquake as large as 0.08g occurs, the Board adopted what it deemed to be a possibly "overly conservative" recommendation of the staff. 8 NRC at 735.⁸ Movants have called our attention to nothing in the record to suggest that the Licensing Board was wrong about this. More particularly, they have not pointed to any deficiencies in the analyses performed by both the staff and the licensees' outside consultants (upon which the ultimate selection of the 0.08g value rested).

The Coalition's papers do attempt to raise a wide variety of other issues. None of them, however, appears to have any bearing upon whether it is safe, from a seismic standpoint, to permit interim operation subject to the conditions imposed by the Licensing Board. Rather, most of the matters put forth are well beyond the limited scope of this proceeding (e.g., ECCS calculational errors and the alleged failure of the licensees to have taken steps in the past to protect plant personnel from undue radiation exposure).⁹ With respect to the Coalition's complaint that the Board failed to acknowledge the concerns expressed by Robert Pollard during his limited appearance, the partial initial decision reflects on its face that those concerns were considered to the extent that they involve matters relevant to the facility's seismic criteria. See 8 NRC at 738-740, 746.¹⁰

In view of the foregoing, we are constrained to conclude that the movements have not come close to providing a sufficient justification for granting the requested stay relief.

The motions for a stay of the effectiveness of the December 21, 1978, partial initial decision are *denied*.

⁸In this connection, the Board noted that the licensees' testimony would have justified the selection of 0.11g as the appropriate cold shutdown level. *Ibid*.

⁹Just a month ago, we had occasion to stress that NRC adjudicatory tribunals are precluded from entertaining issues which do not come within the reach of the matters which both have been placed and remain before them for decision. In this connection, we noted that the Director of Nuclear Reactor Regulation may be requested under 10 CFR 2.206 to institute a show-cause proceeding to consider whether, for reasons extraneous to the issues being litigated in the existing proceeding, action should be taken against an outstanding license or permit. *Public Service Company of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-513, 8 NRC 694 (December 21, 1978). We do not pass here upon whether such a request would be warranted with respect to this facility.

¹⁰The Coalition also asserts that the Licensing Board erred in holding that the sought license amendment does not need to be accompanied by an environmental impact statement. Although we fail to see the relevance of that assertion to the question of precluding interim operation our preliminary conclusion is that the Licensing Board was quite right on this point.

It is so ORDERED.

FOR THE APPEAL BOARD

**Margaret E. Du Flo
Secretary to the Appeal Board**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Charles Bechhoefer, Chairman
Dr. David R. Schink
Frederick J. Shon

In the Matter of

Docket No. 50-341

DETROIT EDISON COMPANY, et al.

(Enrico Fermi Atomic Power Plant,
Unit 2)

January 2, 1979

The Licensing Board grants a citizen group's request for a hearing and petition to intervene in operating license proceeding. Ruling on the group's contentions, it accepts some as stated and others conditionally; rejects some entirely, and the rest subject to further consideration.

RULES OF PRACTICE: STANDING TO INTERVENE

Judicial concepts of standing govern whether a petitioner seeking to intervene in an NRC proceeding has made an adequate showing of interest, *i.e.*, has demonstrated "injury in fact" and that the interest is "arguably within the zone of interest" protected by the relevant statute.

RULES OF PRACTICE: STANDING TO INTERVENE

An organization which seeks to base its showing of standing on the interests of its members must (1) specify the name and address of at least one affected member who wishes to be represented by it and (2) show that it has authorized the person signing the petition to do so.

RULES OF PRACTICE: STANDING TO INTERVENE

A petitioner may base its standing to intervene upon a showing that his or her residence, or that of its members, is "within the geographical zone that might be affected by an accidental release of fission products." *Loui-*

siana Power and Light Company (Waterford Steam Electric Station, Unit 3), ALAB-125, 6 AEC 371, 372, n. 6 (1973).

RULES OF PRACTICE: CONTENTION REQUIREMENTS FOR INTERVENTION

To permit intervention, a board need find only one of the petitioner's contentions that satisfies the requirements of 10 CFR 2.714(b) as to specificity and bases.

EMERGENCY PLAN: PROTECTION OF PERSONS OUTSIDE LPZ

Under currently effective Commission regulations, an applicant need not formulate an emergency plan for areas outside the low population zone (LPZ). Under proposed rules (which licensing boards have been directed to use as guidance prior to the issuance of the final rule), there would need to be shown particular information why an emergency plan for areas outside the LPZ would be warranted in order for boards to consider such a plan.

LICENSING BOARD: CONSIDERATION OF GENERIC ISSUES

A licensing board conducting an operating license hearing must give consideration to generic safety problems, even if no party has submitted contentions in that area.

OPERATING LICENSE: DISPOSAL OF SPENT FUEL

In an operating license proceeding neither the staff nor the Licensing Board need consider the ultimate disposal of spent fuel in light of the Commission's implicit finding that there is reasonable assurance that methods of safe permanent disposal of high-level wastes can be available when needed.

RULES OF PRACTICE: INTERVENTION (INTEREST)

The economic interests of an organization's members as ratepayers are outside the "zone of interests" of either the Atomic Energy Act or the National Environmental Policy Act.

LICENSING BOARD: SCOPE OF REVIEW

It is inappropriate for a licensing board to assess the validity of an environmental impact statement prepared by another Federal agency in con-

nection with action by that agency which is independent of the operating licensing proceeding.

NEPA: CONSIDERATION OF ALTERNATIVES

Consideration of alternatives to a nuclear plant is more properly performed at the construction permit stage than at the operating license stage. For consideration at the operating license stage, at the very least, a strong showing would have to be made that there exists a significant issue which had not previously been adequately considered or significant new information which had developed after the construction permit review.

RULES OF PRACTICE: INTERVENTION (DISCRETIONARY)

The most important factor in determining the appropriateness of intervention as a matter of discretion is whether petitioner's participation "would likely produce 'a valuable contribution' " to the decisionmaking process. *Virginia Electric and Power Company* (North Anna Power Station, Units 1 and 2), ALAB-363, 4 NRC 631, 633 (1976); *Public Service Company of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, 1145 (1977); *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Units 1 and 2), ALAB-413, 5 NRC 1418 (1977).

PREHEARING CONFERENCE ORDER RULING UPON INTERVENTION PETITIONS

On September 11, 1978, the Nuclear Regulatory Commission published a notice of opportunity for hearing in this operating license proceeding involving the Enrico Fermi Atomic Power Plant, Unit 2, a boiling water reactor located on the western shore of Lake Erie in Frenchtown Township, Monroe County, Michigan. 43 Fed. Reg. 40327. Requests for a hearing and petitions for leave to intervene were filed, respectively, by the Citizens for Employment and Energy (CEE) and by two individuals, Martha Drake and Dan Drake. In our Memorandum and Order dated November 13, 1978 (LBP-78-37, 8 NRC 575), we outlined some of the background information concerning these petitions; we need here note only that we there ordered a special prehearing conference to be convened on December 18, 1978, to consider the petitions and that we permitted supplements to the petitions to be filed until December 4, 1978.¹

¹Notice of the prehearing conference was published at 43 Fed. Reg. 54148 (November 20, 1978).

CEE filed such a supplement; the Drakes did not. Responding to the suggestion in our memorandum of December 4, 1978, the Applicants and Staff on December 15, 1978, each filed answers to CEE's supplemental petition. (Those parties previously had filed responses to CEE's and the Drakes' original petitions.)

In their original filings, the Applicants and Staff both had pointed to various deficiencies in the two intervention petitions which, in the respective opinions of those parties, precluded the grant of either petition. In their supplemental response, the Applicants continued to find inadequate CEE's demonstration of standing. The Applicants also took the position that, for a variety of reasons, none of the contentions advanced by CEE in its supplemental petition satisfied the requirements of the NRC Rules of Practice. On the other hand, the Staff asserted that CEE had satisfactorily demonstrated its standing to intervene and that several of its contentions were adequate; it concluded that CEE's intervention petition should be granted.

CEE appeared at the prehearing conference, through several of its members. Neither of the Drakes attended the conference. However, counsel for the NRC Staff read into the record a letter to him, dated December 10, 1978, from Mrs. Drake, advising that she and her son wished to withdraw their petition (Tr. 17-18). (This letter had neither been sent to the Board nor, apparently, served on any other party; the Staff subsequently arranged for such service.)

For reasons which follow, we grant the petition to intervene of CEE. In addition, based on the letter to NRC Staff counsel, we grant the Drakes' request to withdraw their petition.² A notice of hearing, in the form of the attachment hereto, is today being issued.

I

1. Commission rules provide that, in order to be found acceptable, an intervention petition must "set forth with particularity the interest of the petitioner in the proceeding, how that interest may be affected by the results of the proceeding . . . and the specific aspect or aspects of the subject matter of the proceeding as to which petitioner wishes to intervene." 10 CFR 2.714(a)(2). In addition, a petitioner must file "a list of the contentions which [it] seeks to have litigated in the matter, and the bases for each contention set forth with reasonable specificity." 10 CFR 2.714(b). A petitioner that fails to meet these requirements with respect to at least one contention

²Mrs. Drake asked that she be kept on the mailing list for this proceeding. The Board asked the Staff to arrange for that to occur (Tr. 18).

is not to be permitted to participate as a party. *Ibid.*

The Commission has ruled that judicial concepts of standing govern whether a petitioner has made an adequate showing of interest. *Portland General Electric Company* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 612 (1976). To satisfy this standard, which is requisite to participation in a proceeding as a matter of right, a petitioner must demonstrate (1) "injury in fact" and (2) that the interest is "arguably within the zone of interest[s]" protected by the relevant statute—in this case, the Atomic Energy Act and the National Environmental Policy Act. *Id.* at 613. If it should fail to do so, a petitioner may nevertheless be permitted to participate as a matter of discretion, where it can "make some contribution to the proceeding." *Id.* at 612.

2. CEE founds its demonstration of standing upon the interests of its members. We have pointed out previously that this course of action is open to it. LBP-78-37, *supra*, 8 NRC at 583. We also noted, however, that an organization which elects this method for demonstrating interest must identify specifically the name and address of at least one affected member who wishes to be represented by the organization. *Ibid.* Further, the petition must also show that the person signing it has been authorized by the organization to do so. *Id.* at 583.

At the time, CEE had stated only that "at least" one member—not further identified—resides within one mile of the plant and other members—also not identified—reside "at slightly greater distances." The petition was signed by a member with no indication that he was authorized to do so. With its supplemental petition, however, CEE furnished an affidavit of one of its members, listing his name and address and stating that he resides within 35 miles of the proposed plant,³ that he is a member of CEE and desires CEE to represent his interests in the proceeding, and that he adopts and supports the statements of interests and contentions delineated in CEE's amended petition. CEE also submitted a statement by the "organizer, founder, and acting director" of CEE to the effect that the individuals signing the original and supplemental petitions were authorized to do so. In addition, at the prehearing conference, CEE offered (and the Board accepted) the affidavit of another member who resides within 2 miles

³The Applicants questioned whether this member was a permanent resident or, instead, might be a student at a nearby university who, for that reason, might not live in the area during the time when the facility would be in operation. We need not decide whether a "nonpermanent" resident could be denied intervention on that basis inasmuch as the particular member appeared at the prehearing conference and indicated he was *not* a student and planned to live in the area for the foreseeable future (Tr. 19-20).

of the facility, also authorizing CEE to represent his interests and adopting the statements in CEE's supplemental petition.⁴

A petitioner may base its standing upon a showing that his or her residence, or that of its members, is "within the geographical zone that might be affected by an accidental release of fission products." *Louisiana Power and Light Company* (Waterford Steam Electric Station, Unit 3), ALAB-125, 6 AEC 371, 372, n. 6 (1973). Distances of as much as 50 miles have been held to fall within this zone. *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Units 1 and 2), ALAB-413, 5 NRC 1418, 1421, n. 4 (1977) (50 miles); *Northern States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-107, 6 AEC 188, 193 (1973) (40 miles). Even if we were to give no weight whatsoever to CEE's statement that one of its members (not further identified) lives within one mile of the plant, it is clear that the residences of the identified members 35 and 2 miles from the site, respectively, lie within the zone potentially affected by an accidental release of radioactivity.

The Applicants assert that CEE has failed to "particularize" the interest of any of its members; it apparently seeks a statement not only that the member resides in a potentially affected area but, as well, "what specific interests of the member might be affected by the results of this proceeding" and "what specific interests CEE is to advocate on the member's behalf." Given CEE's statement that accidental releases of radiation from the plant would adversely affect the economic and property interests of CEE's members residing near the plant and the health of those same members, and given the fact that the two specifically identified CEE members have adopted those statements, we are at a loss to envisage what further specificity could reasonably be imposed on a potential intervenor whose residence falls within the zone which has already been acknowledged by Appeal Board decisions as being potentially affected by an accident. In any event, we conclude that CEE has satisfactorily set forth with sufficient particularity its interest in the proceeding and how that interest may be affected by the results of the proceeding.⁵ Its contentions demonstrate the aspects of the

⁴The affidavit was read into the record (Tr. 28). CEE was advised that it should file the original with the Secretary of the Commission and should serve other parties. Its representative agreed to do so (Tr. 28-29).

⁵The Applicants also argue that the interests of members which an organization seeks to represent must be germane to the organization's purposes (citing *Hunt v. Washington State Apple Advertising Commission*, 432 U.S. 333, 343, 97 S.Ct. 2434, 2441 (1977)). They argue that, based on the statement in the CEE petition, the organization's purpose is merely to disseminate information about and stimulate public awareness and involvement in the study of

(Continued on next page)

proceeding in which it wishes to participate. That being so, we hold that CEE has adequately demonstrated its standing to participate in this proceeding.

II

1. CEE has submitted 16 different contentions (paragraphs 4-19 of its amended petition), many of which are subdivided into a number of constituent parts. To permit intervention, a board need find only one which satisfies the requirements as to specificity and bases. 10 CFR 2.714(b); *Northern States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-107, 6 AEC 188, 194 (1973). Several of CEE's contentions clearly meet these standards, and others are susceptible of being modified in limited respects in order to do so. We will deal with the contentions *seriatim*.

Paragraph 4 of the petition alleges quality control problems with respect to construction of the plant. It identifies three "[s]pecific flaws in construction," of which at least the first two seem to warrant further inquiry;⁶ it states that the project's construction supervisors and contractor were replaced because of their refusals to "sacrifice quality control in order to expedite the construction schedule"; it additionally points to poor physical security at the construction site as a potential cause of construction flaws; and it specifies that a member of CEE "who is and has been personally involved in the construction" of the plant is available to support the contention (see also Tr. 53). Although some statements in the paragraph are ambiguous and in need of further refinement, the paragraph clearly includes a litigable issue. Insofar as it raises the specific matters identified above, the contention is accepted; the remainder of the contention is accepted on the

(Continued from previous page)

nuclear power and alternative generating sources and that it does not extend to furthering the individual interests and concerns of its members. CEE disagrees, adding that it has in fact intervened in other proceedings (Tr. 30). From what is before us, we cannot conclude either that the intervention is outside the scope of CEE's explicit purposes or that such participation will not assist it in disseminating information about nuclear power. Beyond that, we question whether this Board is the proper forum before which the question whether an organization is acting in accord with its own authorizing charter may be raised. *Cf. Cleveland Electric Illuminating Company* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-443, 6 NRC 741, 747-48 (1977).

⁶The Applicants insist that these matters were resolved in the construction permit review. Although evidence may have been introduced, the Applicants concede that the construction permit Licensing Board made no explicit findings with regard thereto (Tr. 61). Moreover, at the construction permit stage the proceeding was not contested. In such circumstances, we decline to treat that Licensing Board's general findings as an implicit resolution of these matters, as the Applicants suggest (*ibid.*).

condition that it be clarified and made more specific (as is discussed later in this opinion).

Paragraph 5 challenges the adequacy of the plant's radiation monitoring system. Although it is somewhat ambiguous, it at least seems to advocate a completely remote control system. In order to be a proper foundation for a litigable issue, however, this contention should be made more specific. In addition, we suggest that subparagraph (e)(3) of paragraph 4 properly belongs with this contention. Subject to such revision, this contention is also accepted.

Paragraph 6 questions the ability of "numerous components" of the facility to withstand 40 years of operation, and asserts that the Applicants have failed to provide adequate procedures for inspection and replacement of those components. The experience at Palisades, Fermi 1, and "other plants" is put forth as a basis. Neither of the named plants is a boiling water reactor, but when questioned about this at the prehearing conference, CEE also identified Duane Arnold (which is a boiling water reactor) as another example of a situation where a component ("coolant pipes") had prematurely failed (Tr. 90-91). Subject to further clarification and specification as to which components are included, this contention is accepted.

Paragraph 7 has been withdrawn as a contention (Tr. 91).

Paragraph 8 raises questions as to the plant's emergency plan. The introductory sentence challenging the lack of emergency plans and procedures for all towns within a 100-mile radius of the plant, including Detroit, is too broadly written, and not supported by any information which would warrant a conclusion that such plans are necessary. Moreover, as both the Applicants and Staff point out, under currently effective Commission regulations an applicant need not formulate an emergency plan for areas outside the low population zone. *New England Power Company* (NEP, Units 1 and 2), *et al.*, ALAB-390, 5 NRC 733 (1977). Detroit and other unspecified towns within CEE's proffered 100-mile radius are outside that zone, which in this case apparently covers a radius of 3 miles from the plant. See the Staff's Interim Safety Evaluation Report (NUREG-0314, September 1977), p. 2-2. Moreover, even under the Commission's proposed rule for facility emergency planning, 43 Fed. Reg. 37473 (August 23, 1978) (which we have been directed to use as guidance prior to the issuance of the final rule), there would be no basis for exploring the necessity for an emergency plan for an area with a 100-mile radius (or as distant as the city of Detroit)⁷ absent par-

⁷Detroit is centered about 30 miles north-northeast of the facility. FES (construction permit), July 1972, p. II-1.

ticular information why such a plan would be warranted. No such information has been provided us.

On the other hand, a specific contention is created by the statement that there may not be a "feasible escape route for the residents of the Stony Pointe area" because the "only road leading to and from the area, Pointe Aux Peaux, lies very close to the reactor site," and in the event of an accident, "the residents would have to travel towards the accident before they could move away from it." The Applicants would require greater specificity as to why the emergency plan for the Stony Pointe area is inadequate. The Staff would accept this aspect of the contention. In view of the Appeal Board's remarks in *Southern California Edison Company* (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-248, 8 AEC 957, 963 (1974),⁸ it is obvious to us that CEE has pinpointed a potential deficiency in the plan. Insofar as it relates to the Stony Pointe area, the contention is accepted.

Paragraph 9 also involves the emergency plan; it questions the adequacy of radiation treatment facilities in the event of an accident. As the Applicants and Staff correctly observe, CEE has failed to provide any factual support for this contention. Nor has it pointed out why the emergency plan submitted as part of the Final Safety Analysis Report is inadequate. The contention is thus not acceptable at this time. However, the Staff has not completed its review of the emergency plan. After it does so, CEE may supplement this contention with specific examples of deficiencies in the plan insofar as it deals with radiation treatment facilities.

Paragraph 10 questions whether adequate solutions have been reached for generic safety questions applicable to this plant. Several such questions are identified. CEE cites NUREG-0410, the Staff document outlining the program for resolving generic safety issues, and the Appeal Board decision in *Gulf States Utilities Company* (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760 (1977), as foundations for this contention. The Applicants claim that greater specificity must be demonstrated, referring to remarks in *River Bend* to the effect that "mere identification of a generic technical matter" is not sufficient to establish an issue in controversy. And they fault CEE for "not even refer[ring] to the Application." In contrast, the Staff states that to date it has not addressed the generic problems with respect to this reactor and that, until it does so, CEE need not be held to any greater specificity. Further, at the prehearing conference, the Applicants indicated that some, but not all, of the generic safety matters had been considered in their FSAR (Tr. 94). Given that concession, we find it not reasonable to require greater specificity at this time.

⁸"It strains credulity to expect that people will drive closer to a reactor in order to escape from an emergency generated by the reactor. In the vernacular, it might appear to them that they were jumping from the frying pan into the fire." 8 AEC at 963.

In addition, assuming a hearing is to be held, we will be required to address this question to at least some extent, even in the absence of a contention related thereto. See *Virginia Electric and Power Company* (North Anna Nuclear Power Station, Units 1 and 2), ALAB-491, 8 NRC 245 (August 25, 1978). The contention accordingly is accepted. After the Staff has issued its evaluation of the generic matters, CEE must particularize any such matters which it believes have not been adequately resolved, including reasons for its belief.

Paragraph 11 raises the question of whether the plant is adequately designed to withstand floods. Although the petition includes no basis for any concern about this problem, CEE at the prehearing conference indicated that it believed that two or three floods occurring after issuance of the construction permit had not adequately been considered (Tr. 99-102). The Applicants and Staff claim that these floods were of less magnitude than the maximum probable flood considered in the review of the plant (Tr. 103, 104) and that the contention should thus be rejected. These are factual claims going to the merits of the contention, upon which we are not authorized to base our decision. Accordingly, insofar as it claims that the postconstruction permit floods have not adequately been considered, the contention is accepted.

As CEE specifically admits (Tr. 105), paragraph 12 constitutes a challenge to the Commission's regulations in 10 CFR Part 20. Such challenges are prohibited by 10 CFR 2.758, and CEE has not made the showing of "special circumstances" contemplated by that section to justify further consideration of such a challenge. The contention (including all its subparts) is therefore rejected.

As explained by CEE at the prehearing conference, paragraph 13 questions whether the Applicants have correctly taken into account the "reconcentration factor of certain radionuclides" in assessing whether the plant will comply with 10 CFR Part 50, Appendix I (Tr. 106). The Applicants and Staff assert that this contention lacks specificity and basis; the Staff additionally states that reconcentration factors have been considered in 10 CFR Part 20 and Appendix I standards and will thus be taken into account in analyzing the facility's radioactivity releases. The Staff conceded, however, that the method of doing so is not prescribed by regulation but rather is the subject of a regulatory guide; hence, the propriety of any given method of taking reconcentration factors into account is subject to inquiry in a proceeding (Tr. 107-08). In addition, CEE indicated its willingness to consult its technical advisors in order to explain more satisfactorily its dissatisfaction with the Applicants' calculations (Tr. 86, 106). Subject to its doing so, the contention is accepted.

Paragraph 14, with its four subparagraphs, raises questions concerning the releases of radiation at various stages of the nuclear fuel cycle. The Applicants regard it as raising safety issues (Tr. 109), whereas the Staff treats it at least in part as raising environmental questions. We will consider it in both lights inasmuch as on its face the petition is not entirely clear as to which type of issue CEE intends to raise. (At the prehearing conference, CEE indicated it had environmental issues in mind with respect to certain aspects of the contention (Tr. 113), but it did not abjure the safety questions which also inhere in its contention.)

We read paragraph 14(a), involving impacts from the release of radon in the mining and milling of uranium, solely as an environmental issue. As such, it clearly constitutes a valid contention. See 43 Fed. Reg. 15613 at pp. 15615-16 (April 14, 1978); *Philadelphia Electric Company* (Peach Bottom Atomic Power Station, Units 2 and 3), *et al.*, ALAB-480, 7 NRC 796 (1978). We reject the Applicants' claim that CEE must show that the additional radon impact attributable to this facility would tip the cost-benefit balance against license issuance. The contention is therefore accepted. But we note that the Commission is considering resolving this issue on a generic basis. If it should do so prior to the completion of this proceeding, we will of course be bound by such resolution. *Potomac Electric Power Company* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 82-83 (1974).

Subparagraph 14(b) states that the routine "allowable" releases and "common accidental releases" of radioactivity will cause excessive cancers. The Applicants, treating the contention as a safety question, regard it as an attack on the Commission's radiation standards and hence barred by 10 CFR 2.758. The Staff would reject the contention for lack of the requisite basis and specificity. Both positions have merit. The contention is therefore rejected.⁹

Subparagraph 14(c) raises the question whether the storage of spent fuel at the site has been adequately protected against internal or external sabotage.¹⁰ This seems to be a safety issue; but, whether safety or environmental, it clearly lacks the requisite specificity or basis. It is therefore rejected.

Subparagraph 14(d) asserts that there are both health and economic problems arising from the failure—presumably of the Applicants or Staff—to demonstrate a method for the effective long-term storage of high-level and transuranic wastes. The Applicants consider this to be a safety issue

⁹CEE's vague reference at the prehearing conference to studies of Drs. Mancuso and Sternglass (Tr. 120) does not in our opinion cure the defects.

¹⁰CEE has dropped the portion of the contention relating to safety problems attendant upon "overstorage" of spent fuel (Tr. 120).

and, under the provisions of 10 CFR 50.57, outside the scope of this proceeding. They also cite the decision in *NRDC v. NRC*, 582 F.2d 166 (2d Cir. 1978), *rehearing denied* (September 26, 1978), as authority for the proposition that no safety finding with respect to spent fuel storage need precede reactor operating license issuance. For its part, the Staff cites the Appeal Board decision in *Northern States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41, 49 (1978), where it was held that neither the Staff nor the Licensing Board need concern itself with the matter of the ultimate disposal of spent fuel in light of the Commission's implicit finding (42 Fed. Reg. 34391, July 5, 1977) that there is reasonable assurance that methods of safe permanent disposal of high-level wastes can be available when needed. Furthermore, to the extent this issue is environmental, it appears to be covered by Table S-3 to 10 CFR 51.20; further consideration beyond the values specified in that table is not permitted. *Douglas Point*, ALAB-218, *supra*, 8 AEC at 85-90. The contention does not appear to be concerned with balancing the values for spent fuel storage included in Table S-3. If anything, it seeks to challenge those values. Accordingly, this contention is rejected.

Paragraph 15 raises questions about the future costs and availability of fuel. At the prehearing conference, CEE indicated that it had in mind an environmental issue which would bring into focus the effect of the potential unavailability or scarcity of fuel on the facility's cost-benefit balance (Tr. 134-35, 136). The Applicants take the position that the effects spelled out in subparagraphs (a) and (b) are the economic interests of CEE's members as ratepayers and, as such, outside the "zone of interests" of either the Atomic Energy Act or NEPA. See *Detroit Edison Company* (Enrico Fermi Atomic Power Plant, Unit No. 2), ALAB-470, 7 NRC 473 (1978). It bases this position on the concluding paragraph of the contention, which states:

The implication of (a) and (b) above is that, in addition to unexpected costs which will appear in our rates, CEE members and other Edison customers may in the future be affected by Edison's inability to fuel their nuclear plants (*i.e.*, replacement costs for electricity during shut-downs).

The Staff originally took the position that subparagraph 15(a) created an acceptable contention, but at the prehearing conference it indicated that it had not considered the implications of the foregoing paragraph and that, after doing so, it believed the contention to be impermissible under several earlier decisions (including that relied on by the Applicants) (Tr. 135). We agree with the Applicants' analysis of this contention (as later accepted by the Staff) and accordingly reject paragraphs 15(a) and 15(b) on that basis.

Subparagraph 15(c), concerning the implications of fuel scarcity on the

United States balance of trade, raises an issue which is both speculative and lacking sufficient basis or specificity (as the Staff observes) and beyond the jurisdiction of this Board (as the Applicants assert). It is accordingly rejected.

Paragraph 16 attempts to challenge the legality of the sale of a portion of the facility to Northern Michigan Electric Cooperative, Inc., and Wolverine Electric Cooperative, Inc. CEE reasons that the cooperatives "must satisfy all of the requirements for receiving an operating license without regard to the position of Edison" and that no such showing has been made. We reject this contention for two reasons. First, as the Staff points out, the question of the legality of the sale of a portion of the facility to the cooperatives is beyond the scope of this proceeding. But, even more important, we find this contention to be impermissibly vague. We know of no requirement that every co-owner and co-applicant satisfy all of the requirements imposed upon a lead applicant. When we afforded CEE the opportunity at the prehearing conference to specify in what way the cooperatives could not fulfill any particular responsibilities which may be imposed on them by Commission regulations, it was unable to do so (Tr. 139).¹¹

Paragraph 17 constitutes a collateral attack upon an environmental assessment performed by another agency, the Rural Electrification Administration, based on the fact that there is currently pending a judicial challenge to REA's impact statement prepared in conjunction with financing of the cooperatives' share of the project. We believe it inappropriate for us to assess the validity of REA's impact statement. *Public Service Company of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-493, 8 NRC 253, 266-68 (1978); cf. *Consumers Power Company*

¹¹The Applicants point out that the person who at the time of the filing of CEE's intervention petition was a director of CEE (Dr. Robert Asperger) previously attempted to raise this issue through a show-cause proceeding under 10 CFR 2.206, that the Staff addressed this issue in a letter dated March 3, 1978, that the Commission declined to review the matter, and that no appeal of the Commission's final determination in this matter was taken (Tr. 140). Therefore, according to the Applicants, consideration of this contention should be barred through principles of *res judicata* and collateral estoppel. Cf. *Alabama Power Company* (Joseph M. Farley Nuclear Plant, Units 1 and 2), ALAB-182, 7 AEC 210, *affirmed as to this point*, CLI-74-12, 7 AEC 203 (1974). We disagree. Although the March 3, 1978, letter did reject a challenge to the legality of the sale to the cooperatives, the reasons posed for the asserted illegality were not those which CEE attempts to raise here. Moreover, Dr. Asperger's challenge to the legality of the sale was asserted in his personal capacity. Despite his former participation in the affairs of CEE, that organization need not be freighted with the adjudicatory disabilities brought about by Dr. Asperger's personal activities. (The *Farley* case cited by the Applicants involved the same party attempting to raise the same issues at the operating license stage that he formerly raised at the construction permit stage.)

(Midland Plant, Units 1 and 2), ALAB-458, 7 NRC 155, 174-76 (1978). Moreover, we questioned CEE and the Applicants as to the possible effect on the cooperatives' ability to finance their share of the project should REA's impact statement be found invalid. CEE could specify no such effect (Tr. 143-44); the Applicants stated that there would be no such effect, since the bonds in question had already been issued (Tr. 146-47). The only effect, according to the Applicants, might be further administrative activities by REA; they saw no likelihood that the Applicants might be enjoined from spending the bond proceeds (Tr. 147). The contention is thus far too speculative and, for that reason as well, is rejected.

Paragraph 18 asserts that NRC has failed to address the availability of alternatives to this plant, either at the construction permit stage or thereafter. This contention clearly lacks merit; the construction permit Final Environmental Statement did consider various alternatives (FES, July 1972, §IX, pp. IX-1 through IX-6) and the Licensing Board evaluated that discussion. LBP-72-26, 5 AEC 120, 126 (1972). Furthermore, CEE has not specified any deficiencies in the discussion of alternatives, either in the construction permit FES or in the Applicants' operating license environmental report. The contention therefore lacks the required basis and specificity. Moreover, we agree with the Staff that the assessment of alternatives is more properly performed at the construction permit stage of review. At the very least, we would require a strong showing—not present here—that there exists a significant issue which had not previously been adequately considered or significant new information which had developed after the construction permit review. *Cf.* 10 CFR 51.21. This contention is accordingly rejected.

CEE's final contention, paragraph 19, puts into issue the effects of cooling tower operation given the "peculiar atmospheric conditions" in the Monroe area. The Applicants would reject this contention for vagueness. The Staff initially would have accepted it, in view of its reference to "peculiar atmospheric conditions."

We questioned CEE about the nature of those atmospheric conditions (Tr. 152), but it was unable to provide further specificity. Thereafter, the Staff changed its position and advocated rejection of the contention (Tr. 169).

It appears to us that CEE is not now prepared to come forth with any information with respect to cooling towers which was not already considered at the construction permit stage. See LBP-72-26, *supra*, 5 AEC at 129, 130. At the present time, therefore, we do not accept this contention. Should CEE be able to come forward with additional information with respect to the asserted "peculiar atmospheric conditions" in the area, this determination would of course be subject to reconsideration by the hearing board. If

it decides to pursue this contention, CEE would be well advised to submit the additional information as part of its rewriting of certain contentions, as provided *infra*.

In sum, we accept portions of paragraph 4, one specified part of paragraph 8, paragraph 10, paragraph 11 (interpreted as described above), and paragraph 14(a) as issues in controversy. The remainder of paragraph 4 and paragraphs 5, 6, and 13 are accepted subject to further revision or clarification as earlier described. Paragraphs 9 and 19 are rejected but will be subject to reconsideration if further information is provided. We reject one portion of paragraph 8 and paragraphs 12 (all subparagraphs), 14(b), 14(c), 14(d), 15 (all subparagraphs), 16, 17, and 18. Paragraph 7 and a portion of paragraph 14(c) have been withdrawn.

2. In accepting conditionally certain of the CEE contentions, we have recognized that some have ambiguities and that others need to be somewhat restructured, along the lines indicated in our previous discussion. We have also indicated that two contentions which we rejected might be reconsidered if further information were supplied. It is our belief that CEE should be given further opportunity to improve those contentions—particularly in view of the circumstance that it has not been represented by experienced counsel in these proceedings. *Cf. Public Service Electric and Gas Company* (Salem Nuclear Generating Station, Units 1 and 2), ALAB-136, 6 AEC 487, 489 (1973). The Staff has offered to assist CEE, and CEE expressed a willingness to be assisted (Tr. 46-47, 56). We therefore ask that CEE meet with the Staff (and the Applicants as well) to attempt to refine its contentions and to reach agreement if possible on their wording. By February 2, 1979, the parties are to report to the hearing board their progress in this regard, including contentions as to which there is agreement as to final wording and those where a dispute remains. At that time, the hearing board (which is comprised of the same members as this one) will determine whether a future prehearing conference to resolve contentions is called for or, alternatively, whether a final determination on the “open” issues can be rendered.

III

Because CEE has established standing as of right, there is no necessity for us to treat the question whether or not CEE should be admitted as a matter of discretion. However, inasmuch as all the parties hereto may not agree with our standing determinations, we wish to make it clear that, in the exercise of our discretion, we would admit CEE as a party.

The Commission has spelled out a number of discrete factors which may be taken into account in determining whether a petitioner lacking standing should nevertheless be admitted as a matter of discretion. *Pebble Springs*,

CLI-76-27, *supra*, 4 NRC at 616. Foremost among these is whether such participation "would likely produce 'a valuable contribution'." to the decisionmaking process. *Virginia Electric and Power Company* (North Anna Power Station, Units 1 and 2), ALAB-363, 4 NRC 631, 633 (1976); *Public Service Company of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, 1145 (1977); *Watts Bar*, ALAB-413, *supra*.

For at least two of the issues raised by CEE, it appears that that organization's members could measurably assist in developing an adequate decisional record. With respect to the quality control issue (paragraph 4 of the petition), CEE has identified one of its members who is a construction worker and who will testify as to the alleged construction defects and defective practices (Tr. 53). Such a witness can foreseeably provide a unique contribution to identifying (and perhaps resolving) any construction quality control problems which may exist. And with respect to evacuation of the Stony Pointe area (paragraph 8), CEE's members include at least one from that locale (Tr. 80) who can foreseeably provide significant insights into the problems attendant to transportation in that area. For these reasons, the Board believes that CEE's participation will likely be of assistance in resolving these issues and, accordingly, that it will produce a valuable contribution to the decisionmaking process.

Furthermore, none of the other discrete factors spelled out by the Commission in *Pebble Springs*, CLI-76-27, 4 NRC at 616 (which we need not recite here), operates to dissuade us from our view that adjudicatory consideration of CEE's issues is desirable and that CEE's participation will be of value. Indeed, absent CEE's participation there will be no hearing at all. That being so, even absent standing as of right, we would admit CEE as a matter of our discretion.

IV

For the foregoing reasons, the request for a hearing and petition for intervention of the Citizens for Employment and Energy (CEE) is *granted*.

This order is subject to appeal to the Atomic Safety and Licensing Appeal Board pursuant to the terms of 10 CFR 2.714a. An appeal must be filed within ten (10) days after service of this order. The appeal shall be asserted by the filing of a notice of appeal and accompanying supporting brief. Any party other than the appellant may file a brief in support of or in opposition to the appeal within ten (10) days after service of the appeal.

IT IS SO ORDERED.

**THE ATOMIC SAFETY AND
LICENSING BOARD
DESIGNATED TO RULE ON
PETITIONS FOR LEAVE TO
INTERVENE**

Charles Bechhoefer, Chairman

**Dated at Bethesda, Maryland,
this 2nd day of January 1979.**

**[The attachment has been omitted from this publication but is available in
the NRC Public Document Room, 1717 H Street, N.W., Washington,
D.C.]**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Robert M. Lazo, Chairman
Cadet H. Hand, Jr.
Emmeth A. Luebke

In the Matter of

DUKE POWER COMPANY

(Oconee Nuclear Station and
McGuire Nuclear Station)

Docket No. 70-2623
(Amendment to Materials
License SNM-1773 for Oconee
Nuclear Station Spent Fuel
Transportation and Storage
at McGuire Nuclear Station)

January 9, 1979

The Licensing Board denies an untimely petition to intervene and also denies a petition to intervene where petitioner lacked standing to intervene as of right and did not show the significant ability to contribute to the proceeding necessary for discretionary intervention.

RULES OF PRACTICE: STANDING TO INTERVENE

In order to intervene as of right, a petitioner must have standing, that is, an interest which may be affected by the proceeding.

RULES OF PRACTICE: STANDING TO INTERVENE

An organization that wishes to intervene as of right on behalf of its members must disclose the name and address of at least one of its members whose interest will be affected by the proceeding and must show that it is authorized to act by its members.

RULES OF PRACTICE: STANDING TO INTERVENE

In order to have standing in a representative capacity an organization must establish actual injury to any of its members. *Simon v. Eastern Kentucky Welfare Rights Organization*, 426 U.S. 26, 40 (1976).

RULES OF PRACTICE: STANDING TO INTERVENE

The showing for representational standing is not less rigorous than the showing for individual standing.

RULES OF PRACTICE: STANDING TO INTERVENE

An organization that fails to allege facts showing its members or itself would be injured in fact lacks standing to maintain an action.

RULES OF PRACTICE: STANDING TO INTERVENE

Intervention in NRC domestic licensing proceedings as a matter of right is governed by contemporary judicial doctrines of standings.

RULES OF PRACTICE: INTERVENTION (DISCRETIONARY)

Adjudicatory boards may grant intervention as a matter of discretion to petitioners who are not entitled to intervene as a matter of right in accordance with the guidelines set out in the Commission's Rules of Practice, 10 CFR 2.714 and *Portland General Electric Company, et al.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 614 (1976).

RULES OF PRACTICE: INTERVENTION (DISCRETIONARY)

Foremost among the factors to allowing participation as a matter of discretion is whether such participation is likely to produce a valuable contribution to the NRC decisionmaking process.

RULES OF PRACTICE: NONTIMELY INTERVENTION PETITIONS

In balancing the factors of 10 CFR 2.714(a)(1) to determine whether to admit an untimely petition for intervention, a substantial showing of good cause for the untimely filing is most important.

SUPPLEMENTAL ORDER RULING ON PETITIONS FOR LEAVE TO INTERVENE

On November 9, 1978, this Atomic Safety and Licensing Board designated to rule on petitions for leave to intervene published a notice that a hearing will be held to consider the application of Duke Power Company

for an amendment to its special nuclear material license no. SNM-1773 which would authorize the receipt and storage at McGuire Nuclear Station of irradiated fuel transported from Oconee Nuclear Station (43 Fed. Reg. 52302).

In the "Order Following Prehearing Conference" dated November 2, 1978, we granted requests for a hearing and petitions for leave to intervene filed by Carolina Environmental Study Group, Safe Energy Alliance, and Carolina Action in Charlotte. All three petitioners were admitted as parties to this proceeding. We also granted the petition of the State of South Carolina to participate as an interested State.

Rulings on petitions for leave to intervene filed by Natural Resources Defense Council, Inc., and the Davidson College Chapter of North Carolina Public Interest Research Group were deferred pending receipt of further information concerning those petitions.

I. NATURAL RESOURCES DEFENSE COUNCIL, INC., PETITION FOR LEAVE TO INTERVENE

A. Establishment of standing as a matter of right. On August 21, 1978, pursuant to the Commission's notice of opportunity for public participation in the proposed NRC licensing action for amendment to license no. SNM-1773, NRDC filed a timely petition for leave to intervene (43 Fed. Reg. 32905). Applicant opposed NRDC's petition arguing that, because of lack of standing, NRDC is not entitled to intervene as a matter of right and that since no basis had been stated, discretionary intervention should not be granted. Thereafter, on September 7, 1978, an addendum was filed by NRDC which asserts that NRDC members live near Clemson, South Carolina, and near Charlotte, North Carolina. In its response filed on September 11, 1978, the NRC Staff also opposed NRDC's petition for failure to establish that it has standing in this proceeding.

Petitioner NRDC is a nonprofit, public benefit organization incorporated in the State of New York, with a national membership of approximately 35,000 persons. This Petitioner has long been concerned with the problems of the proper handling of nuclear wastes, including the handling of spent fuel and seeks to intervene in this licensing proceeding on behalf of its members residing in South Carolina and North Carolina, who may be affected by the proposed shipment of spent fuel from the Oconee nuclear facility to the McGuire nuclear facility.

Grant of the petition as a matter of right turns on Petitioner's standing to participate, and the standing question, in turn, is framed by Section 189 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2239) which provides in pertinent part that: "[i]n any proceeding under this Act, for the

granting . . . or amending of any license . . . the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit such person as a party to such proceeding." The application for an amendment to license no. SNM-1773 is one "for the . . . amending of any license." Thus, NRDC in order to establish a right to the hearing it requests must show it possesses standing—that is, an "interest" which may be "affected" by the proceeding.

The interests which the NRDC seeks to protect are set forth in its petition as follows:

Petitioner, NRDC, is a national environmental organization that has long been concerned with the problems of the proper handling of nuclear wastes, including the handling of spent fuel. Attached to this petition for leave to intervene are letters sent by us, both to the Nuclear Regulatory Commission and to the Secretary of the Department of Energy, regarding what we consider to be the appropriate conduct of consideration of the handling of spent fuel. We are particularly disturbed at the prospect of what we consider to be a significant increase in the transportation and handling of nuclear materials which we do not believe is warranted on the basis of the technological considerations relating to the health and safety of the public.

The issue of NRDC's standing was argued extensively at the October 24, 1978, prehearing conference. Considerable discussion centered on the question of whether NRDC need furnish the name of one or more of its members, who live or conduct substantial activities in reasonable proximity to the activity identified in the application and whose interest may be affected. To assist it, the Board asked the parties to brief the question of whether in order to establish standing for the organization, NRDC must identify at least one member who would have standing in his or her own right.

NRDC argues that it has clearly met the Commission's requirements and has established that it has members who reside within the zone which could be affected by the proposed action and has particularized how they could be affected. Petitioner suggests that such members living in the vicinity of both reactors and along portions of the route which is proposed will be used to ship spent fuel have been "impersonally identified" and notes that it has particularized both in its petition and in its contentions potential radiological consequences which these persons could suffer from routine handling and transportation of spent fuel or in the event of an accident or malevolent act.

According to Petitioner, the Staff and Applicant have addressed two subsidiary issues which go not to whether an interest will be affected but to whether NRDC has a right to represent those whose interests will be af-

fect. It is argued that they assert, first, that NRDC must disclose the name and address of members whose interest will be affected by the proposed action, and second, NRDC must establish, beyond compliance with its normal corporate procedures for commencing litigation, that NRDC is authorized to represent its members. Both of these assertions, if accepted, would, according to Petitioner, unduly infringe on the rights of its members and would unduly interfere with the internal operations of NRDC. In addition, Petitioner argues that even if it is not entitled to standing as a matter of law, it is entitled to a trial on the factual issues presented by the challenges to standing.

The Staff's position is clearly set forth in its response to NRDC's petition wherein, in pertinent part, the Staff stated:

Although NRDC states a concern within the zone of interest protected by statute, its petition as now drawn does not meet the interest requirements of 10 CFR 2.714. The petition does not indicate the names of any members of the named organization who live, work, or are engaged in activities along the proposed transportation routes, near to the Oconee facility, or near to the McGuire facility's spent fuel pool. The Commission requires as a minimum identification of organization members living, working, or engaging in activities near the proposed transportation routes and how their interests will be affected by the proposed amendment. *Allied-General Nuclear Services* (Barnwell Fuel Receiving and Storage Station), ALAB-328, 3 NRC 420 (1976); *Public Service Electric and Gas Company* (Salem Nuclear Generating Station), ALAB-136, 6 AEC 487, 488-489 (1973); *Duquesne Light Company* (Beaver Valley, Unit 1), ALAB-109, 6 AEC 243, 244, n.2 (1973); *Public Service Company of Indiana* (Marble Hill, Units 1 and 2), ALAB-322, 3 NRC 328, 330 (1976). Standing to intervene may be based upon residence in the vicinity of activity. *Virginia Electric and Power Company* (North Anna Power Station, Units 1 and 2), ALAB-146, 6 AEC 631 (1973); *Northern States Power Company* (Prairie Island, Units 1 and 2), ALAB-107, 6 AEC 188, 190 (1973), *aff'd.*, CLI-73-12, 6 AEC 241 (1973).

The addendum filed on September 7, 1978, by NRDC does not cure the petition's defect by specifically naming persons who live or work in the vicinity of the proposed action or whether NRDC has been authorized to represent their interests in this proceeding. The Board is required to have a clear and current showing that NRDC members do in fact reside near the place of the proposed activity, that their interests are those set forth in the petition, and that NRDC is the authorized representative for this proceeding, if such is the case. *Cf. Barnwell, supra*, at 423; see, e.g., *Consumers Power Company* (Midland Plant, Units 1 and 2), Docket Nos. 50-329-OL, 50-330-OL, "Memorandum and Order," slip

op. August 14, 1978; *North Anna*, ALAB-146, *supra*, at 633. (The adjudicatory process may be invoked by only those persons who have real interests at stake and who seek resolution of concrete issues.) It is possible that these defects can be cured by NRDC. [Footnote omitted.]

Applicant supports the Staff's position and argues that without specific identification of the individuals which NRDC alleges to represent, and without a particularization of how the interests of those specific individuals might be adversely affected in this proceeding, the NRDC petition for leave to intervene is defective and should be denied.

Any discussion of the applicable law on the matter must begin by noting that with respect to determining intervention as a matter of right, the Commission has stated that "contemporaneous judicial concepts of standing should be used." *Portland General Electric Company, et al.* (Pebble Springs, Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 614 (1976). It is well settled that an organization may gain standing to intervene based on injury to itself or to its members. *Warth v. Seldin*, 422 U.S. 490 (1975); *National Motor Freight Assn. v. United States*, 372 U.S. 349 (1963); *TVA* (Watts Bar Nuclear Plant, Units and 1 and 2), ALAB-413, 5 NRC 1418 (1977). It is also settled that with respect to national environmental groups such as NRDC, standing is derived from injury in fact to individual members. *Sierra Club v. Morton*, 405 U.S. 727 (1972).

Standing in this representative capacity turns on "whether the organization has *established* actual injury to any of [its] . . . members" (emphasis added). *Simon v. Eastern Kentucky Welfare Rights Organization*, 426 U.S. 26, 40 (1976). Representational standing is not founded on a less rigorous standard than individual standing—"the possibility of . . . representational standing . . . does not eliminate or attenuate the . . . requirement of a case or controversy." *Warth v. Seldin, supra*, at 511.

In *Sierra Club v. Morton, supra*, the Supreme Court held that an organization which failed to allege facts showing its members to be adversely affected lacked standing to maintain the action. Specifically, the Court stated:

The Club apparently regarded any allegations of individualized injury as superfluous, on the theory that this was a "public" action involving questions as to the use of natural resources, and that the Club's long-standing concern with and expertise in such matters were sufficient to give it standing as a "representative of the public." This theory reflects a misunderstanding of our cases involving so-called "public actions" in the area of administrative law. [Footnotes omitted.]

* * * * *

But a mere "interest in a problem," no matter how longstanding the interest and no matter how qualified the organization is in evaluating the problem, is not sufficient by itself to render the organization "adversely affected" or "aggrieved" within the meaning of the APA. [405 U.S. at 735-36, 739.]

As noted above, the Commission also has addressed the question of whether an organization which seeks to intervene to vindicate broad public interests of alleged concern to its members or contributors may be granted standing. See *Barnwell, supra*, at 421-23, wherein the Licensing Board's order denying the American Civil Liberties Union of South Carolina intervention on the basis of its failure to particularize how the interests of one or more of its local members might be affected, *i.e.*, its failure to supply affidavits from its members which state what their concerns are and why they wish the organization to represent them, was affirmed. More recently, the Appeal Board denied the intervention petition of an organization for lack of standing. *Nuclear Engineering Company, Inc.* (Sheffield Low-Level Radioactive Waste Disposal Site), ALAB-473, 7 NRC 737 (1978). In that decision, the Appeal Board affirmed the legal rationale for the rejection of the ACLU petition in *Barnwell, supra*. Lacking in *Barnwell* and *Sheffield* was the identification and particularization of a specific injury to specific members of an organization alleged to result from the proposed licensing action. The desire to vindicate broad public interests said to be of particular concern to the organizations and their members or contributors was held to be legally insufficient to confer standing.

We are told that consistent with NRDC's bylaws, counsel for Petitioner sought and obtained approval for the attempted intervention in this proceeding from the NRDC Legal Committee. No further authorization from NRDC members is contemplated. In Petitioner's view any effort to go behind the corporate procedure for authorization involves an unwarranted interference in the methods by which NRDC carries out its business. It is said to be a matter between NRDC and its members how NRDC acts on behalf of those members. When a member accepts membership, he accepts the procedures used to decide which cases to pursue. If dissatisfied with the course taken, the member can discontinue his or her financial support of the organization.

Our study of all the filing leads to the conclusion that the line of decisions allowing organizations to represent the interests of their members does not support admission of NRDC as a party on the basis of the petition for leave to intervene which has been filed in this proceeding. Those decisions reaffirm the requirement that one seeking "judicial" review of administrative action must have suffered an "injury in fact," alleged in a

manner capable of proof at trial. Further, in no way have current cases impaired the basic legal principle that one party may not represent another without express authority to do so. Although alluding to rights and affected interests of unnamed members presumably within the protected sphere of interests, the petition, as amended by the addendum, September 7, 1978, and at oral argument, fails to allege NRDC's authorization by those members to serve as their representative in this proceeding. Although the "overwhelming support" of such members of NRDC for their organization's nuclear activities is asserted, intervention is not alleged to have been authorized by such affected members.

To overcome the impact of the line of cases discussed above, NRDC seeks to invoke protection against the disclosure of its membership lists and argues that the Supreme Court's decision in *NAACP v. Alabama*, 357 U.S. 449 (1958), is dispositive.

However, the Court's opinion in *Alabama* does not vitiate the requirement of identification of parties in litigation. The Court in that case was faced with *Alabama's* attempt to obtain the NAACP's entire membership lists under the guise of enforcing compliance with the State's foreign corporation statute. Finding a chilling effect upon freedom of association produced by the State's implementation of such statute was not relevant to the organization's "doing business" within the State, the Court did not require disclosure of the NAACP membership lists noting that the organization had "made an uncontroverted showing" of past harms to known members upon revelation of their identity. Moreover, as was clear to the Court, the State agency was seeking to compel disclosure of the membership lists as a predicate to virtually all aspects of the organization's existence within the State.

Such a case, and the atmosphere in which it occurred, has little or no bearing on the nuclear licensing procedures challenged here. The Commission's regulations and precedent do not require, nor seek, membership lists of the Petitioner. All that is sought is the identification of at least one individual member, and a specification of an interest of that person who might be affected, so that such factors may be adjudicated in the *public hearing* requested by such presently unnamed individual(s), as provided by the regulations and the Atomic Energy Act. Absent such specifically identified potential harms to at least one person, there is no basis for requiring a hearing on the merits of the general issues asserted by NRDC. *Sierra Club v. Morton*, *supra*.

Accordingly, this Board is not called upon to balance the considerations supporting disclosure against possible significant impingement on fundamental freedoms. Rather, we may rely upon the Supreme Court's resolution of the matter in *Sierra Club*, wherein the Court recognized that the

potential harm to society from generalized special interest litigation is great. Specifically, the Court stated that "[t]he requirement that a party seeking review must allege facts showing that *he is himself* adversely affected . . . serves as at least a rough attempt to put the decision as to whether review will be sought in the hands of those who have a direct stake in the outcome" (emphasis added). *Sierra Club v. Morton, supra*, 405 U.S. at 740. See also *Duke Power Company v. Carolina Environmental Study Group*, ____ U.S. ____, 57 L.Ed. 2d. 595, 615-616 (1978), wherein the Supreme Court recently said:

We have . . . narrowly limited the circumstances in which one party will be given standing to assert the legal rights of another. "[E]ven when the plaintiff has alleged injury sufficient to meet the 'case or controversy' requirement, this Court has held that the plaintiff generally must assert his own legal interest, and cannot rest his claim to relief in the legal rights or interests of third parties" [citing *Warth, supra*; other citations omitted]. . . . There are good and sufficient reasons for this prudential limitation on standing when rights of third parties are implicated—the avoidance of the adjudication of rights which those not before the Court may not wish to assert and the assurance that the most effective advocate of the rights at issue is present to champion them [citing *Singleton v. Wulff*, 428 U.S. 106, 113-114 (1976)].

In further support of its position, NRDC contends that nondisclosure is necessary "to protect our donors' expectations of privacy" because it "might inhibit further participation by currently active donors, and could have a chilling effect on potential future support." Affidavit of October 19, 1978, by John H. Adams (Tr. 25-26). NRDC asserts that such alleged "restraint on freedom of association" is prohibited by *NAACP v. Alabama, supra* (Tr. 37). A reading of *Alabama* simply does not support NRDC's position. In that case the Court found that:

. . . [p]etitioner has made an uncontroverted showing that on past occasions revelation of the identity of its rank-and-file members has exposed these members to economic reprisal, loss of employment, threat of physical coercion, and other manifestations of public hostility [*id.* at 462].

In the instant case there is no definitive evidence to indicate that any harm has or will result; rather, there is simply an articulated fear of harm.

In summary, NRDC is not an unincorporated association whose members, individually and collectively, themselves constitute the organization. In contrast, it is a legal corporation which is an artificial entity separate and apart from its membership that exists solely by virtue of a

charter issued by the State of New York. No threatened or actual corporate injury resulting from the proposed action has been alleged. Rather, NRDC has asserted interests in a healthy and safe environment possessed by its individual members. However, though claiming such "representative standing," the corporate Petitioner has not seen fit to enlighten the Board with respect to the identity of a single person who might be injured. Nor has there been any allegation or showing on the record in this proceeding that any South Carolina or North Carolina members have either requested to be represented or consented to be represented by NRDC in this matter.

Accordingly, the Board concludes that NRDC lacks the requisite legal interest in this proceeding under Section 189 of the Atomic Energy Act of 1954, as amended, to entitle it to intervene as a matter of right.

B. Intervention as a matter of discretion. As has been seen from the discussion above, it has been manifestly evident since the Memorandum and Order of the Commission in *Pebble Springs, supra*, at 614, that intervention in NRC domestic licensing proceedings as a *matter of right* is governed by contemporary judicial standing doctrines. Thus, Petitioners are required to allege both (1) some injury in fact that has occurred or will probably result from the action involved to the person asserting it and (2) an interest "arguably within the zone of interests" protected by the statute in question. In *Pebble Springs*, the Commission also ruled, however, that adjudicatory boards may grant intervention as a *matter of discretion* to petitioners who are not entitled to intervene as a matter of right. Discretionary intervention is to be determined in accordance with the guidelines set forth in *Pebble Springs* and in the Commission's Rules of Practice, 10 CFR 2.714. Those guidelines are:

In determining in a particular case whether or not to permit intervention by petitioners who do not meet the tests for intervention as a matter of right, adjudicatory boards should exercise their discretion based on an assessment of all facts and circumstances of the particular case. Some factors bearing on the exercise of this discretion are suggested by our regulations, notably those governing the analogous case where the petition for intervention has been filed late, 10 CFR 2.714(a), but also the factors set forth in 10 CFR 2.714(d) governing intervention generally:

(a) Weighing in favor of allowing intervention—

- (1) The extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record.
- (2) The nature and extent of the petitioner's property, financial, or other interest in the proceeding.

(3) The possible effect of any order which may be entered in the proceeding on the petitioner's interest.

(b) Weighing against allowing intervention—

(4) The availability of other means whereby petitioner's interests will be protected.

(5) The extent to which the petitioner's interests will be represented by existing parties.

(6) The extent to which petitioner's participation will inappropriately broaden or delay the proceeding.¹

The Appeal Board has observed that foremost among the factors to allowing participation as a matter of discretion is whether such participation would likely produce

. . . a valuable contribution . . . to our decisionmaking process. In the words of the Commission in *Pebble Springs*, "permission to intervene should prove more readily available where petitioners show significant ability to contribute on substantial issues of law or fact which will not otherwise be properly raised or presented, set forth these matters with suitable specificity to allow evaluation, and demonstrate their importance and immediacy, justifying the time necessary to consider them."²

Before addressing the question of whether participation by NRDC in the present proceeding has the likelihood of producing a valuable contribution to the decisionmaking process, we must consider the nature of the discretionary intervention being sought by this Petitioner.

We are not here confronted with the situation where a person making a clear showing that he will or might be injured in fact by one or more of the possible outcomes of the proceeding must be denied standing as a matter of right because his "interest" which may be affected by the proceeding is not arguably within the "zone of interests" protected or regulated by the statute or statutes which are being enforced. Nor do we have a petitioner asserting a cognizable interest which might be adversely affected who for one reason or another cannot demonstrate "good cause" for his untimely filing. In those

¹*Pebble Springs, supra*, at 616.

²*Public Service Company of Oklahoma, et al.* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, at 1145. See *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Units 1 and 2), LBP-77-36, 5 NRC 1292, 1294-95 (1977).

types of situations, application of the guidelines provided by the Commission often leads to the granting of discretionary intervention.

In contrast, the NRDC petition identifies not a single member of the public who has any property, financial, or other interest in this proceeding. If in fact the granting of the license amendment requested by Applicant would pose a threat to NRDC or its members, it should have been easy enough to have provided a bill of particulars. But this NRDC has refused to do. In these circumstances, we might well conclude without further inquiry that the Petitioner does not satisfy the test for discretionary intervention. However, such a finding would be tantamount to holding that the Commission's regulations regarding public participation in its adjudicatory proceedings do not permit participation by outside groups in individual licensing proceedings. We cannot reach that conclusion.

Clearly, the Commission has long encouraged a permissive approach toward public participation in the nuclear regulatory process. In individual licensing proceedings, its rules permit participation by any person whose interest may be affected by that proceeding. Intervention is easily available to those members of the public. Even where no person having an interest has been identified, participation by an outside group in an individual licensing proceeding may well be in the public interest. NRDC is a prestigious national environmental organization that has long been concerned with commercial applications of nuclear power. In rulemaking proceedings, contributions by outside groups such as NRDC have been particularly valuable. Accordingly, we believe that any outside group, be it the Boy Scouts of America, Ducks Unlimited, or the National Rifle Association, to name only a few by way of example, should be afforded discretionary intervention status whenever that group demonstrates that it is both willing and able to make a valuable contribution to the full airing of the issues which the Licensing Board must consider and resolve in a particular proceeding. This is not to say, however, that any organization anywhere in the United States should gain party status in any individual licensing proceeding by the mere assertion that it represents certain unnamed individuals residing near a particular facility and that it has able people ready and willing to travel to that location and actively participate in the hearing on behalf of such unidentified individuals. The likelihood of producing a valuable contribution must also be shown.

We are told by the NRC Staff that the Board should find that a basis for granting "limited" discretionary intervention has been established. Moreover, the Applicant has withdrawn its opposition. However, in our view, NRDC has not met its burden of satisfying the Board that discretionary intervention by this Petitioner will make a valuable contribution to the decisionmaking process. During the prehearing conference when

pressed by the Board to specify the contribution that NRDC could reasonably be anticipated to make, its counsel addressed only the seven contentions submitted by NRDC.³ As to Contentions 1 and 2, it was asserted that NRDC's qualifications as an organization to brief and address those is well known. Regarding Contentions 5 and 7, counsel admitted that his client was probably not better qualified than anybody else to address those contentions but noted no one else had raised them. In support of the value of the contribution expected to be made regarding Contentions 3, 4, and 6, the Board was advised that NRDC had already conducted a study of the space available for storage of spent fuel at existing operating reactor sites (Contention 3), that its petition to the Commission to amend 10 CFR Part 20 demonstrated the qualifications of both Dr. Tamplin and Dr. Cochran to uniquely address those questions (Contention 4), and that NRDC had filed numerous comments and participated in the GESMO proceeding (Contention 6).

Under the circumstances, we are not convinced that Petitioner has shown significant ability to contribute on substantial issues of law or fact which will not otherwise be properly raised or presented. Accordingly, discretionary intervention is not granted to NRDC.

II. DAVIDSON CHAPTER OF THE NORTH CAROLINA PUBLIC INTEREST RESEARCH GROUP, PETITION FOR LEAVE TO INTERVENE

A. Establishment of standing as a matter of right. At the prehearing conference on October 24, 1978, Chuck Gaddy, Chairperson of the Davidson College Chapter of the North Carolina Pacific Interest Research Group (PIRG), distributed to the parties a copy of a letter dated September 7, 1978, to the Chairman of this Atomic Safety and Licensing Board.⁴ The Board ruled that the PIRG letter should be treated as a petition for leave to intervene and that the parties would be afforded 10 days to file a response. Pursuant to off-the-record discussions, it was represented that PIRG intended to file a contention in support of its letter petition. By an undated letter received by the Applicant on November 1, 1978, PIRG submitted a contention which Applicant has distributed to the Board and the parties.

As has been discussed more fully above, the determination of whether the interests asserted by a petitioner entitle it to status as a party is governed by judicial concepts of standing which require that the petitioner allege an

³Tr. 141-144.

⁴Although the letter in question was dated September 7, 1978, this was corrected to read October 7, 1978, on the record (Tr. 64).

injury that will occur from the proposed action and an interest "within the zone of interests" protected by the relevant statutes. In the Board's view, PIRG has adequately alleged possible injury citing the "... potential threat to the property and possessions of the town's residents and the college and to the health of the students and residents. . . ." The alleged injury is clearly within the zone of interests protected by the Atomic Energy Act. Since Mr. Gaddy, a student at Davidson College, is a PIRG member and the author of the PIRG petition, we conclude that a member of PIRG has demonstrated with the requisite particularity how his interests could be adversely affected by the grant of the subject license amendment. Mr. Gaddy himself is the Chairperson of the Davidson Chapter of the North Carolina PIRG. Accordingly, Mr. Gaddy's authorship of the PIRG petition is a representation that the Davidson chapter has authorized intervention in this particular proceeding.

Thus, PIRG has set out with particularity an alleged injury which is clearly within the zone of interests protected by the Atomic Energy Act, has identified a member sufficiently near to the activities of the proposed action to confer standing, and has adequately presented its authorization to commit PIRG to intervention status in this proceeding.

B. Timeliness. It is undisputed that the PIRG intervention petition is untimely. Therefore, the Board must look to the provisions of 10 CFR 2.714(a)(1) which state:

Nontimely filings will not be entertained absent a determination by the Commission, the presiding officer, or the atomic safety and licensing board designated to rule on the petition and/or request, that the petition and/or request should be granted based upon a balance of the following factors in addition to those set out in paragraph (d) of this section:

- (i) Good cause, if any, for failure to file on time.
- (ii) The availability of other means whereby the petitioner's interest will be protected.
- (iii) The extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record.
- (iv) The extent to which the petitioner's interest will be represented by existing parties.
- (v) The extent to which the petitioner's participation will broaden the issues or delay the proceeding.

A most important consideration in reaching such a determination is whether the petitioner has adequately demonstrated good cause for a tardy petition. In the present instance, the showing is not substantial. PIRG asserts that it failed to meet the August 28, 1978, deadline because most of its members were away from school in other parts of the State or the country during the summer and were unaware of the developments towards a licensing decision. However, the notice was published in the FEDERAL REGISTER which is distributed nationwide and thus was available to the PIRG membership. Moreover, it appears that PIRG did not endeavor to intervene promptly once classes reconvened on September 6, 1978.

Consideration of the contention filed by PIRG indicates that this Petitioner's interest is related to the presentation of certain evidence resulting from a PIRG investigation concerning the capability of certain public safety officials to respond to traffic accidents. But, if PIRG wishes to have the results of its investigation made available to the Licensing Board for its examination, other means are available. For example, PIRG could present its material to the Board in the form of a limited appearance statement and the Board could then pursue issues it determines to be significant.

As to the assistance one might expect in developing a sound record, we are of the view that this factor appears to weigh favorably for PIRG's participation. Petitioner has undertaken to provide the Board with relevant information in the area of its interest and has already issued a report evidencing an interest in nuclear transport. However, PIRG's case appears to be cumulative with respect to the cases of other participants in this proceeding. The party, Carolina Action, has in its Contention No. 4 proposed a contention dealing with substantially the same issue. Thus, to the extent that it is a litigable issue, PIRG's interest will be represented by an existing party. Clearly, the admission of another party would likely delay the Board's consideration of the matter.

In the balancing of the various factors which this Board must weigh in ruling on the adequacy of an untimely filing, the element of good cause plays an essential role. Here, PIRG has made some showing of good cause although it is not substantial. Thus, PIRG must make a particularly strong showing on the remaining four factors to merit a favorable Board ruling. The fact that PIRG could be expected to assist in developing a sound record on the issue it wishes to raise weighs in PIRG's favor. Weighing against PIRG are that its interest could be adequately protected through the mechanism of a limited appearance and that its interest is being adequately represented by Carolina Action. In addition, it appears likely that the Petitioner's participation will delay the proceeding, although it is difficult to measure the impact of any delay. In view of the above, the petition must be denied as untimely.

C. Contentions. PIRG has asserted the following contention:

Contention: That the prospect of a traffic accident involving a reactor waste carrier and involving leakage of some of the contents of said carrier poses an emergency situation which public safety officials in Charlotte (i.e., police chief, fire chief, civil defense head, etc.) are not adequately prepared to handle in regards to protection of the public.

Such contention fails to meet the specificity and basis requirements of 10 CFR 2.714(a) which provide that in order to put a matter in issue, it must be stated with reasonable specificity and have some basis assigned to it. It is not sufficient merely to make a completely unsupported allegation.

D. Intervention as a matter of discretion. Having decided that PIRG may not intervene as a matter of right, it remains for the Board to determine whether this Petitioner may intervene as a matter of the Board's discretion under the guidelines noted by the Commission in *Pebble Springs, supra*. Following a careful review of the pleadings from the standpoint of whether discretionary intervention would likely result in a useful contribution to the proceeding and based upon the Board's assessment of all the facts and circumstances of this particular case, the Board concludes that Petitioner has not shown any significant ability to contribute on substantial issues of law or fact which another party might not otherwise properly raise.

III. ORDER

WHEREFORE, IT IS ORDERED, in accordance with the Atomic Energy Act of 1954, as amended, and the Rules of Practice of the Commission, that the petition for leave to intervene of National Resources Defense Counsel, Inc. (NRDC), and the petition for leave to intervene of the Davidson Chapter of the North Carolina Public Interest Research Group (PIRG) are hereby denied.

Pursuant to 10 CFR 2.714a, this order may be appealed to the Atomic Safety and Licensing Appeal Board within ten (10) days after service of the order. The appeal shall be asserted by the filing of a notice of appeal and accompanying supporting brief. Any other party may file a brief in support of or in opposition to the appeal within ten (10) days after service of the appeal.

FOR THE ATOMIC SAFETY AND
LICENSING BOARD

Robert M. Lazo, Chairman

Dated at Bethesda, Maryland,
this 9th day of January 1979.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

THE COMMISSION:

Joseph M. Hendrie, Chairman
Victor Gilinsky
Richard T. Kennedy
Peter A. Bradford
John F. Ahearne

In the Matter of

**Docket Nos. 50-329
50-330**

CONSUMERS POWER COMPANY

(Special Proceeding)

(Midland Plant, Units 1 and 2)

February 2, 1979

The Commission approves and orders implementation of the settlement agreement entered into by the parties in this special disciplinary proceeding. The agreement, *inter alia*, provides for the dismissal with prejudice of all misconduct charges brought by any of the parties, striking the charges and related documents from the record and termination of the special proceeding.

COMMISSION PROCEEDINGS: COSTS

There is no basis on which the NRC can reimburse a private attorney for out-of-pocket expenses in connection with a special proceeding to investigate misconduct charges against the private attorney and NRC staff attorneys.

MEMORANDUM AND ORDER

On November 7, 1977, an Atomic Safety and Licensing Board was established in this docket to preside over a special proceeding. The proceeding, in the nature of disciplinary matters, was required by 10 CFR 2.713(c).

The Chairman of the Atomic Safety and Licensing Board for the special proceeding (Special Board) forwarded to the Commission by letter of March 21, 1978, a pleading entitled "Motion and Stipulation," dated

March 13, 1978, which was executed by counsel for each party in the special proceeding and described the terms and conditions of a proposed settlement. The Board stated that in its view the proposed settlement was deserving of our consideration.

In essence all of the parties agreed to a settlement which would insofar as is possible place all parties and the record in the position they would have been if nothing had ever happened in this matter. The terms withdrew all charges and would have terminated the proceeding with prejudice. They further provided that (1) there would be no record of the proceedings nor of the charges and letters which led to them, and (2) notice of withdrawal of charges and termination of the proceedings would be published and also sent to all parties with whom there had been correspondence about the proceedings. These features of the proposed settlement seemed to us to be straightforward and worthy of Commission approval, and we so advised the Special Board in our letter of April 28, 1978.

However, the final term of the settlement was unilateral in nature and stated that one party entered into the stipulation only on the condition that the Nuclear Regulatory Commission pay actual out-of-pocket expenses not in excess of \$1,000 incurred by or on behalf of that party in connection with the Special Proceeding. We found this final term to be unacceptable, and so informed the Special Board. We stated:

An agency of the government is not as free as a private party to deal in a settlement. There is a serious question whether the Commission has the legal authority in these circumstances to make [such a payment]. Were the Commission disposed on policy grounds, to make this payment, the question of its authority to do so would first have to be resolved in the affirmative by the Comptroller General. We need not, however, seek a formal ruling of the Comptroller because we believe that the proposal for payment is unsound on policy grounds.

On June 7, 1978, the Chairman of the Special Board wrote to the Commission to notify the Commission of the status of the settlement effort. In essence, the party who had earlier required payment of expenses stated a willingness to settle without such payment provided that the Commission requested an opinion of the Comptroller General with respect to the Commission's authority to make such a payment and the Comptroller General replied in the negative.

After consideration of this new development, the Commission on August 30, 1978, addressed a letter to the Comptroller General which stated as follows:

The Nuclear Regulatory Commission has received a request, accompanying a proposal for Commission approval of a settlement of a special

proceeding, that the Commission seek an opinion from the Comptroller General with respect to the following question:

In connection with the termination and settlement of a special proceeding brought to investigate charges against a private attorney and NRC staff attorneys, which termination and settlement results in a withdrawal and striking of all charges against all such attorneys, does the NRC have authority to reimburse a maximum of \$1,000 in actual out-of-pocket expenses incurred on behalf of the private attorney in connection with such proceeding, when the NRC has paid all fees and expenses of the staff attorneys in connection with such proceeding, and the NRC believes that the withdrawal, settlement and termination of the proceeding is in the public interest?

The Commission hereby requests such an opinion.

On January 10, 1979, the Comptroller General issued his decision in this matter: B-192784, "Reimbursement by Federal Agency of Private Attorney for Out-of-Pocket Expenses in Agency Proceeding." The Comptroller General's conclusion stated:

In sum, we see no basis on which the NRC can reimburse the private attorney for out-of-pocket expenses in connection with the special proceeding brought to investigate misconduct charges.

Opinion, p. 2.

This response in the negative from the Comptroller General satisfied the condition of the party, and by the terms set forward by the parties a settlement agreement of all the parties has resulted. The Commission approves the settlement and specifically approves and orders the implementation of terms one through eight of the Motion and Stipulation of March 21, 1978, as follows:

1. all motions listed in Appendix A of the Motion and Stipulation of the Parties of March 21, 1978, and all pleading, motions, requests, and applications in this Special Proceeding are deemed withdrawn with prejudice;
2. all documents submitted in connection with the proceeding *Consumers Power Company* (Midland Plant, Units 1 and 2), Docket Nos. 50-329, 50-330, and all parts of the transcripts of the hearing thereon which are listed in said Appendix A are stricken from the record in that proceeding;
3. all orders and memoranda in connection with the above-mentioned proceeding listed in Appendix B of the Motion and Stipulation of

March 21, 1978, are stricken from the record in that proceeding, and all charges against any party to said Motion and Stipulation contained in any such order or memorandum and referred to the Special Board, or filed with that Board are dismissed with prejudice and may be considered to have no effect as if such charges had not been brought;

4. this order shall serve to issue notice to the effect that all orders and memoranda listed in said Appendix B are stricken and that charges contained therein have been dismissed with prejudice;
5. all documents submitted by the parties in connection with the proceeding before the Special Board, all orders by that Board, all correspondence by that Board and all transcripts of any proceeding thereof shall be stricken from the record and the record of the Special Proceeding shall be stricken in its entirety;
6. the Special Proceeding is hereby terminated;
7. the Nuclear Regulatory Commission or appropriate members of its staff shall furnish notice containing the language set forth in Appendix C of said Motion and Stipulation of March 21, 1978, to all persons to whom the Commission or any member of its staff disseminated any letter, press release, document, or any other information, describing, concerning, or relating to the Special Proceeding or any matters at issue therein, informing all such persons of the disposition of the proceeding; and
8. the Nuclear Regulatory Commission or appropriate members of its staff promptly shall provide counsel for the party specified in term 8 of said Motion and Stipulation with copies of all written communications by the Commission or its staff with third persons, other than parties to this proceeding or their counsel, describing, concerning, or relating to the Special Proceeding or any other matters at issue therein.

IT IS SO ORDERED.

FOR THE COMMISSION

Samuel J. Chilk
Secretary of the Commission

Dated at Washington, D.C.,
February 2, 1979.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. W. Reed Johnson
Jerome E. Sharfman

In the Matter of

METROPOLITAN EDISON
COMPANY , et al.

Docket No. 50-320

(Three Mile Island Nuclear
Station, Unit No. 2)

February 1, 1979

The Appeal Board orders a hearing to determine whether and if so the regularity with which the plant site is overflowed by aircraft exceeding the design basis aircraft for air crash probability. The Board also permits the parties to submit evidence on other specified issues.

Mr. George F. Trowbridge, Washington, D.C., for the applicants, Metropolitan Edison Company, *et al.*

Mr. Chauncey R. Kepford, State College, Pennsylvania, for the intervenors, Citizens for a Safe Environment and York Committee for a Safe Environment.

Mr. Lawrence J. Chandler for the Nuclear Regulatory Commission.

MEMORANDUM AND ORDER

I

1. In December, this Board conducted an evidentiary hearing on the heavy aircraft crash probability issue. See ALAB-486, 8 NRC 9 (1978), as supplemented by CLI-78-19, 8 NRC 295 (1978). At that hearing, the NRC staff presented, *inter alia*, the testimony of three employees of the Federal Aviation Administration with respect to operations at the Harrisburg

International Airport.¹ One of the matters explored with two of those witnesses during the course of their testimony was the extent to which heavy aircraft (*i.e.*, planes weighing in excess of 200,000 pounds) fly directly over the Three Mile Island nuclear power facility when approaching the Harrisburg airport under visual flight rules (VFR).² The substance of their response was that, for certain assigned reasons, it appeared to them very unlikely that a heavy aircraft would be intentionally flown over the facility (Tr. 264, 265, 304). At the same time, however, the witnesses acknowledged that there are no existing regulations forbidding such action and further that, because they do not pilot such aircraft themselves, they were not in a position to state categorically that overflights do not occur (Tr. 265, 298, 304-05).

Subsequent to the conclusion of the hearing, and with our leave, the intervenors³ filed a motion "to present witnesses and affidavits on aircraft flight patterns." More specifically, intervenors desire to adduce the testimony of three individuals who purportedly have been passengers on a total of 9 commercial jet flights into the Harrisburg airport, 7 of which are said to have "involved a runway approach in which the aircraft flew over the TMI site." We are told that, because good weather conditions prevailed on each occasion, the approaches presumably were made under VFR. None of the aircraft, however, exceeded 200,000 pounds in weight.

Beyond keeping the record open to receive that testimony, the motion seeks an order directing the staff to subpoena all Trans World Airlines pilots who have landed heavy aircraft at the Harrisburg airport. The basis for this request is two appended affidavits executed by, respectively, the intervenors' representative in this proceeding and an associate of his. The affidavits recount conversations which, subsequent to the conclusion of our hearing, the affiants allegedly had with 2 commercial airlines employees—one a TWA flight engineer and the other a commercial airline pilot.⁴ According to one of the affiants, the flight engineer had stated that he had often flown into the Harrisburg airport and that a number of those flights had been in Boeing 707s which had passed over the Three Mile Island site on their landing approaches. He additionally had indicated that it is feasible to

¹Peter T. Melia, Chief of the Planning Section, Harrisburg Airport District Office; Ray E. Byers, Chief, Olmsted Tower Harrisburg International Airport; Bertram Coval, Chief, Capital City Tower, New Cumberland, Pennsylvania.

²The witnesses testified unequivocally that heavy aircraft operating under instrument flight rules do not fly over the nuclear facility on their approach to the airport (Tr. 253, 256). Indeed, as a practical matter, they are precluded from doing so (Tr. 298).

³Citizens for a Safe Environment and York Committee for a Safe Environment.

⁴The motion represents that the pilot is employed by TWA although the affidavit pertaining to him does not explicitly so state.

overfly the site in a heavy aircraft and that the reactors located on the site serve as a "useful landmark" for pilots. For his part, the pilot assertedly had stated that he flies large jets, including Boeing 707s and 747s, into the Harrisburg airport, that he has flown directly over the Three Mile Island site in such aircraft and that it is not uncommon for pilots to do so when approaching the airport under VFR conditions.

Neither affidavit discloses the identity of the individuals making these statements. Moreover, the affidavits represent that both individuals explicitly declined a request that they appear as witnesses in this proceeding. In each instance, fear of losing his job was the reason given.

The applicants and the staff oppose the motion insofar as it is addressed to eliciting the testimony of the passengers. The staff informs us, however, that it is "obtaining the names of appropriate airline officials, such as Chief Pilots, who may be able to provide a somewhat more quantified estimate of the percentage of flights into Harrisburg International Airport made under visual conditions which pass over the TMI site." It then offers to endeavor to acquire the affidavits of those individuals for submission to us and the other parties. The staff estimates that this would be accomplished by mid-February. In their response, filed prior to that of the staff, the applicants likewise suggest that the staff "supplement the record with testimony or statements obtained directly from TWA pilots."

2. On full consideration of the intervenors' motion and the response thereto, taken in conjunction with the existing record, we conclude that there is warrant to explore further the question of whether, and if so with what degree of regularity, the Three Mile Island site is overflowed by heavy aircraft in the process of landing or taking off at the Harrisburg airport. That question may well prove to be an important ingredient of the ultimate aircraft crash probability issue we are called upon to decide in this proceeding; indeed, it was specifically alluded to by the Commission in its order supplementing ALAB-486. See CLI-78-19, *supra*, 8 NRC at 297.⁵ And, as previously noted, the FAA witnesses appearing at the hearing last month disclaimed firsthand knowledge of what course heavy aircraft can and do follow in approaching the Harrisburg airport under VFR conditions. The plain implication of their testimony was that the pilots themselves are in the best position to supply this information.

Although the staff has suggested that the record be supplemented by the submission of affidavits obtained from pilots,⁶ we think the better proce-

⁵In this connection, the Commission also instructed us to obtain evidence on "the feasibility of using landing and takeoff patterns which do not overfly the Three Mile Island site." The evidence clearly establishes that such feasibility exists.

⁶As we read the staff's papers, the pilots would not necessarily all be employed by TWA.
(Continued on next page)

ture is to convene another hearing at which those pilots would be called to testify. To be sure, the necessary effect will be some additional delay in our disposition of the aircraft crash probability issue. This consideration is, however, outweighed by the right of the other parties to cross-examine the pilots on their affirmative evidence.

It must be stressed that our decision to call for pilot testimony on landing patterns has not been influenced by the affidavits appended to the intervenors' motion. To the contrary, no significance at all has been attached to the content of those affidavits. It is to be hoped that we are long past that sorry day in this Nation's history when reliance was placed upon statements assertedly made by anonymous informants unwilling to come forward and be confronted on the accuracy of those statements.⁷

The question remains whether the intervenors should be permitted to present their 3 witnesses at the additional hearing. We conclude that they should. Our dissenting colleague makes much of the fact that none of those witnesses had overflown the Three Mile Island site in an aircraft weighing over 200,000 pounds. The existing evidence does not establish, however, that it is a practical impossibility for a large aircraft to overfly the facility site on its landing approach; indeed, the very portions of the record cited in the dissent suggest that the converse is true. This being so, we cannot now reject, as perforce irrelevant, proposed testimony which seems to imply that commercial aircraft landing at the Harrisburg airport routinely pass over the site. The short of the matter is that, in order to rule out that testimony on relevance grounds, it would have to appear much more clearly than it does now that if a commercial aircraft has a loaded weight in excess of 200,000 pounds, it does not or cannot follow the same landing path as aircraft with a total weight less than that figure. In this connection, it is to be kept in mind that the aircraft classified as "heavy" for our purposes vary widely in size and weight. The existing record suggests that size and weight are important factors in the ability of an aircraft to maneuver into proper position for a landing at the Harrisburg airport after having flown over the Three Mile Island site. Thus, the same difficulty encountered by an extremely large aircraft in overflying the facility site on its landing approach might well not be experienced by an aircraft of smaller size and a loaded weight barely over 200,000 pounds.

(Continued from previous page)

Rather, the staff appears to have in mind senior pilots from various commercial airlines using the Harrisburg airport.

⁷For this reason, as well as because of the unreasonable burden that would be imposed, we reject the intervenors' request based upon the affidavits that the staff be required to subpoena all TWA pilots who have landed heavy aircraft at the Harrisburg airport.

II

Pending the anticipated receipt, and disposition, of the intervenors' motion relating to landing patterns at the Harrisburg airport, no schedule was established for the filing of proposed findings of fact and conclusions of law on any of the other matters addressed in the December hearing. Nonetheless, without awaiting further developments, we embarked upon an independent review of the evidence adduced at that hearing. Our purpose was to attempt an early preliminary appraisal respecting the general sufficiency of the existing record.

That review has given rise to certain potentially troublesome questions with regard to both (1) the models developed by the applicants and the staff to predict spatially dependent crash rates; and (2) the assessments by those parties of the precision of their models. It clearly appears that the techniques and approaches employed by the parties in these analyses were quite different; and so, too, were the results obtained.⁸

It may well be that, in their proposed findings, the parties will be able to alleviate our concerns. If so, there is no need to pursue them further at this juncture. Because, however, an additional hearing on the landing pattern issue is in the offing, it appears prudent now to surface those concerns. This should enable the parties to make an informed judgment on whether they can best be dealt with in the proposed findings or, rather, warrant the presentation of additional evidence.

A. The Applicants' Evidence

1. The development of radial and angular correlations for the relative frequency of hits at a particular location includes a normalization process (Vallance Testimony, as revised December 8, 1978, pp. 16, 17). An integration of the rather simple form of the joint probability density function for takeoffs (Vallance Testimony, as supplemented January 9, 1979, p. 22) does not appear to yield the value that might be expected for the take off crash probability over the entire 0-5 mile, 0°-90° quadrant. Rather, the value is considerably smaller. Our review of the balance of the record leaves unclear the exact nature of the normalizing process and raises the following specific questions:

⁸On January 9, 1979, a supplement to the written testimony on crash probabilities by applicants' witness Vallance, including appendices relating to model precision by applicants' witness Kaplan, was submitted to the Board and the parties. In this submission, which, absent objection, we hereby incorporate in the record, applicants followed the staff's method of segregating probabilities by landings and takeoffs for scheduled and non-scheduled operations. But the basic approach to the analysis was unchanged.

- a. Why the angular normalization integral is over the range 0° - 180° , rather than 0° - 90° .
- b. What is meant by the statement that crashes at 0° are allowed for.
- c. Does the spatial distribution model have validity for values of $\theta = 0$, in view of the treatment of 0° crashes.

2. The discussion which relates to the precision of the hit probability values (Vallance Testimony, as revised December 8, 1978, p. 24) mentions a process by which individual frequency distributions for the crash rate, and radial and angular hit dependence, are combined to yield a hit frequency distribution (*i.e.*, areal crash density). Inspection of the resulting distribution indicates that the dispersion of the combined distribution is comparable in magnitude to that of the individual distributions. [This also seems to be the case in the updated, segregated hit frequency distributions presented as Tables 3A, 3B, 3C, and 3D of the Vallance Testimony, as supplemented January 9, 1979].

These results seem to imply that the variables whose probability was represented by the individual frequency distributions were assumed to be either independent in the statistical sense or at least not correlated in an insalubrious manner. What the record does not appear to address is whether the method employed to obtain a combined (*i.e.*, hit frequency) distribution requires that the contributing variables be independent and, if this be the case, the basis for the determination that they were independent, or that any interdependence was insignificant.

B. The Staff's Evidence.

1. Both ALAB-486, *supra*, and CLI-78-19, *supra*, called for (1) the utilization of the historical crash data to develop an analytical model which could be used to predict crash rates in the vicinity of airports (a generic model); and (2) the application of the model to the particular case of the Harrisburg International Airport.

The model developed using the staff's methodology produces a very irregular angular probability distribution which fully displays the statistically variable nature of low probability crash events, but fails to reflect the behavior, intuitively expected and which the crash data also suggests, of a probability which decreases regularly as the angle off of the runway extended increases. Further, the model, followed explicitly, appears to yield a zero probability for a crash within large segments of angle within the 0-5 mile range.

These considerations raise the question whether there could be distortions in areal crash density estimates introduced by the use of a model which, although it yields a finite value for the hit probability at Three Mile

Island, might produce a zero hit probability value for a plant located elsewhere within the 0-5 mile range.

2. To address the question of precision of areal crash density estimates, the staff presented a set of upper confidence limits for the crash density, to which confidence levels of 0.70, 0.85, and 0.97 were assigned (Testimony of R. Moore and L. Abramson, Table IV).⁹ These confidence limits were characterized as conservative. A review of the reference cited by the staff as a basis for their statistical methodology leaves us with the question whether the confidence limits presented by the staff (and the probabilities associated with those limits) are not in fact overly conservative and, indeed, based on an inappropriate application of the referenced technique (the Bonferroni method).

The staff calculated a set of upper confidence limit values for each of the 3 probability factors (crash rate, radial distribution, and angular distribution) which are multiplied together to obtain an estimate of the areal crash density. These confidence limits were determined by assuming that each of the 3 factors could be represented by a Poisson distribution. Confidence limits having confidence level one minus "g" ("1-g") were calculated for values of "g" equal to 0.10, 0.05, and 0.01 (i.e., confidence levels of 0.90, 0.95, and 0.99). To find the confidence limit for the areal crash density, the three "1-g" confidence limit values of the factors were multiplied together, and a probability of "1-3g" assigned to the likelihood that the areal crash density would be less than the resulting product. This was characterized as an application of the Bonferroni method.

As we read the reference, the Bonferroni method seems to associate the probability "1-3g" with the likelihood that three probabilities, each having the value "1-g", be satisfied *simultaneously*.⁹ [Cf. Morrison, *Multivariate Statistical Methods*, 2nd edition, McGraw-Hill, 1976, p. 33]. It is true that if each of the three factors is less than its "1-g" upper confidence limit, the product will be less than the product of the upper limits. However, it appears to be by no means *necessary* for *each* of the factors to be less than their upper limit for the product to be less than the product of the three upper limits. For example, even if one of the factors exceeds its "1-g" limit, there is a range of values of the other two for which the three-factor product would be still less than the product of the "1-g" limits.¹⁰

Therefore, assigning a confidence level of only "1-3g" to the product of

⁹The confidence level expresses the probability that a variable will not exceed the value of an associated upper confidence limit.

¹⁰To be sure, if the three factors were completely correlated, they could all be in their upper range simultaneously and, if one factor exceeded the "1-g" confidence limit, the product of the three would as well. In this instance, however, it would seem that the probability of the

(Continued on next page)

the "l-g" upper limits seems seriously to understate the likelihood that the product of the factors would be less than the product of the "l-g" upper limits. If this is the case, the confidence limits and associated probability values given in Table IV of the Moore and Abramson testimony would appear to provide an unrealistically low measure of the precision of the areal crash density estimates.

We reiterate that our preliminary examination and analysis of the existing evidence was performed without the benefit of the proposed findings and conclusions of the parties. Thus, we cannot exclude the possibility either (1) that we have overlooked matters of record which provide satisfactory responses to the questions posed above; or (2) that the parties will be able to persuade us that, in any event, the existing record is sufficient to enable a reasoned decision on the ultimate aircraft crash probability issue which confronts us. It is, once again, for these reasons that we are not now directing the submission of additional evidence on these matters but, rather, are simply affording the parties the option of using the forthcoming hearing on landing patterns for that purpose.

III

We assume that, were the further hearing definitely to be confined to the landing pattern question, its scheduling could be arranged at this time. In view, however, of the possible expansion of the scope of the hearing to embrace other questions, we will defer the scheduling matter for a few weeks. This will provide the parties with a reasonable opportunity to review the record in light of Part II above and to decide whether they wish to adduce additional evidence on the points there discussed. More particularly, we contemplate holding a telephone conference with the parties on Wednesday, February 21, 1979. The purpose of the conference will be to settle the issues to be further heard and the timing of the submission of the prepared testimony and of the hearing itself.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

(Continued from previous page)

three factors exceeding the "l-g" limit would be exactly that of one of them exceeding the limit. Thus, the probability that their product be less than the limit would be "l-g", rather than "l-3g".

Opinion of Mr. Sharfman, Concurring in part and Dissenting in part:

I join in the opinion of the Board, except insofar as it deals with the question of whether intervenors' three proposed witnesses should be allowed to testify at the additional hearing. My views on that question follow.

The safety structures of this reactor "have been designed to withstand the aircraft impact and fire effects from the crash of a 200,000-pound plane traveling at 200 knots, the 'design basis crash'." ALAB-486, 8 NRC 9, 25 (1978). Intervenors' contention with respect to aircraft crashes did not challenge the adequacy of the plant to withstand the design basis crash; it challenged only the plant's ability to withstand crashes of heavier aircraft such as the Boeing 747 and Lockheed C-5A. See LBP-77-70, 6 NRC 1185, 1197 (1977). Intervenors' proposed witnesses are prepared to testify only as to flights on planes weighing less than 200,000 pounds. Their testimony is therefore manifestly irrelevant.

Intervenors argue that the testimony is relevant because it is possible that a plane lighter than 200,000 pounds might crash into the plant at a speed of more than 200 knots, thus exceeding the design basis crash. However, this issue goes beyond the scope of intervenors' aircraft crash contention (*ibid.*) and, besides, even at this late date, intervenors have not produced any evidence that aircraft in this weight category land at Harrisburg International Airport at such a speed.

Intervenors also suggest that this evidence would be responsive to the Commission's order which listed as one subject as to which evidence should be pursued "whether, and if so, how often, the Three Mile Island site is overflowed; . . ." CLI-78-19, 8 NRC 295, 297 (1978). [I disagree.] Considering that item in the context of the other information listed by the Commission in that order, I think that the Commission was concerned only about overflights of aircraft weighing more than 200,000 pounds.

Intervenors' evidence might conceivably be relevant if there were reason to believe that the flight patterns on visual approaches of planes heavier than 200,000 pounds landing at Harrisburg International Airport are the same as those of lighter planes. However, the uncontradicted evidence of record is that a "heavy" aircraft would not be as likely as a "light" aircraft to attempt to enter the runway centerline as close to the edge of the runway as would be necessary if it were to fly over the Three Mile Island plant.¹ Of course, I recognize that, as the majority opinion take such pains to point out,² this does not mean that a "heavy" aircraft "does not or cannot follow" a landing path over the plant. What it does mean is that we cannot

¹Tr. 264-65, 304-05.

²*Supra*, p. 114.

infer anything about the visual flight rule landing patterns of “heavy” aircraft from testimony about the visual flight rule landing patterns of “light” aircraft. And that is because the FAA testimony, at the very least, indicates that there is a very good possibility that the landing habits of “heavy” aircraft are different from those of “light” aircraft. Thus, we can decide what “heavy” aircraft do only from testimony about what “heavy” aircraft do, and that (I hope) is what the pilot testimony which the staff proposes to offer will tell us.

Finally, the majority suggests that the evidence might be relevant because a plane which ordinarily weighs less than 200,000 pounds might barely exceed that weight when fully loaded.³ This argument is specious. Table 10 of the staff’s testimony indicates which commercial aircraft weigh less than 200,000 pounds when empty and more than 200,000 pounds at their maximum loaded weight. Of these, only the Boeing 707 and DC-8 use Harrisburg International Airport.⁴ In order to be conservative, both the staff and the applicants included those aircraft in the 200,000 pound category for purposes of their analysis.⁵ This was well known to intervenors’ representative, Dr. Kepford, who participated in depth in last December’s hearing. Therefore, if one of his proposed witnesses had flown over the nuclear plant on a Boeing 707 or DC-8, he certainly would not have stated in his motion that all of their flights were on “ ‘small’ aircraft, *i.e.*, on jets of less than 200,000 lbs. . . . ”⁶

It might be argued that intervenors’ witnesses should be allowed to present testimony, even if irrelevant, either because we are having a further hearing anyway or because it might not appear to be fair to permit one party to present supplemental testimony while preventing another from doing so. In my view, these are not adequate reasons. There can hardly be any unfairness in refusing to admit evidence which does not have probative value with respect to the issue in dispute. Moreover, it is common knowledge among lawyers that adjudicatory hearings before administrative agencies tend to be far more protracted than trials before courts. My own experience in both types of tribunals suggests to me that the primary reason for this is that quasi-judicial presiding officers are not willing to exercise as much control over the record as judges do. Their reason is that, while exclusion of evidence may lead to reversal, one can never be reversed by admitting into evidence everything, including the kitchen sink. To be sure, in cases of doubt in a non-jury setting, it is always better to admit than to exclude, especially

³*Supra*, pp. 114-115.

⁴Written testimony of Lowell R. Wright, following Tr. 199, p. 2.

⁵Staff written testimony, following Tr. 242, pp. 22-23; written testimony of John M. Vallance, following Tr. 21, p. 14 and Table 16, note 1.

⁶Intervenors’ motion, p. 2.

where to do so would not lengthen the hearing.⁷ But where, as in this case, the lack of probative value or inadmissibility of the proffered evidence is clear, the better course is to exclude it, especially where its admission would require the testimony of new witnesses or might otherwise substantially lengthen or delay the hearing.⁸

For these reasons, I dissent from my colleagues' decision to permit intervenors' three proposed witnesses to testify.

⁷See, e.g., *Public Service Company of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-520, 9 NRC 48 (January 24, 1979).

⁸It may be that the testimony of the intervenors' three witnesses will not take very long. However, the other parties may desire to rebut their testimony and we may find it difficult to deny them that privilege. Thus, having decided to be "in for a penny" on an immaterial subject, we may be "in for a pound."

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

Docket Nos. 50-400
50-401
50-402
50-403

**CAROLINA POWER AND LIGHT
COMPANY**

**(Shearon Harris Nuclear Power
Plant, Units 1-4)**

February 13, 1979

The Appeal Board affirms the Licensing Board's denial of untimely petitions to intervene in a remanded proceeding on the question of the management capability of the applicant to construct and operate the facility without undue risk to the public health and safety.

LICENSING BOARD: JURISDICTION

The jurisdiction of a licensing board in a remanded proceeding is limited to the remanded issues.

RULES OF PRACTICE: NONTIMELY INTERVENTION

The fact that an intervenor has only recently acquired standing does not in and of itself justify late intervention. If newly acquired standing were sufficient of itself to justify late intervention, the parties to the proceeding could never be determined with certainty until the proceeding ended.

**Mr. George F. Trowbridge, Washington, D. C., for the
applicant Carolina Power and Light Company.**

**Mr. Wells Eddleman, Durham, North Carolina, *pro se*
and for the Kudzu Alliance.**

Mr. Charles A. Barth for the Nuclear Regulatory Commission staff.

DECISION

Over a year ago, the Licensing Board rendered an initial decision which authorized the issuance of construction permits for the four units of the proposed Shearon Harris Nuclear Power Plant. LBP-78-4, 7 NRC 92 (1978). In August 1978, we essentially affirmed that decision. ALAB-490, 8 NRC 234.¹ The following month, the Commission remanded the proceeding to the Licensing Board for a further hearing on the question of the management capability of the applicant to construct and operate the facility without undue risk to the public health and safety. CLI-78-18, 8 NRC 293 (1978). That hearing is currently scheduled to commence on February 27, 1979 in Raleigh, North Carolina.

Now before us in an appeal by Wells Eddleman and the Kudzu Alliance (Alliance) from a January 10, 1979 order of the Licensing Board which denied their joint petition for leave to intervene in the proceeding. That petition was submitted in the form of a series of letters sent by Mr. Eddleman last November. It was, of course, extremely tardy. In seeking "general intervention", it dealt to a large extent with matters outside the scope of the remanded issue.

The Board below held that it lacked jurisdiction over the petition insofar as it sought "general intervention." Then, applying to the remainder of the petition the criteria for late intervention set forth in 10 CFR 2.714,² the Board concluded that there was insufficient cause to allow the petitioners to enter the proceeding at this juncture to participate in the hearing of the remanded "management capability" issue.

¹The affirmance extended to all but the radon issue, over which jurisdiction was retained. See 8 NRC at 241-42, 244.

²In relevant part, Section 2.714(a) provides:

Nontimely filings will not be entertained absent a determination by the Commission, the presiding officer, or the atomic safety and licensing board designated to rule on the petition and/or request, that the petition and/or request should be granted based upon a balancing of the following factors in addition to those set out in paragraph (d) of this section:

- (i) Good cause, if any, for failure to file on time.
- (ii) The availability of other means whereby the petitioner's interest will be protected.
- (iii) The extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record.
- (iv) The extent to which the petitioner's interest will be represented by existing parties.
- (v) The extent to which the petitioner's participation will broaden the issues or delay the proceeding.

The Board was manifestly correct in its jurisdictional ruling rejecting "general intervention."³ And, on a full consideration of petitioners' attack upon the Board's application of the Section 2.714(a) criteria to the portion of the petition dealing with the remanded issue, we find no reason to reach a different result. It may well be that, as has been asserted, Mr. Eddleman has not long resided in the general vicinity of the Shearon Harris facility and that the Alliance is of recent origin. We agree with the Licensing Board, however, that this explanation for the tardy filing cannot carry the day. If newly acquired standing (or organizational existence) were sufficient of itself to justify permitting belated intervention, the necessary consequence would be that the parties to the proceeding would never be determined with certainty until the final curtain fell. Assuredly, no adjudicatory process could be conducted in an orderly and expeditious manner if subjected to such a handicap.

Thus, the question comes down to whether the other factors set forth in Section 2.714 (a weight sufficiently heavily in petitioners' favor to overcome the absence of a satisfactory excuse for the lateness. We are persuaded that they do not. Although, as petitioners seem to maintain, the Licensing Board may have been incorrect in its observation that Mr. Eddleman had made "only passing reference" to the remanded management capability issue, the fact remains that petitioners have offered nothing which suggests to us that they are equipped to make a significant contribution to the development of a sound record on that issue. That consideration is determinative here, particularly given the high potential for delay which would attend upon petitioners' belated intervention⁴ and the presence of other intervenors—including the Attorney General of North Carolina—who apparently propose to participate in the upcoming hearing.⁵

³The Licensing Board's present jurisdiction over the proceeding is very limited. All that is before that Board, and all that it may consider, is what was remanded to it. *Cf. Public Service Company of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-513, 8 NRC 694 (December 21, 1978); *Portland General Electric Company* (Trojan Nuclear Plant), ALAB-524, 9 NRC 65, . . . fn. 9 (January 30, 1979). Accordingly, the petitioners are incorrect in faulting the Board for saying no more about the request for "general intervention" than that it lacked jurisdiction over it.

⁴We stress that the remanded issue is not a newly discovered one. Thus, the petitioners cannot point to it as a recent development justifying their belatedness. Moreover, even viewed in terms of the timing of the remand order, the petition was not filed promptly.

⁵The Licensing Board noted in its January 10 order (at p. 5) that it also intended to participate
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The January 10, 1979 order of the Licensing Board is *affirmed*.
It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

(Continued from previous page)

actively in the development of the record on the management capability issue. As CLI-78-18 reflects, the Commission remand of that issue was prompted by an expression of concern on the part of that Board.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Michael C. Farrar
Richard S. Salzman

In the Matter of

Construction Permit
Nos. CPPR-139
CPPR-140

UNION ELECTRIC COMPANY

(Callaway Plant, Units
1 and 2)

February 23, 1979

The Appeal Board affirms the Licensing Board's decision authorizing the suspension of a construction permit until the builder cooperated with an NRC investigation into whether a workman was discharged in retaliation for reporting allegedly unsafe construction practices to NRC inspectors.

ATOMIC ENERGY ACT: INTERPRETATION

Remedial enactments, *i.e.*, statutory provisions designed to afford protection which the public could not obtain on its own initiative, should be broadly construed to help assure their effectiveness.

RULES OF PRACTICE: BURDEN OF PROOF

The party who urges a reading of a statute not apparent on its face bears the burden of showing a basis for the departure.

NRC: RULEMAKING AUTHORITY

The Commission need not promulgate general rules to exercise its powers; it may instead issue case-by-case orders. *SEC v. Chenery Corp.*, 332 U.S. 194, 202-03 (1947).

NRC: INVESTIGATORY AUTHORITY

Under the Supreme Court's holding in *Marshall v. Barlow's*, 436 U.S. 307 (1978), a company constructing a nuclear power plant can claim no "expectation of privacy" respecting activities reasonably related to the safe construction of the plant; consequently, the NRC staff needs no search warrant to investigate those activities.

NRC: INVESTIGATORY AUTHORITY

The incidental effects of an NRC investigation on pending grievance proceedings—whether under collective bargaining agreements or before the Secretary of Labor—do not outweigh the Commission's need to be able to look promptly into the question of retaliatory discharges if circumstances warrant.

RULES OF PRACTICE: INVESTIGATORY AUTHORITY

An order authorizing suspension of a construction permit is an appropriate remedy when a licensee and its contractor refuse to permit the Commission to investigate the question of retaliatory discharges because such refusal interferes with the Commission's duty and responsibility to assure the public safety.

ADMINISTRATIVE TRIBUNALS: DECLARATORY RELIEF

An employee's claim that the NRC may act to get him his job back if he is fired for "whistleblowing" is moot once he has been restored to employment with back pay and there is no further relief the Commission could afford him.

Mr. Wm. Bradford Reynolds, Washington, D.C., argued the cause for the Union Electric Co., *licensee*; with him on the briefs was **Mr. Gerald Charnoff**, Washington, D.C.

Mr. Michael H. Bancroft, Washington, D.C., argued the cause for William Smart, *intervenor*; with him on the briefs was **Mrs. Diane B. Cohn**, Washington, D.C.

Mr. James P. Murray argued the cause and filed a brief for the Nuclear Regulatory Commission staff.

DECISION

Opinion of the Board by Mr. Salzman, in which Messrs. Rosenthal and Farrar join:

The firing of a Callaway construction worker has generated two questions: May the Commission suspend a construction permit until the builder cooperates with an NRC investigation into whether the workman was discharged in retaliation for reporting allegedly unsafe construction practices to NRC inspectors? If the employee was fired for "whistleblowing", may the NRC act to get him his job back? The Licensing Board answered "yes" to the first question but declined to reach the second.¹ Both the licensee and the employee involved appeal. We affirm.

I

1. Background. The facts are stipulated.² The Commission has licensed Union Electric Company to construct the Callaway nuclear-powered electric generating facility.³ Union Electric engaged Daniel Construction Company to build part of the plant; William Smart was among the ironworkers Daniel hired for the Callaway project. A number of times while working there, Mr. Smart reported to NRC inspectors what he considered safety-related deficiencies in Daniel's work. On March 21, 1978, Daniel fired him.

Mr. Smart promptly had his union initiate grievance proceedings under its "Project Agreement" with the construction company.⁴ The grievance was eventually referred to binding arbitration under the terms of that agreement.⁵

On March 30, the NRC staff opened an investigation into whether Daniel had fired Mr. Smart in retaliation for his reporting the company to the NRC safety inspectors. Daniel, however, refused to allow the NRC inspectors either to inspect its relevant personnel records or to interview com-

¹LBP-78-31, 8 NRC 366 (September 28, 1978).

²The stipulation, adhered to by all parties, appears in full in the opinion below. 8 NRC at 368, fn. 2. Unless otherwise noted, the facts recited are from that source.

³See LBP-75-47, 2 NRC 319 (1975), and LBP-76-15, 3 NRC 445, *affirmed*, ALAB-347, 4 NRC 216.

⁴Formally titled "Project Agreement, Union Electric Company, Callaway Nuclear Units 1 and 2, Callaway County, Missouri," it was entered into by Daniel Construction Company and unions representing workmen on the Callaway Project, including Mr. Smart's union, the International Association of Bridge, Structural, and Ornamental Iron Workers. The licensee provided copies of the Project Agreement to all parties at our request.

⁵See Project Agreement, Article VII.

pany employees knowledgeable about the discharge. Daniel's refusal was brought to Union Electric's attention, but the utility did not instruct its contractor to allow the staff investigators the access they sought.

2. The proceedings below. On April 3, 1978, the NRC Director of Inspection and Enforcement issued an "Order to Show Cause" why the Callaway construction permits should not be suspended.⁶ The order recited that staff investigators had sought access to the records and personnel mentioned to determine whether: (1) Mr. Smart was discharged for reporting asserted construction deficiencies that might jeopardize public health and safety; (2) the Commission should issue regulations encouraging workmen to report unsafe construction practices and forbidding employer retaliation for doing so; and (3) potentially unsafe conditions at Callaway are going unreported because of the "chilling effect" of Mr. Smart's discharge. The Director concluded that public health and safety considerations made the investigation necessary and that it could not be conducted effectively unless Daniel yielded access to the sought information. Accordingly, he gave Union Electric 20 days to "show cause" why the Callaway construction permits should not be lifted pending Daniel's cooperation with his investigators.

Union Electric responded by challenging the Director's right to conduct the investigation and demanding a hearing on the show cause order should its response be rejected. The Commission granted Union Electric's demand for a hearing, instructing the Licensing Board (subject to our review) to determine:

- (1) whether the Commission in its investigation was denied access to records and personnel relating to the termination of a worker who had alleged construction problems which if uncorrected could lead to unsafe conditions in an activity licensed by the Commission;
- (2) whether Construction Permits No. CPPR-139 and No. CPPR-140 should be suspended until such times as the Licensee, including its employees, agents and contractors engaged in activities under the license, submits to investigations and inspections as the Commission deems necessary and as authorized by the Atomic Energy Act of 1954, as amended, in the Commission's regulations; and
- (3) whether the NRC should defer its investigation to the ongoing grievance proceeding between the worker and the contractor here involved.⁷

⁶Such orders are governed by Subpart B of Part 2 of the Commission's Rules of Practice, 10 CFR 2.200 *et seq.* The Director's action in this case was authorized by 10 CFR 2.202.

⁷See Notice of Hearing, 43 Fed. Reg. 21389 (May 17, 1978).

Mr. Smart, the discharged workman, was allowed to intervene in the proceeding. The Licensing Board accepted the parties' stipulated account of the relevant facts and based its decision upon it.⁸

3. The Licensing Board's decision. On September 28th the Licensing Board held, first—as stipulated by the parties—that the Commission was denied access to records and personnel relating to the discharge of a workman who had alleged the existence of unsafe conditions at the Callaway construction site, thereby answering yes to the first question posed by the Commission. 8 NRC at 371.

The Board below also responded affirmatively to the second question—whether the construction permits should be suspended until the contractor submits to the investigation. It reasoned that the Commission has a mandate under the Atomic Energy Act to protect the public health and safety from the activities of Commission licensees. As one means of achieving that end, the Act expressly authorizes the Commission to investigate licensed activities and to obtain information from licensees. In this case, the Board found that the essential purpose of the investigation was to learn whether Union Electric was building the Callaway nuclear power plant to be safe, in accordance with the Commission's approved design. Deeming that aim in furtherance of the Commission's statutory responsibilities, the Board held that the investigation was authorized. *Id.* at 371-76.

The Board rejected the utility's contentions that the NRC's investigating authority is limited where a "labor dispute" is involved, that a judicial warrant is necessary to carry out the investigation, and that the investigation should abide the outcome of the pending grievance proceeding. As to the last—the third question posed by the Commission—the Board rejected the utility's fear that the investigation might impair the grievance proceeding, ruling that safety considerations overrode any potential labor relations problems. *Id.* at 377-78. Accordingly, the Board authorized the Director of Inspection and Enforcement to suspend construction of the Callaway facility until the utility and its contractor submitted to the investigation. *Id.* at 379.

Mr. Smart had also asked for a ruling on the Commission's authority "to protect a construction worker fired for making safety complaints to the NRC," *i.e.*, to order his reinstatement if fired in retaliation for such activities. In intervenor's view, this issue was "implied" in the Commission's notice of hearing. The Board, however, declared it outside the scope of the matters referred to it by the Commission and therefore "beyond its jurisdiction". *Id.* at 370-71.

⁸See fn. 2, *supra*.

4. Subsequent events bearing on the case.

(a) The utility sought a stay of the Licensing Board's decision pending completion of our appellate review. That relief became unnecessary when, at our suggestion, the parties agreed on interim arrangements accommodating their respective interests without compromising the public's. That agreement, set out elsewhere, is summarized in the margin.⁹

(b) On November 1, 1978, the grievance proceeding between Mr. Smart's union and Daniel Electric terminated in the employee's favor. The arbitrator concluded "that the company did not sustain its burden of showing that it discharged Mr. Smart for failing to follow a Foreman's order" and therefore ordered him "reinstated with back pay and all incidents of employment that would have been his from March 21, 1978 onward."¹⁰ In the course of his opinion the arbitrator observed that, "[a]t the hearing, the company took pains to avoid the issue of whether its discharge was motivated by Mr. Smart's activities in relation to the Nuclear Regulatory Commission."¹¹ For this reason the arbitrator refused to consider whether that ground either provided good cause for the discharge or justified not reinstating Mr. Smart in his former employment.¹² According to intervenor's counsel, "[o]n November 15, 1978, Mr. Smart returned to work for Daniel Construction Company (Daniel) on the Callaway nuclear plant construction project."¹³

(c) On November 6, 1978, Congress added a new section to the Energy Reorganization Act of 1974 entitled "Employee Protection."¹⁴

⁹See ALAB-503, 8 NRC 400, 403 (1978). In essence, the agreement gave the NRC investigators immediate access to Daniel's records and personnel, subject to the conditions that all information obtained therefrom is to be held in confidence—disclosed only to persons on the Director of Inspection and Enforcement's staff and staff counsel—until 15 days after we decide this appeal (unless after a hearing on notice we directed otherwise) and not used in connection with this appeal or further proceedings respecting it before the Commission or a court; that the Director not exercise the permit suspension authority conferred by the Licensing Board during the pendency of this appeal and for 15 days thereafter; and, finally, that no legal arguments or other issues raised by the exceptions are waived by entering into the agreement.

¹⁰On November 17, 1978, intervenor filed and served a copy of the arbitrator's formal Opinions and Award (FMCS Case No. 78k/17143) as Exhibit 1 to *William Smart's Notice of His Reinstatement*. In the absence of any objection, we take official notice of the arbitrator's decision.

¹¹*Id.* at 14.

¹²*Id.* at 14 and 15.

¹³*William Smart's Notice of His Reinstatement* at 1; see fn. 10, *supra*.

¹⁴Section 10 of P.L. 95-601, 95th Cong., 2nd Sess. (1978), 92 Stat. 2951, 42 U.S.C. 5851. (The legislation designates the new provision as "Section 210", apparently overlooking existing Section 210, 91 Stat. 1482, 42 U.S.C. 5850, added December 13, 1977).

Modeled on similar provisions in other legislation,¹⁵ the new section applies to NRC licensees and license applicants, their contractors and subcontractors. It prohibits them from discharging or otherwise discriminating against employees who assist or testify in any action or proceeding designed to carry out the purposes of the Atomic Energy Act. If an employee alleges a violation of his rights under the section, the Secretary of Labor may investigate and order appropriate redress.

II

1. As the question before us arises under the Atomic Energy Act of 1954, we start our search for the answer with the terms of that statute.¹⁶ In it, Congress decreed that "regulation by the United States of the production and utilization of atomic energy and of the facilities used in conjunction therewith is necessary . . . to protect the health and safety of the public."¹⁷ That regulatory obligation has devolved on this Commission.¹⁸

The Atomic Energy Act makes it unlawful to build or operate a commercial nuclear power plant without an NRC license,¹⁹ and directs that licensees be persons "who are equipped to observe and who agree to observe such safety standards to protect health and to minimize danger to life or property as the Commission may by rule establish; and who agree to make available to the Commission such technical information and data concerning activities under such licenses as the Commission may determine necessary to . . . protect the health and safety of the public."²⁰

Under other sections, the Commission may "make such studies and investigations, [and] obtain such information as [it] may deem necessary or proper to assist it in exercising any authority provided in this Act," as well as "provide for such inspections of . . . activities under licenses [to build commercial nuclear power plants] as may be necessary to effectuate the purposes of this Act."²¹ And, "because of conditions revealed by . . . any report record or inspection" which would have warranted refusal of the license initially, or "for failure to construct . . . a [nuclear power] facility in

¹⁵See S. Rep. No. 95-848, 95th Cong., 2nd Sess. 29 (1978), citing among other similar legislation, the Clean Air Act Amendments of 1977, 42 U.S.C. 7622.

¹⁶68 Stat. 919, as amended, 42 U.S.C. 2011 *et seq.*

¹⁷42 U.S.C. 2021(e).

¹⁸The licensing and regulatory functions of the Atomic Energy Commission was transferred to the Nuclear Regulatory Commission by Title II of the Energy Reorganization Act of 1974, 42 U.S.C. 5841 *et seq.* Both the AEC and the NRC will be referred to here as the Commission.

¹⁹42 U.S.C. 2131.

²⁰42 U.S.C. 2133.

²¹42 U.S.C. 2201(c) and (o).

accordance with the terms of the construction permit or license or the technical specifications in the application . . .," it may revoke or suspend any license previously issued under the Atomic Energy Act.²²

These provisions are "remedial" in character, that is, designed to afford protection which the public could not obtain on its own initiative. It is a basic canon of statutory construction that remedial enactments are broadly construed to help assure their effectiveness.²³ Thus, licensee's contrary argument notwithstanding, the Atomic Energy Act's failure to mention labor disputes does not imply that such matters are beyond Commission scrutiny. An enactment like this one, expressive of major public policy,

must be broadly phrased and necessarily carries with it the task of administrative application. There is an area plainly covered by the language of the Act and an area no less plainly without it. But in the nature of things Congress could not catalogue all the devices and stratagems for circumventing the policies of the Act. Nor could it define the whole gamut of remedies to effectuate these policies in an infinite variety of specific situations. Congress met these difficulties by leaving the adaptation of means to end to the empiric process of administration.²⁴

Moreover, administrative responsibilities are measured at least in part by the purpose for which they were conferred.²⁵ There is no reason to assume that Congress would give the Commission tools unequal to the task assigned it. Accordingly, we must explore whether labor disputes during the construction of a nuclear power plant can engender radiation hazards to the public of the kind the Act was designed to guard against.

That examination need not detain us long. The licensee acknowledged that labor practices can serve to mask construction deficiencies with serious safety implications. To take this case as an example, counsel conceded at argument that the summary discharge of a workman who has reported his employer for unsafe construction practices raises a reasonable inference

²²42 U.S.C. 2236(a).

²³See, e.g., *United States v. An Article of Drug—Bacto-Unidisk*, 394 U.S. 784, 798 (1969); *Rushton Mining Company v. Morton*, 520 F.2d 716, 720 (3rd Cir. 1975); *Freeman Coal Mining Company v. Interior Board of Mine Operations Appeals*, 504 F.2d 741, 744 (7th Cir. 1974); *United States v. Diapulse Corp.*, 457 F.2d 25, 28 (2d Cir. 1972); *St. Marys Sewer Pipe Company v. Director of the United States Bureau of Mines*, 262 F.2d 378 (3rd Cir. 1959); *Natick Paperboard Corp. v. Weinberger*, 389 F. Supp. 794 (D. Mass. 1975), to cite some authorities proffered by the Staff.

²⁴*Phelps Dodge Corp. v. NLRB*, 313 U.S. 177, 194 (1941) (Frankfurter, J.).

²⁵*Permian Basin Area Rate Cases*, 390 U.S. 747, 774-76 (1968).

that the employer may be attempting to "cover-up" those practices.²⁶ App. Tr. 10. Common sense tells us that a retaliatory discharge of an employee for "whistleblowing" is likely to discourage others from coming forward with information about apparent safety discrepancies. Yet, the Commission's safety inspectors cannot be everywhere; to an extent they must depend on help of this kind to do their jobs. Incidents that deter such aid are inherently suspect. They obviously merit full exploration in the interests of safety and certainly are *prima facie* within the Commission's legislative charter.

Licensee argues that investigators could ascertain any "chilling effect" of Daniel's firing of Mr. Smart simply by talking to other employees, without need either to inspect Daniel's records or to interview its personnel executives. The short answer is that the perceived effect on others is only part of the problem. If Daniel in fact fired Mr. Smart to "cover-up" careless construction practices that might make the plant unsafe to operate, the NRC investigators are entitled—indeed obliged—to know about it.²⁷ To conclude that the right to ascertain the facts underlying such incidents is beyond the Commission's investigatory power is to limit *pro tanto* its ability to guard against the patent dangers of poorly built nuclear plants. We are reluctant to reach that conclusion without some compelling reason, for to do so would make us guilty of "interpret[ing] a statute so narrowly as to defeat its obvious intent."²⁸ This we may not do.

2. Nevertheless, we may not end our decision here. It is not enough to ascertain the "plain meaning" of a statute with the assistance of the canons of construction. The duty of any adjudicatory tribunal is to determine as best it can what Congress intended; the canons are but one means to that end. "When aid to construction of the meaning of words, as used in the statute, is available, there certainly can be no 'rule of law' which forbids its use, however clear the words may appear on 'superficial examination'."²⁹ And "even the most basic general principles of statutory construction must yield to contrary evidence of legislative intent."³⁰

²⁶The need for "quality assurance" and "quality control" in the construction of nuclear plants has long been a recognized Commission concern. See, e.g., *Consumers Power Company* (Midland Plant, Units 1 and 2), ALAB-106, 6 AEC 182 (1973); ALAB-147, 6 AEC 636 (1973); ALAB-152, 6 AEC 816 (1973); ALAB-283, 2 NRC 11 (1975).

²⁷We agree with the staff that, were this indeed the case, licensee's continued retention of Daniel to construct the nuclear plant might well jeopardize its construction permit. See 42 U.S.C. 2133(b) (2).

²⁸*United States v. Braverman*, 373 U.S. 405, 408 (1963); accord, *Bird v. United States*, 187 U.S. 118, 124 (1902); *Wilderness Society v. Morton*, 479 F.2d 842, 855 (D.C. Cir.), *certiorari denied*, 411 U.S. 917 (1973).

²⁹*Train v. Colorado PIRG*, 426 U.S. 1, 10 (1976) (Marshall, J.).

³⁰*National R.R. Passenger Corp. v. Passenger Ass'n*, 414 U.S. 453, 458 (1974).

That the right to determine why a “whistleblower” was fired appears at first reading to be within the scope of the Commission’s investigatory authority under the Atomic Energy Act is not necessarily dispositive of the question. Sometimes a literal reading of a statute encompasses matters the draftsmen did not mean to cover. It can be the case “that however broad the language of the statute may be, the act, although within the letter, is not within the intention of the Legislature, and therefore cannot be within the statute.”³¹ Accordingly, we look to see whether that situation obtains here. We keep in mind, however, that the party who urges a reading not apparent on the face of a statute bears the burden of showing a basis for the departure.³²

Licensee advances essentially 3 arguments to support its theory that “labor disputes” are free of the Commission’s investigatory authority. They involve the Atomic Energy Act’s legislative history, the Commission’s prior inaction, and recent legislation giving the Secretary of Labor power to intervene in “whistleblower” disputes. Like the Board below, we find none of them persuasive.

(a) Licensee’s examination of the background of the Atomic Energy Act uncovered little relevant material. It concludes simply that the “legislative history is not dispositive of the issue at hand.” But, in our view, this fact itself cuts against licensee. The NRC did not initiate its investigation to resolve a labor dispute at the Callaway site or because the NRC staff claims “watchdog authority over labor matters.”³³ Rather, its purpose was to ferret out any substandard construction practices that might leave the Callaway plant unsafe to operate.³⁴ Notwithstanding its silence about labor disputes, the legislative history unmistakably proclaims the safety authority of the Commission as paramount and plenary,³⁵ and does so without any

³¹*Toledo Edison Company* (Davis-Besse Station, Unit 1), ALAB-323, 3 NRC 331, 344 (1976), quoting *Church of the Holy Trinity v. United States*, 143 U.S. 457, 472 (1892); accord, *United Housing Foundation, Inc. v. Forman*, 421 U.S. 837, 849 (1975); *Philbrook v. Glodgett*, 421 U.S. 707, 714 (1975).

³²*Massachusetts Financial Services, Inc. v. Securities Investor Protection*, 545 F.2d 754, 756 fn. 3 (1st Cir. 1976); *Commissioner v. Barclay Jewelry, Inc.*, 367 F.2d 193, 196 (1st Cir. 1966); *Byrnes v. Faulkner, Dawkins & Sullivan*, 413 F. Supp. 453, 462 (S.D.N.Y. 1966), affirmed, 550 F.2d 1303 (2nd Cir. 1977); see also, *Public Service Company of Indiana* (Marble Hill Units 1 and 2), ALAB-459, 7 NRC 179, 199-200 (1978).

³³*Licensee’s Opening Brief* at 13.

³⁴Stipulation, paragraph 7.

³⁵See, *Power Reactor Company v. Electricians*, 367 U.S. 396, 402, 415-16 (1961). Licensee makes much of the fact that the Commission’s authority over environmental and antitrust matters is subject to limits. See, *New Hampshire v. AEC* 406 F.2d 170 (1st Cir. 1969); *Cities of Statesville v. AEC*, 441 F.2d 962 (D. C. Cir. 1969). But, as it concedes, neither of those cases is

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suggestion that Commission investigators must turn a blind eye to safety problems coincidentally involving some "labor practice." Here lies the flaw in the licensee's argument: it provides no reason why Congress would want to hobble the Commission's ability to deal with such problems.³⁶

(b) Licensee next suggests that the agency's previous failure to claim authority of this nature evidences its nonexistence. As the licensee puts it, "[p]rior to this case, the NRC has neither asserted nor exercised authority to conduct an investigation into the causes underlying disciplinary action against a construction worker."³⁷ The argument will not stand even brief analysis. The key words are "construction worker." For the licensee acknowledges in a later footnote,³⁸ that the Commission has had on its books for more than 5 years regulations encouraging workmen *operating* nuclear power plants to report to it violations of safety regulations and forbidding retaliatory discharge of or discrimination against those who do.³⁹ The authority underpinning those regulations is the same that the staff invokes to support its investigation here.⁴⁰ Thus, the Commission has not "slept on its rights" until this case. As for licensee's brief contention that the NRC is equally impotent to protect plant operators who report safety transgressions, we simply note that it cites no congressional, judicial, or other authority than its own *ipse dixit*.⁴¹ That is hardly sufficient to persuade us that the Commissioners exceeded their authority in these matters, particularly as Congress has been made aware of and did not object to the regulations that licensee is attacking.⁴²

In our judgment, the Commission's authority to protect employees who *operate* nuclear power plants from employer retaliation is broad enough to let it protect those who *build* them. To be sure, Commission regulations do not expressly extend to construction workers. But the Commission need not promulgate general rules to exercise its powers; it may instead issue case-by-case orders. Supreme Court decisions rejecting arguments analagous to licensee's explain why:

[P]roblems may arise in a case which the administrative agency could

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on point for purposes of this *safety* proceeding. (*Licensee's Opening Brief* at 11.) It cites no limits on the Commission's jurisdiction to ensure the construction of safe nuclear plants and we are aware of none.

³⁶See, *Marble Hill*, *supra*, 7 NRC at 200.

³⁷*Licensee's Opening Brief* at 9.

³⁸*Id.* at p. 22, fn. 19.

³⁹See, generally, 10 CFR Part 19 and CFR 19.16(c).

⁴⁰*Inter alia*, 42 U.S.C. 2201.

⁴¹See fn. 37, *supra*.

⁴²See, *Siegel v. AEC*, 400 F.2d 778, 783 (D.C. Cir. 1968).

not reasonably foresee, problems which must be solved despite the absence of a relevant general rule. Or the agency may not have had sufficient experience with a particular problem to warrant rigidifying its tentative judgment into a hard and fast rule. *Or the problem may be so specialized and varying in nature as to be impossible of capture within the boundaries of a general rule.* In those situations, the agency must retain power to deal with the problems on a case-to-case basis if the administrative process is to be effective.⁴³

Moreover, it would be ironic indeed if the NRC could not investigate the cause of Mr. Smart's discharge without a formal agency rule covering his circumstances. Labor disputes are among the most prominent examples of matters traditionally handled on a case-by-case basis. See *NLRB v. Bell Aerospace Company*, *supra*.⁴⁴

(c) Finally, licensee invites our attention to statutes, covering many industries, designed to protect workmen who report their employer's derelictions to government agencies. Such enactments typically (but not uniformly) empower the Secretary of Labor, at the instance of the aggrieved employee, to investigate and nullify an employer's retaliatory actions.⁴⁵ No similar provision appears in the Atomic Energy Act of 1954. However, as the licensee stresses, on November 6, 1978, Congress enacted legislation authorizing the employees of NRC licensees and license applicants, and of their contractors and subcontractors, to take such grievances to the Secretary of Labor, not the NRC.⁴⁶ The licensee would have us infer that this Commission never had investigatory authority "duplicative" of that covered by the new law.

That inference is unwarranted. A statute enacted in 1978 is little indication of what another Congress intended in passing legislation nearly a quarter-century earlier.⁴⁷ Even were this not generally so, the sponsors of the 1978 amendment adding "Section 210" to the Energy Reorganization Act of 1974⁴⁸ explicitly warned against notions of NRC powerlessness in

⁴³*NLRB v. Bell Aerospace Company*, 416 U.S. 267, 293 (1974), quoting *SEC v. Chenery Corp.*, 332 U.S. 194, 202-03 (1947).

⁴⁴"If an 'administrative agency' is required to resort to rulemaking, then the NLRB is, but the NLRB has issued only 4 substantive rules in 40 years. 29 CFR Part 103. Are all the 'rules' that emerge from more than 200 volumes of NLRB opinions invalid? The obvious answer has to be no." K. Davis, *Administrative Law of the Seventies* (1976) at 231.

⁴⁵See fn. 15, *supra*.

⁴⁶*Ibid*.

⁴⁷See, *United States v. Philadelphia National Bank*, 374 U.S. 321, 349 (1963); *United States v. Wise*, 370 U.S. 405, 411 (1962); *United States v. Price*, 361 U.S. 304, 313 (1960); *Rainwater v. United States*, 356 U.S. 590, 593 (1958).

⁴⁸See fn. 14, *supra*.

these matters. Thus, the Senate floor manager, urging his colleagues to accept the amendment, said that⁴⁹

while new Section 210 of the Energy Reorganization Act of 1978 provides the Department of Labor with new authority to investigate an alleged act of discrimination in this context and to afford a remedy should the allegation prove true, it is not intended to in any way abridge the Commission's current authority to investigate an alleged discrimination and take appropriate action against a licensee-employer, such as a civil penalty, license suspension or license revocation. Further, the pendency of a proceeding before the Department of Labor pursuant to new Section 210 need not delay any action by the Commission to carry out the purposes of the Atomic Energy Act of 1954.

Senator Hart's remarks do not *establish* the existence under the Atomic Energy Act of the disputed investigatory authority. However, they effectively undercut the idea that Congress passed Section 210 either because it thought the Commission lacked such power or because it wanted to strip away that authority.

Moreover, the Commission's investigatory powers and those of the Secretary of Labor under the new provisions neither serve the same purpose nor are invoked in the same manner. They are, rather, complementary, not duplicative in the sense licensee suggests. To be sure, both encourage the reporting of unsafe or improper practices to Commission officials. But Section 210 focuses chiefly on protecting employees against retaliation, rather than on safeguarding the public's rights. Its processes may be invoked only by the employee, who may settle the complaint on terms he believes adequate without regard to any larger public interest; the remedy afforded is in terms of job reinstatement and compensation.⁵⁰ Consequently, the validity of an employee's discharge may be compromised or decided without ever determining whether it was retaliatory or designed to cover up substandard construction practices.⁵¹ Indeed, that is just what did happen in this case, albeit under contractual grievance proceedings rather than under the Secretary's auspices.

Moreover, under the new legislation the Secretary apparently lacks two remedial powers—which the Commission possesses—necessary to insure full protection of the public interest. The first is the right to take important actions against the employer, and the other is authority to do so immediate-

⁴⁹124 Cong. Rec. S15318 (daily ed. Sept. 18, 1978) (remarks of Senator Hart).

⁵⁰See 42 U.S.C. 5851.

⁵¹Not to mention that a discharged employee—for reasons sufficient to himself—may simply choose to look elsewhere for work and forego the proceedings entirely.

ly. Thus, even after finding that an employee has been fired for reporting unsafe construction practices, the Secretary may order only reinstatement and back pay—not correction of the dangerous practices themselves. He *can* report them to the Commission. But his administrative proceedings take time; as does any judicial review (the grievance proceedings in this case took 7 months).⁵² In the interim, a lot of concrete can be poured over a lot of defects.⁵³ This Commission, as the agency primarily responsible for public safety in the nuclear field, should not have to stand idly by while this happens. But that is the practical result of licensee's approach. To be sure, under licensee's theory the Commission investigators could in the meanwhile search for safety defects on their own. And they could speak with any employees willing to talk to them, so long as they did not seek to learn directly from the employer's executives or personnel records whether the firing was an act of retaliation. This "hang your clothes on a hickory limb and don't go near the water" approach has little to commend it. Nuclear power plants are immense, billion-dollar construction projects; and the Commission has only a finite number of inspectors. As the staff cogently explains, in the context of the situation at bar:⁵⁴

The NRC investigation was aimed at finding out whether it might be necessary to mount an augmented inspection effort at Callaway. It would not be a prudent use of limited inspection resources if it were to turn out that Mr. Smart had *not* been fired for giving safety information to NRC. So, we need to know the facts *before* we decide what actions may be required.

Accordingly, we reject the licensee's arguments and agree with the Board below "that the proposed investigations and inspections are within the statutory authority of the Commission and its regulations."⁵⁵ We turn next to licensee's contention that they are, nevertheless, impermissible without a search warrant.

III

In *Marshall v. Barlow's, Inc.*, 436 U.S. 307 (1978), the Supreme Court held in violation of the Fourth Amendment's guarantees against

⁵²The Secretary of Labor is under a statutory injunction to complete his proceedings within 90 days of receipt of a complaint, which must be filed within 30 days of discharge; the right thereafter to seek judicial review is open for 60 days; no time limit is imposed for its completion. 42 U.S.C. 5851(b) and (c).

⁵³See, e.g., *Midland*, *supra*, fn. 26.

⁵⁴*Staff Brief* at 14 (emphasis in original).

⁵⁵8 NRC at 376 (footnotes omitted).

unreasonable searches and seizures a warrantless inspection of commercial premises pursuant to Section 8 of the Occupational Health and Safety Act of 1970.⁵⁶ In doing so, however, the Court recognized two exceptions to the general rule requiring search warrants. These involved “‘pervasively regulated businesses[es]’, *United States v. Biswell*, 406 U.S. 311, 316 (1972),” and “‘closely regulated’ industries ‘long subject to close supervision and inspection.’” *Colonnade Catering Corp. v. United States*, 397 U.S. 72, 74, 77 (1970).”⁵⁷ The Court explained that these exceptions

represent responses to relatively unique circumstances. Certain industries have such a history of government oversight that no reasonable expectation of privacy, see *Katz v. United States*, 389 U.S. 347, 351-352 (1967), could exist for a proprietor over the stock of such an enterprise. Liquor (*Colonnade*) and firearms (*Biswell*) are industries of this type; when an entrepreneur embarks upon such a business, he has voluntarily chosen to subject himself to a full arsenal of governmental regulation.

Industries such as these fall within the “certain carefully defined classes of cases,” referenced in *Camara [v. Municipal Court]*, 387 U.S. 523] at 528. The element that distinguishes these enterprises from ordinary businesses is a long tradition of close government supervision, of which any person who chooses to enter such a business must already be aware. “A central difference between those cases [*Colonnade* and *Biswell*] and this one is that businessmen engaged in such federally licensed and regulated enterprises accept the burdens as well as the benefits of their trade, whereas the petitioner here was not engaged in any regulated or licensed business. The businessman in a regulated industry in effect consents to the restrictions placed upon him.” *Almeida-Sanchez v. United States*, 413 U.S. 266, 271 (1973).⁵⁸

In the proceeding below, the Licensing Board held that the “atomic energy industry is an example of a pervasively regulated industry, and accordingly, lawful inspections of licensees’ activities are within the warrantless search exception for a ‘closely regulated industry’ delineated by the United States Supreme Court in *Marshall v. Barlow’s Inc.*”⁵⁹ The licensee challenges that conclusion. It does acknowledge that “Daniel Construction could fully anticipate that its reports and records pertaining to site work and

⁵⁶29 U.S.C. 657(a).

⁵⁷436 U.S. at 313.

⁵⁸*Ibid.*

⁵⁹8 NRC at 377.

safety considerations would have to be made readily accessible for regular inspection and review by the NRC" under the Commission's regulation. But it insists that the regulations do not justify "a warrantless investigation of [Daniel's] labor practices."⁶⁰ As to these, licensee contends Daniel retained its "expectations of privacy" and, accordingly, its personnel and records cannot be investigated without a warrant.

That argument's basic premise is faulty. We stress again that the staff was not investigating the general state of Daniel's relations with its employees. It was seeking to discover whether Daniel is attempting to cover up substandard construction practices by firing employees who bring them to the Commission's attention. That such actions may also be "labor practices" does not detract from their safety implications. For reasons we have already developed, the latter are clearly within Commission purview.⁶¹

Once this is appreciated—and we think it not seriously disputed by licensee⁶²—it becomes clear that the Board below was correct in ruling that the NRC investigation in this case needed no warrant. It is too late to contend that the Atomic Energy Act does not embody a "pervasive regulatory scheme" over the nuclear power industry. *Train v. Colorado PIRG, supra*, 426 U.S. at 5-6. Entry into the industry is only under Commission license. Commission regulations provide ample notice that a licensee must "permit inspection, by duly authorized representatives of the Commission, of his records, premises [and] activities . . . related to the license or construction permit as may be necessary to effectuate the purposes of the Act, . . ." 10 CFR 50.70. To borrow from the Court's opinion, "when an entrepreneur embarks upon such a business, he has voluntarily chosen to subject himself to a full arsenal of government regulations."⁶³ Given these circumstances, we decline to credit the notion that Daniel had any "expectation of privacy" respecting its activities reasonably related to the safe construction of a nuclear plant.⁶⁴ The investigation at bar involves such a matter and no

⁶⁰*Licensee's Opening Brief* at 24 and 27.

⁶¹See Part II, *supra*.

⁶²At oral argument we asked licensee's counsel whether, in order to sustain his position, "we have to conclude that a reasonable man could not find a safety link between a dismissal as a retaliatory measure and the protection of the public health and safety through a well built plant?" He responded, with his usual commendable candor, that "I think I would be less than candid if I didn't answer you by saying, yes, that would be what you would have to conclude, that if they were looking into this and they were to find that it was a retaliatory firing, that the authority question, as the statute is now written, I think that the authority question could be resolved in their favor, unless one could say that the retaliatory firing provided no safety." See App. Tr. 25-26.

⁶³*Marshall v. Barlow's supra*, 436 U.S. at —.

⁶⁴Licensee concedes that its contractor stands on no better footing than itself in this respect. *Licensee's Opening Brief* at 29, fn. 22.

search warrant was needed. *Marshall v. Barlow's, supra; accord, In re Surface Mining Regulation Litigation*, 456 F. Supp. 1301, 1318-19 (D.D.C. 1978)(appeal pending).⁶⁵

We caution, however, that our conclusion turns in no small measure on the facts before us. The staff's investigation was restricted in scope and designed to elicit evidence of potential safety problems linked to the cause for Mr. Smart's summary discharge. Resistance was limited to a challenge to the NRC's legal authority to conduct the investigation. But it by no means follows that unrestricted searches of licensees, their contractors and their premises are authorized in every situation. In *Marshall v. Barlow's*, the Court reiterated that warrantless searches are the exception, not the rule; they are scrutinized with little favor and no pleasure. And the carefully drawn opinion in the *Surface Mining* cases strongly hints that, in different circumstances, such inspections may not pass muster unless justified by published regulations controlling how, when, and where they may be undertaken. See 456 F. Supp. at 1317-19.

IV

Licensee further contends that the staff should have awaited the outcome of the grievance proceedings before commencing its own investigation into Mr. Smart's discharge and that, in any event, no cause was shown to suspend the Callaway construction permits. The two arguments are inter-related and we treat them together.

We are well aware of warnings against unnecessary intrusions into the "delicate area" of national labor relations policy, where every agency must be "particularly careful because of the possible effects of its decision on the functioning" of that policy.⁶⁶ Licensee suggests that an NRC finding either way on the cause of Mr. Smart's firing made before completion of an ongoing grievance proceeding might influence its outcome. That may well be so, but the need for restraint in this area is not absolute. We do not think it prevails over a potentially serious question of public health and safety.⁶⁷ Without rehearsing everything we have said before, to shackle the staff's in-

⁶⁵In reliance on *Marshall v. Barlow's supra*, the district court upheld the Secretary of the Interior's regulations subjecting coal mine operators, in specified circumstances, to warrantless searches in the interest of public health and safety.

⁶⁶*Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 172 (1962). See also, *Volkswagenwerk A.G. v. FMC*, 390 U.S. 261, 278 (1968); *Local 189, Meat Cutters v. Jewel Tea Company*, 381 U.S. 676 (1965).

⁶⁷As the Board below noted: "public health and safety is an overriding consideration in any [Commission] decision related to the construction and operation of a nuclear facility." 8 NRC at 378, citing *Power Reactor Company v. Electricians, supra*, 367 U.S. at 402.

investigators until grievance proceedings are completed opens the possibility of radiation hazards being created during the delay. That consequence, in our judgment, is more important to be avoided than disturbances of employer-employee relationships. We therefore have no hesitation in holding that the incidental effects of an NRC investigation on pending grievance proceedings—whether under collective bargaining agreements or before the Secretary of Labor—do not outweigh the Commission's need to be able to look into the question of retaliatory discharges promptly if circumstances warrant, and that the staff did not abuse its discretion electing to do so here. Moreover, neither the staff's past practices nor its actions in this case suggest that it embarks on investigations into contractor's discharge practices at the drop of a hat, or does so without regard to the event's nexus to safety considerations. Licensee has shown no reason why the staff's discretion in this area should be restricted in the future.

Finally, licensee argues that the decision to suspend the Callaway construction permit was unjustified because the existence of a substantial health and safety issue—a predicate to such a suspension order⁶⁸—was not established. The argument fails, however in light of our previously stated agreement with the Licensing Board that the necessary connection was shown. In the words of that Board: "the Licensee and the contractor's refusal to permit the investigation is intolerable since it interferes with the Commission's duty and responsibility to assure the public safety."⁶⁹ In the circumstances, it was appropriate to suspend the construction permit unless and until the company let the investigation go forward.⁷⁰

V

The final matter before us concerns the Commission's remedial powers in the event Mr. Smart's discharge was in fact in retaliation for his giving information to NRC safety inspectors adverse to his employer. The Licensing Board construed the issue to be outside its jurisdiction and refused to address it; Mr. Smart appeals. In the interim, however, the grievance proceedings terminated in his favor and Mr. Smart has been restored to

⁶⁸See, e.g., *Consolidated Edison Company* (Indian Point, Units 1, 2 and 3), CLI-75-8, 2 NRC 173, 176 and fn. 2 (1975); *Consumers Power Company* (Midland Plant, Units 1 and 2), ALAB-315, 3 NRC 101, 110-12 (1976); and *Virginia Electric & Power Company* (North Anna Power Station, Units 1 and 2), LBP-75-54, 2 NRC 498, 537 (1975), *aff'd on this issue*, ALAB-324, 3 NRC 347, 389 (1976).

⁶⁹8 NRC at 378.

⁷⁰We note that the parties' agreement described in fn. 9, *supra*, rendered actual suspension unnecessary.

employment with back pay.⁷¹ There thus remains no further relief which this Commission could afford him; in other words, his complaint is moot.

These circumstances do not automatically compel us to dismiss Mr. Smart's appeal. The Constitutional strictures in Article III which necessitate concrete "cases and controversies" to support the jurisdiction of the federal courts⁷² do not necessarily apply to administrative agencies.⁷³ And we are prepared to agree with Mr. Smart that the question he would raise is of some importance.⁷⁴ Nevertheless, it is our practice not to decide abstract questions unnecessarily.⁷⁵ For one thing, our docket is heavy and our time is better expended on truly pressing matters. For another, the practice represents a considered judgment that important issues are best decided in the light of their actual consequences. The absence of such may cause the parties—and ourselves—to overlook important considerations and result in a decision that may inadvertently misdirect future litigants. Particularly in light of the new and yet untested remedies for discharged employees recently provided by Congress, we take the prudent course and pass the question of the Commission's authority to protect discharged "whistleblowers" until the matter is squarely presented.

Moreover, we doubt that the Commission intended the question of employee remedies to be reached in this proceeding. NRC licensing boards have limited jurisdiction; their authority extends only to matters the Commission places before them.⁷⁶ Mr. Smart argues eloquently that the issue is "implied" in the Commission's referral order. Were we to reach the question, however, we would be inclined to concur in the Licensing Board's judgment that the better view is otherwise.⁷⁷

⁷¹See pp. 131-132, *supra*.

⁷²The judicial rule is that "Federal courts are without power to decide questions that cannot affect the rights of litigants in this case before them." *De Funis v. Odegaard*, 416 U.S. 312, 316 (1974).

⁷³See, *Tennessee Valley Authority* (Phipps Bend, Units 1 and 2), ALAB-506, 8 NRC 533, 549 (November 5, 1978).

⁷⁴Mr. Smart expressed concern over what he understood to be the staff position that the NRC has no authority to order employees reinstated. At oral argument the staff disclaimed that position. It stressed, rather, that a decision on the proper remedy should not precede a finding that a retaliatory discharge in fact occurred.

⁷⁵See, e.g., the *Toledo Edison Company* (Davis-Besse Station), ALAB-157, 6 AEC 858 (1973); *Phipps Bend*, *supra*, fn. 73.

⁷⁶*Public Service Company of Indiana* (Marble Hill Station, Units 1 and 2), ALAB-316, 3 NRC 167, 170 (1976); *Houston Lighting and Power Company* (South Texas Project, Units 1 and 2), ALAB-381, 5 NRC 582, 592 (1977).

⁷⁷To the extent that Mr. Smart sought relief other than reinstatement, his claims are either nonjustifiable or inappropriate at this juncture for the reasons just stated.

The decision of the Licensing Board is *affirmed*; further proceedings shall be in accordance with this decision and the parties' agreement of October 18, 1978.⁷⁸

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

⁷⁸See fn. 9 and accompanying text, *supra*, and ALAB-403, *supra*, 8 NRC at 403-05.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

DUKE POWER COMPANY

Docket No. 70-2623

(Amendment to Materials
License SNM-1773—Trans-
portation of Spent Fuel from
Oconee Nuclear Station for
Storage at McGuire Nuclear
Station)

February 26, 1979

The Appeal Board reverses the Licensing Board's denial of a nontimely intervention petition. Unlike the Licensing Board, the Appeal Board finds intervenor's contention specific enough to meet the requirements of the Commission's Rules of Practice.

RULES OF PRACTICE: CONSOLIDATION

Section 2.714(e) empowers a Licensing Board to condition an order granting intervention on such terms as may serve the purposes of restricting duplicative or repetitive evidence and having common interest represented by a single spokesman. There is no good reason why the provisions of Section 2.715a, which deals with the general authority to consolidate parties in construction permit or operating license proceedings, cannot be looked to in license amendment proceedings in exercising the powers granted by Section 2.714(e).

RULES OF PRACTICE: INTERVENTION

Discretionary intervention comes into play only in circumstances where standing to intervene as of right is not establish.

RULES OF PRACTICE: CONTENTION REQUIREMENT FOR INTERVENTION

Whether or not a contention is well-founded in fact must be left for consideration when the merits of the controversy are reached.

RULES OF PRACTICE: STANDING TO INTERVENE

An organization has sufficiently demonstrated its standing to intervene if its petition is signed by a ranking official of the organization who himself has the requisite personal interest in the proceeding.

Messrs. J. Michael McGarry, III, Washington, DC, and **William L. Porter**, Charlotte, North Carolina, for the applicant, Duke Power Company.

Mr. Geoffrey Owen Little, Davidson, North Carolina, for the petitioner, Davidson College Chapter of the North Carolina Public Interest Research Group.

Mr. Edward G. Ketchen, for the Nuclear Regulatory Commission staff.

DECISION

This is a proceeding on the application of the Duke Power Company for an amendment to an outstanding special nuclear material license possessed by it. The amendment would authorize the receipt and storage at the applicant's McGuire Nuclear Station in Mecklenburg County, North Carolina, of spent fuel transported from its Oconee facility in Oconee County, South Carolina.

The deadline for the filing of petitions for leave to intervene in the proceeding was August 28, 1978. See 43 Fed. Reg. 32905 (July 28, 1978). Several such petitions were filed on or before that date and subsequently granted.¹ On October 7, 1978—almost 6 weeks after the filing deadline had

¹The successful petitioners were the Carolina Environmental Study Group, Safe Energy Alliance, and Carolina Action in Charlotte. In addition, the State of South Carolina was granted leave to participate under the "interested State" provisions of 10 CFR 2.715(c). A timely petition filed by the Natural Resources Defense Council was denied by the Licensing Board. That denial was overturned by us in an unpublished order entered on February 13, 1979.

been reached—the Davidson College Chapter of the North Carolina Public Interest Research Group (Davidson) sent a letter to the Licensing Board in which it evinced an interest in participating in the proceeding.² The letter explained that the organization had not been able to file a petition by August 28, because classes at the College had not commenced until September 6; it added that “[s]ince most of our membership were in other parts of the State and the country during the summer, we were unaware of the developments towards a licensing decision.”

The Licensing Board elected to treat the letter as a petition for leave to intervene. In accordance with an understanding reached at a prehearing conference, Davidson later submitted a single contention:

That the prospect of a traffic accident involving a reactor-waste carrier and involving leakage of some of the contents of said carrier poses an emergency situation which public safety officials in Charlotte (i.e., police chief, fire chief, civil defense head, etc.), are not adequately prepared to handle in regards to protection of the public.

In an order entered on January 9, 1979, the Licensing Board denied the petition. The basis for the denial was twofold: the petition was untimely and the contention advanced by Davidson was a “completely unsupported allegation,” devoid of either reasonable specificity or some assigned basis.³

Davidson appeals. Both the applicant and the NRC staff urge affirmance. We reverse.

A. As the Licensing Board recognized, whether late intervention should be allowed is dependent upon a balancing of the factors set forth in 10 CFR 2.714.⁴ In this instance, the Board found to weigh against intervention that (1) the reasons proffered by Davidson for its tardiness were insubstantial;

²The letter bore the date of September 7, 1978 but, at a prehearing conference held on October 24, 1978, it was disclosed that the date should have been October 7 (Tr. 64).

³The Board went on to determine additionally that there was insufficient justification for permitting intervention as a matter of discretion under the teachings of *Portland General Electric Company* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 614-17 (1976). But given the Board's conclusion earlier in its order that Davidson had established standing to intervene as a matter of right, there was no cause to consider discretionary intervention at all. As the Commission made clear in *Pebble Springs*, the discretionary intervention doctrine there announced comes into play only in circumstances where standing to intervene as a matter of right has not been established. *Ibid.* Because we do not disturb the holding below on standing (see pp. 151-152, *infra*), it is thus unnecessary for us to address discretionary intervention here.

⁴In relevant part, Section 2.714(a) provides:

„Nontimely filings will not be entertained absent a determination by the Commission, the presiding officer, or the Atomic Safety and Licensing Board designated to rule on the peti-

(Continued on next page)

(2) Davidson could adequately protect its interest through the mechanism of a limited appearance statement; (3) Davidson's interest in the proceeding would be adequately represented by one of the already admitted intervenors (Carolina Action), which had raised essentially the same issue as it had; and (4) Davidson's participation likely would delay the proceeding "although it is difficult to measure the impact of any delay."⁵ In the Board's view, only one of the Section 2.714 factors favored late intervention: Davidson had conducted an investigation into the capability of certain public safety officials to respond to traffic accidents and thus might be expected to be of assistance in the development of a sound record on the issue to which its contention was addressed.⁶

This assessment can be accepted only in part. In common with the Licensing Board, we are unimpressed with Davidson's excuse for its lateness. To be sure, most of the members of a college community may be widely dispersed during the summer months when classes are not being held. But in our judgment that consideration does not relieve an organization such as Davidson, whose members profess an interest in what transpires in the area of the educational institution which they attend for the major portion of the year, from making the necessary arrangements to insure that that interest is protected in their absence. In this connection, it seems reasonable to assume that the permanent or summer residences of at least some of Davidson's members were in close enough proximity to the college and its vicinity to enable them to keep abreast of developments without untoward difficulty. In any event, as the Licensing Board pointed out, Davidson did not act with notable dispatch once classes resumed in early September.

We part company with the Licensing Board, however, with regard to each of the other 3 factors which it thought to weigh against intervention.

(Continued from previous page)

tion and/or request, that the petition and/or request should be granted based upon a balancing of the following factors in addition to those set out in paragraph (d) of this section:

- (i) Good cause, if any, for failure to file on time.
- (ii) The availability of other means whereby the petitioner's interest will be protected.
- (iii) The extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record.
- (iv) The extent to which the petitioner's interest will be represented by existing parties.
- (v) The extent to which the petitioner's participation will broaden the issues or delay the proceeding.

⁵January 9, 1979 order, pp. 22-24.

⁶*Id.* at p. 23.

To begin with, the Board's suggestion that Davidson could adequately protect its interest by submitting a limited appearance statement gives insufficient regard to the value of the participational rights enjoyed by parties—including the entitlement to present evidence and to engage in cross-examination. The Commission itself specifically referred to those rights several years ago in rejecting a similar suggestion in another case involving a late petition. *Nuclear Fuel Services, Inc.* (West Valley Reprocessing Plant), CLI-75-4, 1 NRC 273, 276 (1975).⁷ Secondly, the fact that Carolina Action has advanced a contention concededly akin to that of Davidson does not necessarily mean that that intervenor is both able and willing to represent Davidson's interest. In this connection, the Licensing Board did not specifically find, and we are unprepared to find ourselves on the basis of the record before us, that Carolina Action is as fully equipped as is Davidson to make a contribution to the development of a sound record on the traffic accident issue.⁸ Finally, it does not appear to us that, so long as Davidson's participation were consolidated with that of Carolina Action under the authority of 10 CFR 2.714(e) and 2.715a,⁹ there is much risk that its late intervention would bring about an undue delay in the progress of the proceeding.

In short, we conclude that all but factor—that of a showing of good cause for the late filing—favor allowance of late intervention here. Beyond that, some weight properly may attach to the fact that, although not justified, Davidson's tardiness was far from extreme. The filing deadline was missed by a matter of weeks, not (as in the case of many of the late interventions which have come before us) by months or even years.

B. Contrary to the view the staff successfully urged on the Licensing Board, Davidson's contention is specific enough. In terms, it asserts that

⁷We find equally unacceptable, for essentially the same reason, the staff's assertion that Davidson might adequately protect its interest by making witnesses available to Carolina Action or by transmitting the information in its possession to appropriate State and local officials.

⁸As previously noted, the Board below expressly found in Davidson's favor on the ability-to-contribute factor (a finding unnecessary to the granting of Carolina Action's timely petition). We accept that finding without passing independent judgment on the quality of Davidson's investigation of the capability of public safety officials to respond to traffic accidents—a plainly unwarranted exercise at this threshold stage of the proceeding.

⁹Section 2.714(e) empowers a licensing board to condition an order granting intervention on such terms as may serve the purposes of restricting duplicative or repetitive evidence and having common interests represented by a single spokesman. Section 2.715a deals with the general authority to consolidate parties in construction permit or operating license proceedings. Although the proceeding at bar involves, strictly speaking, a license amendment, we see no good reason why the provisions of Section 2.715a cannot be looked to in exercising the powers granted by Section 2.714(e), which section applies to all adjudicatory proceedings.

local public safety officials are not prepared to deal with the emergency situation which might result in the event of a traffic accident involving the carrier transporting the spent fuel from Oconee to McGuire. Rejecting this contention for lack of specificity flies in the face of its plain language. Moreover, doing so ignores the fact that, ever since the adoption of the 1972 amendments to the Rules of Practice and the accompanying statement of considerations upon which the staff relies, contentions of similar specificity have regularly been accepted. True, Davidson did not go on to establish that its assertion is well-founded in fact. But, as we have had occasion to emphasize through the years, whether a particular concern is justified must be left for consideration when the merits of the controversy are reached.¹⁰ See, e.g., *Mississippi Power & Light Company* (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423, 426 (1973); see also *Virginia Electric Power Company* (North Anna Nuclear Power Station, Units 1 and 2), ALAB-522, 9 NRC 54, 57 (January 26, 1979).

C. In the course of holding that Davidson had standing to intervene as a matter of right, the Licensing Board concluded that the authorship of the petition by Charles Gaddy, the then chairperson of Davidson (and a student at the college), constituted a representation that the organization has authorized intervention in the proceeding. The applicant challenges this conclusion, maintaining that Davidson was required to demonstrate that its membership had voted to seek intervention on the matter raised by the submitted contention and had authorized the chairperson to represent the organization. We disagree. In our view, it was enough for standing purposes that the petition had been signed by a ranking official of the organization who himself had the requisite personal interest to support an intervention petition. The applicant cites no prior case in which either we or a licensing board has demanded more in such circumstances, and we know of none.

From a recent filing on behalf of Davidson, it appears, however, that Mr. Gaddy is no longer a student at the college "due to personal problems," and that Davidson is now being represented by another individual whose status in the organization is unclear. In light of this development, the Licensing Board may wish to make further inquiry to insure that, in fact,

¹⁰The applicant renews its claim below, not passed upon by the Licensing Board, that the Davidson contention must be deemed to be an impermissible attack upon the Commission's regulations in that there is no present regulatory requirement that emergency plans pertaining to transportation be submitted. The staff does not join in this claim and, absent additional refinement of the contention, we are unable to say whether the applicant is right. The matter is best left to the Licensing Board which, if it concludes following further scrutiny that the contention is invalid for the reason suggested by the applicant, will be free then to dismiss Davidson from the proceeding.

the new representative has been duly authorized to act upon Davidson's behalf.

Insofar as it related to the Davidson petition for leave to intervene, the January 9, 1979 order of the Licensing Board is *reversed* and the cause is remanded to that Board with instructions to grant the petition. Davidson's participation in the proceeding shall be consolidated with that of intervenor Carolina Action in accordance with the provisions of 10 CFR 2.714(e) and 2.715a.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

Docket Nos. 50-338 OL
50-339 OL

VIRGINIA ELECTRIC AND
POWER COMPANY

(North Anna Nuclear Power
Station, Units 1 and 2)

February 28, 1979

The Appeal Board directs an evidentiary hearing on two issues: probability of unacceptable damage caused by turbine missiles and effect on safety from pumphouse settlement.

MEMORANDUM AND ORDER

Six months ago, after reviewing the record in this operating license proceeding involving the first two units of the North Anna facility, we reserved judgment on two safety issues which we had taken up on our own motion. ALAB-491, 8 NRC 245 (August 25, 1978). In virtually all other respects, we affirmed the Licensing Board's judgment—which had not been challenged before us—that there were no barriers to the staff's issuance of the requested operating licenses.¹

One of the pending safety issues concerned the ability of the plant to withstand damage from missiles generated either inside or outside the plant. The other involved the settlement of the land under the pumphouse. In both respects, we solicited and obtained over the course of these past months further information from the parties.²

¹We also had to keep open the radon-release issue which is pending in a number of cases. See ALAB-491, *supra*, 8 NRC at 250, fn. 12, and *Philadelphia Electric Company* (Peach Bottom Units 2 and 3), ALAB-509, 8 NRC 679, (December 1, 1978), and ALAB-512, 8 NRC 690 (December 21, 1978).

²In addition, the Union of Concerned Scientists sought and was granted leave to file briefs *amicus curiae* on the missile question. The staff and applicant have duly responded to those briefs.

Having studied all the papers now before us, we find it necessary to explore both matters further at an evidentiary hearing before we can pass final judgment on the merits. The concerns still remaining involve, principally, the areas which are set forth later in this opinion. Although the parties should focus on those areas, their prepared testimony must be broader in scope. For, while we already have before us a wealth of material on both issues, that material has come before us in somewhat informal fashion. Moreover, particularly with respect to pumphouse settlement, the information is somewhat disjointed in the sense that it is necessary to locate and peruse a large number of varied documents to obtain a full picture of the problem and its proposed resolution. In order to create a formal record which will lend itself to ready review by higher tribunals, we request the parties to make their prepared testimony reasonably self-contained. In other words, the prepared testimony should itself contain significant background information and references and be structured so that it can be understood with minimal reliance upon documents filed at earlier times.³ If that is done, then, at the conclusion of the upcoming hearing, all the evidence necessary to understand and decide the issues will be found in the formal record made before us.

Having indicated how the testimony should be structured, we turn now to an outline of our principal concerns.⁴ These are the topics which should receive the parties' primary attention.

A. Missiles

Based on what is now before us, the only troubling aspect of the missile question appears to involve the possibility of damage caused, not by objects originating outside the plant, but by pieces of the turbine breaking loose. The staff has made preliminary calculations of the probability that unacceptable damage to a safety system will result from such a turbine missile. These calculations indicate that the probability of that occurring may be greater than the guideline the staff generally follows.⁵ The staff takes the

³Of course, this is not meant to exclude the possibility that we and the parties may find it necessary to utilize those prior documents for other purposes, *e.g.*, as a basis for testing the validity of positions taken at the hearing.

⁴As in our prior order (see 8 NRC at 247, fn. 3), we do not recite in this opinion background information sufficient to allow anyone other than the parties (and those who have been following the proceeding closely) to understand fully the nature of the problems troubling us. It is our intention, however, when we ultimately decide the pending issues, to write an opinion sufficiently comprehensive to be understood by the more casual observer.

⁵To be specific, the staff estimates that the "upper limit probability for unacceptable damage by turbine missiles is about 2×10^{-5} per turbine year" (SER Supp. No. 2, p. 10-2). This is larger than the guideline of 10^{-7} provided in Regulatory Guide 1.115.

view, however, that continued operation of the facility under existing conditions is justified in light of certain conservatisms inherent in its analysis. In our judgment, greater elaboration and probing of the reasons underlying that opinion are needed before we can pass upon the validity of the staff position.

Against this background, the staff's testimony should address at least the following major areas.

- (a) The staff's elaboration of its analysis should be made as quantitative as possible. Where appropriate, it can tell us of the possible imprecision of its estimates and provide an evaluation of the uncertainties associated with those estimates. In other words, the staff should provide its best assessment of the magnitude of each of the conservatisms it has identified in its analysis. In this connection, the staff should expand on the analysis provided in its submittal of January 5, 1979.⁶
- (b) The staff should describe how the relevant Task Action Plans are expected to lead to improvements in its estimates or modify the methodology used in its analyses. In doing so, it can elaborate generally on its explanation of how the relevant Task Action Plans function in the regulatory process.
- (c) The staff should tell us why it believes to be incorrect the applicant's lower estimate of the probability of turbine failure generating missiles which might impact on "class 1" safety components.

In furnishing its testimony on the turbine missile question, the applicant may wish to furnish its own views on the above subjects.

B. Pump House Settlement

1. Relationship to Public Safety

Our study of the numerous documents relating to pumphouse settlement has revealed very little that furnishes any perspective as to the potential seriousness of the problem from a safety standpoint. In other words, the reports and analyses do not indicate what would happen if the subsidence of the land were to lead to a failure of the service water system. As background, then, the parties should discuss the extent of the safety problem involved. In doing so, they should tell us, *inter alia*, (a) what are the up-

⁶See affidavit of Kazimieras A. Campe dated January 5, 1979, attached to *NRC Staff Response to UCS Supplemental Brief*. The staff should explain how its expanded analysis conforms to the Standard Review Plan sections referred to in this affidavit.

per limits of functional requirements and system capabilities of the service water system (e.g., pump and pipe flow requirements and capacities) both during normal operation and under accident conditions; (b) which service water systems or components could fail as a result of further settlement; (c) where and how might they fail and what leak rates might be expected; (d) how such failures would be detected and what actions would be taken; and (e) how failure of the service water system affects other plant safety system under normal operation and accident conditions.

2. Settlement History

We have had difficulty in relating the various stages of construction activity to the timing and rate of the settlement that has taken place. This stems from the fact that the records are fragmented over time and contained in various documents. Because of this, it is also difficult to correlate the settlement of the pumphouse itself with the settlement of other significant portions of the service water system.

In order to aid our understanding, then, the parties should prepare two separate charts, one for the pumphouse and one for other relevant points (e.g., exposed pipe ends and any other monitoring points on the pipes), each showing the amount of settlement that has taken place with the passage of time. In that regard, the span of time involved should be labelled not only by date but also in terms of the construction activities that were taking place at various points.⁷

3. Soil Mechanics

The parties should discuss their current understanding of the engineering properties of the soils underlying the pumphouse, the reservoir dikes and the service water lines.⁸ This discussion should include an indication of how their knowledge of this subject has developed in terms of the timing of the studies and investigations that have led to their current understanding.

4. Dewatering

The record reveals considerable dispute over the need for and long-term effectiveness of dewatering the soil under the pumphouse and the service

⁷Including, especially, such foundation-related activities as excavation and backfilling, building of the pumphouse, laying the service water lines between pumphouse and reactor buildings, dewatering for reactor or other major building construction, building of the cooling pond and dikes, and dewatering of the ground under the pumphouse and service water lines.

⁸In this connection, we need to know precisely what the term "secondary consolidation" is intended to mean.

water lines. The staff should: (a) provide the bases upon which its requirements for groundwater control were developed, and (b) indicate, with appropriate supporting references, the safety factor normally required to protect against seismic-induced soil liquefaction.

5. Monitoring

It is not clear to us precisely how the extensive monitoring of the settlement of class I structures is conducted. We should be provided with: (a) a description of the type of instruments and methods by which settlement of these structures are monitored, together with an evaluation of the accuracy of such monitoring; (b) information as to how the movements of buried service water pipes are monitored or estimated.⁹

6. Stress Analysis

The parties should cover the topic of stress analysis, so that we may learn what the impact of varying amounts of settlement will be. In this regard, they should describe the types of loads assumed and methodology used in analyzing stress limits for service water piping, indicating whether stresses due to the apparently greater settlement of pipes relative to that of the pumphouse are included in the load analysis. In addition, the staff should (a) provide a full justification for selecting the differential motion limit of 0.22 feet between corners of the north side of the pumphouse and the expansion joint, and explain how this satisfies the staff's concerns on stress limits in the flexible couplings (see staff evaluation, pp. 5-6); (b) explain how limiting the absolute elevation of the exposed ends of the expansion joints to 0.22 feet (measured from August 3, 1978) satisfies the staff's concerns on stress limits in the buried pipes (see staff evaluation, pp. 7-8); and (c) with respect to all the established limits, set forth the basis for choosing 75% of the limit as the level which triggers the reporting requirement.

As may be seen, some of the information we have asked for is more readily available to one party than the other; in any event, some of our questions would be better addressed in the first instance by one rather than the other. We leave it to the sound judgment of the applicant and the staff

⁹We are particularly interested in whether the "47° elbows" in the service water lines near the pumphouse have been monitored. These appear to be within the area dewatered around the pumphouse; the staff should inform us whether, and if so how much, these elbows settled before and after dewatering.

to determine which areas each should cover in its prepared testimony.¹⁰ Some areas need to be covered by both; with respect to other topics, perhaps one can take principal or sole responsibility. We offer the suggestion, however, that they confer to make sure that all subjects are covered properly.

Given the amount of study that the parties have already given the two issues remaining before us, it should be possible for both the applicant and staff to file their prepared testimony by April 6, 1979.¹¹ Within 2 weeks from the date of this order, any other party to the operating licensing proceeding who wishes to participate in the upcoming hearing must notify us of that fact and advise us of the nature and extent of its planned participation. Those who wish to do so will then be given the opportunity to file prepared testimony in response to that to be filed by the applicant and staff. And, to the extent that either the applicant or staff wishes to respond on subjects which were within the other's principal responsibility (see the preceding paragraph), they will be given the chance to do so. After all prepared testimony is in hand, we will confer with the active participants about scheduling the hearing.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

¹⁰During the course of this proceeding, the North Anna Environmental Coalition—which is not a party to the case—has sent a number of letters either to the staff or to us, stating its position on and raising questions about the pumphouse settlement issue. As the Board's secretary recently informed the Coalition's spokesman, Mrs. June Allen, we are not permitted to consider such communications directly in passing on matters before us. (See letter of January 11, 1979). But, as a result of the action we are taking today, the parties will now be preparing written testimony covering the entire pumphouse settlement question. In these circumstances, it will be convenient for them to insure that their testimony contains sufficient information to resolve the questions the Coalition has posed in its written communications. Compare *Iowa Electric Light & Power Company* (Duane Arnold Energy Center), ALAB-108, 6 AEC 195, 196 fn. 4 (1973) (indicating that "limited appearance" statements made under 10 CFR 2.715 can "alert the Board and the parties to areas in which evidence may need to be adduced") and *Public Service Electric & Gas Company* (Hope Creek Units 1 and 2), ALAB-251, 8 AEC 993, 994 (1974) (where the parties were invited to comment on the concerns expressed by a non-party to the case). Our interest is in seeing to it that all legitimate concerns are dealt with in the course of the testimony; we leave to the parties the selection of the format for doing so. In calling for responses in this general way in this instance, we are not expressing any judgment on the perceptiveness or significance of particular questions the Coalition has posed; if the parties believe that certain questions are irrelevant or otherwise not deserving of a response on the merits, they may say so.

¹¹If this period proves insufficient, they will be free to seek an extension of time.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Marshall E. Miller, Chairman
Cadet H. Hand, Jr.
Emmeth A. Luebke

In the Matter of

DUKE POWER COMPANY

(Oconee Nuclear Station and
McGuire Nuclear Station)

Docket No. 70-2623
(Amendment to Materials
License SNM-1773 for Oconee
Nuclear Station Spent Fuel
Transportation and Storage
at McGuire Nuclear Station)

February 2, 1979

The Licensing Board declines to reverse earlier order denying intervention petition by the Natural Resources Defense Council.

LICENSING BOARD: JURISDICTION

The function of a licensing board established to rule on intervention petitions is limited to deciding whether the petitioner should be permitted to intervene in the proceeding. Under NRC practice, a discrete "hearing" board which may or may not have the same composition as the "intervention" board is established to adjudicate the merits of the issues presented following the grant, in whole or in part, of at least one such petition.

**ORDER DENYING OBJECTIONS OF NATURAL
RESOURCES DEFENSE COUNCIL TO SUPPLEMENTAL
PREHEARING CONFERENCE ORDER**

I

On January 9, 1979, the Atomic Safety and Licensing Board designated to rule on petitions for leave to intervene entered a "Supplemental Order Ruling on Petitions for Leave to Intervene" (LBP-79-2, 9 NRC 90). That Supplemental Order held that the petition for leave to intervene timely filed

by the Natural Resources Defense Council (NRDC) did not establish standing as a matter of right, using contemporaneous judicial concepts of standing 9 NRC at 92-99. The corporate petitioner had refused to provide the name and address of even a single member who would be affected by the proposed action, and who had authorized or requested representation by NRDC in this matter (*id.*, pp. 93-95, 96-97, 98-99).

It was further held that discretionary intervention should not be granted because NRDC has not shown significant ability to contribute on substantial issues of law or fact which will not otherwise be properly raised or presented, even though "NRDC is a prestigious national environmental organization that has long been concerned with commercial applications of nuclear power" (*id.*, 101-102). The Supplemental Order provided that it could be appealed within ten (10) days after service, in accordance with the provisions of 10 CFR 2.714a (*id.* at 105).

On January 16, 1979, NRDC filed a motion for extension of time within which to file objection to the Supplemental Order, pursuant to 10 CFR 2.751a(d). This NRDC motion was granted by order dated January 18, 1979, extending the time to file objections to January 29, 1979. NRDC's Objections to Supplemental Prehearing Conference Order were filed January 26, 1979. The Applicant, Duke Power Company, filed its opposition to the NRDC motion for extension of time, and requested the Licensing Board to reconsider its grant of the time extension, on January 26, 1979.

II

The Atomic Safety and Licensing Board established to rule on petitions and/or requests for leave to intervene¹ held a special prehearing conference on October 24, 1978. By Order Following Prehearing Conference dated November 2, 1978, the intervention petitions filed by three other petitioners were granted by the Board. However, rulings on the petitions for leave to intervene filed by NRDC and another petitioner were deferred, pending receipt of further pleadings concerning those petitions.² In both the prehearing conference order and the notice of hearing attached to it, the Board referred to itself as an "Intervention Board" (Order, pp. 1, 3, 5; Notice of Hearing, p. 3). The Board designated in the notice of hearing to conduct future prehearing conferences and the hearing was described as a "Hearing Board" (Notice, p. 3).

At the special prehearing conference held on October 24, 1978, counsel

¹43 Fed. Reg. 39197 (1978).

²Order Following Prehearing Conference dated November 2, 1978, pp. 5-6; Notice of Hearing appended thereto as Attachment A, p. 3.

for NRDC specifically contended that the Intervention Board conducting the conference had the limited role of passing on standing, interest and pleading at least one valid contention.³ He further argued that the Board's authority was limited by the order establishing it "to rule on petitions and/or requests for leave to intervene," and that it was not authorized "to conduct a §2.751a proceeding."⁴ The Chairman in response recognized the distinctions in function between a petition or intervention board, and a hearing board.⁵ The ensuing order of November 2 following the special prehearing conference also deferred ruling on the NRDC intervention petition pending receipt of further pleadings and briefs (pp. 5-6), although a notice of hearing was filed and published inasmuch as three other intervention petitions were granted, thereby assuring a hearing regardless of the action to be taken on the NRDC petition.

The Appeal Board has had occasion to analyze the "disparate duties of the intervention and hearing boards."⁶ Their respective functions were thus described:

While of importance, the function of the Licensing Board established to rule on a petition for intervention is quite limited in scope. What that Board is called upon to decide is whether the petitioner(s) should be permitted to intervene in the proceeding. Insofar as the matter of contentions is concerned, this determination involves an ascertainment as to whether there is at least one stated contention in the petition which satisfies the dictates of Section 2.714(a). If so, and the other requirements of the section are found to have met, the Licensing Board is justified in granting the petition and thus completing its assigned task—without regard to the adequacy of the other stated contentions.

At that point, the Licensing Board responsible for the hearing comes into the picture. It is *its* task, *inter alia*, to deal with the remaining contentions during the course of prehearing procedures.⁷

In *Stanislaus*⁸ the Appeal Board took cognizance of the customary distinction between these two types of licensing boards as follows:

The role assigned to the Board at the time of its establishment by the

³Special Prehearing Conference, October 24, 1978, Tr. 73-75.

⁴Tr. 76, 83.

⁵Tr. 77, 79.

⁶*Duquesne Light Company, et al.* (Beaver Valley Power Station, Unit No. 1), ALAB-109, 6 AEC 243, 245, fn. 4 (1973).

⁷*Id.* at 245.

⁸*Pacific Gas and Electric Company* (Stanislaus Nuclear Project, Unit No. 1), ALAB-400, 5 NRC 1175, 1177-78 (1977).

Chairman of the Licensing Board Panel was a narrow one: "to rule on petitions and/or requests for leave to intervene in [this] proceeding." 41 Fed. Reg. 26081 (June 24, 1976). The Board was not given the additional authority to proceed beyond that assignment and to entertain filings going to the merits of the controversy between the petitioners and the applicant. In thus confining the area of responsibility of the Board, the Licensing Board Panel Chairman was adhering to firmly rooted Commission practice. In virtually all NRC proceedings in which a hearing is not mandatory but rather is dependent upon a successful intervention petition being filed in response to the published notice of *opportunity* [emphasis in original] for hearing, an "intervention" licensing board is especially established for the sole purpose of passing upon such petitions as may have been filed . . . Should, however, at least one petition be granted in whole or in part, thus giving rise to the necessity for adjudication of the merits of the issues presented therein, a discrete licensing board is then established to perform that function. [Citations omitted.] The second or "hearing" board may or may not have the same composition as the "intervention" board which preceded it . . . In the totality of circumstances, we think the settled division of jurisdiction between "intervention" and "hearing" boards to be as sensible as it is venerable and therefore reject out-of-hand the applicant's claim to the contrary.

We hold that the Supplemental Order of January 9 was entered by the Board acting as an Intervention Board under the provisions of 10 CFR 2.714, pursuant to retained jurisdiction to pass on the NRDC intervention petition. Appeals from such Supplemental Order should be taken under 10 CFR 2.714a, and in accordance with the final paragraph of that order.

The provisions of 10 CFR 2.751a regarding a special prehearing conference order, and objections thereto, are not reasonably applicable to the procedural posture of the instant proceeding. It is apparent that many of the issues to be considered at a special prehearing conference under §2.751a are not really relevant to those matters to be considered by an intervention board, with the limited function of ruling on intervention petitions. Such §2.751a matters as the identification of key issues, scheduling further actions, submission of status reports on discovery, and the like would more properly be within the jurisdiction of the subsequent hearing board. While special prehearing conferences under §2.751a may be held in different types of proceedings for different purposes,⁹ we agree with the position taken by

⁹*Wisconsin Electric Power Company*, (Point Beach Nuclear Plant, Units 1 and 2), LBP-78-23, 8 NRC 71, 74-76 (1978).

able counsel for NRDC at the special prehearing conference. This was a §2.714 proceeding, not a §2.751a proceeding. Accordingly, the filing of objections under the latter section was inappropriate under the circumstances.

III

In order to avoid unnecessary delay for procedural reasons, we will also consider the NRDC objections to the Supplemental Order on their merits. We have carefully reviewed the seven-page statement of objections, and do not find any basis to reverse the Order of January 9. The issues of law and fact were considered in that Order, and there is no point in merely reiterating them. It is apparent that there is a substantial difference of opinion between NRDC and the Board on important principles. It is suggested that another licensing board may have the same issues involved, which might require Appeal Board determination. In any event, we decline to reconsider our prior decision in the Supplemental Order of January 9, 1979.

Pursuant to 10 CFR 2.714a, this order may be appealed within ten (10) days after service of the order. The appeal shall be asserted by the filing of a notice of appeal and accompanying supporting brief. Any other party may file a brief in support of or in opposition to the appeal within ten (10) days after service of the appeal.

IT IS SO ORDERED.

FOR THE ATOMIC SAFETY AND
LICENSING BOARD

Marshall E. Miller, Chairman

Dated at Bethesda, Maryland,
this 2nd day of February 1979.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Ivan W. Smith, Chairman
Valentine B. Deale
Robert M. Lazo

In the Matter of

Docket No. 50-389A

FLORIDA POWER & LIGHT
COMPANY

(St. Lucie Plant, Unit No. 2)

February 9, 1979

The Licensing Board rules on various requests for discovery by applicant and intervenors and issues a protective order designed primarily for the discovery phases of the proceedings.

RULES OF PRACTICE: DISCOVERY

In an antitrust proceeding under §105(c) of the Atomic Energy Act, the relevant period for discovery must be determined by the circumstances of the alleged situation inconsistent with the antitrust laws, not the planning of the nuclear facility.

RULES OF PRACTICE: DISCOVERY

The basic test for limiting discovery is one of relevancy to the subject matter involved in the proceeding whether it be admissible at the hearing or not. The Commission's rules require that, at the threshold, discovery requests be relevant to the subject matter of the proceeding.

RULES OF PRACTICE: PROTECTIVE ORDERS

The responsibility to seek a protective order does not arise unless relevance of the discovery request is shown.

RULES OF PRACTICE: DISCOVERY

A cutoff date is set for the purpose of making a preliminary ruling about relevance for discovery. A licensing board cannot impose a cutoff date for the purpose of adding a procedural time limitation to 10 CFR 2.740.

RULES OF PRACTICE: DISCOVERY

A cutoff date is only a date after which, in the dimension of time, relevancy may be assumed for discovery purposes. Requests for information from before that date must show that the information requested is relevant in time to the situation to be created or maintained by the licensed activities. If the information sought is relevant, and not otherwise barred, it may be discovered no matter how old, upon a reasonable showing.

RULES OF PRACTICE: DISCOVERY (NOERR-PENNINGTON DOCTRINE)

The *Noerr-Pennington* doctrine does not confer absolute immunity on discovery of legislative activities.

RULES OF PRACTICE: DISCOVERY (NOERR-PENNINGTON DOCTRINE)

The *Noerr-Pennington* doctrine immunizes those legitimately petitioning the government, or exercising other First Amendment rights, from liability under the antitrust laws, even where the challenged activities were conducted for purposes condemned by the antitrust laws.

RULES OF PRACTICE: DISCOVERY (NOERR-PENNINGTON DOCTRINE)

The *Noerr-Pennington* cases go to the substantive protection of the First Amendment; nothing in them immunizes litigants from discovery.

RULES OF PRACTICE: DISCOVERY (NOERR-PENNINGTON DOCTRINE)

For purposes of discovery, a requesting party need not make a *prima facie* showing on the “sham” exception to the *Noerr-Pennington* doctrine.

RULES OF PRACTICE: DISCOVERY

Where discovery is asserted to have a “chilling effect” on a party’s exercise of its First Amendment right to participate in the legislative process, it must be balanced against the public interest in a complete record.

RULES OF PRACTICE: DISCOVERY

Offers of settlement and conduct and statements made in the course of settlement negotiations are not admissible to prove the validity of a claim; but a party may not seize upon settlement negotiations as a device to defuse damning evidence against it.

ATOMIC ENERGY ACT: ANTITRUST PROVISION

There is no antitrust theory or policy under the laws referred to in Section 105(a) of the Atomic Energy Act which holds that a competitor may not enjoy the competitive advantages legitimately held by it.

MEMORANDUM AND ORDER ON DISCOVERY

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PROTECTIVE ORDER

The Board has before it the parties' discovery requests, motions, and related papers.¹ All adversary parties seek discovery of the Applicant, Florida Power and Light Company. The Applicant objects in part and seeks a protective order. Applicant does not now request discovery of the NRC Staff nor the Department of Justice, but has filed discovery requests to the Intervenor Florida Cities to which Florida Cities objects in part.

I. APPLICANT'S OBJECTIONS AND MOTION FOR PROTECTIVE ORDER

Applicant objects to (a) the time period covered by the requests; (b) discovery requests concerning its legislative activities, raising a *Noerr-Pennington* doctrine objection to these requests; and (c) to requests which it asserts would impose substantial and unreasonable search burdens. In addition the Applicant requests a protective order pertaining to the use of confidential and proprietary information or trade secrets.

A. Relevant Time Period for General Discovery

Applicant objects in general to requests that seek information for time periods prior to January 1, 1972, because 1972 is the year that Florida Power and Light Company first gave consideration to the St. Lucie Unit

¹These papers are (1) First Joint Request of the NRC's Regulatory Staff, United States Department of Justice, and Intervenor For Interrogatories and for Production of Documents by Applicant dated October 31, 1978 ("Joint Request"); (2) Florida Cities' Initial Interrogatories and Request for Production of Documents by Applicant dated October 31, 1978 ("Florida Cities' Request"); (3) Applicant's Interrogatories to Intervenor Florida Cities and Requests for Production of Documents dated October 31, 1978; (4) Memorandum of Understanding dated December 11, 1978, by all parties to clarify discovery requests ("Memorandum of Understanding"); (5) Applicant's Objections to Discovery Requests and Motion for a Protective Order dated December 11, 1978 ("Applicant's Objections" or "Applicant's Motion"); (6) Statement of Florida Cities' Objections to Applicant's Interrogatories to Intervenor Florida Cities and Requests for Production of Documents dated December 11, 1978 ("Florida Cities' Objections"); (7) NRC Staff's Response to Applicant's Objections to Discovery Requests and Motion for a Protective Order dated December 22, 1978 ("Staff's Response"); (8) Response of Department of Justice to Applicant's Objections to Discovery Requests and Motion for a Protective Order dated December 22, 1978 (Department's Response); and (9) Florida Cities' Response to Applicant's Objections to Interrogatories and Motion for a Protective Order dated December 22, 1978 ("Florida Cities' Response").

No. 2 plant. Applicant would not bar all requests for earlier data but would require that each such request be made by separate motion demonstrating relevance and good cause. Applicant's Objections, p. 3.

Even though Section 105(c) of the Atomic Energy Act requires a determination as to whether the activities under the license would create or *maintain* a situation inconsistent with the antitrust laws, Applicant argues, as we understand it, that a situation existing even a short time prior to 1972 would be irrelevant. Applicant's Objections, p. 6.

Applicant's reasoning for urging a 1972 cutoff date is faulty on its face. Its nomination for the relevant period would not be realistic unless the antitrust situation under analysis would be one that sprang full blown into existence without antecedence in 1972. In the *Wolf Creek* antitrust proceeding the Appeal Board, in discussing the relationship between the alleged "situation inconsistent" and the activities under the proposed license, stated the obvious when it noted that "maintain" under Section 105(c) may refer to a preexisting situation.² While here the Applicant is referring to the year the facility was first considered, not licensed, the reasoning is the same. The relevant period for discovery must be determined by the circumstances of the alleged situation inconsistent with the antitrust laws, not the planning of the nuclear facility.

The Board believes that the Applicant presents a better argument to preserve the January 1, 1965, date established by the Board in the *South Dade* proceeding.³ Many items in the Joint Request and the Cities' Request predate the 1965 cutoff date. In our order below we also impose a version of the 1965 cutoff date.

In their Joint Request, the parties adverse to Applicant have selected January 1, 1965, as their general cutoff date for documents unless an earlier date is specified. Joint Request, p. 6. The Staff, in defending the Joint Request, discusses why those requests demanding information from before 1965 are appropriate. This is a separate consideration which we take up later. In connection with these arguments, and in challenging Applicant's 1972 cutoff proposal, the Staff argues that, although it voluntarily employed a general cutoff date of 1965, this Board is without authority to impose this date or any date upon the parties. *E.g.*, Staff's Response, pp. 15, 16.

²*Kansas Gas and Electric Company* (Wolf Creek Generating Station, Unit 1), ALAB-279, 1 NRC 559, 568, 569 (1975).

³*Florida Power and Light Company* (South Dade Nuclear Units) Docket No. P-636A, Second Prehearing Conference Order dated February 22, 1977. The Board in the *South Dade* proceeding also provided that information could be discovered from prior to the 1965 cutoff date if it relates substantially to events or situations after that date.

The Staff argues that under the Commission's discovery rules, 10 CFR 2.740(b)(1), the standard for discovery is any matter not privileged which is relevant to the subject matter involved in the proceeding. The Staff argues that these are broad and liberal discovery rules as are the Federal Rules of Civil Procedure, Rule 26(b), upon which the Commission's rule is modeled. The Staff states further that there are no Commission decisions limiting the definition of "relevancy" to a time period and that, when relevancy has been shown, discovery must follow. The Staff further points out that in accordance with §2.740(b), any limitation by the presiding officer must be in accordance with that section. Staff's Response, pp. 2-5.

We agree with almost all of the Staff's arguments but not its conclusion. Indeed Commission's discovery rules are liberal. The basic test for limiting discovery is one of relevancy to the subject matter involved in the proceeding whether it be admissible at the hearing or not. We agree that we are without authority to ignore the Commission's discovery regulations if, for example as the Staff suggests, the *Manual for Complex Litigation* would seem to lead us to do so. Staff's Response, p. 16.

The Staff argues that the imposition of a cutoff date would improperly shift to the party seeking discovery some burden it did not already carry. Apparently this would be a demonstration of relevancy. Staff's Response, e.g., p. 15. The Staff believes that a cutoff date would improperly relieve the party opposing discovery of a burden imposed upon it by the Commission's discovery rules, apparently the need to demonstrate an unjustified and burdensome search. *Id.* These two considerations are mismatched; they don't meet. The Commission's rules require that, at the threshold, discovery requests be relevant to the subject matter of the proceeding.⁴ The responsibility to seek a protective order does not arise unless relevancy is shown.

It is possible that the Staff does not fully appreciate why discovery cutoff dates are set. The Board in *South Dade* could not and did not impose a cutoff date for the purpose of adding a procedural time limitation to §2.740 nor does this Board in our ruling below. The cutoff date is for the purpose of making a preliminary ruling about relevancy for discovery. This authority is not challenged by any party. The "cutoff" date is a misnomer. It doesn't actually cut off discovery. It is only a date after which, in the dimension of time, relevancy may be assumed for discovery purposes. Requests for information from before that date must show that the information requested is relevant in time to the situation to be created or maintained by the licensed activities. If the information sought is relevant, and not

⁴This includes information reasonably calculated to lead to the discovery of admissible evidence. 10 CFR 2.740(b) (1).

otherwise barred, it may be discovered no matter how old upon a reasonable showing. This is entirely consistent with §2.740(b) and Rule 26(b) which in turn are consistent with the *Manual for Complex Litigation*, Part I, Section 4.30.

With respect to the question of a cutoff date for discovery and those joint requests which predate 1972, the Department of Justice, opposing a cutoff date, reminds us that “. . . [I]t is only with the benefit of historical significance that the present conduct of firms with market power can be meaningfully evaluated . . .” The Department cites cases demonstrating that the level and breadth of discovery in antitrust cases exceeds that required in other types of litigation and cases where evidence predated litigation by as much as 42 years.³ Department’s Response, pp. 5-7. The Department requests an opportunity to show good cause to discover data from prior to any cutoff date established by the Board.

In its response Florida Cities argues against Florida Power and Light Company’s proposed 1972 cutoff date (p. 59) but offers to accept a general 1965 cutoff date if an agreement can be reached wherein (a) Applicant does not plan to claim affirmatively that Florida Cities have a burden of proving facts before 1965 to obtain relief, (b) agrees not to raise defenses based upon or dependent upon occurrences before 1965, and (c) admits to the facts set forth in *City of Gainesville v. Florida Power & Light Company*, 573 F.2d 292 (5th Cir. 1978), *cert. denied*, _____ U.S. _____, 47 U.S.L.W. 3329 (November 14, 1978).

The parties adverse to Applicant allege that the *Gainesville* case, involving allegations of a conspiracy to allocate markets, has important relevance to the issues in our proceeding.

The Board believes that it is very unlikely that the Applicant will agree to all three of Florida Cities’ conditions, particularly the one involving *Gainesville*. While the parties are encouraged to agree wherever possible we will not interrupt this proceeding for that particular purpose.

However Florida Cities makes an important point. In the trial of this litigation the parties relying upon evidence, either defensively or in their respective cases in chief, which predates the 1965 cutoff date, must be prepared to allow the other parties to follow the evidentiary trail. Responses to discovery requests should be made with this in mind.

The Board rules that January 1, 1965, shall be the general cutoff date for discovery. We have selected this date for several reasons. It is relatively

³*Banana Service Co. v. United Fruit Co.*, 15 F.R.D. 106, 108 (D. Mass. 1953); *Federal Trade Commission v. Cement Institute*, 333 U.S. 638 (1948) *Caldwell-Clements, Inc. v. McGraw-Hill Publishing Co.*, 12 F.R.D. 531, 536 (S.D.N.Y. 1952). These cases are also cited by Florida Cities.

efficient. It was used in the *South Dade* discovery, and as the Applicant observes, much work has already been invested in file searches under a 1965 cutoff. Applicant's Objections, pp. 5, 6.

1965 is approximately 10 years prior to the beginning of this litigation, bearing in mind that Florida Cities attempted to include St. Lucie 2 in its *South Dade* intervention. Ten years appears to have been successfully employed as a general time period limitation in other antitrust litigations. The *Manual for Complex Litigation*, Part I, Section 4.30, cited by Applicant in support of its position, comments upon the 10-year cutoff period used by Judge Holtzoff in *United States v. Maryland and Virginia Milk Producers Association*, 20 F.R.D. 441 (D.D.C. 1957). This was an injunction case which, as here, involved allegations of restraint of trade and attempts to monopolize.⁶

Other cases cited by Applicant are consistent with a 10-year discovery period. In *Austin Theatre, Inc. v. Warner Bros. Pictures, Inc.*, 30 F.R.D. 156 (S.D.N.Y. 1958), the court imposed an absolute 10-year discovery limitation while in *United States v. Grinnell*, 30 F.R.D. 358 (D.R.I. 1962), a 10-year period for general discovery was deemed adequate.

Another factor we have considered in establishing a 1965 cutoff date instead of a later one as urged by Applicant is that the court of appeals in *Gainesville* referred frequently to episodes occurring in 1965 (573 F.2d at 295, 299, 301) as well as to incidents transpiring before that date. *E.g.*, 573 F.2d at 297. Finally, it must be noted that the Board, in ruling on a relevant period for discovery, is called upon to determine this controversy at this point without much information; certainly we know far less about the case than the parties do. We must therefore rely somewhat upon our subjective judgment as to an appropriate cutoff date. January 1, 1965, seems about right. This, however, brings to the fore the concern raised by the Staff; that is, the Board, in setting a discovery cutoff date, may thereby be setting a limit on the presentation of evidence at the hearing. Staff's Response, p. 16. This is not our intent. While it may be desirable to set time periods for some purposes for the hearing, this will not be determined until a later stage of the proceeding.⁷

⁶Judge Holtzoff's reasoning cited by the *Manual for Complex Litigation* is particularly relevant to the proceeding before us where the Judge noted: "... one device (to shorten these proceedings) is to reduce the period to be covered by the evidence to a reasonable length. Bearing in mind that the ultimate question in a civil suit for an injunction is whether at the time of the trial acts are being committed or threatened they should be enjoined for the future." 10 F.R.D. at 443. In this proceeding, unlike a private action for damages, we must look at the situation which exists at the time of licensing and is likely to exist in the future even though we refer to historical information to understand the situation.

⁷Even though the court in *Austin Theatre, supra*, set a narrow time period for discovery it recognized that proof would not be limited to that period. 30 F.R.D. 157.

B. Specific Discovery Requests Predating 1965

In ruling upon discovery requests predating 1965, the Board has been liberal, consistent with the Commission's discovery rules and the broad requirements of antitrust litigation.⁸ The standard is that there be a reasonable possibility of relevancy—not a showing of relevancy *plus* good cause. Certain requests would be obviously appropriate, for example where an agreement entered into prior to 1965 extends to a period after 1965. Not so obvious, but still appropriate, would be events which occurred before 1965 but had effect after that period.

Recognizing that the forces that shape an industry may continue for decades, we have been particularly liberal in granting pre-1965 discovery of information pertaining to the basic structure of the industry in the relevant market. This also is consistent with the example cited by Applicant in the *Manual for Complex Litigation*, Part I, Section 4.30. The court in *Maryland and Virginia Milk Producers, supra*, stressing the need for a short discovery period, nevertheless permitted "a much longer time" than 10 years for discovery where the allegation concerned acquisitions challenged under Section 7 of the Clayton Act.⁹

In *Grinnell, supra*, the court permitted an exception to the 10-year discovery period to permit discovery of an agreement between competitors entered into 55 years before. 30 F.R.D. 358, 360. And in the *Gainesville*, decision, *supra*, the circuit court began its analysis with the situation as it existed during World War II. 573 F.2d 294.

Below as we have ruled upon the discovery request challenges based upon time period, we have denied the objection where, on the face of the request, the relevancy to the post-1964 period is probable. Where relevance is not clear we have deferred ruling for further explanation. Where data are easily produced, such as the annual reports requested in Joint Request No. 2, we have leaned toward denying the objection. This is because there is no inherent requirement for a cutoff date in discovery.

1. Joint Request Predating 1965

Joint Requests numbered 24, 25, 29, 30, 33, 41, 56, and 76 seek information from as early as 1950. Joint Requests numbered 2, 8, 26, and 48 go back as far as 1955. Joint Requests numbered 12 and 39 are as early as 1960.

⁸"It is well known that the preparation and proof of antitrust cases require the study and investigation of a multitude of facts and documents." *Banana Service Company* 15 F.R.D. at 108.

⁹20 F.R.D. 443. The length of the "much longer time" is not revealed in the reported decision.

The Applicant objects to each of these requests solely on the basis of remoteness in time to the relevant period.

Joint Requests 2, 8, 12, 26, 39, and 48 request information from 1955 or 1960. They seem to be reasonably designed to lead to the discovery of admissible evidence, and for this reason, the objections are denied. However, the Board does not understand the meaning of the phrase, "Where the response to (b) is affirmative," in Joint Request 48(c). Since Applicant has objected to Joint Request 48 solely on the basis of time relevance, apparently this request is clear to the parties. Applicant may request a clarification if it is required.

Joint Requests 24, 25, and 33 request information back to 1950. For the purpose of keeping the scope of the proceeding reasonably bounded, the Board will grant these requests only back to 1955. For the same reason the Board will grant Joint Request 41 only for information created since January 1, 1960. However the parties seeking discovery may file an explanation as to why the information sought in Joint Request 41 prior to 1960 is warranted.

Joint Requests 29 and 30 seek information since 1950 concerning territorial allocation agreements and acquisitions. Because of the obvious importance of this information to the structure of the industry in the relevant market, the Board grants the request without curtailment, *i.e.*, the information must be produced from 1950.

The relevance of the information requested in Joint Requests 56 and 76 to the general post-1964 discovery period is not obvious. Therefore the Board defers ruling upon Joint Requests 56 and 76 until the parties seeking discovery file further information explaining the relevance of these requests.

2. Florida Cities' Requests Predating 1965

Florida Cities' Requests numbered 5, 6, 12, 16, 17, and 20 extend back to 1950. Florida Cities' Requests numbered 9, 10, 14, 21, 24, 31, and 40 go back to 1955. Florida Cities' Requests 8, 11(a), 22, 39, and 42 go back to 1960. Florida Cities' Requests 14, 17, 20A, 21, and 24 also predate 1965 but are objected to by the Applicant on other bases, and we rule upon those separately below.

Florida Cities' Requests 9, 10, 22, and 31 request information from 1955 or 1960. They seem reasonably capable of leading to the discovery of admissible evidence and the requests are granted as stated. Florida Cities' Request 11(a) requests all information prior to 1960 concerning the development of nuclear generating capacity in Florida. The request should be bounded. Therefore the Board grants the request but it shall be limited to

information created since 1955.

Florida Cities' Requests 5 and 6 request information dating back to 1950, but to limit the scope of the proceeding, the Board grants the requests for only since 1955. However, Florida Cities' Requests 12 and 16 which also request information since 1950 are granted as stated because the requested information pertains to allegations concerning the horizontal division of markets.

The Board defers ruling on Florida Cities' Requests 8, 39, 40, and 42 until Florida Cities files further justification.

C. Discovery of Legislative Activities

Applicant objects to Joint Request 58 and Florida Cities' Requests 14, 20A, 21(e), 21(f), 29(h), and 34 which refer to Applicant's legislative activities. Applicant asserts that, under *Eastern Railroad Pres. Conference v. Noerr Motor Freight, Inc.*, 365 U.S. 127 (1961), and *United Mine Workers v. Pennington*, 381 U.S. 657 (1965), CP&L's activities designed to influence legislation cannot be the basis for a finding of an inconsistency with the antitrust laws.

These cases are the foundation for the legal principle referred to as the *Noerr-Pennington* doctrine. According to Applicant, under the doctrine, the material requested cannot be relevant nor even reasonably calculated to lead to the discovery of admissible evidence and is therefore immune from discovery.

Similar requests, objections and arguments on the same issues were before the Board in *South Dade*. The Applicant also presents an argument concerning the "chilling effect" on the exercise of First Amendment rights which could flow from permitting discovery of its legislative activities, and cites new case law concerning the status of corporations under the First Amendment. Having considered the new arguments raised by Applicant, and having evaluated the entire First Amendment issue, this Board, as did the Board in *South Dade*, concludes that there is no absolute immunity from discovery bestowed upon FP&L's legislative activities by the *Noerr-Pennington* doctrine.

No party denies Applicant's argument that *Noerr-Pennington* will operate to immunize those legitimately petitioning the government, or exercising other First Amendment rights, from liability under the antitrust laws, even where the challenged activities were conducted for purposes condemned by the antitrust laws. This was the holding in *Noerr* and restated in *Pennington*.¹⁰

¹⁰See also *California Transport v. Trucking Unlimited*, 404 U.S. 508, 510-11. (1972).

Applicant touches upon the pertinent considerations in its brief in support of its objections, but its analysis is too simple; no liability, therefore no relevance, therefore no potential evidence, therefore no discovery. Applicant's Objections, p. 11. As noted above, under Rule 26(b) and specifically under the NRC discovery rules, "It is not grounds for objection that the information sought will be inadmissible at the hearing if the information sought appears reasonably calculated to lead to the discovery of admissible evidence." 10 CFR 2.740(b)(1). The challenged discovery requests are, in general, designed to perform at least this minimum function. The *Noerr-Pennington* cases go to the substantive protection of the First Amendment; nothing in them immunizes litigants from discovery. For this reason alone appropriate discovery into Applicant's legislative activities must be permitted.

But the parties adverse to Applicant go much farther. They point out that the information sought to be discovered may well be directly admissible as evidence, despite the undisputed *Noerr-Pennington* protections. We agree.

In *Pennington*, the court stated that even where the conduct (to eliminate competition) was not illegal because of the First Amendment:

It would of course still be within the province of the trial judge to admit this evidence, if he deemed it probative and not unduly prejudicial, under the "established judicial rule of evidence that testimony of prior or subsequent transactions, which for some reason are barred from forming the basis for a suit, may nevertheless be introduced if it tends reasonably to show the purpose and character of the particular transactions under scrutiny." [Citations omitted.]

381 U.S. at 670, n. 3.

Other cases recognize exceptions to the *Noerr-Pennington* doctrine. *Woods Exploration & Pro. Co. v. Aluminum Co. of America*, 438 F.2d 1286 (5th Cir. 1971), *cert. denied*, 404 U.S. 1047 (1972), involved a situation where filing of false information with a State agency was held not to be an actual attempt to influence government policy. The court stated:

Basic to *Noerr* is a belief that regulation of competition by the political process is legitimate and not proscribed by the Sherman Act, an enactment which is itself a political decision. For the political process to be effective there must be freedom of access, regardless of motive, to ensure the "right of the people to inform their representatives in government of their desires with respect to the passage or enforcement of laws." [Citations omitted.] Where these political considerations are absent the *Noerr* doctrine is inapplicable. [Citation omitted.] The policies of the Sherman Act should not be sacrificed simply because defendants employ govern-

mental processes to accomplish anticompetitive purposes. Otherwise, with governmental activities abounding about us, government could engineer many to antitrust havens. We think that the doctrine should not be extended unless the factors upon which *Noerr* rested are present and require the same result.

438 F.2d at 1296, 1297. In *Sacramento Coca-Cola Bot. Co. v. Chauffeurs, etc. Loc. 150*, 440 F.2d. 1096 (9th Cir. 1971), the court refused to extend *Noerr-Pennington* to a type of communication between the people and the government where the communication includes threats and other coercive measures.

Another form of exception to *Noerr-Pennington* was recognized in *George R. Whitten Jr. Inc. v. Paddock Pool Builders, Inc.*, 424 F.2d 25, 33, 34 (First Cir. 1970), where the immunity did not extend to efforts to influence public officials where the government was functioning in its proprietary capacity as a prospective purchaser in a commercial transaction.

The *Noerr* case itself recognized that "sham" efforts to influence government (meaning asserted efforts which were not really efforts, compared to real efforts employing sham methods), would not be protected. The court stated:

There may be situations in which a publicity campaign, ostensibly directed toward influencing governmental action, is a mere sham to cover what is actually nothing more than an attempt to interfere directly with the business relationships of a competitor and the application of the Sherman Act would be justified. But this certainly is not the case here.

365 U.S. 144.

The court reaffirmed the "mere sham" exception in administrative and judicial processes in *Otter Tail Power Co. v. United States*, 410 U.S. 365, 380 (1973), and 417 U.S. 901 (1974).

The foregoing cases establish beyond serious dispute that legislative activities are at least discoverable, and may fall within one or more exceptions to *Noerr-Pennington*. Applicant begrudgingly recognizes this, at least with respect to the "sham" exception, but states that there has been no allegation of "sham" and that its adversaries must first make a prima facie showing that a "sham" exception may exist. Applicant's Objections, pp. 14, 15. We think that, at the discovery phase, Applicant has improperly shifted the burden. We don't know yet how or if the Applicant will assert the *Noerr-Pennington* doctrine at the hearing or whether any exception will apply. The parties cannot produce prima facie evidence of a sham exception, or proprietary function exception, or other exception until after discovery, which we must permit where appropriate.

The foregoing cases deal with exceptions to *Noerr-Pennington*, not exceptions to the First Amendment. Applicant asserts that permitting discovery in this case may have a "chilling effect" in its willingness to participate in legislative and administrative decisionmaking processes. Applicant's Objections, pp. 11-12. This is an important point worthy of careful consideration. In support, Applicant cites a line of cases where discovery itself may be the instrumentality in denying First Amendment rights or in defeating a strong public interest in protecting confidential statements:

The prospect of such a chilling effect upon the exercise of constitutionally protected rights has been sufficient reason to deny discovery and disclosure of records in other areas of law. *See NAACP v. Alabama*, 357 U.S. 449, 460-62 (1958) (Supreme Court denies Alabama's efforts to obtain NAACP's membership lists, as disclosure would abridge the members' First Amendment rights); *Baker v. F & F Investment*, 470 F.2d 778 (2d Cir. 1972), *cert. denied*, 411 U.S. 966 (1973) (although there is no absolute privilege for journalists, their First Amendment rights are entitled to protection and disclosure of confidential news source will not be ordered where such matters are not at the heart of the moving party's case); *cf. Bredice v. Doctors Hospital, Inc.*, 50 F.R.D. 249, *op. adhered to*, 51 F.R.D. (187 D.D.C. 1970), *aff'd*, 479 F.2d 920 (D.C. Cir. 1973) (minutes and reports of defendant hospital's staff meetings concerning death of plaintiff's decedent not subject to discovery in malpractice action without showing of exceptional necessity, in view of strong public interest in encouraging such meetings, which are designed to evaluate clinical work and improve care).

Applicant's Objections, p. 12.

In each of the "chilling effect" cases a balancing was made, just as we must do here. In *NAACP* the balance was between the State's need for the information, which was found to be insufficient, compared with the threat to the members' rights to associate freely and other Constitutionally protected activities. 357 U.S. 460-462 *compared with* 357 U.S. 463-465. In *Baker* there was a balancing of public policy in favor of the free availability of news compared with need for the information. There the court observed that, in making the balancing, courts must rely on both judicial precedent and a well-informed judgment as to the proper Federal public policy to be followed in each case. 470 F.2d at 781. *Bredice v. Hospital* is factually remote from this case, but in any event, does not stand for an absolute bar to discovery, even in the face of such extreme justification for withholding information.

Applicant merely asserts, but does not explain, a "chilling effect." It is

possible that an exhaustive disclosure of FP&L's legislative activities may have some such effect. Against this we must balance the public interest in a complete record and, while we are at it, take into account the fact that Florida Cities also has First Amendment rights to petition its government. These rights could be frustrated if such discovery were to be barred. We do not believe that, in this case, FP&L, a large power utility, will be significantly thwarted in influencing its government simply by revealing how it has done so in the past.

Applicant requests that we consider that, since the discovery rulings in *South Dade*, the Supreme Court has determined that corporations, offering their views on proposed legislation, do so under the aegis of the First Amendment. *First National Bank of Boston v. Bellotti*, _____ U.S. _____ (1978), 55 L.Ed. 2d 707, 46 U.S. L.W. (April 25, 1978). See Applicant's Objections, pp. 10, 14. The corporation/First Amendment dispute between Applicant and Florida Cities has aspects of a feud between strawmen. It had its genesis when Florida Cities, responding to Applicant's discovery objections in *South Dade*, seemed to impute to Applicant an argument that FP&L asserts a right of confidentiality because of its form of business organization. Florida Cities stated that this was not so and, "Indeed, the public policies in the cases of franchised monopolies are all the other way."¹¹

Apparently in anticipation that Florida Cities would raise the same argument here, Applicant cites *Bellotti*. Florida Cities did, in fact, raise almost the same argument in its response to Applicant's Objections in this proceeding. Florida Cities' Response, p. 38.

Bellotti is not novel. It does not reach whether corporations have a full measure of rights under the First Amendment, but "... whether the corporate identity of the speaker deprives its proposed speech of what otherwise would be its clear entitlement to protection." 55 L.Ed. 2d at 718. It is a factual determination. The debate is not important to our consideration. We did not understand Applicant ever to assert special status as a corporation, nor do we penalize Applicant because of its corporate identity, the scheme of its regulation, or for any other reason.

Therefore the Board denies Applicant's general objections based upon *Noerr-Pennington*. This is the only objection raised to Joint Request 58 and Florida Cities' Request 29(h). The Board has reviewed these requests and

¹¹Florida Cities' Response to Applicant's Objections to Interrogatories (in *South Dade*) dated October 15, 1976, p. 13. Perhaps we have misread Florida Cities' argument here. Maybe it only asserted that corporate status, monopoly privileges, and State regulation diminishes the Applicant's defenses against disclosure.

believes them to be consistent with the Commission's discovery rules and our opinion above. Accordingly they are granted.

Applicant objects to Florida Cities' Request 14 on three grounds: *Noerr-Pennington*, relevance to subject matter, and time covered by the request. We sustain the objection on the basis that it exceeds relevance to the potential issues covered in this proceeding. In the event Florida Cities elects to repeat the request curing that defect, we would expect the request to be limited to the time period since January 1, 1965. Moreover, were it not for the sustained objection based on relevance, we would have denied that portion of Florida Cities' Request demanding records of *expenditures* for advertisements and other communications because this information can lead only to the *amount* of presumably protected speech, and not the subject matter of the speech. We cannot see how the amount of money spent for communication in elections can fall outside *Noerr-Pennington*.

Florida Cities' Request 20A¹² demands information about efforts by FP&L to persuade customers to buy electricity from it rather than from competing utilities.¹³ The parties have, in our view, mistakenly debated this request under *Noerr-Pennington*. This is not a *Noerr-Pennington* consideration. *Noerr-Pennington* says that (1) A person can influence opinion and legislation under the First Amendment; (2) even though the activity would otherwise violate antitrust laws; (3) with certain exceptions pertaining to public interest and nonapplicability. Other cases we have discussed hold that because of a competing public interest, certain First Amendment rights must be balanced. Here there is no balancing. Persuading consumers to buy a firm's products or service is fundamental to competition. Communications to prospective customers concerning the merits of a product, instead of restraints on trade, is the very method of competition encouraged by the antitrust laws. Communications inducing customers to buy do not require the protection of *Noerr-Pennington*, because there is no competing public interest to be balanced. Nor can we determine how discovery of Applicant's procompetitive activities can reasonably be expected to lead to the discovery of evidence supporting Intervenor's antitrust theories of this case. Objection to Florida Cities' Request 20A is sustained.

Florida Cities' Requests 21(e) and (f) are appropriate with respect to *Noerr-Pennington*, but whether the reach of Request 21 is too broad is discussed below. Applicant also objects to Florida Cities' Request 34(a)-(g) on the basis of *Noerr-Pennington* and on the basis of relevance and overbreadth.

¹²Supersedes Florida Cities' Requests 20(a) through (g). Request 20A appears in the Memorandum of Understanding.

¹³We assume the reference to reducing or modifying electric consumption refers to conservation. We see no relevance whatever to this point.

Applicant's Objections, p. 19. Below we deny the request because it is irrelevant to the issues of this proceeding.

D. Objections Based Upon Overbreadth and Relevance

Florida Cities' Request 7 demands information about FP&L's filings in certain Federal Energy Regulatory Commission proceedings. Applicant objects on the basis of irrelevance, duplication,¹⁴ "fishing," and possible abuse of this Commission's discovery processes. Applicant's Objections 17, 18. Florida Cities responds with many assertions of fact which, if true, would indicate relevance within the broad range of NRC discovery rules. Florida Cities' Response, pp. 6, 7. Applicant has requested an opportunity to address Florida Cities' factual allegations in Florida Cities' general Response to Applicant's Objections.¹⁵

We assume that some of the factual allegations worrying counsel for Applicant are those made in response to objections to Florida Cities' Request 7. The Board in its order below permits Applicant to respond. Applicant should consider the following in its response, however:

1. We do not accept Florida Cities' factual allegations for any purpose except to determine whether the FERC filing reasonably may be expected to lead to admissible evidence here.
2. We are not inclined to believe that filings with another agency are exempt from consideration here.
3. We cannot determine whether the other requests cited by Applicant will be duplicative.
4. This seems to be an area where agreement should be possible.

Therefore the Board defers ruling on Florida Cities' Request 7.

Applicant objects to Florida Cities' Request 17, arguing that the request should be limited to the files of policymakers. We agree with Florida Cities in that those charged with the responsibility of implementing or defining policy may also possess relevant data, but Florida Cities' Request as drafted could include many relatively unimportant persons. The level of personnel covered by the request should be limited. We suggest that the parties

¹⁴One of the discovery requests asserted by Applicant to be duplicative is Florida Cities' Request 20, which at Applicant's urging, the Board has denied. We don't see this as a material consideration however.

¹⁵Letter dated January 17, 1978, from Bouknight to Smith.

negotiate a limitation on this search consistent with the Board's comments. In the event agreement is not possible, the Board grants the request with respect to all those who plan or make policy. With respect to those who implement or define policy, the request is limited to supervisory employees who manage the activities of at least five nonclerical personnel. In addition, the time for production shall be limited to the period since January 1, 1955.

Applicant states that the burden of complying with Florida Cities' Request 18 could be reduced if Florida Cities employed depositions instead. Florida Cities is willing to approach the subject in the least burdensome manner, but does not agree that depositions would reduce the burden. Florida Cities' Response, p. 14. The Board believes that Request 18 is very broad. It has the potential of producing much information of little value. If depositions were used, Florida Cities could determine early if a particular line of inquiry would be worth pursuing. While depositions may place a greater burden upon Florida Cities, this is an appropriate allocation. Florida Cities' Request 18 is denied on that basis.

Request 21, as stated, is very broad. However an understanding as to the level of information to be produced seems to have been arrived at. Even though the request seemingly would require production of all letters and memoranda to or from company officers relating to a very wide range of information, Applicant calls the request one for "high-level" communications (Applicant's Objections, p. 21) and Florida Cities agrees that production should be limited to "high-level" communications. Florida Cities' Response, p. 14. It seems that the definition of "high-level" will be left to Applicant. With this understanding, Florida Cities' Request 21 is granted. The production of documents shall include minutes of the meetings of the Board of Directors and Executive Committee of FP&L and documents prepared in advance of and for such meetings, as set forth as examples in the request.

Applicant objects to Florida Cities' Request 23 which refers generally to documents relating to "competition" and "antitrust environment" in Mr. Gardner's files. Applicant's Objections, p. 22. While we do not accept Applicant's complaint which implies that competition between FP&L and municipal electric systems is beyond any conceivable bearing to this litigation, and reject that argument, some restraint is required. The request is granted only insofar as it refers to competition with FP&L. This would exclude competition among FP&L's suppliers and among customers, except to the extent that those suppliers or customers also compete with FP&L in power supply.

Florida Cities' Requests Nos. 57-59 and 72-73 and Joint Requests 79-82 seek information concerning FP&L's natural gas supplies. Applicant objects, stating that the requests are overly broad and that they extend to sub-

jects not relevant to this proceeding. Applicant suggests that because the requests pertain to proceedings before the FERC and a pending court case, the discovery process in this proceeding would be lengthened and complicated, but would not lead to evidence which could affect the outcome of the NRC case.

As to the latter point, Applicant does not explain nor do we see how the pendency of the cases before the FERC and the Fifth Circuit will have any effect upon the length and complicity of discovery in our proceeding. If anything, organizing the material for use in the other cases will simplify production here. If Applicant's argument is that the pendency of the cases in court and the FERC somehow immunizes its activities from otherwise appropriate scrutiny by the NRC, we reject that argument. As the Staff points out, this is not a question of primary jurisdiction. Staff's Response, p. 27.

The subject matter of the requests is clearly relevant to our proceeding. The Board takes official notice of certain facts for the limited purpose of discovery. Natural gas is an important boiler fuel for baseload generation of electricity in Florida because coal is not widely available. Electricity produced by natural gas is indistinguishable from electricity generated with uranium. If a situation inconsistent with the antitrust laws exists with respect to one or more relevant markets pertaining to the generation, transmission and distribution of electricity, an analysis of the alleged inconsistent situation may require an inquiry into the availability of natural gas and into Applicant's market conduct with respect to that commodity. Therefore the Board believes that the general subject matter covered by the requests is appropriate. Joint Requests 54 and 55 and Florida Cities' Requests 11 and 61 do not seem to have the capacity to supply the information required by the discovering parties.

But whether the requests are overly broad is another matter. They are broader than we would prefer, particularly Florida Cities' Requests, and we think that they are broader than necessary. The parties are thoroughly grounded in the background facts and appear to have expertise in the subject matter. Therefore the Board is sending them back to the negotiating table to reconsider the requests and objections in light of our views on relevance and the comments below.

First, unless we are strongly persuaded as to the need, we will not permit a large monopoly or attempt-to-monopolize litigation about the Florida natural gas market. We hope to see simplified proof depending substantially upon economic analysis by expert witnesses.¹⁶

¹⁶We do not intend to imply here that evidence of the purpose and character of Applicant's market activities is not germane solely because it may relate to natural gas.

Second, as we stated above, inquiry into the history of the relevant market is important, but only to the extent that it explains the present and the future. The relief within our power to grant would be prospective. We are concerned with an alleged situation which will be created or maintained and continuing to exist during the licensed activities. We therefore request the parties to consider the effect of the national policy giving relatively low priority to the use of natural gas as a boiler fuel for the generation of electricity. See 18 CFR 2.78(a)(1). The point is, an elaborate showing of FP&L's activities with respect to the supply of natural gas may not be justified if, in the period covered by the activities licensed by the NRC, gas is not available as boiler fuel.

Therefore we request the parties to seek some agreement on the issue and to resubmit discovery requests and objections thereto if necessary.

Florida Cities' Requests 27, 35(q), and 64 are objected to on the basis of "their complete irrelevance" to the proceeding. Applicant's Objections, p. 23.

Florida Cities' Request 27 requests copies of FP&L's uranium enrichment contracts and 35(q) pertains to uranium fuel costs. We grant these requests. They are relevant because of their economic significance considering Florida Cities' allegations of monopoly. However we do not grant Florida Cities' Request 27 on the theory of "government bounty" urged by the Intervenor as we discuss below.

While Florida Cities' Request 64 could produce some relevant information about the capacity factors, availability, and costs of operating Applicant's nuclear power plants, it also could produce much irrelevant data. We deny the request on the basis that it can be narrowed and refined to provide the requested information with greater certainty and less burden. For example, we do not see how FP&L can state when its nuclear units will be off-line for repairs during their entire expected operating lives.

The Board sustains Applicant's Objections to Florida Cities' Requests 65 and 66. These requests demand all documents pertaining to settlement negotiations in this case and in the *South Dade* proceeding. We are persuaded by Applicant's arguments. Applicant's Objections, pp. 23-25.

Rule 408 of the Federal Rules of Evidence provides that offers of settlement and conduct and statements made in the course of settlement negotiations are not admissible to prove the validity of a claim. Florida Cities' reference to the clarifying language of Rule 408 does help its position.¹⁷ A

¹⁷"This rule does not require the exclusion of any evidence otherwise discoverable merely because it is presented in the course of compromise negotiations. This rule also does not require exclusion when the evidence is offered for another purpose, such as proving bias or prejudice of a witness, negating a contention of undue delay, or proving an effort to obstruct a criminal investigation or prosecution." Rule 408.

party is free to discover evidence by other means, and its adversary may not defend against it simply by asserting that it happened to be evidence that was revealed in the course of settlement negotiations. One purpose of this provision is obvious; a party may not seize upon settlement negotiations as a device to defuse damning evidence against it. But the clarification does not justify an unrestrained excursion into Applicant's settlement documents.

Here Florida Cities is not seeking documents which may also happen to be related to settlement talks, it is directly seeking settlement papers.

In making this determination the Board is also guided by the policy stated in 10 CFR 2.759. This rule encourages settling contested proceedings and requires all parties and boards to try to carry out the settlement policy. Requiring a party to produce its settlement documents because they are settlement documents would be inconsistent with this policy.

E. Benefit Received From Government

Applicant objects to Florida Cities' Requests 24, 26, 27, and 34, among others, on the basis of relevance and, in the case of Request 34, on the basis of breadth. Florida Cities argue that the requests are relevant because they seek information concerning various benefits received by Applicant from government sources. This, according to Florida Cities, will rebut Applicant's anticipated defense that the intervening cities have unique access to "government bounty."¹⁸ With respect to its Request 27, Florida Cities apparently hopes to demonstrate as a part of its case in chief that "... nuclear power is a publicly founded enterprise that must be shared by the public that funds it." Florida Cities' Response, pp. 16-17. Thus we have two faces of the "government bounty" theory of antitrust analysis of nuclear energy.

Turning first to public funding of nuclear power, the Atomic Energy Commission in its *Waterford II* antitrust order, note:

... [T]he requirement in Section 105 for preclicensing antitrust review reflects a basic Congressional concern over access to power produced by nuclear facilities. The Commission's antitrust responsibilities represent *inter alia* a Congressional recognition that the nuclear industry originated as a Government monopoly and is in great measure the product of public funds. It was the intent of Congress that the original public control should not be permitted to develop into a private monopoly via the AEC licensing process, and that access to nuclear facilities be as widespread as possible.

¹⁸See Applicant's Objections, pp. 18-19 and 23 and Florida Cities' Response, pp. 10 and 16-17.

Louisiana Power and Light Company (Waterford Steam Electric Generating Station, Unit 3), CLI-73-25, 6 AEC 619, 620 (1973). See also *Wolf Creek, supra*, 1 NRC 559, 565.

There is, however, a difference between the Congressional "concern" underlying Section 105, and the standards to be applied in carrying out the Congressional intent. In *Waterford II, supra*, the Commission emphasized that despite public funding, the standard to be applied is the statutory consideration of whether the activities under the license would create or maintain a situation inconsistent with the antitrust laws and it recognized that Section 105 has inherent boundaries. 6 AEC at 620. Nothing in *Waterford II*, or in any part of the legislative history with which we are familiar, added the element of public subsidy of nuclear power to those elements constituting the antitrust laws. Nor do we believe that it is possible or appropriate to quantify in the context of an individual antitrust hearing the extent to which Applicant's particular nuclear facilities are the result of public funding.

As we understand the other facet of the "government bounty" theory, Florida Cities anticipates that Applicant will raise a defense that the consideration given to municipal electric utilities in an antitrust proceeding under Section 105 should take into account the fact that municipal utilities receive certain tax and financing advantages from the government. Thus, the theory imputed to Applicant goes, their competitive position vis-a-vis investor-owned utilities is enhanced, which enhancement must be discounted in some manner. Florida Cities wish to meet this defense by showing that FP&L too receives benefits from the government.

This Board, as did the *South Dade* Board, doubts that the theory is valid.

First we are not aware of any antitrust theory or policy under the laws referred to in Section 105(a) which holds that a competitor may not enjoy the competitive advantages legitimately held by it. Indeed the reverse is the case. Competitors are expected to reflect their natural advantages in competing. That is how the efficient allocation of national resources is assured. We do not see that lawful advantages received from the government by either private or public utilities differ under antitrust theory in any way from, say, a favorable lease from the landlord, or a favorable contract for the purchase of raw materials.

Second, what authority, under any theory, would the NRC have to nullify the benefits granted by Congress to either Florida Cities or Applicant in other programs? For example, assume that Congress, in the public interest, provides benefits to investor-owned utilities for use in water or air pollution control, as suggested by Florida Cities' Request 34(c). Would the NRC have the authority to wipe out these benefits and the Congressional

purpose by penalizing the beneficiary in antitrust analysis or relief? We think not.

Finally, it would not be possible to identify, quantify, and properly allocate the effect of all the government bounties.

For these reasons Florida Cities' Requests 24, 26, and 34 are denied. The parties are, of course, free to negotiate a simplified showing for the purpose of preserving their records. Also, any party may attempt to persuade the Board as to the error of its conclusions by addressing our concerns, but we would expect legal authorities to be cited.

F. Protective Order

Applicant has proposed a form of protective order which it asserts is necessary to protect information from public disclosure and nonrelated use.¹⁹ All other parties oppose the proposed protective order.²⁰ The Rules of Practice permit the use of a protective order covering the general subject matter of Applicant's proposed order. 10 CFR 2.740 (c) (6).

The parties opposing the order argue that the proposal would improperly shift the burden from the party seeking the protection to the party opposing it, grant Applicant the *carte blanche* right to blanket protection, grant protection to data which normally would not be considered confidential, interfere with the preparation of the parties' respective cases, and result in unnecessarily cumbersome prehearing procedures. The opposing parties have not drafted any proposed order, although each recognizes that some form of protection may be required.

With proper modification and the elimination of some ambiguities, an order in the form proposed by Applicant is justified. The Board has issued such an order as an attachment hereto.

The parties opposed to the protective order have, with some justification, viewed it as a protective order for the entire proceeding. As we have issued it, the order is primarily for the discovery phases of the proceeding.

Much of the debate in opposition to a protective order concerns the nature of the materials to be protected. The opposing parties argue that the producing party should be required to file a specific motion describing the particular material to be covered. The Board agrees that only within the context of the actual information can we make a valid specific ruling. What the opposing parties fail to recognize, however, is that there should be some organized method approved by the Board, wherein the party seeking protec-

¹⁹Applicant's Objections, p. 27, *et seq.*, and Attachment III.

²⁰Staff Response, p. 28, *et seq.*, Department's Response, p. 18, *et seq.*, and Florida Cities' Response, p. 41, *et seq.*

tion may raise the issue before the confidentiality it seeks to protect is destroyed. This is the purpose of Applicant's proposal and our order.

The basic approach employed by Applicant is similar to the form of protective order set forth in the *Manual for Complex Litigation* except in some respects it is less cumbersome.²¹ In the *Manual*, the court keeps custody of the documents designated "confidential" by the producing party, while under the Applicant's approach, which we adopt, counsel for the requesting party is entrusted with the designated material.

In all three versions of the protective order (*Manual*, Applicant's, and Board's), the ultimate decision as to the protection of confidentiality is to be made by the presiding officer. Contrary to the arguments, Applicant is not given a blanket protective order.

Below we discuss the issues in accordance with the numbering system of Applicant's proposed order.

Paragraph 4 has been modified to make it clear that references may be made to protected data in a manner which will not destroy their confidentiality. It is left to the professional judgment of counsel how this would be accomplished. The Board prefers that materials submitted to the Board would be made public where possible. For example, if a brief contains confidential material, it should be organized in such a manner that only the confidential portion is protected, perhaps as a supplement.

The parties opposing the protective order oppose paragraphs 5 and 6 by stating that the procedure is cumbersome, ambiguous, and can operate to deny counsel needed assistance in the preparation of their cases. True, the procedure is cumbersome, but as we noted above, the opposing parties have not advanced a better method considering the needs of the case. The Department suggests that the purpose of paragraph 6 would be satisfied by submitting the names of the "independent experts," to the Board in advance to determine if they are bona fide. The *Manual for Complex Litigation* would simply make the "confidential information" available to the attorneys and persons assisting those attorneys. The difference between the simplified procedure suggested by the *Manual* (and used in other court proceedings) is that the *Manual* anticipates a court order supported by the contempt powers of a U.S. district court. Here we have limited discipline authority over attorneys who file notices of appearance under 10 CFR 2.713, and little effective authority over lay persons who are not parties. We can understand Applicant's concerns that confidential information may

²¹*Manual*, Part 2; Appendix of Materials; 2.00, Part I-First Wave of Discovery, E. Preliminary Document Production. Counsel for Florida Cities could not find this section. We had difficulty too. See *West's* 1977 edition, pp. 243-247, or *Moores Federal Practice*, 1978, Vol. 1, Part 2, pp. 293-297.

find its way into the hands of persons who will not abide by the spirit of the Commission's protective order procedures. We do not find the general provisions of paragraphs 5 and 6 to be unduly cumbersome or restrictive, especially considering the fact that, as the protective order now makes clear, the order will be only temporary except for that specific material which has been determined by the Board to warrant protection or agreed to by the parties.

Other concerns raised by the parties can be better addressed in the context of the actual "confidential" material. For example, the Staff asserts that paragraph 6 would prevent the Staff from showing a document to a fact witness. It is very unlikely that a protective order addressed to specific documents would have such an effect. In any event, as the opposing parties point out, some of these considerations cannot be decided in a vacuum.

No party will be deprived of necessary and appropriate assistance in trial preparation by the protective order. Although the order will provide for an opportunity for the designating party to object to access by certain persons, the order gives no rights to a designating party not otherwise possessed by it. Applicant, by a footnote in its motion opines that Mr. Bathen would not be an "independent expert" permitted access under paragraph 6. But saying it doesn't make it so.²² The right to assistance in the preparation of litigation is a very important element of due process and the right to effective counsel. A party objecting to the use of any particular expert by its adversary has a difficult burden, which again, is a consideration better left to a concrete situation.

The requesting parties may wish to consider submitting the names of their independent experts to the producing parties in advance so that informal discussions may begin.

The Board's order contains clarifications to paragraphs 5 and 6 to remove ambiguities. Full-time employees of the NRC and Department have been added to paragraph 5. The potential for delay has been eliminated from paragraph 6.

Paragraph 10 of the proposed order has been eliminated from the Board order. The party seeking to prohibit the use in other proceedings of discovered material will be required to demonstrate to the Board why such restriction is justified and how the Board could enforce such a restriction in other fora either during this proceeding or after it is terminated.

While the Board has retained the language "for good cause shown" as it appears in paragraph 11, now Board order paragraph 10, this requirement does not relieve a designating party of the burden of establishing its right to

²²Motion, n. p. 29. Contrary to Florida Cities' lengthy arguments, Applicant made no motion concerning Mr. Bathen and there is nothing before this Board concerning his status.

protection pursuant to the provisions of paragraph 12 of the Board order.

The Board has modified the provisions of proposed paragraph 13, now paragraph 12, to eliminate the potential for delay and to remove any doubts about the burden of justifying protection for specified materials. Briefs in support of protection of data shall address the considerations set forth by the Appeal Board in *Kansas Gas and Electric Company* (Wolf Creek Nuclear Generating Station, Unit No. 1), ALAB-327, 3 NRC 408, 416-17 (1976). The parties shall also address the significance of the Commission's opinion in its Order of June 21, 1978, requiring that the proceeding encompass all significant antitrust implications of the license, not merely the complaints of the intervening private parties. CLI-78-12, 7 NRC 939, 949.

II. FLORIDA CITIES' OBJECTIONS TO APPLICANT'S REQUESTS

Applicant's Request to Florida Cities' Requests Nos 116-117, 144-145, 149-150, and 154-155 seek replies concerning Florida Cities' "understanding" of how the investment in capacity and operating cost per kilowatt varies with unit size in each category of fuel. Florida Cities concedes the relevance of the request and agrees to provide documents responsive to the questions. However, Florida Cities seeks to be relieved of the need to interview the affected city officials, offering instead to submit the "understanding" of the joined intervenors' engineering experts. Florida Cities speculates that the answers may not be helpful, that some cities may not have an understanding and states that, according to the Applicant's requirements, the request would require that hundreds of city officials be interviewed.

Applicant, in reply, declines to accept the understanding of Florida Cities' engineering experts and insists that the understanding be that of each intervening city. Even though Applicant has defined "City" as including all its officials, officers, and any other agents and consultants,²³ its discovery request, as explained by its reply, reasonably seeks the understanding of 18 municipal parties, not hundreds of city officials.²⁴

Applicant is entitled to know the litigative position, if any, of each intervenor. It is also entitled to have any understanding held by a city separate from this litigation. If the understanding happens to be the same as the engineering experts', or if a city has no understanding, or has an understanding identical to other cities', it does not appear that such answers are unacceptable to Applicant.²⁵

²³Applicant's Request, p. 2.

²⁴Reply, p. 3.

²⁵Request, p. 3, General Instruction, paragraph 1.

The identity and number of city officials to be interviewed must for now be left to the best judgment of Florida Cities' counsel depending upon the circumstances. The Board would see no value in an opinion poll of every conceivable city agent or advisor who may possess an "understanding," but who has no authority to act upon it. It is not possible for the Board to indicate which city officials might harbor the official "understanding" of a municipal corporation. Florida Cities is directed to comply with the discovery request based upon its knowledge of the facts. Its answer shall describe how it determined the particular "understanding" of each intervening city. If Applicant is dissatisfied with the answers, it may seek further relief.

Applicant's Request 185 seeks detailed information concerning consideration by any city intervenor to the establishment of a municipal power system in any municipality where none exists. Florida Cities again offers to provide the responsive documents but requests that it be relieved of the requirement to interview the affected city officials. Florida Cities states that the information requested is not relevant because the issues of the proceeding relate only to the conduct of FP&L. Applicant in reply correctly points out the relevance of the request. We do not believe the request must be as burdensome as feared by Florida Cities. Which city officials and how many of them must be interviewed will depend largely upon the organization of the municipality but it doesn't seem that very many persons would be likely repositories of the requested information. In any event, even if the request is burdensome, this is a burden assumed by counsel when it set out to represent 18 intervening parties in this proceeding. The Board directs Florida Cities to honor the request.

Florida Cities requests the right to object to interrogatories concerning legislative activities unless party with Applicant is realized. The Board's rulings on *Noerr-Pennington* above moot most of Florida Cities' concerns. However we noted that, in Applicant's Requests 238(c) and (d), information concerning lobbying budget and expenditures is demanded. No objection is now before the Board, but on page 179, *supra*, the Board declined to enforce a request to Applicant seeking the amount of money spent in First Amendment activities. Perhaps Florida Cities and Applicant can agree on this point without submitting the matter to the Board again in light of our rulings.

III. OTHER MATTERS AND ORDER

1. In its memorandum and order of October 21, 1978, the Board directed counsel for Florida Cities to submit to the Board a proposed form of order, approved by all parties, disposing of all pending motions for the

addition or deletion of individual cities to this proceeding. See also Tr. 264. Florida Cities is in default. All pending motions concerning adding or deleting city intervenors are denied. Florida Cities may, however, renew such motions, with a proposed form of order approved by the parties, within the time period provided below.

2. The requesting parties may submit explanations or modified requests with respect to Joint Requests 41, 56, 76, and 79-82. Florida Cities may submit explanations or modified requests with respect to Florida Cities' Requests 8, 14, 39, 40, 42, 57-59, 64 and 72-73.

3. Pursuant to the request of January 17, 1979, counsel for Applicant may submit a brief limited to addressing assertions of fact contained in Florida Cities' Response and move for appropriate relief, but only where it appears that the Board has made important incorrect discovery ruling in reliance upon Florida Cities' factual assertions. Unless Applicant address Florida Cities' Request 7, it is granted. Florida Cities' request dated January 23, 1979, to respond to Applicant is denied.

4. The Board recognizes that the discovery rulings made herein may have an important effect upon the direction and scope of this litigation. As we noted above, our knowledge of the markets and background facts is less than any party. If it appears that important rulings have been based upon an inadequate understanding of the issues in the proceeding, any party may move for modifications. In lieu of such a motion, or in addition to it, any party, with a showing of good cause, may move for a prehearing conference to consider motions for important modifications of the Board's discovery rulings. Any such motion or combination of motions with supporting briefs shall not exceed 15 pages. Answers to such motion shall not exceed 15 pages.

5. Any party may move for routine corrections of this order.

6. Papers authorized above shall be filed within 21 days after service of this order. Answers or objections to filings authorized by paragraphs 2 and 4 may be filed within ten (10) days after service of the respective filing.

IT IS SO ORDERED.

**FOR THE ATOMIC SAFETY AND
LICENSING BOARD**

Ivan W. Smith, Chairman

**Dated at Bethesda, Maryland,
this 9th day of February 1979.**

[The Index of Discovery Requests and Protective Order have been omitted from this publication but are available at the NRC Public Document Room, 1717 H Street, N.W., Washington, D.C.]

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Atomic Safety and Licensing Board

Marshall E. Miller, Chairman
Michael L. Glaser
Sheldon J. Wolfe

In the Matter of

HOUSTON LIGHTING &
POWER COMPANY, et al.

Docket Nos. 50-498A
50-499A

(South Texas Project, Units 1 and 2)

TEXAS UTILITIES GENERATING
COMPANY, et al.

Docket Nos. 50-445A
50-446A

(Comanche Peak Steam
Electric Station, Units 1 and 2)

February 28, 1979

The Licensing Board denies in part and grants in part the Department of Justice's motion to compel discovery.

RULES OF PRACTICE: DISCOVERY

Under the Commission's rules of practice, 10 CFR 2.740 and 2.740b, more complete responses to interrogatories are sought by motion which sets forth the questions contained in the interrogatories, the responses of the party upon whom they were served, and arguments in support of the motion to compel discovery.

RULES OF PRACTICE: DISCOVERY

Each interrogatory to a party shall be answered separately and fully in writing under oath or affirmation, and an evasive or incomplete answer or response shall be treated as a failure to answer or respond.

RULES OF PRACTICE: DISCOVERY

One who objects to the alleged inadequacy of discrete responses must do so specifically.

RULES OF PRACTICE: DISCOVERY

In the absence of unusual circumstances, a corporate party could not immunize itself from otherwise proper discovery merely by using lawyers to make file searches.

RULES OF PRACTICE: RESPONSIBILITIES OF PARTIES

The manner in which a party or its officers and agents testify, whether in sworn answers to interrogatories, giving depositions, or testifying at an evidentiary hearing, may have an important bearing in determining credibility. These are matters which cannot be wholly delegated by a party to its attorneys or anyone else. It is important for corporate officials at a policy-making level to understand the importance and significance of candor and integrity of a party in all phases of litigation, especially in discovery.

ORDER REGARDING MOTION OF DEPARTMENT OF JUSTICE TO COMPEL AUSTIN TO PROVIDE FULLER RESPONSES

On January 12, 1978, the city of Austin (Austin) responded to the Department of Justice's (Department) First Set of Interrogatories and Requests for Production of Documents. A motion by the Department to compel Austin to provide fuller responses was filed February 6, 1979, to which Austin filed its reply on February 20, 1979.

The Department objects to Austin's responses to interrogatories 5, 7, 12, 13, 19, and 22. However, the specific bases of objections are supplied only as to interrogatories 5, 19, and 22. Three principal types of alleged deficiencies in answers are described, but they are linked only to those three interrogatories by way of example. The Department also asks the Board in rather general terms to direct Austin to make another search of its files for documents, and to direct counsel for Austin to file with the Board an affidavit describing the efforts made in the document search.

The practice followed by the Department in seeking more complete responses is not consistent either with our rules of practice, or with the analogous Federal Rules of Civil Procedure. Under 10 CFR 2.740 and 2.740b we rule upon motions which set forth the questions contained in the interrogatories, the responses of the party upon whom they were served, and

arguments in support of the motion to compel discovery. Each interrogatory to a party shall be answered separately and fully in writing under oath or affirmation, and an evasive or incomplete answer or response shall be treated as a failure to answer or respond.

The Board does not undertake to lecture counsel generally on their discovery responsibilities, nor to discourse at large upon the quality of a group of responses. Specific objections must be made to the alleged inadequacy of discrete responses. Accordingly, we will not direct Austin to make another search of its files, nor require its counsel to file some affidavit with us describing the search for documents made by the client. If the latter information is sought for discovery purposes, it could be the subject of a direct interrogatory to the party involved, which would be required to describe the procedures it followed in searching its files in response to document requests. In the absence of unusual circumstances, a corporate party could not immunize itself from otherwise proper discovery merely by using lawyers to make file searches. If Austin was suggesting some such umbrella theory in referring to the attorney-client privilege on the last page of its objections to the Department's motion, that objection would be overruled.

Turning now to specific interrogatory responses, No. 5 asked for full details of every occasion on which Austin communicated with any other utility to dissuade it from operating in interstate commerce. Austin replied that certain communications took place with the lower Colorado River Authority after May 4, 1976, in an attempt to restore the interconnected system to a more reliable mode. It further replied that it is not aware of any documentation of the above discussions nor the participants, other than the general knowledge that such took place and that various levels of staff participated from time to time in connection with a certain proceeding before the Texas Public Utility Commission.

This is an inadequate and incomplete response to the interrogatory. Austin has an affirmative duty to inquire of its own employees and others who could have knowledge of such communications. Nor does the answer affirmatively show that this particular communication is the only one which occurred with respect to the subject of the inquiry. Austin is directed to make and describe a full inquiry regarding the subject of the question, and to provide responsive and nonevasive answers in reasonable detail to the fifth interrogatory.

Interrogatory 19 refers to the May 4, 1976, disconnections by HL&P and TU from other utilities, and inquires about various communications which took place before and after the disconnection. Austin merely answered that "there were probably numerous communications between [its] employees" and those of the other utilities, but it is not aware of any records "as to whom the participants were or when or where these conversations

took place" (Response at p. 6). This response is so inadequate as to be evasive. A party has an affirmative duty to seek the requested information from its own employees and others, and to make full, fair disclosure. Austin has not even attempted to fulfill this duty. In addition, it appears that there was in fact a letter dated May 5, 1976, from HL&P to the City Manager of Austin (Dan Davidson), among others, discussing this very subject. This letter was turned over to the Department by the city of Antonio in its response to the identical interrogatory. Austin in its casual reply to the Department's motion acknowledges receipt of this letter, but offers no explanation for its nondiscovery or nondisclosure.

The Department further asserts that Austin failed to produce *any* correspondence in response to the interrogatories (Motion of Department, p. 9). Austin does not deny this allegation in its response to the Department's motion. In view of the nature of the issues presented in this case and some of the circumstances described in various pleadings and motions to date, we find it extraordinary that apparently no correspondence has been produced by Austin in responding to a number of interrogatories covering a substantial period of time. The answers which have been brought to the attention of the Board also fall very short of a full and candid disclosure of the requested facts, as required by our practice.

We remind all of the *parties* to this proceeding that under 10 CFR 2.740b, each interrogatory to a party "shall be answered separately and fully in writing under oath or affirmation, unless it is objected to The answers shall be signed by the person making them, and the objections by the attorney making them Answers may be used in the same manner as depositions." The credibility of parties and their witnesses is always important in adjudicatory proceedings. This is especially true in antitrust litigation, when corporate purpose, intent, and motive are often in sharp dispute.

The manner in which a party or its officers and agents testify, whether in sworn answers to interrogatories, giving depositions, or testifying at an evidentiary hearing, may have an important bearing in determining credibility. These are matters which cannot be wholly delegated by a party to its attorneys or anyone else. It is important for corporate officials at a policy-making level to understand the importance and significance of candor and integrity of a party in all phases of litigation, especially in discovery. To avoid the possibility of unpleasant surprises in the future if the credibility and candor of parties becomes a significant issue, all counsel should make certain that their clients as parties understand the importance of making full, fair disclosure of relevant facts in this proceeding. To that end, it is suggested that each attorney expressly call the attention of the responsible officers of their clients to this portion of our order.

Interrogatory 22 asks for specified details of every occasion upon which Austin contacted another entity to encourage a decrease in self-generation. Austin replied by attaching an agreement with the University of Texas which might have such an effect. This answer does not respond directly and fully to the interrogatory, although it might contain the basis for a direct reply. Austin should supply the details specified, as well as indicate clearly whether this is the only occasion when such contacts were made.

Although the Department's motion also mentions interrogatories 7, 12, and 13, it does not particularize any inadequacies in the responses. Austin contends that it has provided complete answers by attaching Appendixes A, B, and C. In the present state of the record, the motion of the Department must be denied as to interrogatories 7, 12, and 13. The motion is granted as to interrogatories 5, 19, and 22.

IT IS SO ORDERED.

FOR THE ATOMIC SAFETY AND
LICENSING BOARD

Marshall E. Miller, Chairman

Dated at Bethesda, Maryland,
this 28th day of February 1979.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Harold R. Denton, Director

In the Matter of

Docket Nos. 50-280
50-281

VIRGINIA ELECTRIC POWER
COMPANY

(Surry Power Station
Units 1 and 2)

February 1, 1979

The Director of Nuclear Reactor Regulation denies petition filed under 10 CFR 2.206 of the Commission's regulations to require that a hearing be held and an environmental impact statement be prepared on the licensee's steam generator repair program.

OPERATING LICENSE: AMENDMENTS

In accordance with 10 CFR 50.59 of the Commission's regulations a licensee seeking to make a change in the technical specifications or a change in the facility involving an unreviewed safety question must submit an application for an amendment to the license.

NRC: ENVIRONMENTAL RESPONSIBILITIES

An environmental impact statement is required if the licensing action is a major Federal action significantly affecting the quality of the human environment. If such a finding is not made in the affirmative, the Commission is required under 10 CFR 51.5(c) to prepare a negative declaration and environmental impact appraisal.

DIRECTOR'S DECISION UNDER 10 CFR 2.206

By letter dated December 29, 1978, Mrs. June Allen on behalf of the North Anna Environmental Coalition (Coalition), requested that the Nuclear Regulatory Commission prepare an environmental impact statement

on the Virginia Electric Power Company's (VEPCO) proposed steam generator repair program at the Surry Power Station and hold a show-cause hearing on this proposed program. This letter was filed pursuant to 10 CFR 2.206 of the Commission's regulations.

The asserted bases for the request by the Coalition are (1) that the proposed steam generator replacement is an experimental remedial procedure representing an unreviewed safety question in accordance with 10 CFR 50.59 and is a significant licensing step in view of the ACRS discussion of October 28, 1978, and (2) that the notice of proposed issuance of the amendments to the operating licenses for the Surry Nuclear Power Station to allow the steam generator replacement was not adequate.

In accordance with 10 CFR 50.59 of the Commission's regulations, a licensee seeking to make a change in the technical specifications or a change in the facility involving an unreviewed safety question must submit an application for an amendment to the license. On August 17, 1977, VEPCO submitted a request for an NRC review and approval required in order to repair the steam generators at the Surry Power Station, Units 1 and 2. It was determined in accordance with 10 CFR 50.59 that such a program would involve an unreviewed safety question and, therefore, would require an amendment of VEPCO's Facility Operating License Nos. DPR-32 and DPR-37 for the Surry plant. In accordance with 10 CFR 2.105, a notice of the proposed issuance of amendments to the licenses at issue was published in the FEDERAL REGISTER on October 27, 1977 (42 Fed. Reg. 56652). The notice was also available for public inspection in the Commission's Public Document Room and at the Local Public Document Room at Swem Library, College of William and Mary, Williamsburg, Virginia. This notice provided an opportunity for interested persons to request a hearing by November 28, 1977. No requests for a hearing were received in response to that FEDERAL REGISTER notice.¹ The Coalition's request does not purport to be filed pursuant to the October 27, 1977, notice of opportunity to request a hearing.²

¹The Atomic Safety and Licensing Board constituted to review requests for a hearing under the October 27, 1977, FEDERAL REGISTER notice provided the Commonwealth of Virginia the opportunity to file a request for a hearing up to 10 days after issuance of the Staff's Safety Evaluation Report which was issued on December 15, 1978. On December 20, 1978, the Commonwealth stated it would not request a hearing.

²If the December 29, 1978, request is intended as a request for a hearing under that notice, it was untimely filed. Apart from the observation that NRC did not issue a news release concerning the opportunity for a public hearing, and the contention that the FEDERAL REGISTER is read by few if any of the affected citizens in the Surry area, the only reason given was it was seen for the first time by the Coalition "just a few weeks" prior to submitting the December 29, 1978, request. This reason is not adequate to support the request for a hearing made more than a year late.

The Coalition's December 29, 1978, letter quotes brief excerpts from the transcript of an ACRS meeting held on October 28, 1978. Apparently these excerpts are intended to reflect the Coalition's concern for radiation exposure to workers involved in the steam generator replacement program.

Prior to issuing the amendment to allow the repairs to be made to the steam generator, the Office of Nuclear Reactor Regulation prepared the Staff Safety Evaluation Report (SER) which is attached to and made a part of this decision (Appendix A). That evaluation, which expressly addressed the matter of radiation exposure to workers, concluded that there is reasonable assurance that the health and safety of the public (including the workers) will not be endangered by the proposed steam generator repair program and that the changes would be conducted in compliance with the Commission's regulations. The references to the ACRS transcript do not provide reasons for altering that conclusion.

As to the Coalition's request for the preparation of an environmental impact statement, no reason is given for requiring such a statement. An environmental impact statement is not required for every licensing action. Under 10 CFR 51.5 of the Commission's regulations, an environmental impact statement is required if the licensing action is a major Federal action significantly affecting the quality of the human environment. If such a finding is not made in the affirmative, the Commission is required under 10 CFR 51.5(c) to prepare a negative declaration and environmental impact appraisal. In this case it was determined after preparation of an environmental impact appraisal that a negative declaration rather than an environmental impact statement was appropriate. The declaration was issued on January 20, 1979. A copy of the Negative Declaration and the Environmental Impact Appraisal is attached to and made a part of this decision (Appendix B).

Based on the foregoing discussion and the provisions of 10 CFR 2.206, I have determined that there exists no adequate basis for holding a show-cause hearing on the steam generator repair program and that an environmental impact statement need not be prepared. The request of the North Anna Environmental Coalition is hereby denied.

A copy of this determination will be placed in the Commission's Public Document Room at 1717 H Street, N.W., Washington, D.C. 20555 and the Local Public Document Room for the Surry Nuclear Power Station located at the Swem Library, College of William and Mary, Williamsburg, Virginia 23185. A copy of this document will also be filed with the Secretary of the Commission for its review in accordance with 10 CFR 2.206(c) of the Commission's regulations.

In accordance with 10 CFR 2.206 (c) of the Commission's Rules of Practice, this decision will constitute the final action of the Commission 20

days after the date of issuance, unless the Commission on its own motion institutes the review of this decision within that time.

Original Signed By

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

[Appendixes A and B have been omitted from this publication but are available in the NRC Public Document Room, 1717 H Street, N.W., Washington, D.C.]

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF INSPECTION AND ENFORCEMENT

John G. Davis, Acting Director

In the Matter of

Docket No. 50-272 (2.206)

DELMARVA POWER AND LIGHT
COMPANY

(Salem Nuclear Generating Station,
Unit 1)

February 2, 1979

The Director denies the request of the Delaware Safe Energy Coalition to suspend the operating license for the Salem Nuclear Generating Station, Unit 1, pending investigation of the safety hazards at the facility.

ATOMIC ENERGY ACT: SANCTIONS

Enforcement actions are based on findings of investigations and inspections, not mere opinions.

DIRECTOR'S DENIAL OF 2.206 REQUEST

By letter dated November 24, 1978, Mr. Ernie Mabrey, on behalf of the Delaware Safe Energy Coalition, requested that the Nuclear Regulatory Commission suspend the operating license for the Salem Nuclear Generating Station, Unit No. 1, operated by the Public Service Electric & Gas Company of New Jersey, pending investigation of safety hazards at the facility. This letter is being treated as a request for action pursuant to 10 CFR 2.206 of the Commission's regulations.

The asserted bases for the request by the Delaware Safe Energy Coalition are (1) information concerning the safety of the Salem Nuclear Generating Station contained in an NRC internal memorandum described in a news release appearing in the November 21, 1978, edition of the *Morning News* of Wilmington, Delaware, and (2) that 15,000 gallons of reactor coolant had leaked from a reactor coolant pump in Salem Unit No. 1. Specifically, the news release described comments by inspectors about the Salem Generating Station as follows:

Altogether ten inspectors gave their evaluation of the 1,090 megawatt plant. At least two of the inspectors rated the radiation control and safeguards portion of the installations "acceptable"—or barely safe enough to be permitted to continue operating, according to the study.

A majority of the inspectors, however, gave the plant a slightly less than average evaluation.

The inspectors' comments included: "The plant control room is very poorly designed. This is a relatively new plant with growing pains. It needs close inspection attention to assure that appropriate improvements are made. Have had a number of problems in startup phase, which were corrected by management. Problems with operator controls."

At least one inspector criticized control room as being designed "in-house—it is a disaster waiting to happen."

The Delaware Safe Energy Coalition also expressed concern that too many abnormal occurrences have occurred at the Salem Generating Station, Unit 1.

I have reviewed the factors asserted by the Delaware Safe Energy Coalition to support its request for suspension of the operating license for Salem Generating Station, Unit 1. For the reasons set forth below, I have determined that no proceeding to suspend the operating license will be instituted.

I

The "internal memorandum report" to which the *Morning News* article on November 21, 1978, refers, is titled "Employee Survey on Evaluation of Licensees" (Employee Survey). It was prepared by the NRC Office of inspection and Enforcement (IE). The report is one of several documents¹ which discuss various efforts by IE to develop techniques to evaluate licensee regulatory performance.

It is important to understand that the evaluation, which is described in the "Employee Survey on Evaluation of Licensees," and other documents

¹(1) Draft transmittal letter for SECY-78-554; (2) Commission Paper, SECY-78-554; (3) NUREG/CR-0110, Licensee Performance, Evaluation; (4) Draft Study—Individual Site Ratings From IE Employee Survey, dated April 1978; (5) Memo, E. M. Howard to Ernst Volgenau, dated September 26, 1977; (6) Draft Report—An Evaluation Of The Nuclear Safety-Related Management Performance of NRC Operating Reactor Licensees During 1976, dated February 1977; (7) Memo, E. M. Howard to Ernst Volgenau, dated October 26, 1977. These documents are attached in Appendix A.

noted above is made to distinguish between levels of *acceptable* performance. Unacceptable performance is dealt with through enforcement actions taken promptly whenever the need is identified. Enforcement actions, which may range from a notice of violation to an order to modify, suspend, or revoke a license, are selected commensurate with the degree of severity of licensee noncompliance with NRC rules and regulations or conditions of the license. No need to issue an order to suspend or revoke the license has been identified at Salem Nuclear Generating Station.

In the "Employee Survey" ten people made subjective ratings of Salem. Some commenters were more critical than others. There are recognized shortcomings with this type of opinion survey method of evaluation; *e.g.*, individual opinions are subjective, they may not be clearly supported by fact, and they may be unduly influenced by the "last contact" with the licensee or the personality of licensee representatives.

On page 2 of the "Employees Survey" the survey results were qualified by the following statement:

Although the information is untested, unvalidated, not directly related to licensee compliance with NRC requirements, and unreviewed by licensees, it may be of some use to IE management in gaining insights into the perceived safety at the 45 operating power reactor sites licensed by NRC. Some of the information may provide additional insights that will help identify inspection program improvements or form the basis for management conferences with licensees. For these latter purposes, the information should be used with some discretion and with an awareness of its limitations noted above.

It is in this context that the comment quoted in the newspaper article, "The plant control room was designed in-house—it is a disaster waiting to happen," must be evaluated. It represents the "unvarnished" opinion of one individual among many who rated Salem. It is not an agency opinion developed after consideration of all the relevant factors. While opinions of the Commission's inspectors are valued, enforcement action, including license suspension, must be based upon findings of inspections and investigations and not mere opinion.

An additional survey comment concerned a problem previously identified by NRC inspectors in the Salem Unit No. 1 control room involving burned out light bulbs in controls with back lighted push buttons. Each indication has two bulbs, which, if both burned out, could give the operator an ambiguous indication. The NRC Region 1 Office has followed this problem, which was recently resolved. The licensee is now using longer lived bulbs, checking both bulbs in each indicator on a watch routine basis and replacing any that have burned out.

The control room design was reviewed and found acceptable by the NRC during the licensing of Salem Unit 1. Nevertheless, as part of the followup to the individual opinions contained in the survey report, the Directors of the Commission's regional offices were contacted concerning the statements pertaining to the reactors in their regions. In particular, Region I was asked whether the control room design and operator controls at the Salem Unit 1 facility presented a potential safety problem. While the layout of the control room is not identical to that normally supplied by Westinghouse, the nuclear steam supply system vendor for Salem, the operators are trained to operate the plant utilizing the Salem control room scheme and are licensed by NRC on the Salem control board. The Operator Requalification Training Program recognizes the design differences between the Salem control room scheme and that of the simulated control room used by Westinghouse for training. Specific requirements are imposed to provide operators with additional training on the Salem control board for emergency and abnormal procedures when simulator training is carried out on the Westinghouse control board for requalification purposes.

The operation of the control room has been reviewed as part of the numerous inspections conducted by NRC inspectors based in the NRC Region I Office in King of Prussia, Pennsylvania. These inspections will continue to be conducted. Moreover, since July 10, 1978, an NRC inspector has been stationed in residence at the Salem site as part of NRC's program to place resident inspectors at operating power reactor sites. His full time duty assignment is NRC inspection of Salem.²

Conduct of the inspection program at Salem on a continuing basis by several NRC inspectors does not indicate that operation of Salem Unit No. 1 poses undue risk to the health and safety of the public or protection of the environment. For this reason I have decided that conditions at Salem Unit No. 1 do not warrant taking the requested action.

²Two types of inspections are conducted at operating reactor facilities including Salem Unit No. 1; routine or preventive inspections and reactive inspections. The former are done on a recurring basis, and they include inspection of functional areas of the licensee management control and quality assurance program. Qualification, training, calibration, surveillance, maintenance, procedures, and plant operations are examples of functional areas inspected. Reactive inspections are done in response to an event or condition that has occurred at the plant. These inspections transcend the functional areas of licensed operations by focusing on the specific event, its safety significance, cause, corrective action, and generic implications. Event followup enables the inspector to verify adequate licensee management control to the extent that the event "exercises" the licensee's system.

II

The second fact which Mr. Mabrey, on behalf of the Delaware Safe Energy Coalition, asserted as the basis for requesting suspension of the operating license for Salem, was a leak of 15,000 gallons of radioactive water from a reactor coolant pump. This leak occurred as a result of mechanical failure of the shaft seal in one of the four installed reactor coolant pumps. The entire volume of leakage was contained within the reactor containment building. No release of radioactive material to the environment occurred. Neither the reactor protective system nor the emergency cooling system were actuated nor were such actuation necessary to recover from the leak.

A licensee is required to have procedures to provide for a variety of potential incidents including the event which occurred here. Region I, Office of Inspection and Enforcement, has reviewed this event and concluded that the licensee's operating staff took proper actions in accordance with approved plant procedures for reactor coolant pump seal failure. There were no items of noncompliance with the NRC rules and regulations or the facility license associated with the event. The licensee reported the event to the NRC in accordance with the reporting requirements of its license. The NRC resident inspector reviewed the actions taken by the licensee, inspected seal replacement, and verified satisfactory operation of the new seal.³

Since the operation of Salem Unit 1, a number of licensee event reports have been submitted by the licensee as required by the Commission. None of these involved items of noncompliance or safety concerns that justified taking the enforcement actions requested.

III

Based on the foregoing discussion and the provisions of 10 CFR 2.206, I have determined that no basis exists for conducting an investigation at Salem or instituting a proceeding to suspend the operating license for Salem Unit No. 1. The request by the Delaware Safe Energy Coalition is hereby denied.

A copy of this determination will be placed in the Commission's Public Document Room at 1717 H Street, N.W., Washington, D.C. 20555, and the Local Public Document Room for the Salem Nuclear Generating Station

³More detailed technical information is provided in the enclosed licensee letter to the NRC Region I Director, dated November, 2, 1978, which forwards the licensee event report (Appendix B). Also attached as Appendix C is an excerpt of IE Inspection Report No. 50-272/78-26, which documents the inspection findings on the seal failure and replacement.

located at the Salem Free Public Library, 112 West Broadway, Salem, New Jersey 08079. A copy of this document will also be filed with the Secretary of the Commission for its review in accordance with 10 CFR 2.206(c) of the Commission's regulations.

In accordance with 10 CFR 2.206 (c) of the Commission's Rules of Practice, this decision will constitute the final action of the Commission twenty (20) days after the date of issuance, unless the Commission on its own motion institutes review of this decision within that time.

**FOR THE NUCLEAR
REGULATORY COMMISSION**

**John G. Davis, Acting Director
Office of Inspection and Enforcement**

**Dated at Bethesda, Maryland,
this 2nd day of February 1979**

[Appendixes A, B, and C have been omitted from this publication but are available for inspection at the NRC Public Document Room, 1717 H Street, N.W., Washington, D.C.]

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Joseph M. Hendrie, Chairman
Victor Gilinsky
Richard T. Kennedy
Peter A. Bradford
John F. Ahearne

In the Matter of

Docket No. 70-2738
License No. XSNM-1222

**EDLOW INTERNATIONAL
COMPANY**

**(Agent for the Government of India
on Application to Export Special
Nuclear Materials)**

March 23, 1979

The Commission finds that license application XSNM-1222 for export of special nuclear materials to fuel the Tarapur Atomic Power Station, Bombay, India, meets all the requirements for issuance under the Atomic Energy Act of 1954 and directs issuance of the license. Commissioners Gilinsky and Bradford dissent.

ORDER

For the reasons set forth in the opinions of Chairman Hendrie and Commissioner Kennedy and of Commissioner Ahearne, the Commission finds that License Application No. XSNM-1222 meets all the requirements relevant for issuance under the Atomic Energy Act of 1954, and hereby directs the Director, Office of International Programs to issue XSNM-1222 to the Edlow International Company. Commissioners Gilinsky and Bradford dissent from this decision.

It is so ORDERED.

By the Commission

Samuel J. Chilk
Secretary of the Commission

Dated at Washington, D.C.
this 23rd day of March, 1979.

SEPARATE VIEWS OF CHAIRMAN HENDRIE AND COMMISSIONER KENNEDY

I. Background

On November 1, 1977, Edlow International Company, as agent for the Government of India, filed License Application No. XSNM-1222 with the Commission seeking authorization to export 404.51 kilograms of U-235 contained in 16803.6 kilograms of uranium enriched to a maximum of 2.71%. The special nuclear material sought would be used to fuel the Tarapur Atomic Power Station (Tarapur) located near Bombay, India.

This is the 28th application for a shipment of fuel to Tarapur considered by the Commission and its predecessor, the Atomic Energy Commission. Such applications have received particularly intense Commission scrutiny following India's detonation of a nuclear explosive device in 1974, and the submittal of joint petitions by the Natural Resources Defense Council, Inc., the Sierra Club, and the Union of Concerned Scientists (hereinafter "the petitioners") on March 2, 1976, seeking leave to intervene and a hearing on two applications covering fuel shipments for Tarapur, XSNM-805 and XSNM-845.¹

XSNM-1060 was the last application covering fuel for Tarapur considered by the Commission. On April 25, 1978, the four Commissioners then serving divided evenly on whether or not that application met all statutory criteria the Commission must apply.² Because the Commission concluded it was unable to make the statutory determinations required for issuance, the Commission referred XSNM-1060 to the President pursuant to Section 126b.(2) of the Atomic Energy Act. President Carter determined that denial of the license application would "be seriously prejudicial to the achievement of the United States non-proliferation objectives" and authorized the export by executive order.³ Pursuant to Section 130 of the Atomic Energy Act, Congress reviewed this Presidential determination and did not override it.⁴

¹The Commission issued XSNM-805, with Commissioner Gilinsky dissenting, on July 1, 1976. CLI-76-10, 4 NRC 1 (1976). The Commission held two days of public hearings on exports of low-enriched uranium to India in July 1976, and issued license application XSNM-845 on June 28, 1977. See CLI-76-6, 3 NRC 563 (1976) and CLI-77-20, 5 NRC 1358 (1977).

²CLI-78-8, 7 NRC 436 (1978). Chairman Hendrie and Commissioner Kennedy voted for issuance and Commissioners Gilinsky and Bradford against issuance.

³E.O. 12055, April 27, 1978.

⁴The United States Senate Committee on Foreign Relations and the United States House of Representatives Committee on International Relations held hearings on the President's deci-

(Continued on next page)

With respect to the application presently before us, petitioners on February 13, 1978, filed a Motion requesting the Commission to resume the hearings it conducted in July 1976 on exports of low-enriched uranium to India, and on October 31, 1978, filed a supplemental memorandum in support of their motion. On December 8, 1978, the Commission granted the motion, ordering a hearing consisting of written comments.⁵ The Commission invited petitioners and other members of the public to submit views on the issues raised by XSNM-1222. The Commission specifically requested hearing participants to focus on four issues raised by the petitioners:

- (1) the sufficiency, for purposes of the Nuclear Non-proliferation Act (NNPA), of Indian Prime Minister Desai's assurances that 'he will not authorize nuclear explosive devices or further nuclear explosions';
- (2) the adequacy for purposes of the NRC determinations under the NNPA, of the safeguards applied by the International Atomic Energy Agency at the Tarapur facility, and of U.S. government information on those safeguards;
- (3) the status of U.S.-India negotiations regarding the return of spent fuel from Tarapur to the United States for storage; and
- (4) the need for the fuel requested.^{6]}

The NRC staff, the Department of State, and the petitioners submitted comments in response to this invitation. Petitioners also filed a response to the submissions by the NRC staff and the Department of State. In addition to these submissions, the Commission has received an Executive Branch analysis concluding that the export licensing criteria are met and recommending issuance of XSNM-1222.⁷ The NRC staff has reached a similar conclusion.⁸ The Commission has also received classified briefings from the Executive Branch on this application. On the basis of a thorough review of this matter; a majority of Commissioners has determined that XSNM-1222

(Continued from previous page)

sion at which the Commission, the Executive Branch, and the petitioners testified. *See* Hearings before the Subcommittee on Arms Control, Oceans and International Environment of the Senate Committee on Foreign Relations, 95th Cong., 2d Sess. (1978); Hearings before the House Committee on International Relations, 95th Cong., 2d Sess. (1978). On July 12, 1978, the House defeated a motion to overturn the President's decision by a vote of 227-181. 124 Cong. Rec. H.6530. The Senate did not vote on the issue.

⁵CLI-78-20, 8 NRC 675 (1978). Chairman Hendrie and Commissioner Gilinsky voted against conducting such proceedings.

⁶CLI-78-20, 8 NRC 675, 677 (1978).

⁷September 15, 1978 letter from Louis V. Nosenzo, Deputy Assistant Secretary of State, to James R. Shea, Director, Office of International Programs, U.S. Nuclear Regulatory Commission.

⁸An unclassified version of SECY 78-596A (January 26, 1979) is being placed in the Commission's Public Document Room. Not all NRC staff members concurred in the staff recommendation. See SECY 78-596B which also is being placed in the Public Document Room.

meets all applicable export licensing criteria set forth in the Atomic Energy Act and other applicable statutory requirements.

II. Application of the Export Licensing Criteria of Section 127 of The Atomic Energy Act

The Atomic Energy Act of 1954, as amended by the Nuclear Non-Proliferation Act of 1978 (NNPA), provides that the Commission may not issue a license authorizing the export of special nuclear material unless it finds “based on a reasonable judgment of the assurances provided . . . that the criteria in section 127 of this [Atomic Energy] Act or their equivalent . . . are met.”⁹ The Commission must also determine that the export would not be inimical to the common defense and security of the United States or constitute an unreasonable risk to the health and safety of the public,¹⁰ and would be pursuant to an Agreement for Cooperation.¹¹ We find that each of these criteria and requirements is met by license application XSNM-1222.

A. Assurances of The Government of India and their relationship to Section 127 Criteria

Section 127 of the Atomic Energy Act sets forth six criteria to govern nuclear exports such as the one before us here. These requirements, frequently referred to as the Phase I criteria, became immediately effective on March 10, 1978, the date President Carter signed the NNPA. The following discussion focuses on the assurances received from the Government of India which relate to these criteria. In the case of each criterion, we conclude that these assurances are adequate to meet the criteria if we can make a reasonable judgment that such assurances will be adhered to in the future.

1. IAEA safeguards

Criterion one provides that:

IAEA safeguards as required by Article III(2) of the [Non-Proliferation] Treaty will be applied with respect to any such material or facilities proposed to be exported, to any such material or facilities previously exported and subject to the applicable agreement for cooperation, and to any special nuclear material used in or produced through the use thereof.

⁹Section 126b.(2) of the Atomic Energy Act, 42 U.S.C. 2155(a)(2).

¹⁰Section 57(c)(1) of the Atomic Energy Act, 42 U.S.C. 2077(c)(1).

¹¹Section 57(c)(2) of the Atomic Energy Act, 42 U.S.C. 2077 (c)(2).

The relevant assurance from the Government of India can be found in the trilateral agreement, signed January 27, 1971, by the United States, India, and the International Atomic Energy Agency, which provides for the application of IAEA safeguards at the Tarapur facility.¹² This agreement covers material exported to India pursuant to the U.S./India bilateral Agreement for Cooperation and any material produced through the use of U.S.-supplied material. IAEA safeguards are being applied by the IAEA at Tarapur in accordance with the guidelines set forth in INFCIRC/66/Rev. 2. We conclude that the assurance provided is consistent with the requirements of criterion 1.

2. No nuclear explosive devices

Criterion two provides that:

No such material, facilities, or sensitive nuclear technology proposed to be exported or previously exported and subject to the applicable agreement for cooperation, and no special nuclear material produced through the use of such materials, facilities, or sensitive nuclear technology, will be used for any nuclear explosive device or for research on or development of any nuclear explosive device.

Article VII of the Agreement for Cooperation contains a commitment by the Government of India that no material, equipment or devices transferred to India pursuant to the Agreement, or any special nuclear material produced at Tarapur, shall be used for atomic weapons or for research on or development of atomic weapons or for any other military purpose. Further, India has provided the United States additional written assurance that the special nuclear material exported by the United States to Tarapur, and products therefrom, “. . . will be devoted exclusively to the needs of the Station unless the U.S. specifically agrees that such material may be used for other purposes.”¹³ Although the language in the Sethna letter does not precisely parallel that of criterion two, it provides a significant added assurance to that provided by the Agreement because a nuclear explosive device would be unrelated to the “needs of the Station.”

Moreover, in a number of public statements Prime Minister Desai has forsworn further nuclear explosions by India. For example, in a June 9, 1978, speech before the United Nations Special Session on Disarmament he stated, “we have abjured nuclear explosions even for peaceful purposes.”

¹²T.I.A.S. 7049.

¹³Letter from Homi N. Sethna, Chairman of the Indian Atomic Energy Committee to Dixy Lee Ray, Chairman, U.S. Atomic Energy Commission, dated September 17, 1974.

On the other hand, the Prime Minister has also stated that if nuclear explosives could be used for mining without creating pollution, environmental difficulties, and hazards for people, India would consider such uses of nuclear technology.¹⁴ Indian Prime Minister Vajpayee recently reiterated this view.¹⁵ We take note of this ambiguity concerning India's future intentions with respect to so-called "peaceful nuclear explosives." In this regard, the United States Government has repeatedly stated its view—in the IAEA and other formal contexts—that no distinction can be drawn between nuclear explosives, whether their intended uses are labeled "peaceful" or otherwise. It is also important to note, however, that the no explosives guarantee codified in criterion two of the NNPA runs only to U.S. supplied material and equipment. We are unaware of any information on which to conclude that India does not consider itself bound by its 1974 commitment to the United States that U.S.-supplied material, and material produced through the use of U.S.-supplied material will not be utilized for the development of nuclear explosive devices. Further, with respect to the reactors themselves, we believe that Article VII of the U.S.-India Agreement for Cooperation which prohibits India from using the Tarapur facility for development of atomic weapons or for any other military purpose, coupled with Prime Minister Desai's statements forswearing further nuclear explosions by India gives the United States adequate assurance that the reactors will not be used to develop nuclear explosive devices. Therefore, we conclude that the assurances received are consistent with the requirements of criterion 2.

3. Physical security

Criterion three provides:

Adequate physical security measures will be maintained with respect to such material or facilities proposed to be exported and to any special nuclear material used in or produced through the use thereof. Following the effective date of any requirement promulgated by the Commission pursuant to Section 304(d) of the Nuclear Non-Proliferation Act of 1978, physical security measures shall be deemed adequate if such measures provide a level of protection equivalent to that required by the applicable regulations.

The Commission has promulgated regulations providing that the physical security measures adopted by a recipient nation; must at a minimum, assure protection comparable to the measures set forth in International

¹⁴July 31, 1978, speech by Prime Minister Desai to the Indian Parliament.

¹⁵February 1979, interview in the newsweekly *Blitz*, published in India.

Atomic Energy Agency publication INFCIRC/225/Rev. 1 entitled, "The Physical Protection of Nuclear Material."¹⁶ In a letter to the U.S. Department of Energy dated August 30, 1978, the Government of India assured the United States that physical security measures in place at Tarapur are at least comparable to those set forth in INFCIRC/225/Rev. 1 and that this level of protection will be maintained in the future. A United States physical security review team visited the Tarapur Atomic Power Station in November 1975, and its April 30, 1976 report concluded that the security measures adopted by India were consistent with the measures recommended by the IAEA in INFCIRC/225/Rev. 1. We conclude that India's assurances satisfy the requirements of criterion 3.

4. Retransfers

Criterion four provides:

No such materials, facilities, or sensitive nuclear technology proposed to be exported, and no special nuclear material produced through the use of such material, will be retransferred to the jurisdiction of any other nation or group of nations unless the prior approval of the United States is obtained for such retransfer. In addition to other requirements of law, the United States may approve such retransfer only if the nation or group of nations designated to receive such retransfer agrees that it shall be subject to the conditions required by this section.

Article VII. A (2) of the United States-Indian Agreement for Cooperation provides; that no material, equipment, or device transferred to the Government of India pursuant to the Agreement will be transferred beyond the jurisdiction of the Government of India without the prior approval of the United States. Article II. F. of the Agreement provides that any special nuclear material produced in the Tarapur reactors which is not to be retained in India for use in its program for peaceful uses of atomic energy may be transferred beyond the jurisdiction of the Government of India only after securing United States approval. These assurances are consistent with the requirements of criterion 4.

5. Reprocessing

Criterion five provides:

No such material proposed to be exported and no special nuclear material produced through the use of such material will be reprocessed,

¹⁶10 CFR 110.43.

and no irradiated fuel elements containing such material removed from a reactor shall be altered in form or content, unless the prior approval of the United States is obtained for such reprocessing or alteration.

Article II. (E.) of the Agreement for Cooperation provides that if any special nuclear material utilized in the Tarapur reactors requires reprocessing, and recourse is not taken by the Government of India to the provisions of Article VI. (C.) of the Agreement (substitution of materials), such reprocessing may be performed in Indian facilities upon a joint determination by the United States and India that the provisions of Article VI (Safeguards) may be effectively applied, or in such other facilities as may be mutually agreed on. The Agreement further states that except as may otherwise be agreed to, the form and content of any irradiated fuel elements removed from the reactors shall not be altered before delivery to any such reprocessing facility. This language provides that the United States must give its approval before material may be reprocessed. We regard these assurances as satisfactory.

6. Sensitive technology

Criterion six provides:

No such sensitive nuclear technology shall be exported unless the foregoing conditions shall be applied to any nuclear material or equipment which is produced or constructed under the jurisdiction of the recipient nation or group of nations by or through the use of any such exported sensitive nuclear technology.

This criterion is not relevant here because issuance of XSNM-1222 would not authorize the export of any sensitive nuclear technology.

On the basis of the foregoing discussion, we have concluded that the assurances received from the Government of India are adequate to meet the criteria, assuming continued compliance by that Government with those assurances. Further, we have every reason to believe that the assurances will be complied with so long as the Government of India considers itself bound by the United States-India Agreement for Cooperation. However, in this special fuel supply relationship, the Commission feels it also should consider how India will continue to view the provisions of the agreement. An examination of potential developments in this area must therefore precede a determination that the criteria are met.

B. Implications Arising From the Future Implementation of Section 128 of the Atomic Energy Act

Section 128 of the Atomic Energy Act provides that the United States may not export nuclear materials to a non-nuclear weapons state¹⁷ unless IAEA safeguards are applied, at the time of the export, to all nuclear activities within the jurisdiction of the recipient nation. This requirement is referred to as a "comprehensive" or "full-scope" safeguards requirement. It is to be applied to any application filed 18 months after enactment of the NNPA (September 10, 1979) and to applications for which the first export is to occur 24-months after enactment (March 10, 1980).¹⁸ Although Section 128 is not directly applicable to this proposed export, as will be discussed further in Part III of this order, the provision raises a central issue concerning continued shipments of nuclear material to India.

The United States-India Agreement for Cooperation, under which the proposed export would take place, is unique among U.S. bilateral agreements. It provides for the exclusive use of U.S. fuel in Tarapur reactors and, in a reciprocal provision, a U.S. guarantee to supply the necessary fuel. India emphasized in the Agreement that the basis for its acceptance of safeguards covering the Tarapur facility, and its assurances that the reactors will be used exclusively for peaceful purposes, is this unique fuel guarantee provision. In a letter dated July 10, 1974, the Government of India not only reasserted its position regarding the basis for its obligations concerning the facility but appeared to tie its acceptance of safeguards on the fuel itself to the continuation of Tarapur's fuel supply.¹⁹ In a similar view, Prime Minister Desai, in a March 23, 1978 reply to questions in the Indian Parliament, asserted that if the United States denied a Tarapur fuel shipment, "once I hear that; then all ways are open to us, even the processing of the thing [fuel] will be open to us. Then we are not bound."

It must be recognized therefore that if India were not to accept full-scope safeguards by March 1980, and the United States were to terminate

¹⁷A non-nuclear weapons state is defined in Article IX(4) of the Treaty on the NonProliferation of Nuclear Weapons to be a state which did not explode a nuclear explosive device prior to January 1, 1967. By this definition, India is considered a non-nuclear weapons state, even though it detonated a nuclear explosive device in 1974.

¹⁸The Commission would be required to waive application of this criterion if it were notified by the President that application of the provision "would be seriously prejudicial to the achievement of United States non-proliferation objectives or otherwise jeopardize the common defense and security." Section 128b.(2) of the Atomic Energy Act, 42 U.S.C. 2157b.(2). This Presidential determination would be subject to Congressional review pursuant to Sections 128(b)(2) and 130 of the Atomic Energy Act.

¹⁹Letter from Homi N. Sethna, Chairman of the Indian Atomic Energy Committee to Dixy Lee Ray, Chairman, U.S. Atomic Energy Commission, dated July 10, 1974.

fuel shipments, the Government of India could argue that this failure to supply nuclear material would constitute a material breach of the Agreement for Cooperation. India might further argue that it no longer considered itself bound by the safeguards guarantees regarding the Tarapur facilities as well as other provisions which are contained in that Agreement. The interaction of Section 128 and the unique provisions and interpretations of the United States-India Agreement thus raises a question whether the conditions of the Section 127 criteria will continue to be satisfied after March, 1980.

There are a number of factors which, when taken together, suggest an affirmative answer to this question. First, it is possible that India could agree to accept full-scope safeguards prior to March 1980, or that the President could decide to waive the full-scope safeguards requirement with respect to India, particularly if there is progress in the U.S.-Indian negotiations on the issue.²⁰ Moreover, even if India were not to accept full-scope safeguards and the United States were to decide to terminate fuel supply, a strong legal argument could be made that termination of fuel supply does not relieve India of its obligations under the Agreement for Cooperation.²¹

If U.S. supply were in fact suspended, past history suggests that India would continue to accept safeguards on Tarapur fuel. It is significant that after Canada suspended nuclear exports to India following India's detonation of a nuclear explosive device in 1974, India retained IAEA safeguards over Canadian-supplied material. It should be further noted that the United States-India Agreement for Cooperation explicitly provides for the possible return of all U.S.-supplied special nuclear material to the United States. India has repeatedly stated its willingness to return spent fuel from the Tarapur reactors to the United States, and it is possible that the difficult technical and economic problems with such a course of action could be satisfactorily resolved. Finally, it should be emphasized that the material covered by XSNM-1222 represents only the latest in a long series of nuclear

²⁰We note, however, that Joseph S. Nye, Deputy to the Under Secretary for Security Assistance, Science and Technology, U.S. Department of State, testified that "it is highly unlikely there would be a Presidential waiver." Hearing on the Proposed Sale of Enriched Uranium to Fuel India's Tarapur Reactors before the Subcommittee on Arms Control, Oceans, and International Environment of the Senate Committee on Foreign Relations, 95th Cong., 2d Sess., at 352 (May 24, 1978).

²¹The fuel supply contract implementing the Agreement for Cooperation contains a provision that India shall comply with the laws of the United States with respect to the supply of material. If India fails to comply with Section 128 of the Atomic Energy Act, India would not be in compliance with applicable law, and the United States would be relieved of its obligation to supply fuel until India applied full-scope safeguards. Thus a suspension of fuel shipments until full-scope safeguards are implemented would be consistent with the contract and the agreement for cooperation and would not affect India's obligations under the agreement.

fuel shipments to India. To our knowledge, no U.S. material has ever been diverted from Tarapur for unauthorized uses by the Government of India.

Yet, despite these factors, some residual questions associated with this export remain. Accordingly, a central question must be addressed as to how the Congress, in enacting the NNPA, intended that questions regarding the continued application of Section 127 criteria beyond March 1980 should be dealt with in the interim negotiating period. The statute itself is ambiguous on the matter. The legislative history associated with its enactment, however, answers the question clearly.

C. Congressional Intent Regarding the 18-24 Month "Grace Period"

The legislative history plainly indicates that, subject to certain qualifications noted below, Congress intended exports to current U.S. trading partners to continue during the period between enactment and the effective date of the full-scope safeguards requirement. Congress reached this decision with knowledge of the terms of the Indian Agreement for Cooperation and an awareness that persuading India to accept full-scope safeguards would be a difficult task.²²

The intent to continue exports is evident throughout the entire pre-enactment legislative record. The Senate Committee report states:

As currently drafted, these "Phase I" export criteria will not result in an immediate moratorium on U.S. nuclear exports. Although the actual language in our existing agreements for cooperation varies, and seldom corresponds precisely to the language of these criteria, it is our understanding that each of these basic requirements and rights are contained in those agreements [except as] noted below. [EURATOM and the IAEA with respect to criterion four and five]^[23]

The House report echoes the same theme. In its sole reference to India, moreover, "grace period" and "flexibility" language is used. The Report reads:

. . . Section 127a. spells out six criteria which, upon enactment of this act, nations receiving U.S. exports must accept as a precondition to obtaining further exports. In general, these criteria correspond to under-

²²See, for example, Hearings on S.897 before the Subcommittee on Energy, Nuclear Proliferation, and Federal Services of the Senate Committee on Government Affairs, 95th Cong., 1st Sess., at 273-274 (May 6, 1977); Hearings and Markup on H.R. 8638 before the Subcommittees on International Security and Scientific Affairs and on International Economic Policy and Trade, House Committee on International Relations, 95th Cong., 1st Sess., at 234 (July 27, 1977).

²³S. Rep. No. 95-467 at 16 (October 3, 1977).

takings export recipients have previously given the United States in their existing agreements for cooperation with this country. Thus, in most cases the committee anticipates that application of the criteria will provide a basis for continued export to countries currently engaged in nuclear commerce with the United States. [page 22]

* * *

Section 504(e) (2) adds an additional licensing criterion which becomes effective 18 months after the enactment of this bill. This criterion requires that a recipient State permit IAEA safeguards to be applied with respect to all peaceful nuclear activities carried out within that State. This requirement is an essential element of the bill, and in the committee's view, indispensable to any comprehensive nuclear antiproliferation policy.

The committee has, in the interest of flexibility, permitted an 18 month period of grace before requiring the mandatory application of this criterion. In addition, the bill provides for further extension by Executive Order, subject to congressional disapproval by concurrent resolution.

India and South Africa would be most significantly affected by this requirement. The committee feels strongly that the currently unsafeguarded facilities in those countries must be brought within the framework of the IAEA safeguards system if American nuclear cooperation is to be continued. The committee is encouraged by the cooperative and the constructive attitude manifested by the new government of India and is hopeful that provision for comprehensive IAEA controls will soon be achieved through mutually satisfactory negotiation. [page 25] ^[24]

The Senate floor debates reiterate these views. In introducing the bill on the Senate floor, Senator Glenn noted:

The criteria which go into effect immediately upon passage of this bill represent nothing more than a common-sense codification of existing policy regarding nuclear exports to nonweapons States.^[25]

A section-by-section analysis of the proposed Act, which was inserted into the *Congressional Record*, stated:

In addition to the phase I criteria, the bill prohibits exports to nations

²⁴H. Rep. No. 95-587, at 22, 25 (August 5, 1977).

²⁵124 Cong. Rec. S.1065 (February 2, 1978).

which refuse to place all of their nuclear facilities under safeguards . . . as of 18 months after the date of enactment. The 18 month delay is designed to allow time for negotiations, and the President may delay this requirement for any particular country in extraordinary circumstances, subject to Congressional veto. [26]

Furthermore, during Congressional hearings on the legislation which eventually was enacted as the NNPA, Paul Warnke, Director of ACDA, stressed that the Administration was concerned with such immediate, unilateral abrogation of long-standing U.S. nuclear trade commitments:

The fact cannot be ignored that the other nations with which we deal in the nuclear field have taken substantial action in reliance upon the binding legal commitments we have made. For example, before these nations could afford to make the investment of hundreds of millions of dollars in a nuclear power reactor, they had to insure that the fuel would be available to operate that reactor. Accordingly, they entered into firm long-term fuel supply agreements with the United States Government, and we agreed to the terms of such supply. If, 10 or 15 years later, we were unilaterally to tell those recipient nations that they cannot receive the fuel needed to continue operating their reactors unless basic terms of their agreements are changed to meet our new perceptions, then various consequences may well arise . . . [27]

Senator Glenn responded to Mr. Warnke stating:

You referred to the difficulties in renegotiating old contracts and the problems that would entail. You are aware, I am sure, that we are setting up this bill with a phase I and a phase II for just exactly that reason. We felt it was not proper just to renegotiate old contracts, and that the phase I time period of the bill was given so that we could have a time period to renegotiate properly such things before moving on to phase II . . . [28]

The inference seems clear that, during the renegotiation period, exports to current trading partners were expected to continue.

Even one of the petitioners in this proceeding—the Natural Resources Defense Council—did not believe that enactment of the Phase I criteria would require termination of exports to India during the “grace period”

²⁶123 Cong. Rec. S.13139 (July 29, 1977).

²⁷Hearings before the Subcommittee on Energy, Nuclear Proliferation, and Federal Services of the Senate Committee on Governmental Affairs, 95th Congress, 1st Session, at 106 (April 25, 1977).

²⁸*Id.* at 108.

between enactment and the imposition of full-scope safeguards. In response to questions addressed by a subcommittee of the House Committee on International Relations, NRDC responded:

The claim that the export criteria in H.R. 4409 would cause a moratorium on U.S. nuclear exports is overstated. The adoption of the first-stage criteria would appear not to interfere significantly with existing nuclear trade arrangements The prohibition on trade with nations not accepting full fuel cycle safeguards would seem to effect [sic] only 11 of the 30 U.S. Agreements for Cooperation with other nations. These 11 nations, who are not members of the NPT, would have 18 months in which to comply with the second stage criteria. . . .^[29]

The most explicit indication that the supporters of the legislation did not contemplate that exports to India would be terminated during the period before the full-scope safeguards requirement came into effect is the following colloquy between Congressman Studds and Gerald Warburg, an assistant to Congressman Bingham, during the markup of H.R. 8638 by the House International Relations Committee:

MR. WARBURG . . . Eighteen months after the enactment of this legislation, we would add an additional criterion: no U.S. nuclear exports will go to any non-nuclear-weapon state which refuses to apply IAEA safeguards for all its nuclear facilities, regardless of their origin. The principal effect of this provision—and the reason really for its deferral for 18 months—would be to terminate the U.S. nuclear exports to South Africa and India. These two nonweapons states are running unsafeguarded sensitive nuclear fuel service [sic] facilities—a reprocessing plant in the case of India and an enrichment plant in the case of South Africa. This section states that, as a matter of U.S. policy, we cannot, in good conscience, continue to send nuclear exports to nations which run unsafeguarded fuel cycle facilities which have the capacity to produce great numbers of nuclear weapons.

MR. STUDDS. What is the rationale for the 18-month grace period there?

MR. WARBURG. The rationale is to provide maximum flexibility in the continuing negotiations with those two nations, to seek to turn them around—particularly in the case of India—turn India around

²⁹Response of Jacob Scherr to questions posed by the Subcommittees on International Security and Scientific Affairs, and on International Economic Policy and Trade of the House Committee on International Relations, 95th Cong., 1st Sess., at 356-357 (1977).

where it had gone potentially toward the nuclear weapons option. In return for opening their nuclear facilities to international atomic energy safeguards, we could continue nuclear trade with these nations. So we are hoping for some progress. There have been some very encouraging signs from the new Indian Government and we are simply seeking to allow the ongoing diplomatic efforts of the administration some additional time in the hope of greater success.^{130]}

An analysis of the pre-enactment legislative history just outlined reveals that two central principles were agreed upon during Congressional consideration of the NNPA, both of which suggest an intent to continue exports to current trading partners during the 18-24 month grace period.

The first is that the immediately applicable criteria should parallel, and demand no more than, existing U.S. Agreements for Cooperation. The rationale for this principle, repeatedly stated, was that it was inappropriate, in view of understandings built up over the years, to insist immediately on assurances not already provided by current U.S. trading partners. Such unilateral action by the United States, it was cautioned, would produce a "moratorium" on U.S. exports which all agreed would be ill-advised. Rather, uninterrupted nuclear commerce with U.S. trading partners—assuming compliance by such recipients with their agreements—was the consistently declared objective. It was to accommodate this objective that the legislation was modified to provide exemptions from criteria 4 and 5 for EURATOM and the IAEA. References to this theme can be found in numerous statements by Administration witnesses, in the Senate Committee Report and in Senator Glenn's floor statement. It is also found in the House Committee Report but is qualified there by the words "in general".

The second principle which emerges is that a "meaningful period for negotiation" was desirable to allow U.S. negotiators a chance to obtain commitments to full-scope safeguards. Clearly, no negotiation period could be "meaningful" if exports were to be denied or subject to repeated delays in the middle of it. It follows that a continuation of exports during such period was intended. References to this second theme can be found in the Glenn floor statement, the House Committee Report, and the Jacob Sherr response to the House International Relations Committee.

The case of India was cited specifically in the development of both of these themes. The State Department in a response to the House Committee stated that "The United States/Indian Agreement covering Tarapur supply

³⁰Hearings and Markup of H.R. 8638 before the House Committee on International Relations, 95th Cong., 1st Sess. at 264.

fully meets the immediate export criteria . . .”³¹ And the Warburg-Studds colloquy portrayed the 18-month grace period essentially as a means “to provide maximum flexibility in the continuing negotiations with . . .” India and South Africa, “to seek to turn them around—particularly in the case of India . . .”

Despite these numerous and consistent statements,³² two important caveats must be placed on our conclusion that Congress intended continued U.S. exports to India and other existing trading partners during the grace period. First, Congress contemplated that proposed exports were to be subject to an NRC review no less rigorous than that existing before enactment. By insisting that immediately applicable criteria were to conform to our existing agreements, Congress was not expressly vouching for the present or continued adherence of each of our current trading partners to those agreements. One of the purposes of the NRC license proceedings called for in the legislation was to ensure that adherence to the agreements, and the criteria designed to embody them, was continuing. Thus it was assumed that exports would not be licensed during the grace period if they failed to survive a “traditional” NRC review based on essentially the same tests and requirements which existed prior to enactment.

Second, Congress could not have intended, in a blanket fashion, to give sanction to exports without regard to circumstances which might emerge after enactment. Its decision to continue exports was predicated on an understanding of circumstances existing during its consideration of the NNPA. It was understood that such circumstances, and the proliferation consequences associated with them, could change at any time.

Neither of these qualifications seems applicable to the current export. It is clear that the application can survive the traditional tests intended to be applied during the grace period. As mentioned above, the assurances currently provided by the Government of India are consistent with the criteria, and there is no reason—other than the previously discussed question of the possible future effect of implementing full-scope safeguards—to believe

³¹July 20, 1978, response by the Department of State to Questions Submitted by subcommittees of the House International Relations Committee. This document can be found in Hearings and Markup on H.R. 8638 before the House Committee on International Relations, 95th Cong., 1st Sess., at 350 (1977).

³²Some would read the legislative history differently, relying primarily upon statements made during the course of the debate on whether the Presidential decision to authorize the export of XSNM-1060 should be set aside. These statements were all made after enactment of the NNPA. *Ex post facto* legislative history has been viewed with considerable suspicion by the courts, and we believe little weight should be accorded such utterances. *Regional Rail Reorganization Act Cases*, 419 U.S. 102, 132 (1974). In any event, even if the post-enactment legislative history were to be given great weight, we do not believe it suggests a different decision in this matter.

that India will not comply with those assurances in the future. It follows that all traditional requirements are satisfied.

Further, circumstances regarding the U.S.-India fuel supply relationship have not fundamentally changed since enactment of the NNPA. Although Prime Minister Desai has made statements that if the United States were to terminate fuel supply, India would no longer be bound by the United States-India Agreement for Cooperation, there has also been some progress in negotiations on full-scope safeguards. During any negotiation period, prospects for success or failure can be expected to fluctuate rapidly from day to day. Yet, putting aside such periodic fluctuations, it can be said that the likelihood of success—and the resulting degree of uncertainty associated with continued exports to India—appears substantially the same as at the time of enactment.

Accordingly, we conclude that Congressional intent to continue exports during the grace period is applicable to the proposed export before us. Our decision today that the criteria are met is consistent with that Congressional intent.

III. Direct Application of Section 128

Petitioners object to this export on the grounds that approval would provide India with sufficient fuel to operate the Tarapur reactors for more than 2½ years beyond the effective date of Section 128, even if India does not accept full-scope safeguards. They argue that authorization of this export would undermine and frustrate the congressional intent expressed in Section 128(b) of the Atomic Energy Act by unreasonably extending the grace period for negotiations.

As the Executive Branch has noted, the fuel requirements of the Tarapur reactors are uncertain, and depend on, among other things, the mode in which the reactors are operated.³³ The conclusion that this fuel is unlikely to be irradiated in the Tarapur reactors until after the March, 1980 full-scope safeguards cut-off date is not disputed by the Executive Branch. However, it is argued that shipment of this material is consistent with the United States-India Agreement for Cooperation which provides the fuel will be supplied on a basis that will permit the efficient and continuous operation of the Tarapur Atomic Power Station. It is understood that this supply obligation includes a commitment to provide fuel on a sufficiently timely basis for fabrication of the fuel elements at the Hyderabad Nuclear Fuel Complex.

³³See the Appendix to *Written Comments of the Department of State* submitted by the NRC on January 8, 1979.

We believe that the intent of Congress in providing for a grace period for acceptance of full-scope safeguards was to provide a continued supply of nuclear material to applicants filing routine applications prior to September 10, 1979. As the Senate Report on the NNPA makes clear, Congress was concerned about "highly unusual proposals which are intended to circumvent this statutory provision."³⁴ The record does not indicate that the request for material embodied in license application XSNM-1222 constitutes a "highly unusual" case. The application was filed in November 1977, and is consistent in its timing and the quantity of material requested with previous Tarapur applications. It is not at variance with the refueling schedule outlined in the U.S.-sponsored 1976 Last-Kieffer Report, to which India has consistently adhered. Moreover, we believe that prudent utility planning supports shipment now, to avoid any possibility that the fuel would fail to arrive in time to permit a reasonable period for fabrication preparatory to use at the Tarapur facility. Thus, we conclude that shipment of this material would not frustrate the underlying intent of Section 128 of the Atomic Energy Act.

IV. Other Statutory Requirements

A. The "Common Defense and Security" Requirement

Apart from measuring the proposed export against the specific criteria listed in Sections 127 and 128 of the Atomic Energy Act, the Commission must also determine that the export would not be inimical to the common defense and security of the United States.³⁵ We believe that two issues raised by the petitioners are particularly relevant to this determination; namely (1) the adequacy of the safeguards applied by the International Atomic Energy Agency at the Tarapur facility, and (2) the status of U.S./India negotiations regarding the return of spent fuel from Tarapur to the United States for storage.

Adequacy of Safeguards

In response to the Commission order of December 8, the petitioners assert that, given the serious uncertainties and dearth of information concerning the effectiveness of IAEA safeguards in India, the Commission cannot make an independent judgment concerning their adequacy. In its response the Department of State noted that available information indicates

³⁴S. Rep. 95-467, 95th Cong., 1st Sess., p. 18.

³⁵Section 57(c)(2) of the Atomic Energy Act, 42 U.S.C. 2077(c)(2).

that the IAEA considers that it has been able to conduct satisfactorily all of the safeguarding activities at the Tarapur facility which are called for by the Agency's procedures applicable to light water reactors, and that the facility operator and other authorities in India have cooperated fully with the Agency.

On the basis of a review of all available information, both classified and unclassified, we have concluded that, while there may be some weaknesses in safeguards implementation in India, they are neither unique nor so serious that this export should be considered inimical to the common defense and security of the United States.

Spent Fuel Return

The petitioners also expressed concern about the lack of progress during the last 2-½ years on arrangements to remove Tarapur spent fuel from India. They urged the Commission to insist that the Executive Branch renew negotiations on this subject and accelerate the development of a U.S. capability for emergency spent fuel return.

The Executive Branch acknowledges that no active negotiations on this subject are underway at the present time, noting that extensive study of the issue over the last year has disclosed significant logistic and economic problems related to such return. As an alternative to such negotiations, the Executive Branch has concentrated on assisting India in expanding its spent fuel storage capacity in the Tarapur Atomic Power Station storage basins.

The impetus for negotiations regarding the return of Indian spent fuel to the U.S. has its origins in the Commission hearing on XSNM-845 in July 1976. Since that time, India has repeatedly stated its willingness to return spent fuel from the Tarapur reactors to the United States, and the President has announced a willingness to accept a limited amount of foreign spent fuel for storage in the U.S. when doing so would advance our non-proliferation objectives. This offer, announced in October of 1977, is being developed in conjunction with overall U.S. spent fuel storage planning, both domestic and foreign. Moreover, the subject of an international spent fuel regime is under active consideration within the framework of the International Nuclear Fuel Cycle Evaluation. We believe that the question of the return of Tarapur spent fuel should properly be addressed in the context of these ongoing efforts and not in the isolated context of a single licensing action.

In sum, the United States government is still analyzing various spent fuel storage regimes. We do not believe that the failure to return Tarapur spent fuel during the pendency of these national and international studies is inimical to the common defense and security of the United States.

Other Factors

There is another dimension to the Commission's common defense and security finding that should be mentioned here; namely, that one must look not only at problems which might be created by a particular nuclear export, but also at problems which might be avoided or reduced by approving the application. Prior to enactment of the NNPA, when the common defense and security requirement constituted almost the sole basis for the Commission's export licensing decisions, such positive factors were taken into account in evaluating particular export license applications.³⁶ In enacting the NNPA, Congress indicated no desire to change Commission practice in this area.

At least one such factor is applicable to the present case. A potential contribution to the common defense and security and ultimate achievement of our non-proliferation objectives which might result from approval of this export is the continuation of full-scope safeguards negotiations now in progress between the United States and India. The Department of State has frequently stressed the importance of maintaining a cooperative atmosphere within which useful negotiations can take place. Most recently, this was reiterated in the written comments of the Department of State (submitted January 5, 1979):

As stressed in Executive Branch testimony during the May 1978 Congressional hearings on nuclear supply to India, the Executive Branch believes that our dialogue with India can move forward only within a cooperative atmosphere, one which does not entail a moratorium on U.S. cooperation and disruption of normal operations, or accusations of bad faith during negotiations to achieve strengthened controls. Thus, the Executive Branch believes that continued and normal supply of Tarapur low enriched fuel to India, during the statutory period provided for negotiations, is not only consistent with the law, but also essential to continuation of the U.S.-India dialogue on nuclear cooperation and safeguards.

It is true that referral of the proposed application to the President is not necessarily tantamount to rejection, since the President can authorize the export taking into account other factors, subject to review by the Congress. Nevertheless the act of referral by the Commission clearly introduces a further measure of uncertainty into an already slow process with the possible

³⁶See discussion in *Westinghouse Electric Corporation* (ASCO 11), CLI-76-9, NRCI-76/6 739 at 753-754 (1976), concerning the valuable influence in international safeguards matters which the United States retains by virtue of its position as a reliable supplier of nuclear commodities.

effect of impeding the dialogue on safeguards, thus raising the spectre that negotiations will ultimately fail. Such a development could not possibly further the nonproliferation objectives of the NNPA or the common defense and security of the United States. Indeed, it could contribute to precisely the result the United States seeks to avoid through continued negotiations.

We are also unaware of any other factor that would cause us to conclude that issuance of XSNM-1222 is inimical to the common defense and security of the United States.

B. Public Health and Safety Requirement

The Commission is required to determine that the proposed export will not be inimical to the public health and safety.³⁷ We see no circumstances in which the operation of the Tarapur reactors could reasonably be expected to affect adversely the health and safety of the population of the United States.

C. The Agreement of Cooperation Requirement

The United States and India have entered into an agreement for cooperation pursuant to Section 123 of the Atomic Energy Act.³⁸ In a letter to the U.S. Department of Energy dated December 8, 1977, the Government of India assured the United States that the material covered by XSNM-1222 and any material produced through the use of that material would be subject to all the terms and conditions set forth in that Agreement. We therefore conclude that the Agreement for Cooperation requirement set forth in Section 57(c)(1) of the Atomic Energy Act is met by this application.

V. Conclusion

For the reasons set forth above, we believe that License Application No. XSNM-1222 meets all the requirements relevant for issuance under the Atomic Energy Act of 1954.

³⁷Section 57(c)(2) of the Atomic Energy Act, 42 U.S.C. 2077 (c)(2).

³⁸Agreement for Cooperation for Civil Uses of Atomic Energy between the United States and India, signed at Washington, D.C. on August 8, 1963, T.I.A.S. 5446.

SEPARATE VIEWS OF COMMISSIONER AHEARNE

Summary

The appropriate decision on this application is neither clearly for, nor against shipment of the fuel. The NNPA set up six criteria (Section 127 of the Atomic Energy Act) which went into effect with the Nuclear Non-Proliferation Act of 1978 covering IAEA safeguards, nuclear explosives use, physical security, retransfer, reprocessing, and sensitive nuclear technology. The NNPA also added a criterion (Section 128) that will be in place for applications received after September 10, 1979, namely that IAEA safeguards be applied to all peaceful nuclear activities (full-scope safeguards).

The decision on whether the Section 127 criteria are met cannot be restricted to determining they are met today. I believe Congress intended we look at the future. Thus, I agree we must consider both the immediately effective criteria and the effect of the delayed safeguards criterion.

The main issue regarding this license relates to India's position that the United States-India Agreement for Cooperation depends on the US supplying fuel, which in turn is affected by the full-scope safeguards criterion. I conclude the Section 127 criteria are met today. Therefore, the issue is whether they are met if one looks prospectively at the Section 128 cut-off date, i.e., whether the license can be granted despite an identifiable risk that measures and controls required by the NNPA will not be maintained in the future. A decision on this issue involves an assessment of two uncertainties. First, the degree of risk is uncertain. Second, congressional intent concerning the impact of this risk on the Commission's determination is uncertain. In reaching my decision, I first made a judgment about the risks of exporting this material to India. Negotiations with India are continuing. Although the degree of optimism fluctuates from day-to-day, I believe progress has been made. I then measured this risk against general congressional expectations and intent because there is no precise ground rule in the statute regarding how we should weigh the uncertainty. Congress clearly understood that difficult negotiations would be required with India, provided a grace period for those negotiations and in general expected exports could continue to India during this period. The remaining issue is whether there are important factors Congress overlooked. It is clear Congress understood the difficulties of negotiation; it is not clear Congress understood the tie India claims between the US supplying fuel and the Agreement for Cooperation. I conclude that because Congress stressed achieving full-scope safeguards in India, believed this could be achieved, and put in a period for the difficult negotiations, it is appropriate to accept

greater uncertainty for the likely acceptance of full-scope safeguards (and conversely, application of the Section 128 cut-off). I also conclude the current Government of India has demonstrated the type of actions the NNPA asks us to encourage and to support.

I conclude it is consistent with congressional intent to find this license meets the NNPA licensing criteria despite the uncertainties about future application of those requirements. Therefore, although I believe the legislative history is less clear than Chairman Hendrie and Commissioner Kennedy see it, I join them in finding this license application meets the requirements of the Nuclear Non-Proliferation Act and should be granted.

I. Background

The Commission again considers an application to ship fuel to the Tarapur reactors in India.¹ We have before us a request to export about 8 metric tons of fuel (the U.S. has already exported about 95 tons to these reactors). Almost one year ago, a similar application was the subject of extensive discussion in the Commission, the Executive Branch, and the House and Senate. At that time, the Commission split 2 to 2 on whether, given the terms of the Nuclear Non-Proliferation Act of 1978,² a shipment of fuel to India should be licensed by the NRC.³ Following the procedures in that law, the application was referred to the President, the President authorized shipment of the fuel, the decision was forwarded to Congress, and the House of Representatives, in effect, approved the President's action by voting down a resolution of disapproval.⁴

As demonstrated by the extensive consideration last year, this licensing action is not a straightforward, simple one. The appropriate decision is neither clearly for, nor against, shipment of fuel.

¹License Application No. XSNM-1222, filed by Edlow International Company as agent for the Government of India on November 1, 1977.

²Pub. L. No. 95-242, 92 Stat. 120 (1978) (hereinafter NNPA).

³*Edlow International Company* (Agent for the Government of India on Application to Export Special Nuclear Material), CLI-78-8, 7 NRC 436 (1978).

⁴*Id.*; Exec. Order No. 12055, 43 *Fed. Reg.* 18157 (1978); "Statement of President Carter Accompanying Executive Order on Export of Special Nuclear Material to India" to Congress (April 27, 1978); H Con. Res. 599, 95th Cong., 2d Sess., 124 Cong. Rec. H6517 (daily ed. July 12, 1978).

Although both the House and Senate held hearings, action by the Senate became unnecessary. Congress may block an export authorized by the President by adopting a concurrent resolution disapproving the export. Atomic Energy Act of 1954, as amended, § 126b(2) (hereinafter AEA); NNPA § 304(a). House rejection of a disapproval motion precluded a concurrent resolution of disapproval.

After the Commission split 2-2 on the last license, Senator Glenn said: [T]he NRC referral of this export application to the President and ultimately to us was entirely consistent with the letter and the spirit of the Nuclear Non-Proliferation Act.

. . . I believe all the NRC Commissioners acted within the discretion conferred upon them by the Nuclear Non-Proliferation Act. . . The Commissioners were faced with a complex and difficult decision, whose outcome was not clearly determined by the terms of the Nuclear Non-Proliferation Act and they were required to exercise their judgment in deciding whether the Act's immediately applicable, or "Phase I," criteria were met.⁵

The most difficult issue, as will be discussed below, turns on the application of what are called Phase I criteria (immediately effective) in light of the Phase II criterion (full-scope safeguards requirement, effective at a later date). In commenting last year on the difficulty facing the NRC in this area, Senator Percy said:

[I]t would be a serious misreading of the Act and the legislative history to suggest that the Phase I criteria are met by definition in all cases where we have existing agreements for cooperation, and that NRC's finding regarding those criteria is essentially an automatic one.⁶

The issue of whether to license the shipment of fuel to India obviously was, and still is, a difficult judgment.

II. NNPA Requirements

The Nuclear Non-Proliferation Act, as is now well known, has laid out specific export licensing procedures and added a set of explicit criteria to be used by the Commission in reaching a judgment on an export license application.⁷

A. Executive Branch Judgment

Before the Commission may act, the Executive Branch must make a judgment that the proposed export is not "inimical to the common defense

⁵Nuclear Fuel Export to India: Hearing Before the Subcomm. on Arms Control, Oceans, and International Environment of the Senate Comm. on Foreign Relations, 95th Cong., 2d Sess. 5-6 (1978) (hereinafter Senate India Hearings).

⁶Senate India Hearings at 25.

⁷NNPA § 304-308.

and security.”⁸ This judgment, which is coordinated by the State Department, addresses the extent to which the specific export criteria are met, compliance with the relevant agreement for cooperation, and other factors such as impacts of the licensing action on U.S. non-proliferation policy.⁹ In this case the Executive Branch found the proposed export met all relevant criteria. It further found denial of the export would seriously undermine efforts to persuade India to accept full-scope safeguards and would prejudice other U.S. non-proliferation goals.¹⁰

B. Section 127 Criteria

Section 305 of the NNPA amends the Atomic Energy Act by adding Section 127, which sets forth six criteria to govern exports. These criteria, sometimes referred to as Phase I criteria, were immediately effective upon Presidential signature of the NNPA.¹¹ They cover: (1) IAEA safeguards, (2) use of exports for nuclear explosives, (3) physical security, (4) retransfer, (5) reprocessing, and (6) sensitive nuclear technology. The Commission’s determination that the criteria are met is to be based upon “a reasonable judgment of the assurances provided and other information available to the Federal Government.”¹² The Commission receives “other information” through a process of interagency cooperation and information exchange which was in place even before the NNPA was passed.

⁸AEA § 126a(a), NNPA § 304(a).

⁹*Id.*

¹⁰Memorandum from Louis V. Nosenzo, Department of State, to James R. Shea, Nuclear Regulatory Commission (September 15, 1978) (enclosing Executive Branch analysis for XSNM-1222).

¹¹In addition to the Phase I criteria, the Commission is required to find that “any other applicable statutory requirements” are met. AEA § 126a(2), NNPA § 304(a). The Senate report for the NNPA indicates this refers primarily to the requirement for most exports that they be consistent with the applicable agreement for cooperation and to the requirement that the NRC find the proposed export will not be inimical to the common defense and security. S. Rep. No. 95-467, 95th Cong., 1st Sess. 13 (1977) (hereinafter Senate Report); *see also* AEA § 54, 57c.

This export is consistent with the applicable agreement for cooperation between the United States and India. See Executive Branch analysis for XSNM-1222, *supra*; letter from R. M. Ananda Krishnan, Embassy of India, to Vance H. Hudgins, U.S. Energy Research and Development Administration (November 8, 1977). After consideration of the Phase I criteria, I find no residual factors which would cause me to deny the export as inimical if these criteria are met. I also find no reason to believe the export would constitute an unreasonable risk to the public health and safety.

¹²AEA § 126a(2), NNPA § 304(a).

C. Section 128 Criterion

Section 306 of the NNPA adds Section 128 to the Atomic Energy Act, introducing the "Phase II" criterion. This section requires the acceptance of "full-scope IAEA safeguards" as a condition of continued export to non-nuclear-weapon states (i.e., IAEA safeguards must be maintained for all peaceful nuclear activities in the recipient country). This requirement is to be applied to any application filed at least 18 months after enactment of the NNPA (September 10, 1979), or to any application for which the first export occurs 24 months after the date of the law (March 10, 1980). Rather than unilaterally imposing this condition immediately, the NNPA provides a grace period to allow negotiations with recipient countries.

Although normally this section would not now be an issue since it is not yet in effect,¹³ it is a central issue with respect to India. In the Agreement for Cooperation between India and the United States,¹⁴ India emphasized that

¹³An argument can be made that the Commission should not grant this license at this point in time because the export would frustrate Congressional intent that there be a moratorium on exports if the requirements of Section 128 are not met or waived by certain deadlines. It can be argued, approval would unreasonably extend the statutory "grace period." Thus, the Commission should not approve the export now unless delay would jeopardize the fuel reloading needs of the Tarapur reactors. If at all possible, it should wait until after the deadline to see whether India will meet the requirements for full-scope safeguards.

I would disagree with this interpretation of the application of Section 128. As the Senate Report explains:

In defining what exports will be covered by the additional criterion [Section 128], the bill refers to any application which is filed after 18 months from enactment and to any application filed prior to that date for an export which would occur at least 24 months after enactment. The reason for this provision is to ensure that a large number of applications covering future exports will not be filed in the 18th month to avoid this requirement. However, the 6-month lagtime is allowed for licenses legitimately filed prior to the 19th month where the actual shipping process is a lengthy one. The NRC should also not permit any other highly unusual proposals which are intended to circumvent this statutory provision.

Senate Report at 18.

This application was submitted November 1, 1977, well before September 10, 1979. The first shipment, which was originally scheduled for April 1978, will take place as soon as the application is approved—also prior to the relevant deadline. A strict reading of Section 128 leads to the conclusion it should not be applied to this export.

Furthermore, although it is true the fuel exported under this license may not be used in the Tarapur reactors until 1980 or 1981, the application clearly was not filed early for the purpose of circumventing the NNPA since it predates the Act, and the shipment schedule is not a "highly unusual" proposal "intended to circumvent this statutory provision" but rather is
(Continued on next page)

it believed its commitments to the United States were in consideration for U.S. supply of fuel. It is conceivable that (1) India will continue to refuse to apply full-scope safeguards; (2) as a result, the U.S. will refuse to ship fuel after the Section 128 deadline; (3) India will contend this breaches the Agreement for Cooperation; and (4) consequently, India will no longer consider itself bound by the terms of the Agreement. Because the Section 127 findings rely heavily on assurances provided in the Agreement for Cooperation, it might be argued that: today's judgment must include a prospective look; it is unclear the Agreement will be in effect after the full-scope safeguards requirement becomes effective; and, therefore, the Section 127 criteria are not met for this export.

D. Application of the Section 127 Criteria

I agree that a decision on whether the criteria are met cannot be restricted to a determination that circumstances today satisfy all the requirements. Consideration must be given to the future course of events. I also believe Congress intended some consideration be given to the future impact of the full-scope safeguards requirement. However, as will be discussed below, I believe the Congressional decision to provide a grace period for negotiations on the requirement is important in this consideration.

I find it useful to examine what the criteria mean in this particular case, judge whether they are met now, and estimate what is likely to occur in the future.

Criterion No. 6¹⁵ applies to the export of sensitive nuclear technology. Since the proposed export license for fuel to Tarapur does not involve sensitive nuclear technology, criterion 6 does not apply in this case.

Criterion 3¹⁶ requires maintenance of "adequate physical measures." Unlike Criterion 1, this specifically requires a determination of adequacy. The NRC has interpreted adequate measures to mean measures which pro-

(Continued from previous page)

readily explainable from an operational standpoint. The export material must be fabricated into fuel before it can be used in the reactors at TAPS. Shipment of the material at this time is needed to provide a reasonable amount of time for fabrication of the fuel before it is to be used at Tarapur. Consequently, this application does not present the kind of unusual circumstances under which the Commission would be justified in extending the language of the NNPA to bring into play the full-scope safeguards criterion even though literally it does not apply.

¹⁴Agreement for Cooperation Between the United States and India Concerning the Civil Uses of Atomic Energy, August 8, 1963, 14 U.S.T. 1484, T.I.A.S. No. 5446.

¹⁵AEA § 127(6), NNPA § 305.

¹⁶AEA § 127 (3), NNPA § 305.

vide protection comparable to that provided by measures found in INF-CIRC 225/Revision 1.¹⁷ The State Department has received assurances from India in a letter dated August 30, 1978, that such measures are in place and will be maintained.¹⁸ In addition, representatives of the U.S. Government, including the NRC, have in the past observed the physical security system of India and judged it to be adequate.¹⁹ On the basis of this information, I conclude that Criterion 3 is met now, and will be met in the future.

The four most difficult criteria, which have been the subject of much of the debate over the last year, are those regarding safeguards, non-nuclear explosive use, reprocessing, and retransfer. With regard to this particular license application:

- Criterion (1)²⁰ requires IAEA safeguards be applied to this fuel, previously exported items, and any special nuclear material (SNM) produced in or through the use of these items.
- Criterion (2)²¹ requires no use of these items for any nuclear explosive device.
- Criterion (4)²² requires no retransfer of this fuel (or SNM produced through its use) without U.S. approval.
- Criterion (5)²³ requires no reprocessing of this fuel (or SNM produced through its use) without U.S. approval.

With regard to Criterion 1, Article VI of the Agreement for Cooperation contains provisions for safeguards. To implement this section, India and the United States entered into a trilateral agreement with the IAEA for application of safeguards to items transferred under the Agreement for Cooperation as well as to special nuclear material used in, or produced through the use of, those items.²⁴ Thus, currently assurances exist that Criterion 1 is and will be met.

¹⁷10 CFR § 110.43; "The Physical Protection of Nuclear Materials," INFCIRC/225/Rev. 1 (June 1977) (information circular distributed by the International Atomic Energy Agency).

¹⁸Letter from Gurdip S. Bedi, Embassy of India, to Vance H. Hudgins, U.S. Department of Energy (August 30, 1978).

¹⁹Executive Branch analysis for XSNM-1222, *supra*.

²⁰AEA § 127(a), NNPA § 305.

²¹AEA § 127(2), NNPA § 305.

²²AEA § 127(4), NNPA § 305.

²³AEA § 127(5), NNPA § 305.

²⁴Agreement Between the International Atomic Energy Agency, India, and the United States Relating to Safeguards Provisions, January 27, 1971, 22 U.S.T. 200. T.I.A.S. No. 7049.

It might be argued that the safeguards as *implemented* are inadequate, precluding a finding that Criterion 1 is met. It is perhaps accurate that the Indian system has some weaknesses, but this is not unique to India—many countries are working to improve their safeguard systems because they currently have weaknesses. I have seen nothing to indicate that India's system is significantly deficient. I conclude the Government of India is seriously safeguarding the material and intend to do so in the future. Therefore, I conclude that *if* the Agreement for Cooperation remains in effect, Criterion 1 is and will be satisfied.

The impact on Indian safeguards of a U.S. decision to deny exports of fuel after Section 128 becomes effective is unclear. India may redefine its commitments following a failure of the U.S. to supply fuel. However, a legal case can be made that termination of fuel supply does not relieve India of its obligations under the Agreement for Cooperation to maintain safeguards.²⁵ Furthermore, India may choose to maintain safeguards even if it contends the agreement is terminated. In similar circumstances following the termination of Canadian nuclear cooperation, India elected to maintain safeguards on the Rajasthan reactors. Finally, for the near term, India will probably need outside assistance to fuel the Tarapur reactors. The Nuclear Supplier Guidelines,²⁶ subscribed to by all potential suppliers, require that IAEA safeguards be maintained by the recipient.

Clearly, Section 128 and the possible termination of U.S. supply of fuel introduce significant uncertainties into an evaluation of future application of safeguards. These uncertainties will be discussed below.

Criterion 2 requires that U.S. exports (and special nuclear material produced from those exports) not be used for any nuclear explosive device, or for research on, or development of, any nuclear explosive device. Article VII A. 2. of the U.S.-Indian Agreement for Cooperation assures that items transferred under the Agreement will not be used for atomic weapons or other military purpose. Further, in a letter dated September 17, 1974, India agreed that special nuclear material made available for or produced in Tarapur would be "devoted exclusively to the needs of that Station" unless

²⁵The fuel contract, which is referenced in Article II A. of the Agreement for Cooperation, contains a requirement that India comply with the laws of the U.S. with respect to the supply of material. Contract of Sale of Enriched Uranium Between the United States Atomic Energy Commission Acting on Behalf of the Government of the United States and the Government of India, Article III D. (1966) (as amended). If Section 128 of the AEA is not met, it can be argued India has not complied with the applicable law, relieving the United States of its obligation to supply fuel. Thus, it can be argued a refusal to supply fuel until full-scope safeguards are implemented would be consistent with the contract and the Agreement for Cooperation and would not affect Indian obligations under the agreement.

²⁶INFCIRC/254 (February 1978).

there is a joint agreement otherwise.²⁷ These commitments are equivalent to that required by the criterion.²⁸

Statements by Indian officials have been brought to the attention of the Commission as bearing on Indian intentions in this area. Recently, the Indian Foreign Minister, in a press interview, was quoted as saying that "India could not foreclose its nuclear options 'for all time to come'."²⁹ He was quoted as denying the Prime Minister had ruled out peaceful nuclear explosions for India. However, the State Department has advised us that nothing in that interview should be construed as constituting a change in the Prime Minister's position as has been stated previously to the Indian Parliament and before the Special Session on Disarmament of the United Nations.³⁰ In addition, in a recent interview the Prime Minister is reported as reconfirming he does not believe the statement "[nuclear tests] necessary for peaceful nuclear uses" has any meaning.³¹ My assessment of all available information leads me to conclude India intends to honor its commitment. It does not intend to use the items in question for nuclear explosives—including peaceful nuclear devices.

Again, I conclude this criterion is and will be met *if* the Agreement for Cooperation continues. However, uncertainty is introduced by potential In-

²⁷Letter from Dr. Horri N. Sethna, Chairman of the Indian Atomic Energy Commission, to Dr. Dixie Lee Ray, Chairman of the U.S. Atomic Energy Commission (September 17, 1974).

²⁸The NNPA requires the Commission find the criteria "or their equivalent" are met. AEA § 126a(2), NNPA § 304(a).

²⁹Interview with Atal Bishari Vajpayee, Foreign Minister of India (January 30, 1978) (for Bombay English Weekly, "Blitz").

³⁰One example of this position is the following statement by Prime Minister Desai before the Indian Parliament in August 1978:

As regards scientific necessity of explosions, I have already stated that the main countries in which nuclear research is taking place are moving away from such explosions except for military purposes. Apart from this I cannot think of any use of such explosions which cannot be obtained by other means except that the alternatives would be more expensive and time-consuming. Should we subject thousands of people in the vicinity to hazards which are associated with nuclear explosions merely to save time and money? As regards the scientific value, of such explosions from my knowledge of the result of Fokharan explosion I find that the "experiment" if it can be called that merely confirmed certain theoretical knowledge and gave some information of the behaviour of radioactivity and neighboring rocks and shells which was considered to be of value. I regard these results inadequate compensation for the jolt to international opinion which it has imported and the consequences it has had on our peaceful pursuit of nuclear research and development. It is true that in this development we have taken a unilateral decision to abjure explosions even for peaceful purposes . . . So far as India is concerned, as a nation we have been traditionally devoted to peace . . . To my mind the only way to secure this objective is by way of outlawing all atomic tests or explosions. This is the objective to which the world is moving and this is the goal which we have set for ourselves. This is the field in which we have to set an example.

³¹Interview with Shri Mararji Desai, Prime Minister of India, in Colombo, India (February 6, 1979).

dian reactions to possible U.S. denial of fuel exports as a result of the Section 128 criterion.

Criterion 4 is a restriction upon the retransfer of this fuel or any special nuclear material produced through the use of this fuel. Article VII A. 2. of the Agreement for Cooperation states that items supplied under the agreement will not be transferred "to unauthorized persons or beyond the jurisdiction of the Government of India" unless U.S. and India both agree to the transfer, and the U.S. finds that the transfer falls within the scope of an Agreement for Cooperation between the U.S. and the recipient nation. Article II F. provides that special nuclear material produced in the Tarapur reactors will not be transferred without U.S. approval. The criterion is and will be met, once again, as long as the Agreement remains in effect. An Indian contention that the Agreement is no longer in effect would undermine this judgment, although there has been no indication that India intends to retransfer the fuel in the event it finds itself legally free to do so.

Finally, Criterion 5 requires that this material and special nuclear material produced through its use will not be reprocessed, and no spent fuel containing such material will be altered unless the prior approval of the United States is obtained.

Article II E. of the Agreement for Cooperation states that reprocessing of special nuclear material from Tarapur in Indian reprocessing facilities may take place

... upon a joint determination of the Parties that the provisions of Article VI of this Agreement [safeguards] may be effectively applied, or in such other facilities as may be mutually agreed. It is understood, except as may be otherwise agreed, that the form and content of any irradiated fuel elements removed from the reactors shall not be altered before delivering to any such reprocessing facility.

Although the language is not as clear as I would prefer, I find this assurance to be equivalent to that required by the criterion since the United States must agree that safeguards are effective. In addition, it is relevant to note this language is similar to that found in agreements with several other countries (Japan, Brazil, Finland, Argentina³²). The Senate report for the

³²Agreement for Cooperation Between the United States and Japan Concerning the Civil Uses of Atomic Energy, February 26, 1968, Article VIII F., 19 U.S.T. 5214, T.I.A.S. No. 6517 (as amended March 28, 1973, 24 U.S.T. 2323, T.I.A.S. No. 7758); Agreement for Cooperation Between the United States and Brazil Concerning the Civil Uses of Atomic Energy, July 17, 1972, Article VIII F., 23 U.S.T. 2477, T.I.A.S. No. 7439; Agreement for Cooperation Between the United States and Finland Concerning the Civil Uses of Atomic Energy, April 8, 1970, Article VIII F., 21 U.S.T. 1368, T.I.A.S. No. 6896; Agreement for Cooperation Between the United States and Argentina concerning the Civil Uses of Atomic Energy, June 25, 1969, Article IX E., 20 U.S.T. 2587, T.I.A.S. 6721.

NNPA specifically states:

Although the actual language in our existing Agreements for Cooperation varies, and seldom corresponds precisely to the language of these criteria [Section 127], it is our understanding that each of these basic requirements and rights are contained in those agreements [except as] noted below [EURATOM and IAEA with respect to criteria four and five].³³

Thus, the legislative history of the NNPA supports the conclusion that this language is acceptable.

The Department of State has informed the NRC that India has been advised the U.S. does not intend to make the determination required by Article II E. at this time.³⁴ Available information indicates reprocessing will not be a problem as long as India believes the U.S. has met its obligations under the Agreement.

Therefore, although some questions may be raised, I conclude that this criterion is and will be met *if* the Agreement stays in effect. As with the other three criteria, the critical issue then is whether one can conclude it is met if one looks prospectively at the Section 128 cut-off date.

E. Prospective Application of Section 127 Criteria

I do not believe the Section 127 criteria are satisfied solely by a finding that required constraints and controls are in place today. As stated above, I agree a decision on the criteria must include consideration of the future course of events. If there is evidence the Section 127 requirements may not be met in the foreseeable future, the Commission should consider this factor. In this consideration it should be recognized that confidence in future application of the requirements almost surely will be less than confidence in present application. There is inherently more uncertainty in the prediction of future events than in the assessment of an existing situation.

The case before us raises particular concerns in this area, primarily concerning the potential impact of the Section 128 full-scope safeguards requirement. Looking prospectively at the Section 128 cut-off date, there are a variety of possible outcomes. India may or may not accept full-scope safeguards. Thus, we may or may not be faced with applying the Section 128 sanction. India may or may not interpret a cut-off of fuel as releasing it from some or all of its obligations under the Agreement for Cooperation. India may or may not provide additional assurances which would satisfy the

³³Senate Report at 16.

³⁴Executive Branch analysis for XSNM-1222, *supra*.

criteria, even if the Agreement of Cooperation is terminated. India may or may not choose to do acts prohibited by Section 127 in the event it contends it is legally free to do so. Furthermore, Section 128 contains a provision allowing the President to waive this criterion if failure to approve an export "would be seriously prejudicial to the achievement of United States non-proliferation objectives or otherwise jeopardize the common defense and security."³⁵

Thus, looking forward to the Section 128 cut-off date, I cannot postulate a sequence of events which leads inevitably either to continued controls or to noncompliance with the Section 127 criteria. There is significant uncertainty since there are many steps which have not yet been taken. An assessment of this uncertainty is necessary to reach a decision on the criteria.

I conclude there is substance to the concerns about future application of the criteria. It is well known that in March 1978, Prime Minister Desai is reported to have stated in Parliament:

[W]e cannot use any other thing except enriched uranium in this and we are bound by the Agreement that we cannot obtain it from elsewhere as long as they do not say no. If they say: no, once I hear that, then all ways are open to us, even the processing of the used thing will be open to us. Then we are not bound.³⁶

Thus, there is reason to be concerned about future compliance with the criteria. If intervening steps lead to a U.S. decision to cut off the fuel supply, there is a reasonable possibility the criteria will not be met, although, as mentioned above, that result is far from certain.

However, it is my judgment that there is a basis for optimism about the outcome and that there has been progress. In spite of the many historic and international difficulties associated with such a step, India proposed a com-

³⁵AEA § 128(b) NNPA § 306. In such a case, the Presidential action must lay before the Congress for 60 days and be subject to a concurrent resolution of disapproval. I understand that the current position of the State Department, as the Deputy to the Under Secretary testified, is "it is highly unlikely we would continue to supply [material after the grace period] and it is highly unlikely there would be a Presidential waiver." Senate India Hearings at 352 (testimony of Joseph S. Nye, Deputy to the Under Secretary for Security Assistance, Science and Technology, Department of State). However, although Dr. Nye was "hard pressed to specify or imagine the conditions that would make the waiver likely," (*Id.*) the potential exists and it is really too early in the negotiations to expect the Executive Branch to make a final commitment on this possibility. I expect that if progress has been substantial and successful negotiations appear likely, a waiver would be authorized by the President. If negotiations have been stalemated, I would not expect a waiver to be authorized.

³⁶Statement of Shri Mararji Desai, Prime Minister of India, to the Indian parliament (March 1978) (Embassy New Delhi telegram number 4620).

mittee to review the issue of full-scope safeguards—certainly a significant positive step in the negotiating process called for under the NNPA. Whether or not the difficulties in getting the committee established are surmounted, it is clear the Government of India is interested in negotiations on both technical and political levels to resolve safeguards problems. The precise degree of optimism fluctuates from day-to-day as the negotiating process continues. But it seems clear to me that, overall, substantial progress has been made.

Clearly there is a risk the criteria will not be met after the Section 128 cut-off date. It is my judgment that, on balance, this risk is not significantly different from that which existed at the time the NNPA was passed. We are closer to the deadline, and there have been some negative indications; but the lines of communication are open, and there is a fair basis for continuing negotiations.

What is not obvious is the effect this uncertainty should have on the Commission's judgment. Under the statute a license may not issue until "the Commission finds, based on a reasonable judgment . . . that the criteria in Section 127 of this Act or their equivalent . . . are met."³⁷ Nothing in the NNPA provides explicit guidance on what constitutes a "reasonable judgment." I agree with Senator Percy's assessment:

. . . that a positive finding on Phase I is not precluded by the mere possibility that after 18 months controls on previous exports would be endangered. However, common sense dictates that Phase I could not be satisfied if such a breakdown were a virtual certainty.³⁸

That leaves a significant grey area between "mere possibility" and "virtual certainty." It is hard to formulate a precise ground rule for decision in this area. However, that is understandable; the decision is supposed to be a judgment rather than just a simple finding within a tightly constrained legal framework.³⁹

When a statute does not provide clear instruction, it is appropriate to turn to Congressional intent for further guidance on proper application of the law. I found Congressional views concerning the following areas to be of particular relevance to this case: the objectives behind imposing Phase I

³⁷AEA § 126a(2), NNPA § 304(a).

³⁸Senate India Hearings at 25.

³⁹See AEA § 126a(2), NNPA § 304(a). As Senator Glenn said during a discussion relating to the nature of the Commission's decision process:

I think the drafters, all of us who worked on the Non-Proliferation Act and the Commission in its own prior opinions and its recently promulgated regulations bent over backwards to avoid overjudicializing the export licensing process . . . [T]he essence of the export licensing process is a judgmental assessment of the appropriate policy of the United States in the area of nuclear exports.

criteria immediately but providing a grace period before the Phase II safeguards provision becomes effective, the specific consideration given to continued cooperation with India, and the overall purposes of the NNPA.

First, during development of the NNPA, there was substantial consideration of the impact of Phase I criteria on United States' ability to export to nations with whom we had existing Agreements for Cooperation.⁴⁰ Congress specifically addressed the possibility of a "moratorium" on exports as a result of imposing Phase I criteria immediately. The Senate report concluded, "As currently drafted, these Phase I export criteria will not result in an immediate moratorium on U.S. nuclear exports."⁴¹ The House report for its version of the NNPA (basically similar to the Senate version which was enacted) stated:

In general, these criteria correspond to undertakings export recipients have previously given the United States in their existing Agreements for Cooperation with this country. Thus, in most cases the committee anticipates that application of the criteria will provide a basis for continued exports to countries currently engaged in nuclear commerce with the United States.⁴²

Senator Glenn, the Senate floor manager of the NNPA, covered this issue in his opening statements during Senate floor consideration of the bill.⁴³ In discussing his remarks he later explained:

My view that the Phase I criteria represented "nothing more than a common sense codification of existing policy regarding nuclear exports to nonweapon states," signified that the criteria contained no abrupt departures from then current requirements, which might put a sudden halt to exports.⁴⁴

This does not lead me to believe approval of exports was to be a foregone conclusion. If Congress intended exports to be automatically ap-

Senate India Hearings at 327.

⁴⁰Hearings Before the Subcomm. on Energy, Nuclear Proliferation and Federal Services of the Senate Government Affairs Comm., 95th Cong., 1st Sess. 247, 252 (May 6, 1977); Hearings and Markup Before the Subcomm. on International Security and Scientific Affairs, and on International Economic Policy and Trade of the House Comm. on International Relations, 95th Cong., 1st Sess. 107-08 (1977); Hearings before the Subcomm. on Arms Control, Oceans, and International Environment of the Senate Comm. on Foreign Relations, 95th Cong., 1st Sess. 33 (1977); Hearings Before the Subcomm. on Energy Research and Development of the Senate Comm. on Energy and Natural Resources, 95th Cong., 1st Sess 62 (1977).

⁴¹Senate Report at 16.

⁴²H. Rep. No. 95-587, 95th Cong., 1st Sess. 22 (1977) (hereinafter House Report).

⁴³124 Cong. Rec. S1065 (daily ed., Feb. 2, 1978).

⁴⁴Senate India Hearings at 7.

proved, it would not have developed immediately effective criteria and required the Commission to make a judgment on a case-by-case basis that these criteria were met. However, it demonstrates Congress expected approval by the Commission to be the rule rather than the exception. Further, if Congress had intended that enactment of the law would lead automatically to cutting off exports to some country, it undoubtedly would have expressed that intent. The legislative history implies Congress did not foresee circumstances where denial was to be automatic. This assessment is consistent with subsequent explanations of Congressional intent such as the following statement by Senator Glenn:

[I]n other words there was no case anticipated where the deviation between the existing agreement and the Phase I criteria was so great as to make an immediate export cutoff inevitable. In this sense no export moratorium for any individual nation was mandated.⁴⁵

Admittedly, refusal by the Commission to issue a license on the basis that the criteria are not met does not inevitably lead to cutting off exports since the President, subject to congressional veto may overrule its decision. However, the clear implication in the statements discussed above is that exports are to continue *under the criteria*. If Congress had foreseen circumstances under which it expected the Presidential override authority and subsequent congressional inaction to be the basis for continued exports, it undoubtedly would have discussed the matter. Consequently, based on previous discussion of the criteria, I believe the license application is reasonably straight forward and probably should be approved unless I can identify important factors which Congress overlooked or did not have an opportunity to consider.

Congress specifically considered the Indian situation. The general expectation was that exports to India would continue under the NNPA criteria during the period prior to the Section 128 cut-off date.⁴⁶ Under these circumstances, a crucial question is whether Congress considered the interaction between the U.S.-Indian Agreement for Cooperation, the Section 127 findings, and the full-scope safeguards requirement. If it were clear Congress had considered the relationship between Section 128 and the Agreement for Cooperation, I would conclude it understood the situation to meet the Section 127 criteria despite uncertainty arising from the full-scope safeguards criterion.

⁴⁵Senate India Hearings at 6.

⁴⁶See e.g., Hearings and Markup Before the Subcomm. on International Security and Scientific Affairs, and on International Economic Policy and Trade of the House Comm. on International Relations, 95th Cong., 1st Sess. 264 (1977).

My examination of the legislative history led me to conclude Congress in general was well aware of the difficulties associated with India and understood continued exports to India involved some risk. It certainly was aware of the historical situation and related concerns.⁴⁷ It also was aware of the significant difficulties facing the U.S. in its attempt to negotiate full-scope safeguards with India.⁴⁸ In addition, it clearly had considered the details of specific agreements for cooperation.⁴⁹ Further, some in Congress were familiar specifically with the U.S.-Indian Agreement for Cooperation and some of its difficulties since it was cited as a particular example of the need for more precise agreements.⁵⁰ However, I did not find specific discussion of the unique provision in the U.S.-Indian Agreement for Cooperation which can be interpreted to tie Indian commitments to continued fuel supply and its relationship to the Section 127 findings. Although Congress may well have been aware of this factor, that is not clear.

Consequently, I believe there is some uncertainty concerning Congressional intent regarding the application of Section 127 criteria to exports to India prior to imposition of the full-scope safeguards requirement and the acceptable degree of risk for the continued exports. It is possible Congress was not aware of the relationship and would have found the circumstances did not meet the Section 127 criteria if it had considered the matter. Thus a reasonable argument can be made that it would be consistent with Congressional intent to deny this export because of the uncertainty attributable to Section 128. However, on examining general Congressional intentions and expectations for further guidance on proper application of the NNPA, I do not reach that conclusion.

One important factor is the "grace period" provided for negotiations on full-scope safeguards. It leads me to believe special consideration should be given to uncertainty concerning the duration of Indian assurances which arises from the Section 128 requirement.

⁴⁷E.g., 124 Cong. Rec. S1068 (daily ed. Feb. 2, 1978) (remarks of Senator Ribicoff).

⁴⁸See e.g., Hearings Before the Subcomm. on Energy, Nuclear Proliferation, and Federal Services of the Senate Comm. on Government Affairs, 95th Cong., 1st Sess. 273-74 (1977).

⁴⁹See e.g., Hearings Before the Subcomm. on Energy, Nuclear Proliferation, and Federal Services of the Senate Comm. on Governmental Affairs, 95th Cong., 1st Sess. 351-52 (1977); Hearings and Markup on H.R. 8638 Before the Subcommittees on International Security and Scientific Affairs and on International Economic Policy and Trade of the House Comm. on International Relations, 95th Cong., 1st Sess. 350, 356-67 (1977).

See also AEA § 126a(2), NNPA § 304(a) (Congress was aware the agreements for cooperation with the IAEA and Euratom did not contain provisions which would satisfy criteria four (retransfer) and five (reprocessing). So, the NNPA provides a two-year exemption from criteria four and five which covers these two cases if they agree to open negotiations with the United States. Senate Report at 16-17.).

⁵⁰See 124 Cong. Rec. S1340 (daily ed. Feb 7, 1978) (remarks of Senator Moynihan).

The House report on its version of the Section 128 criterion (basically the same as the enacted version) explained the objectives of this section in the following manner:

Section 504(e) (2) adds an additional licensing criterion which becomes effective 18 months after enactment of this bill. This criterion requires that a recipient State permit IAEA safeguards to be applied with respect to all peaceful nuclear activities carried out within that State. This requirement is an essential element of the bill, and in the committee's view, indispensable to any comprehensive nuclear antiproliferation policy.

The committee has, in the interest of flexibility, permitted an 18-month period of grace before requiring the mandatory application of this criterion. In addition, the bill provides for further extension by Executive Order, subject to congressional disapproval by concurrent resolution.

India and South Africa would be most significantly affected by this requirement. The committee feels strongly that the currently unsafeguarded facilities in those countries must be brought within the framework of the IAEA safeguards system if the American nuclear cooperation is to continue. The committee is encouraged by the cooperative and constructive attitude manifested by the new government of India and is hopeful that provision for comprehensive IAEA controls will soon be achieved through mutually satisfactory negotiation.⁵¹

This accommodation was stressed last May by the House manager of the NNPA, Mr. Bingham, who said, "[T]he Act contemplates there would be this period of 18 months to 2 years to try to work out difficult situations with regard to the commitment for overall full-scope safeguards."⁵² As the House indicated, Congress specifically considered India and recognized the need for a period of careful negotiations.

These points were brought out many times in the legislative history of the NNPA. One of the clearest statements was made during the House International Relations Committee markup for the NNPA:

Eighteen months after the enactment of this legislation, we would add an additional criterion: No U.S. nuclear exports will go to any non-nuclear-weapon State which refuses to apply IAEA safeguards for all its nuclear facilities, regardless of their origin. The principal effect of this provision—and the reason really for its deferral for 18 months—would be to terminate the U.S. nuclear exports to South Africa and India.

⁵¹House Report at 25.

⁵²Export of Nuclear Fuel to India: Hearings and Markup Before the House Comm. on International Relations, 95th Cong., 2d Sess. 16 (1978) (hereinafter House India Hearings).

The rationale is to provide maximum flexibility in the continuing negotiations with those two nations, to seek to turn them around—particularly in the case of India—turn India around where it had gone potentially toward the nuclear weapons option. In return for opening their nuclear facilities to International Atomic Energy Safeguards, we would continue nuclear trade with these nations. So we are hoping for some progress. There have been some very encouraging signs from the new Indian Government and we are simply seeking to allow the ongoing diplomatic efforts of the Administration some additional time in the hope of greater success.⁵³

Similar points were made by Senator McClure during last year's Senate consideration of the Tarapur fuel case:

[S]ome . . . have indicated that the NRC's actions in failing to approve the export are consistent with the letter and spirit of the Non-Proliferation Act. As the previous discussion indicates, I simply cannot agree with that interpretation of the Nuclear Non-Proliferation Act of 1978. Not only is the statute on its face and all of the legislative history related to the House and Senate bills contrary to that conclusion, but all of my extensive discussions with the Administration and the sponsors of the Act in the Senate indicated throughout its consideration that the application of the export license procedures and the Phase I export criteria clearly were not intended to impose a moratorium during the so-called "grace period." I cannot recount exactly how many times the Indian and Tarapur export cases were specifically the subject of those discussions, but I know that was the case on numerous occasions. I also understand that the committee staffs and the administration officials who worked so hard in fashioning the Phase I and Phase II formulation in the statutory scheme focussed extensively on the Tarapur and Indian situation, and how the statutory requirements would impact on that situation. In fact, much of the legislative history was expressly included to provide an underpinning of support for the Administration's negotiating efforts with the so-called controversial situations, expressly including India.⁵⁴

I conclude: (1) Congress placed great significance on achieving full-scope safeguards, particularly in India; (2) there was some optimism that

⁵³Hearings and Markup Before the Subcomm. on International Security and Scientific Affairs, and on International Economic Policy and Trade of the House Comm. on International Relations, 95th Cong., 1st Sess. 264 (1977) (statement by Gerald F. Warburg, aide to Representative Bingham).

⁵⁴Senate India Hearings at 19-20.

this goal was achievable; (3) consequently Congress mandated a delay in the requirement in order to allow some time to reach agreement on differences which it recognized would be very difficult to resolve; and (4) generally Congress expected exports could continue to India in the interim and that this would aid negotiations. These points were confirmed by Senator Glenn during Senate hearings on the last Tarapur license:

An important additional factor to be weighed are the provisions of the Nuclear Non-Proliferation Act permitting an 18-month grace period before exports are cut off to nations not accepting full-scope safeguards. The clear purpose of this interim period was to allow for negotiations on what all have acknowledged is a thorny diplomatic problem. There would be little point in waiting out this period, however, if India's position was so rigid that there was simply no prospect of obtaining our negotiating objective. On the other hand, if there is a fair basis for continuing negotiations, the Act embodies a strong Congressional preference for pursuing the course within the time limits provided.⁵⁵

One interpretation of this background would be to decide the Commission is not to include any consideration of the impact of the full-scope safeguards requirement in its decision because this would constitute a premature application of the Section 128 criterion. I do not subscribe to this position. It is not clear Congress was aware of and considered the crucial fact that Indian assurances relating to the Phase I criteria may be contingent on U.S. supply of fuel, which may be affected by the Phase II criterion. The source of the current debate is this overlap of the immediately effective criteria and the delayed criterion. It is not clear to what extent consideration of the Phase I criteria should extend to, and perhaps infringe upon, areas relating to Phase II. Congress did not explicitly resolve this difficulty, and I am unwilling to find a Congressional intent to preclude entirely consideration of a problem it may not have been aware of. Consequently, I must include some judgment on the impact of the Phase II criterion in my determination that the Phase I criteria are met. However, it does not follow that the license should be denied solely because significant uncertainty exists.⁵⁶ I

⁵⁵Senate India Hearings at 5.

⁵⁶This assessment is consistent with at least some of the interpretations expressed by Congressmen during discussions of the last Tarapur export. For example, Senator Glenn stated: What the phase I [criteria] say among other things is that safeguards will be applied to our exports and this suggests a prospective look at safeguards even during the 18-month period. A prospective look in the case of India does not automatically result in the conclusion that India should be cut off in the present one. It is a judgmental issue that depends on one's view of the likelihood of India accepting full-scope safeguards within that 18-month period. It was not congressional intent, on the other hand, that no cut-offs occur in the next 18 months even if phase I criteria are violated.

cannot ignore the strong Congressional interest in continuing negotiations. Congress obviously intended to accept *some* risk in continuing exports to India. The uncertainty which stems from the difficulty in predicting the outcome of the negotiations deserves special consideration.

As a general matter, we are never *certain* the criteria will continue to be met. A variety of factors may make it difficult to *know* that required measure will continue into the indefinite future. Undoubtedly the degree of uncertainty enters into any judgment made by Commissioners that the criteria are met. Above some threshold (which I cannot describe in any quantitative manner and which probably varies among Commissioners), a Commissioner decides he (or she) can no longer find the criteria are met. But for me at least, because of the Congressional preference for negotiations during the interim period discussed above, the threshold is higher for uncertainty stemming from difficulty in predicting the outcome of negotiations for full-scope safeguards than for uncertainty caused by other factors.

This preference is particularly important in light of the progress in negotiations. The objective in providing some flexibility in the NNPA was to encourage achievement of full-scope safeguards. For an otherwise close judgment, progress toward the desired goal is an important factor. Approval of the license would be consistent with an overall objective which is implicit in the licensing scheme. The legislative history reinforces the relevance of this factor. At one point the Senate considered an amendment which would have required a license to be approved if there were "no material changed circumstances" since the previous license. Thus, a country would be assured continued exports after one had been initially approved unless significant changes in circumstances occurred. This amendment was rejected. A basic reason for the rejection was a desire to allow the NRC to consider the progress made toward no-proliferation goals in sensitive countries. Senator Percy specifically argued:

Under the amendment of the Senator from New Mexico the NRC would be required to continue to supply enriched uranium to India. What we have, and what we have admitted from the start, is time. We are the principle suppliers. We have clout, and I think the world expects us to use that clout as a bargaining chip. We want to be able to keep it and, for that reason, the distinguished Senator from New Mexico's amendment would really undercut the policy of this Government to move toward nonproliferation.

Under this amendment exports would simply have to go out if there were no changed circumstances.

We want changed circumstances in India.⁵⁷

Senate India Hearings at 21.

⁵⁷124 Cong. Rec. S1334 (daily ed. Feb. 7, 1978) (remarks of Senator Percy).

If there had been no indications of progress towards U.S. non-proliferation goals, I would find that to weigh in favor of denial. The fact that some progress has been made weighs in the other direction.

My judgment that this license should be issued is further supported by the statement of policy found in Section 2 of the NNPA. The first two items under this section establish that it is the policy of the United States to (a) prevent proliferation, and (b) supply nuclear fuel to nations which adhere to effective non-proliferation policies. When a decision on the criteria is not otherwise clear, the expressed objectives of the NNPA should be given some weight.

The current government of India has taken truly significant steps to meet these proliferation goals. India is the only country that having exploded a nuclear device, has turned away from nuclear weapons, and has demonstrated the ability to make the difficult choice of not continuing down that path. Although the previous government was certainly not supportive of non-proliferation policy and acted in a manner which was inimical, the present government has done just the opposite—it has acted responsibly and courageously. The actions of the previous Government of India were a major factor leading to passage of the NNPA. However, the current Government of India has demonstrated a strong commitment towards world non-proliferation. I believe that action is what the NNPA asks us to encourage and to support.

III. Conclusion

I do not believe the uncertainties stemming from the full-scope safeguards criterion require denial of this export. For the reasons discussed above, on balance, I believe that the statutory scheme and legislative history support a conclusion that the intent of Congress was to permit continued support of India by the United States Government under the NNPA criteria, and further that the Indian Government has acted in such a manner that support should be continued. It is my judgment that the license should be granted.

SEPARATE VIEWS OF COMMISSIONERS GILINSKY AND BRADFORD

We find the application before the Nuclear Regulatory Commission for the export of enriched uranium to the Tarapur Atomic Power Station in India¹ does not meet the standards for NRC approval set forth in the Atomic

¹The License Application is number XSNM-1222, filed by Edlow International, as agent for the Government of India, to export 404.51 kilograms of U-235 contained in 16803.6 kilograms of uranium enriched to a maximum of 2.71 percent.

Energy Act. We believe it is unwise for the Commission to relax those standards in order to accommodate a favorable decision.

Under the terms of that Act as amended by the Nuclear Nonproliferation Act the Commission cannot deny an export. The Act sets forth several requirements, principally codified in the six safeguards-related criteria of Section 127.² If the Commission cannot find upon a "reasonable judgment" that an application meets these requirements, it must refer the application to the President, who has broad discretion under the law to balance overall U.S. nonproliferation and security interests.³ Congress intended to separate the function of the Commission in applying the licensing criteria from that of the President and the Congress in their consideration of broader questions of foreign policy. The Section 127 criteria do not apply to the President's decision or to any Congressional review of that decision.⁴

The Commission has not taken the Presidential referral provision of the law lightly. Out of more than one hundred major export applications considered by the Commission, only one, the first proposed export to India subject to the new law, has been referred to the President,⁵ who subsequently authorized the export.⁶ Congress did not override that action.⁷

At the heart of the circumstances leading to the prior NRC decision lay the unique character of the Indian-United States Agreement for Cooperation⁸ and the special interpretation India has put on it. Successive Indian governments have consistently tied that country's obligations under the Agreement to the continuing provision of U.S. fuel. The concerns we expressed last year on this point⁹ have deepened, since the situation today does

²Section 127 of the Atomic Energy Act, 42 U.S.C. 2156.

³Section 126 of the Atomic Energy Act, 42 U.S.C. 2154.

⁴A close scrutiny of Presidential and Congressional actions on the Tarapur license makes clear that neither the President nor the Congress felt it incumbent on them in carrying out their respective roles under the Act to reexamine the question of whether the criteria were met in determining whether larger non-proliferation objectives required that the export should be authorized.

⁵This was License Application XSNM-1060, referred to the President on April 24, 1978. CLI-78-8, 7 NRC 436 (1978).

⁶E.O. 12055, April 27, 1978.

⁷The United States Senate Committee on Foreign Relations and the United States House of Representatives Committee on International Relations held hearings on the President's decision at which the Commission, the Executive Branch and the petitioners testified. See Hearings before the Subcommittee on Arms Control, Oceans and International Environment of the Senate Committee on Foreign Relations, 95th Cong., 2nd Sess. (1978); Hearings before the House Committee on International Relations, 95th Cong., 2d Sess. (1978). On July 12, 1978, the House defeated a motion to overturn the President's decision by a vote of 227-181. 124 Cong. Rec. H.6530. No Senate vote was taken on the issue.

⁸The Agreement provides for the exclusive use of U.S. fuel in the Tarapur reactors and, in a reciprocal provision, a U.S. guarantee to supply the necessary fuel. Article II A.

⁹CLI-78-8, 7 NRC 436 (1978), at 437.

not appear to have altered.

After September, 1979, U.S. nuclear trade with a country not party to the Nonproliferation Treaty (as India is not) will be conditioned on that country's acceptance of international safeguards on all of its peaceful nuclear facilities ("full-scope safeguards").¹⁰ In the case of India, this provision of the Act, which threatens a cutoff of U.S. fuel for India, poses special difficulties even before the end of the 18 month "grace period" for acceptance of full-scope safeguards. These obligations, which are critical for export approval, include the application of international safeguards to the exports,¹¹ an implied understanding not to use any of the exported fuel materials (or reactors) for nuclear explosive purposes,¹² and a requirement to obtain U.S. approval for any retransfer or reprocessing of U.S. supplied fuel.¹³

India has resolutely opposed full-scope international safeguards over Indian nuclear facilities. If India fails to accept such full-scope safeguards by the end of the statutory grace period, and if that period is not extended by the President (an action the Department of State has termed "highly unlikely"¹⁴), a cutoff of fuel shipments will follow. We are faced with the distinct possibility that India will interpret this result as freeing it of any reciprocal obligations under the United States-India Agreement.¹⁵ In that event the protection now afforded all U.S. nuclear export to India under the Agreement may well cease to exist.

¹⁰Section 128 of the Atomic Energy Act, 42 U.S.C. 2157, requires that non-nuclear weapons states accept international safeguards on all their peaceful nuclear activities as a condition of continued U.S. nuclear export.

¹¹Trilateral Agreement signed by the United States, India, and the I.A.E.A. on January 27, 1971.

¹²United States-Indian Agreement for Cooperation, Article VII.

¹³United States-Indian Agreement for Cooperation, Article VII. A (2), Article II. F, Article II. E.

¹⁴Testimony of Joseph S. Nye, Deputy to the Under Secretary for Security Assistance, Science and Technology, U.S. Department of State, before the Subcommittee on Arms Control, Oceans, and International Environment of the Senate Committee on Foreign Relations, 95th Congress, 2d Sess. (May 24, 1978), at 352.

¹⁵The Indian interpretation is at odds with a plain reading of the fuel supply contract implementing the Agreement for Cooperation. The contract provides that India shall comply with the laws of the United States and with any changes in the law or policies of the United States with respect to ownership and supply of special nuclear material. Contract of Sale, May 17, 1966. Article XI. A 1971 amendment to the sales contract provides that the "purchaser shall procure all necessary permits or licenses . . . and comply with all applicable laws, regulations, and ordinances of the United States . . ." Should India fail to comply with the requirements of Section 128 of the Atomic Energy Act, India would not be in compliance with applicable law and the United States would be relieved of its obligation to supply fuel until India complied.

Had the Indian Government provided assurances that whatever the fate of the Agreement the necessary protections will continue to apply to current and past U.S. nuclear exports, the grace period would not have been disturbed by unresolved questions and disagreements within the NRC. But no such assurances have been received.

The details of the special problems that attend the Indian Agreement and the arguments against NRC approval are presented at some length in our separate views on the previous Indian license application¹⁶ and there is no need to repeat them here. Since that time the situation has not changed for the better. The grace period is shrinking rapidly. We are now some 6 months away from the time this agency can no longer approve applications for nuclear exports for Tarapur failing India's acceptance of international safeguards on all its nuclear facilities. We are less than a year away from the time, given these same circumstances, when all shipments to Tarapur will have to cease. This is relevant to the present application: Congress did not intend the NRC to turn a blind eye to the serious possibility that in less than a year the accumulated pile-up of U.S. fuel shipped to India over the years will be placed forever beyond the U.S. controls required by the statute. It is not just this but also all preceding shipments of fuel which are at risk.

The fact that assurances covering the eventual fate of U.S. supplied fuel apparently cannot be obtained during the grace period means that the Commission faces a choice: It can approve the export before it by stepping outside the boundary drawn by the Congress for uniform and consistent application of the criteria and into territory which has been explicitly reserved for the President. Or it can acknowledge the plain fact that the criteria are not met and refer the matter to the President's broader discretion.

DISSENTING OPINION OF COMMISSIONER BRADFORD

For reasons adequately set forth in the majority opinions¹ favoring an NRC finding that the statutory criteria are met, the fundamental issue is a difference of opinion as to how to cope with the generally conceded uncertainty that the assurances necessary to satisfy the requirements of the law will be in force in the near future. In assessing this uncertainty, the plurality opinion conspicuously states no particular level of assurance that the criteria will continue to be met. Commissioner Ahearne states that "significant uncertainty" exists on this point but then finds that Congress intended the NRC to run such a risk. I share his premise, but not his conclusion. The

¹Separate opinion of Commissioners Hendrie and Kennedy, hereafter referred to as the plurality opinion. Separate opinion of Commissioner Ahearne, hereafter the Ahearne opinion. The phrase "majority opinions" refers to both opinions together.

reasons for my differences with Commission majority involve an analysis of the level of risk and of the legislative history.

I. THE LEVEL OF RISK

For reasons stated in our last Tarapur opinion² and restated in the plurality opinion in this case, the law will shortly require a cut off in U.S. fuel supply to India unless the President waives its application or circumstances change. That is certain. The Indian position is that when the cutoff occurs, India is not bound to the assurances that it has given regarding this fuel. Consequently, the assurances vital to satisfying the criteria may not be considered binding by India as early as 6 months from now. What are the events that the majority hopes will change these circumstances significantly?

1) India could agree to accept full-scope safeguards in the next few months.³ The chances of this are slim indeed. India has refused to do so for years, and its present preconditions are that "at least the U.S., the U.K., and the U.S.S.R. agree to a complete nuclear test ban, agree not to add further to their nuclear arsenals, and come to an agreement to have gradual reduction of nuclear stockpiles, with a view to the eventual destruction of such stockpiles."⁴ The plurality opinion's assertion of "some progress" in this area would benefit from a specific example.

2) The President could decide to waive the full-scope safeguards requirement with respect to India.⁵ To give this speculation validity, the majority opinions must assume that the Executive Branch didn't really mean it when it told the Congress that even one such waiver was "highly unlikely." The majority speculation that this is a negotiating position is, of course, possible, but the NRC has understandably never been so advised. Therefore, the majority is substituting NRC conjecture for a calculation that the President, were he the one approving this export, could make with more precision.

3) India might voluntarily forego removing safeguards, resuming explosions, and reprocessing the fuel.⁶ Even if this happened, the criteria cannot possibly be satisfied by the hope of voluntary compliance once India regards the assurances as no longer binding. The export could not be made on such a basis in the first place, and it is no better to hope that voluntary

²CLI-78-8, 7 NRC 436 (1978).

³Plurality opinion at p. 217, Ahearne opinion at p. 240.

⁴Memorandum, Department of State to James R. Shea, Nuclear Regulatory Commission, "XSNM-1060 License Application Analysis," March 30, 1978.

⁵Plurality opinion, at p. 217, Ahearne opinion at p. 240. As the majority knows perfectly well, this speculation is more audacious than their opinions acknowledge.

⁶Plurality opinion, at p. 218, Ahearne opinion at p. 237 and p. 240.

conduct on a day-to-day basis will replace adherence to the assurances if all else fails.

4) It is possible that the difficult technical and economic problems with (the return of the spent fuel) could be satisfactorily resolved.⁷ Firm arrangements for return of the spent fuel would satisfy the fourth and fifth criteria. To satisfy the first criterion, they would have to be accompanied by assurances on continued safeguarding of the fuel and of the reactor. To satisfy the second would also require a "no explosives" assurance as to plutonium produced from non-U.S. fuel in the reactor,⁸ which India has thus far explicitly refused to provide. Such a return would have to be on Indian terms in the absence of enforceable U.S. rights over the spent fuel. This would mean repurchase, which contravenes present U.S. spent fuel policy.

5) India may or may not provide additional assurances which would satisfy the criteria.⁹ Nothing that we have received from the State Department suggests that such assurances are in prospect, and the analysis provided by the Director of the Office of International Programs does not indicate that they are in prospect.¹⁰ Such assurances would contradict India's presently stated position that it may act as it chooses if the U.S. terminates fuel supply. Furthermore, the NNPA would require these assurances to cover not just the fuel, but also the reactor in the event that non-U.S. fuel were used at Tarapur.

In short, the necessary assurances depend on the fuel supply which will be terminated in the near future in the absence of events shown to be clearly unlikely or the basis of any reasonable reading of the evidence before the Commission. The remaining question is whether the Congress was so determined that exports should not be referred to the President during the period

⁷Plurality opinion, at p. 218.

⁸The plurality opinion (at p. 214) as to the requirements of criterion 2 on this point is in error. The assurances must include plutonium produced from foreign fuel used in U.S.-supplied reactors. Furthermore, the plurality opinion on this point relies on the U.S.-Indian Agreement for Cooperation which India has already clearly stated would not in its opinion prevent a "peaceful" explosion, together with Prime Minister Desai's statements that are acknowledged elsewhere in the opinion (p. 213) to be "ambiguous." This leads to a further error at p.217 for it is possible for India's position to be that it may use plutonium produced from foreign fuel used in the U.S.-supplied reactors. This position would lead to a violation of the NNPA without what India would consider a violation of its no-explosives assurances to the U.S.

⁹Ahearne opinion, p.218.

¹⁰SECY-78-596A. It should be noted in this context that the plurality opinion claim (at pp. 211-212) of a "staff view" supporting NRC issuance is a considerable overstatement. Three members of the staff worked closely on the recommendations concerning this license. One, the Director of the Office of International Programs, felt that the criteria were met. The other two disagreed and filed separate views. No other staff office took a position on this question.

prior to the effective date of the full-scope safeguards requirement that it intended for the NRC to take substantial risks and to speculate freely about the course and conduct of foreign affairs.¹¹

II. LEGISLATIVE HISTORY

Apparently feeling that no chain will be perceived to be weaker than its strongest link, the majority opinions dwell at some length on the proposition that Congress believed exports to India would continue during the 18-month grace period. This point is not in dispute, but to concede it is not to concede that Congress intended the Commission to strain common sense in reading the criteria, in assessing the risks, or in allowing an export to which significant risk levels were attached.

As stated earlier, the NNPA does not provide for Commission denial of exports. The majority analysis of the legislative history is undermined by repeated misstating of this fundamental fact, a misstating which is explicit on page 223 of the plurality opinion and on page 250 of the Ahearne opinion and which is implicit in the oft repeated statements that Congress intended no termination of exports and did intend a "grace period."¹² No one is talking about termination or denial of exports by the NRC here, nor, as we have made clear since last April, is such a course being urged on the President.¹³ The issue posed by the statute is just what level of uncertainty requires referral to the President, for whether the export is ultimately sent or withheld is up to him.

To assert that the Congress intended the NRC to accept substantial

¹¹The argument here is not over whether the Commission must require absolute certainty as to the criteria. As Commissioner Ahearne correctly points out (p. 28), that has never been the standard. Where questions exist as to safeguards adequacy and the wording of particular assurances, the Commission has often authorized exports.

As Commissioner Ahearne further points (Ahearne opinion, note 39, at p. 242), Senator Glenn at one point stated that "The essence of the export licensing process is a judgmental assessment of the appropriate policy of the United States in the area of nuclear exports." However, given the structure of the law and the fact that Senator Glenn was speaking in the context of Congressional review of a Presidential decision, it seems more plausible to assume that the report licensing process he is referring to is the full process including Presidential approval and Congressional reassessment.

¹²The plurality opinion in this case, at pages 218 and 223, is altogether too casual in lumping the House and Senate Reports together on this point. The House opinion says no more than that "*In most cases* the committee anticipates that application of the criteria will provide a basis for continued exports." To suggest that such language compels continued NRC licensing in *all* cases is to give the sentence the opposite of its clear meaning that some cases might not result in continued exports.

¹³7 NRC at 445.

uncertainty that the assurances essential to the law would be in place in less than one year defies physics, logic, and history.

It defies physics because there will be no plutonium to reprocess or to make an explosive from until well after the cutoff date, so the assurances must be read with confidence some distance into the future to give real meaning to the second and fifth criteria. It defies logic and history because the Congress enacted the NNPA out of a desire to bring firmer and more uniform criteria to the governing of peaceful nuclear trade in the wake of the 1974 Indian explosion. In assigning orderly licensing responsibilities, the Congress presumably understood the NRC was an agency not given to risk taking or licensing based on speculation. That is why exports involving a significant measure of uncertainty are reserved by the law to the President, subject to Congressional review.

Once the statement that Congress expected exports to India to continue is placed against the fact that Congress did not expect uncertainty to be taken lightly in administering the specific criteria, it becomes important to realize that nowhere in the extensive legislative history is there any indication that Congress considered or was advised of the unique interplay between the Indian Agreement for Cooperation and the criteria. Consequently, it is not at all clear that when Congressional expectations as to firm administration of the criteria collided with expectations about NRC licensing, Congress would have wanted the NRC to accept uncertainties regarding the necessary assurances so large as to risk trivializing the law in the eyes of those judging the U.S.'s seriousness of purpose.¹⁴

However, whatever one makes of the pre-enactment legislative history, the post-enactment history shows indisputably that Congress did not object to having exports to India go to the President for approval during the "grace period."

The plurality opinion's statement "that such *ex post facto* 'legislative history' has been viewed with considerable skepticism by the courts, and that little weight generally has been accorded such utterances"¹⁵ is beside the point. That principle has been developed in response to a multitude of situations such as Congressmen defending votes in election campaigns, Congressmen under fire at press conferences, and Congressmen urging

¹⁴Indeed, there is no basis for assigning a higher value to the full-scope safeguards objective than to the Phase 1 criteria. The acceptance of full-scope safeguards is obviously desirable, but has not been regarded as more important than no-explosive assurances, reprocessing controls, or restrictions on the transfer of sensitive technologies. Thus, the U.S.'s Executive Branch and Congressional priorities have been the reverse of what the majority achieves here, namely a lowered level of assurance as to the immediately effective criteria in order to achieve the one that has been deferred.

¹⁵Plurality opinion at p. 217.

subsequent agency action. None of those apply here. Indeed, there is a clear distinction between those situations and this case which shows conclusively that a Congress now fully aware of the problems arising from the application of the statutory export criteria to the Indian situation does not expect routine NRC approval.

In this case, the post-enactment statements took place in a unique context that greatly increase their legal significance. Congress rarely sits in a quasi-judicial fashion to review the administration of its own statutes, never mind such an event within 3 months of the statute's enactment. Yet this is precisely what occurred after the NRC's last Tarapur review. Such a quasi-judicial review provides a unique opportunity for Congress to correct mistaken administration. However, the NRC's administration of the law, far from being rebuked, was very strongly endorsed in the House and not seriously questioned in the Senate.

The House endorsement emerges clearly from the vote not to override the President's decision to send the export. The resolution to override was defeated (181-227). The 181 member minority (44%) who voted not to send the export at all cannot possibly be said to have felt that the matter was improperly before them through a failure by the NRC to understand that shipments were to continue routinely for 18 months. Indeed, the four House International Relations Committee members who favored the resolution of disapproval found the opinion that the criteria were unmet "compelling" in its rationale and "based on sound judgement" in its findings.¹⁶

The majority of the House International Relations Committee found, after hearings at which all Commissioners testified and the State Department reiterated its position, that "The Nuclear Non-Proliferation Act of 1978 clearly anticipated that there might be cases, such as this one, where a nation was not in compliance with nuclear export criteria to be applied by the NRC. . . . The full consideration of the issues surrounding the Tarapur export by all concerned has been entirely in accord with the procedures established by the recent Act. For example, the Committee believes that members of the Nuclear Regulation Commission acted responsibly in their efforts to apply the Act's export criteria."¹⁷ (Emphasis added)

No clearer opportunity for a statement that the NRC was frustrating Congressional intent, thwarting a grace period, or seeking unduly high assurances can be imagined. Instead, the House Committee majority said of the exports to India that would follow XSNM-1060:

"The Committee wishes to make clear that additional license applica-

¹⁶H. Rep. 95-1314, June 21, 1978 at 14.

¹⁷*Id.* at 10 and 11.

tions for fuel to be shipped to India prior to the 18-month grace period are pending or expected. *Those applications will be subject to the same review process based upon the same concerns.*"¹⁸ (Emphasis added)

In several cases, the NRC has had considerable success in persuading courts to infer Congressional acquiescence from a general failure of Congress to legislate away previous Commission action.¹⁹ Yet here, when Congress emphatically passed up a specific opportunity to correct or rebuke a highly controversial Commission action that was squarely before it, this line of reasoning goes completely unmentioned by the Commission it has served so well, and the Congress' several strong indications that the Act has not been misapplied are ignored or lumped into a casually dismissed category of "Post-Enactment Statements."

* * *

As we have said before, we would find that the criteria for NRC approval are not met and would refer this application to the President, to be considered in the same manner as XSNM-1060. Properly explained and understood, such an action would have had no adverse effect on continuing negotiations.²⁰ It is within the President's broader mandate and expertise that such consideration as the continued goodwill of the parties and of the past, present, and future governments of India should be considered.

¹⁸*Id.* at 10.

¹⁹For example, *NRDC v. NRC*, 582 F.2d 166 (2d Cir. 1978).

²⁰One must acknowledge that a further delay of 60 legislative days from today while Congress considered a Presidentially-approved export (Section 126(b) (2) AEA) would not be helpful. However, if the decision had been to refer the application to the President on the grounds urged above, that action could have taken place some time ago and the public proceeding on safeguards adequacy could have gone on simultaneously with Congressional review.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Richard S. Salzman, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

**Docket No. STN 50-546
STN 50-547**

**PUBLIC SERVICE COMPANY
OF INDIANA INC.**

**(Marble Hill Nuclear Generating
Station, Units 1 and 2)**

March 19, 1979

The Appeal Board dismisses for want of jurisdiction a motion to reopen the safety hearings in this proceeding and refers the matter to the Director of Nuclear Reactor Regulation.

RULES OF PRACTICE: FINAL AGENCY ACTION

Where the Commission elects not to review an Appeal Board decision affirming the issuance of construction permits, the board's decision is the agency's final action.

RULES OF PRACTICE: JURISDICTION OF APPEAL BOARD

The Appeal Board lacks jurisdiction to reopen a hearing after final agency action.

RULES OF PRACTICE: SHOW CAUSE

A petitioner seeking to raise safety issues after the issuance of a construction permit has become final may petition the Director of Nuclear Reactor Regulation for relief pursuant to 10 CFR 2.206.

**Mr. Thomas L. Datillo, Madison, Indiana, for
Save the Valley/Save Marble Hill, *intervenor*.**

MEMORANDUM AND ORDER

1. By motion received on March 16, 1979,¹ intervenor Save the Valley moves to reopen the safety hearings in this proceeding. We are without authority to grant that relief. More than 6 months have elapsed since our final decision affirming the issuance of construction permits to the applicants. ALAB-493, 8 NRC 253 (August 30, 1978). In the interim, the Commission elected not to review our decision. It consequently represents the agency's final action and our authority over the cause is ended.² 10 CFR 2.717(a) and 2.786(a); *Public Service Company of New Hampshire* (Seabrook Station), ALAB-513 8 NRC 694 (December 21, 1978); *accord*, *Washington Public Power Supply System* (WPPSS Projects 3 and 5), ALAB-501, 8 NRC 381 (1978); and see *Marble Hill*, ALAB-493, *supra*, 8 NRC at 260 fn. 27.³

2. This does not mean that intervenor is without recourse. In the circumstances described, the Director of Nuclear Reactor Regulation has discretionary authority to grant the relief sought, subject, of course, to Commission review. See 10 CFR 2.202 and 2.206; *cf.*, *Seabrook*, ALAB-513, *supra*. We therefore refer the intervenors' papers to that official.

Motion dismissed for want of jurisdiction; matter referred to the Director of Nuclear Reactor Regulation.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

¹The motion and its accompanying certificate of service are undated.

²Except as to one point over which we expressly retained jurisdiction. See 8 NRC 269-70. The motion to reopen is unrelated to the issue over which we retained jurisdiction. See *Seabrook*, ALAB-513, *supra*.

³Intervenors' papers recite that they are filed pursuant to 10 CFR 2.406. That section in terms applies to applications to construct duplicate plants at multiple sites, not the situation here, and in any event does not address our jurisdiction to grant relief.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Dr. W. Reed Johnson

In the Matter of

**PORTLAND GENERAL
ELECTRIC COMPANY, et al.**

(Trojan Nuclear Plant)

**Docket No. 50-344
(Proposed Amendment to
Facility Operating License
NPF-1 to Permit Storage
Pool Modification)
March 21, 1979**

The Appeal Board affirms the Licensing Board's authorization of an operating license amendment to permit the expansion of the capacity of the spent fuel pool by installation of new storage racks.

NEPA: CONSIDERATION OF ALTERNATIVES

There is no obligation under NEPA to search out possible alternatives to a course of action which itself will neither harm the environment nor bring into serious question the manner in which this country's resources are expended.

OPERATING LICENSES: AMENDMENTS

In considering whether to grant a spent fuel pool expansion amendment prior to the issuance of a generic environmental impact statement (GEIS) on this subject, the proper application of the factors set forth in the Commission's notice of intent to issue such a statement consists of weighing and balancing all five factors, not assigning/dispositive weight to the fifth factor; *i.e.* the degree of harm which might be occasioned by a deferral of pool capacity expansion to await the GEIS.

OPERATING LICENSES: STANDARDS FOR TECHNICAL SPECIFICATIONS

The Atomic Energy Act and the regulations which implement it con-

template that technical specifications are to be reserved for those matters as to which the imposition of rigid conditions or limitations on reactor operation is deemed necessary to avoid a situation giving rise to an immediate threat to the public health and safety.

TECHNICAL ISSUES DISCUSSED: Expansion and operation of spent fuel pool.

Mr. Warren Hastings, Portland, Oregon, for the applicants Portland General Electric Company, *et al.*

Mr. Richard M. Sandvik, Assistant Attorney General of Oregon, Portland, Oregon, (with whom **Mr. Frank W. Ostrander, Jr.**, Assistant Attorney General of Oregon, Portland, Oregon, was on the brief) for the intervenor State of Oregon.

Ms. Susan M. Garrett, Portland, Oregon, *pro se* and for the intervenor Coalition for Safe Power.

Mr. Joseph R. Gray for the Nuclear Regulatory Commission staff.

DECISION

Before us on appeal is the October 5, 1978, initial decision of the Licensing Board authorizing the amendment of the operating license for the Trojan nuclear facility. LBP-78-32, 8 NRC 413. The amendment would permit the expansion of the capacity of the facility's spent fuel pool by means of the installation of new spent fuel storage racks with space for 651 fuel assemblies in place of the existing racks which can accommodate 280 fuel assemblies.

The Licensing Board authorized the amendment subject to three conditions.¹ Two of the intervenors in the proceeding below, Susan M. Garrett (acting on her own behalf and as the representative of the Coalition for Safe Energy) and the State of Oregon, have appealed. We affirm.

I

In the context of a number of contentions raised by the parties, the

¹8 NRC at 459.

Licensing Board examined the environmental impacts which would be associated with the expansion of the capacity of the spent fuel pool. On the basis of that examination, it found that those impacts would be local in character and "insignificant" in extent. 8 NRC at 438-446.

Accordingly, the Board concluded, the staff had correctly determined that an environmental impact statement was unnecessary.² And, for the same reason, the Board declined to accept the intervenors' invitation to consider alternatives to pool capacity expansion. The Board reasoned that, if the environmental effects of the proposed action are negligible, the impacts of any alternatives performed must be equal or greater. It then cited *Sierra Club v. Morton*, 510 F.2d 813, 825 (5th Cir. 1975) for the proposition that alternatives which would occasion similar or greater harm need not be evaluated. 8 NRC at 454.

Ms. Garrett attacks this line of approach on essentially two grounds. First, she takes issue with the Licensing Board's conclusion that only localized environmental effects are involved; in her view, the Board was required to consider the "cumulative" effects of the numerous spent fuel pool capacity enlargements which are occurring nationwide. Second, she insists that the Board was obliged to consider alternatives to the proposed expansion; most particularly the alternative of a reduction in the facility's power output (which would in turn reduce the rate of spent fuel generation).³ This obligation, she maintains, stemmed not only from Section 102(2) (C) of the National Environmental Policy Act⁴ but as well from Section 102(2) (D) (now Section 102(2)(E) of the statute).⁵

1. Ms. Garrett's theory that NEPA-imposed obligations went unfulfilled necessarily rests upon her premise that expansion of the capacity of the Trojan spent fuel pool cannot be viewed in isolation; *i.e.*, it must be looked at in conjunction with the similar action which has already been taken, or is

²10 CFR 51.5(b) and (c) (2) authorize the issuance of a negative declaration and an environmental impact appraisal in circumstances where the staff has determined that the proposed licensing action would not have a significant effect upon the quality of the human environment. The Board found that the environmental impact appraisal which accompanied the negative declaration here "fully considered all environmental impacts." 8 NRC at 446.

³In this connection, Ms. Garrett complains of the failure of the Board to look into the need for Trojan power. We are told by her that, in fact, there is adequate available replacement power from such sources as the Bonneville Power Authority.

⁴42 U.S.C. 4332(2) (C) (the source of the requirement that environmental impact statements be prepared in connection with major Federal actions affecting the quality of the human environment).

⁵That Section, 42 U.S.C. 4332(2) (E), provides that ". . . all agencies of the Federal government shall . . . (E) study, develop, and describe appropriate alternatives to recommend courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources"

under present consideration, in connection with several other nuclear facilities nationwide. For, if all that need be considered is the effect of enlarging the capacity of the Trojan pool, Ms. Garrett is confronted with the fact that the evidence establishes without contradiction that the process of installing the new racks in that pool and the operation of the pool with its expanded capacity will neither (1) entail more than negligible environmental impacts; nor (2) involve the commitment of available resources respecting which there are unresolved conflicts (see fn. 5, *supra*).⁶ As we read it, the NEPA mandate that alternatives to the proposed licensing action be explored and evaluated does not come into play in such circumstances—in short, there is no obligation to search out possible alternatives to a course which itself will not either harm the environment or bring into serious question the manner in which this country's resources are being expended.

⁶Ms. Garrett notes that, but for the expansion of the pool's capacity, the reactor eventually may be required to shut down. Thus, she contends, the spent fuel which will be generated during continued operation must be treated as environmental impact associated with pool capacity expansion. Last year, we rejected a like argument advanced in an essentially identical context. See *Northern States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41, 46, fn. 4, (1978), *petition for judicial review pending, sub. nom New England Coalition on Nuclear Pollution v. NRC*, D. C. Cir. No. 78-2032. As we said there:

Because the practical effect of not now increasing the capacity of the Prairie Island spent fuel pool would be that that facility would have to cease operation, the [appellant] appears to believe that what is being licensed is in reality plant operation. Therefore, according to [appellant] the license amendment could not issue without a prior exploration of the environmental impact of continued operation and the consideration of the alternatives to that operation (e.g., energy conservation). We do not agree.

The issuance of operating licenses for the two Prairie Island units was preceded by a full environmental review, including the consideration of alternatives. . . . Nothing in NEPA or in those judicial decisions to which our attention has been directed dictates that the same ground be wholly replowed in connection with a proposed amendment to those 40-year operating licenses. Rather, it seems manifest to us that all that need be undertaken is a consideration of whether the amendment itself would bring about significant environmental consequences beyond those previously assessed and, if so, whether those consequences (to the extent unavoidable) would be sufficient on balance to require a denial of the amendment application. This is true irrespective of whether, by happenstance, the particular amendment is necessary in order to enable continued reactor operation (although such a factor might be considered in balancing the environmental impact flowing from the amendment against the benefits to be derived from it).

In this connection, it should be noted that the Prairie Island units were licensed for operation on the basis that they would generate radioactive wastes in a certain amount over the full term of their licenses. The amendment in question does not alter the situation; *i.e.*, the proposed increase in the storage capacity of the spent fuel pool would not occasion the generation of more wastes than had been previously projected.

We are content to rest upon that analysis here.

2. In urging that the Board below was required to consider the environmental effects of all other spent fuel pool capacity expansions, Ms. Garrett does not seriously suggest that those effects will somehow produce a significant addition to the negligible, wholly localized incremental impact attendant upon the expansion of the Trojan pool's capacity. Nor could she. There is just no room on this record for an assertion that the capacity enlargement of, for example, the Prairie Island and Vermont Yankee spent fuel pools (located in Minnesota and Vermont respectively) might have an impact, cumulative or otherwise, upon the environment in the Pacific Northwest. Indeed, as determined in the licensing proceedings involving those expansions, the incremental impact upon even the immediate area surrounding the two facilities would be entirely inconsequential. See ALAB-455, *supra* fn. 6, 7 NRC at 45.⁷

This being so, in speaking of the need to consider the "cumulative" effects of licensing a number of pool capacity expansions, Ms. Garrett necessarily had something quite different in mind. Although we found the exposition of the point in her brief to be somewhat elusive, from our probing at oral argument it seems that her concern rests at bottom upon the continued generation and onsite storage of nuclear wastes on a nationwide basis without any reasonable assurance that a more permanent solution to the waste management problem is in the offing. If we understand her correctly, it is in the sense that each pool capacity expansion augments the amount of spent fuel that is allowed to accumulate on reactor sites that the term "cumulative" impacts is employed.

Put another way, Ms. Garrett would appear to be using a licensing proceeding involving but a single outgrowth of the current unavailability of off-site spent fuel repositories to focus attention upon the broader problem in its full dimensions. This is not the first time that such a step has been taken by an intervenor. Although framing their argument differently, the intervenors in the *Prairie Island* proceeding, ALAB-455, *supra*, likewise endeavored to tie the licensing of individual pool capacity expansions to the absence of an acceptable, generic long-term resolution of the waste management question.

In ALAB-455, we turned aside that endeavor on the foundation of an "implicit" Commission finding in July 1977 or "reasonable assurance that methods of safe permanent disposal of high-level wastes can be available when needed." 7 NRC at 49-50. Noting that that finding had been employed by the Commission in justification of a determination not to halt the issuance of further operating licenses, we expressed the view that it had

⁷ALAB-455 dealt with both the Prairie Island and the Vermont Yankee spent fuel pools.

to be taken as a policy declaration that, for the purposes of licensing actions, the availability of offsite spent fuel repositories in the relatively near term should be presumed. *Id.* at 51.⁸

The Commission neither granted the petitions filed with it to review ALAB-455 nor withdrew the finding relied upon therein. As a consequence, we deem ourselves to be as bound by that finding today as we were when we rendered ALAB-455, 14 months ago. For this reason, we are compelled to conclude, contrary to Ms. Garrett's apparent position, that the staff and Licensing Board properly confined themselves to an identification and appraisal of those environmental effects directly attributable to the expansion of the capacity of the Trojan pool. Because pending or past licensing actions affecting the capacity of other spent fuel pools could not either enlarge the magnitude or alter the nature of those effects there was thus no occasion to take into account any such actions in determining the license application at bar.

Although finding this result to be dictated as a matter of law, we should not be understood as unsympathetic to the concerns which prompted Ms. Garrett's line of argument. The legal principles governing the disposition of the matter before us to one side, the seeming lack of significant progress toward a resolution of the waste management problem is disheartening. In the best of circumstances, spent fuel pool capacity expansion is but a temporary expedient for many if not all reactors. See ALAB-455, 7 NRC at 51, fn. 10. We would not presume to speculate upon whether the availability of that expedient has adversely influenced the pace at which a permanent solution is being developed. Yet the existence of that possibility, and the concomitant increased possibility that the Commission's finding relied upon in *Prairie Island* may turn out to have been unduly optimistic, become more troublesome to us as the passage of time brings forth still additional spent fuel pool expansion applications. We have, of course, been clothed by the Commission with adjudicatory, and not policymaking functions. Nonetheless, we do not believe that we step too far out of our assigned role in expressing the hope that the Commission will take all measures necessary to encourage those with the ultimate responsibility in this area to intensify their efforts to provide long-term centralized storage facilities which, once in place, would end the necessity for spent fuel pool capacity expansions. *Cf. Conclusions and Recommendations of the Hearing Board regarding the Environmental Effects of the Uranium Fuel Cycle, Docket No. RM-50-3*, dated October 26, 1978, at pp. 31-32.

⁸As above indicated, that decision is now before the District of Columbia Circuit for review.

II

Ms. Garrett, joined in this instance by Oregon, further contends that the Licensing Board erred in concluding that the staff had adequately "applied, weighed, and balanced" the five factors set forth in the Commission's notice of an "Intent to Prepare Generic Environmental Impact Statement on Handling and Storage of Spent Light Water Power Reactor Fuel." 40 *Fed. Reg.* 42801 (September 16, 1975). In that notice the Commission, pointing to a possible future shortage of spent fuel storage capacity, announced its intention to prepare a generic environmental impact statement (GEIS) on the subject to enable it to examine in a broad context the various alternatives for increasing that capacity.⁹ In this connection, the Commission considered whether licensing actions designed "to ameliorate a possible shortage of spent fuel storage capacity, including such actions as the issuance of operating license amendments to permit increases in the storage capacity of reactor spent fuel pools" should be deferred pending the issuance of the GEIS. Based upon its evaluation of five specific factors,¹⁰ the Commission concluded there should be no blanket deferral of such licensing

⁹Although noting that the shortage would occur at individual reactors and that the issues involved in alleviating it could be addressed in individual licensing reviews, the Commission determined that "from the standpoint of longer range policy, this matter can profitably be examined in a broader context." 40 *Fed. Reg.* at 42802.

¹⁰Namely:

- (1) It is likely that each individual licensing action of this type would have a utility that is independent of the utility of other licensing actions of this type;
- (2) It is not likely that the taking of any particular licensing action of this type during the time frame under consideration would constitute a commitment of resources that would tend to significantly foreclose the alternatives available with respect to any other individual licensing action of this type;
- (3) It is likely that any environmental impact associated with any individual licensing action of this type would be such that they could adequately be addressed within the context of the individual license application without overlooking any cumulative environmental impacts;
- (4) it is likely that any technical issues that may arise in the course of a review of an individual license application can be resolved within that context; and
- (5) A deferral or severe restriction on licensing actions of this type would result in substantial harm to the public interest. As indicated, such a restriction or deferral could result in reactor shutdowns as existing spent fuel pools become filled. It now appears that the spent fuel pools of as many as 10 reactors could be filled by mid-1978. These 10 reactors represent a total of about 6 million kilowatts of electrical energy generating capacity.

(Continued on next page)

actions. *Ibid.* It directed, however, that those factors should be “applied, weighed, and balanced” within the context of environmental impact statements or appraisals prepared in connection with particular licensing applications. *Ibid.*

Intervenors’ principal objection to the manner in which the factors were here applied centers on their view of the relative importance of the fifth factor—that “a deferral or severe restriction on licensing actions of this type would result in substantial harm to the public interest.” Ms. Garrett terms it the “most weighty factor”¹¹ Oregon is more explicit: “. . . license amendments authorizing increased onsite storage of spent fuel cannot be issued prior to completion of the generic environmental impact statement (‘GEIS’) described in such notice, *unless* deferral of an individual licensing action *would* result in substantial harm to the public interest.”¹²

We find nothing in the terms of the notice which either expressly or implicitly lends support to the thesis that controlling significance must be given to the fifth factor, with the possible consequence that expansion of spent fuel pool capacity may be authorized only if reactor shutdown is imminent due to a lack of available existing storage capacity. To begin with, the notice does not purport to assign relative orders of weight to the five factors; rather it simply instructs that each be “applied, weighed, and balanced” in determining whether to authorize pool capacity expansion in advance of the issuance of the GEIS. Had the Commission intended to make the fifth factor dispositive, it is reasonable to suppose that it would have said so. Beyond that, there are affirmative indications that the Commission’s purpose was not to restrict pool capacity expansion authorizations to those situations in which, absent such an authorization, the reactor would have to shut down immediately for want of available onsite spent fuel storage space. Among other things, the notice refers to licensing actions to ameliorate “*possible* shortage(s)” of spent fuel storage capacity—actions which, if deferred, “*could* result in reactor shutdowns.” 40 *Fed. Reg.* at 42802 (emphasis supplied). This language scarcely comports with the notion

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The removal of these reactors from service could reduce the utilities’ service margins to a point where reliable service would be in jeopardy, or force the utilities to rely more heavily on less economical or more polluting forms of generation that would impose economic penalties on consumers and increase environmental impacts.

40 *Fed. Reg.* at 42802.

¹¹Garrett Br., p. 5.

¹²Oregon Br., p. 14 (emphasis in original). It should be noted that, although the draft GEIS was issued a year ago, the final version has not yet appeared. We were told by staff counsel at oral argument that it is now scheduled for issuance in May of this year.

that pool capacity expansion is to be permitted only in circumstances where needed to avert an immediate crisis.

In sum, we hold that the duty of the Board below was to determine whether, on a weighing and balancing of all of the five factors, expansion of the spent fuel pool's capacity should be permitted prior to the issuance of the GEIS. In the discharge of this responsibility, the Board analyzed the evidence bearing upon each factor. 8 NRC at 447-48. Upon that analysis, the Board endorsed the staff's conclusion in its environmental impact appraisal that, in combination, the five factors pointed in the direction of granting the proposed license amendment at this time *Id.* at 448.

We have been given insufficient cause to overturn that result. More particularly, irrespective of how one assesses the degree of harm to the public interest which might be occasioned by a deferral of pool capacity expansion to await the GEIS (*i.e.*, the fifth factor), we are persuaded that the four other factors were properly evaluated and found to favor an accomplishment of the expansion without undue delay. Thus, so long as the fifth factor is not to be deemed controlling of itself (as we have determined it is not), no warrant exists for precluding the expansion on the strength of the Commission's 1975 notice.

III

In support of its license amendment application, the applicants submitted a "design report", which *inter alia* described the design of the proposed modification of the spent fuel pool and the manner in which the pool would be operated as modified.¹³ Before the Licensing Board, Oregon seized upon some of the operational details set forth in the report and urged the Board to convert them into technical specifications which would be imposed upon the amended operating license. Beyond that, Oregon pressed for the inclusion of two other technical specifications which were not derived from the design report. Both the staff and the applicants took the position that none of the suggested technical specifications was called for in the interest of protecting the public health and safety. The Board agreed. Oregon now renews its assertions before us.

A. Prior to examining Oregon's specific claims, we explore briefly the function served by technical specifications and the standard which governs the determination whether one is required with respect to some particular aspect of the design or operation of the facility (or some component thereof).

¹³The report, basically the equivalent of a Final Safety Analysis Report, also contained safety and radiological evaluations of the expansion of the pool's capacity. Following two revisions, it was introduced into evidence as applicants' exhibit no. 2 (Tr. 2048).

For purposes of nuclear licensing, the term "technical specifications" appears to have had its genesis in Section 182a. of the Atomic Energy Act of 1954, 42 U.S.C. 2232(a). That section provides in pertinent part that

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. Such technical specifications shall be a part of any license issued.*¹⁴

This statutory directive has been implemented by a Commission regulation (10 CFR 50.36) which decrees, *inter alia*, that each operating license "will include technical specifications . . . [to] be derived from the analyses and evaluation included in the safety analysis report, and amendments thereto"—and may also include "such additional technical specifications as the Commission finds appropriate." The regulation sets forth with particularity the types of items to be included in technical specifications. Illustrative examples are (1) safety limits "which are found to be necessary to reasonably protect the integrity of certain of the physical barriers which guard against the uncontrolled release of radioactivity;" (2) surveillance requirements designed to insure that facility operation will be within safety limits; and (3) design features "which, if altered or modified, would have a significant effect on safety."

Insofar as here relevant, Section 50.36 took its present form in 1968. See 33 *Fed. Reg.* 18612 (December 17, 1968). The Statement of Consideration which accompanied its promulgation made specific reference to the then recently issued "Guide to Content of Technical Specifications for Nuclear Reactors" (November 1968). See 33 *Fed. Reg.* at 18610.¹⁵ That guide spoke

¹⁴[Emphasis supplied.]

¹⁵Subsequent to the oral argument on the appeals, the staff was requested to advise us respecting the present status of that guide. By letter of March 8, 1979, the staff responded that the guide "has not been rescinded or amended, is still available in its original form, upon request, and is still distributed, in its original form, to both public and internal NRC requestors." The letter went on to note, however, that "its use as guidance for formulating and imposing technical specifications has been supplanted by the 'standard technical specifications' set forth in" several documents relating to reactors of, respectively, Westinghouse, Combustion Engineering, Babcock and Wilcox, and General Electric manufacture. The guide was used as a basis for the development of those documents during the period 1972-74 but is no longer directly employed by the staff.

of technical specifications in terms of "conditions governing operation of a facility that cannot be changed without prior Commission approval" and that represent "legal bounds within which the licensee is required to operate the facility."¹⁶ It went on to state that the technical specifications "related to technical matters should consist of those features . . . of the facility that are of controlling importance to safety;" the identification of such features to be accomplished "by thorough safety analysis of the facility, the analysis being based on current knowledge and understanding of safety needs and techniques."¹⁷

From the foregoing it seems quite apparent that there is neither a statutory nor a regulatory requirement that every operational detail set forth in an applicant's safety analysis report (or equivalent) be subject to a technical specification, to be included in the license as an absolute condition of operation which is legally binding upon the licensee unless and until changed with specific Commission approval. Rather, as best we can discern it, the contemplation of both the Act and the regulations is that technical specifications are to be reserved for those matters as to which the imposition of rigid conditions or limitations upon reactor operation¹⁸ is deemed necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety. This is not to say, of course, that no significance attaches to commitments in a licensee's safety analysis report which have not been found to possess safety implications of sufficient gravity and immediacy to warrant their translation into technical specifications. To the contrary, 10 CFR 50.59(b) specifically charges holders of operating licenses with the duty to:

maintain records of changes in the facility and of changes in procedures . . . to the extent that such changes constitute changes in the facility as described in the safety analysis report or constitute changes in the procedures as described in the safety analysis report.¹⁹

Further, the licensee must furnish to the Commission at intervals no greater than once a year, a report of all such changes, *including a summary of the*

¹⁶Guide, pp. 4, 24.

¹⁷*Id.*, p. 5. The guide noted that the term "safety analysis" is defined in 10 CFR 50.34(a) (4) in terms of the determination of "(i) the margins of safety during normal operations and transient conditions anticipated during the life of the facility, and (ii) the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents." *Ibid.*

¹⁸We assume for present purposes, as have the parties at least implicitly, that technical specifications may be required in connection with the operation of a spent fuel pool (as distinguished from the operation of the reactor itself).

¹⁹Needless to say, these records are subject to examination by Commission inspectors at any time (as well as, presumably, by representatives of state regulatory agencies).

safety evaluation of each. Ibid. The Commission's staff thus is in a position to monitor facility changes and the licensee's adherence to the operational procedures outlined in the safety analysis report. If dissatisfied with any departures from those procedures, it can take appropriate remedial action.

B. Against this background, we turn now to consider Oregon's suggested technical specifications. With respect to each, the question is whether the record establishes that its inclusion in the amended operating license is necessary in order to guard against the contingency of an untoward situation or event bringing about a safety threat of some immediacy.

1. The design report indicated (at p. 3-15) that, for the purpose of minimizing the corrosion of the fuel elements and racks in the spent fuel pool, the water chemistry of the pool would be maintained within the limits, and monitored with the frequency (basically weekly), prescribed in Tables 3-6 and 3-7 of the report. Although we would expect general adherence to these operating procedures, it does not appear that they need be carried over into a technical specification in order to insure a sufficient margin of safety. It well may be that, as an Oregon witness testified, water impurities can have an effect upon corrosion rates.²⁰ That witness presented no cause to assume, however, that impurities of the variety contained in the Columbia River might bring about rapid corrosion of the materials in the pool.²¹

Nor is there anything else in the record which might lend support to any such assumption. For its part, the staff's evidence established without contradiction that studies have demonstrated that Zircaloy-clad fuel is relatively impervious to corrosion, even at the considerably higher temperatures to which the fuel is subjected during reactor operation.²² In this connection, following its removal after 11 years of storage in the spent fuel pool of the Windscale facility in the United Kingdom, a Zircaloy-clad fuel bundle was found upon metallographic examination to be free of any corrosion attributable to that storage.²³

In short, it seems to us patent that the regulatory requirements of 10 CFR 50.59(b), discussed above, provide an ample measure of protection against the possibility that a change in pool water chemistry would have serious enough corrosive effects to create a safety concern. As we have seen, that section imposes a mandatory obligation upon the licensee—just as en-

²⁰See Testimony of Donald W. Godard Relating to Increased Onsite Storage of Spent Fuel, December 23, 1977 (introduced into evidence as Oregon's exhibit no. 1 (Tr. 2636)), at p. 9.

²¹The water drawn from that river is normally demineralized prior to being introduced into the pool. Design report, pp. 3-16, 3-17.

²²See Supplemental Testimony of John R. Weeks in response to McCoy Contention A5(a), foll. Tr. 4567.

²³*Id.*, in response to Oregon Contention B2.

forceable as a technical specification—to record and report all deviations from the operating procedures established for the maintenance and monitoring of water chemistry. Given the very low corrosion rate of Zircaloy, we are persuaded that any significant deviation would perforce come to light long before an unsafe operating condition conceivably might develop as a consequence of it.

2. Oregon seeks a technical specification which would require the institution of a “corrosion coupon” program; *i.e.*, the suspension of pieces of zirconium and stainless steel in the pool water and their examination at frequent intervals to determine whether, and if so how rapidly, corrosion is occurring. The record is devoid of any justification for imposing such a requirement—either by way of technical specification or otherwise. As the Board below observed (8 NRC at 420), Oregon’s witness on the subject conceded that the program would have little “predictive value” and further acknowledged that his prior useful experience with coupon programs had involved much more corrosive environments and materials markedly different from those in the spent fuel pool here (Tr. 3416-17, 3442, 3477).

3. The design report states that, during normal operation, the spent fuel pool water temperature will be maintained at a level below 140°F. Oregon insists that this undertaking should have been reinforced by a technical specification. We are satisfied, however, that a potential safety problem would not arise were the temperature to rise to a level moderately above 140°F.²⁴ We have already made reference to the uncontroverted evidence that zircaloy-clad fuel has an extremely low corrosion rate at the much higher temperature which is associated with reactor operation. See p. 274, *supra*.²⁵ A very similar corrosion rate obtains for Type 304 stainless steel²⁶ at 545°F.²⁷ Moreover, the passage of time should bring about a further decrease in the corrosion rates for the material in the pool with the formation of protective oxide layers.²⁸

4. The design report reflects (pp. 4-4, 4-5) the applicants’ intent to store freshly discharged spent fuel no closer together than in every other storage position in the new racks and further indicates (p. 3-12) that the spent fuel pool water will normally contain 2000 ppm of boron. Oregon does not appear to dispute that, in normal operation, no safety problem would arise even were the spent fuel placed in adjacent racks in non-borated water. It

²⁴The record provides no reason to believe that operation of the pool might produce a water temperature well in excess of 140°F.

²⁵Specifically, that rate was estimated to be 2×10^{-2} mills/yr at 500°F.

²⁶The storage racks and associated structures consist almost entirely of that material. Design report, p. 3-3.

²⁷See Weeks, fn. 22, *supra*.

²⁸*Ibid*.

hypothesized, however, that the racks might be struck by a missile generated by a tornado, seismic event, or crane malfunction and that, as a consequence, sufficient fuel assemblies would be brought close enough together to form a critical mass. In Oregon's view, the proposed alternate spacing of the assemblies and the prescribed concentrations of boron are each an essential safeguard against such a result and thus both should be the subject of technical specifications.²⁹

The Licensing Board considered the evidence adduced on the point at some length and reached the conclusion that Oregon's hypothesis was not credible. 8 NRC at 429-35. The Board did, however, find that there were two types of accident which might conceivably occur: First, during the transfer of rack modules within the pool,³⁰ one of the modules might tip over and the resultant spillage of the assemblies might produce a critical mass on the pool floor in non-borated water.³¹ Second, the accidental dropping of a very heavy weight (e.g., a shipping cask) into the pool from a considerable height might damage several of the stored fuel assemblies and form a critical mass in non-borated water. To protect against these contingencies, the Board imposed two conditions on the operating license. The first decrees that:

Since spent fuel is now being stored in the spent fuel pool, upon commencement of work on either the existing racks or the new racks in the spent fuel pool in conjunction with replacement of the existing racks with new racks:

- (a) the water in the spent fuel pool shall contain at least 2000 ppm boron and shall be maintained at this boron concentration until completion of the rack replacement; and
- (b) spent fuel stored in the spent fuel pool must have decayed at least 60 days from the time it was last removed from the reactor.

The second provides that:

The sizes of loads carried over the SFP and the heights at which they

²⁹Boron is a neutron absorber and, as such, inhibits criticality.

³⁰As described in the design report (at p. 3-3), the proposed spent fuel racks are contained in 14 modules capable of containing from 42 to 49 fuel assemblies each. These modules can be handled individually.

³¹It appears from the applicants' testimony that rack modules containing spent fuel elements would not be moved except during their transfer from the old racks to the new racks. If repairs in the pool floor are required at some future time, the procedure would be to empty the rack module or modules under which the repair is to be made. Fuel assemblies would be transferred one at a time to other empty racks away from the repair area. Testimony of John Frewing, following. Tr. 4181, at pp. 37-38.

may be carried over racks containing spent fuel shall be limited in such a way as to preclude impact energies over 240,000 in.-lb, if the loads are dropped.

8 NRC at 459.

Our review of the record has provided no cause to upset the Licensing Board's conclusions on the criticality matter. More particularly, we are in agreement with the Board that the possibility of the racks being struck by a missile with sufficient force to occasion the formation of a critical mass is far too remote to warrant Oregon's suggested technical specification.

At the same time, however, we have some doubt regarding the terms of the second condition imposed by the Board. Obviously, there is a need to exercise care in carrying heavy loads at considerable height over the spent fuel pool. But that condition seems impractical in that in essence it requires two measurements and a calculation before any load is transported over the pool. A less burdensome but equally efficacious protective measure might be a bar against the passage of any load directly over the pool with the bottom of the load above a defined height.

The burden of complying with the condition as written falls, of course, upon the applicants. Absent a complaint on the applicants' part, there consequently is no reason why we should change its terms. Should the applicants now decide they wish an alteration, they may apply to us for such relief within 20 days of the date of this opinion.

5. Finally, Oregon complains of the failure of the Licensing Board to direct a technical specification obligating the applicants to maintain a full core reserve in the spent fuel pool; *i.e.*, to leave vacant an area within the pool of sufficient size to house one full core of spent fuel. According to Oregon, such a reserve is essential in order to enable any necessary repairs to be made in the pool. The simple and dispositive answer is that, if a full core reserve is not then available, shipping casks can be employed to hold the spent fuel assemblies that must be removed to obtain space to perform the repair work. Such casks are available for either purchase or rental on relatively short notice. See Testimony of Edward Lantz, following Tr. 4473, at pp. 1, 3; Tr. 4223-27.

We thus leave undisturbed the Licensing Board's refusal to order the inclusion of any of Oregon's proposed technical specifications in the amended operating license. It bears repetition, however, that this should not be taken as reflecting a belief that the applicants are relieved of any obligation to take appropriate measures to live up to each of the commitments with

respect to pool operation which are set forth in the design report (including the four upon which Oregon has focused its attention). For the reasons we have set forth, all that we need or do decide here is that none of those commitments has been shown to have such an immediate bearing upon the protection of the public health and safety that it must be made the subject of a rigid operational limitation in the form of a technical specification. To the contrary, with regard to each commitment, the record affirmatively establishes that fulfillment of the requirements of 10 CFR 50.59 will provide ample safety protection. More specifically, the discharge of the mandatory recording, safety evaluation, and reporting duties imposed upon the applicants by that section will insure that, as to the matters of concern to Oregon, any departure from the mode of operation detailed in the design report will come to light and be susceptible of further evaluation by the staff well before it might impinge upon prescribed margins of safety.³²

IV

For the foregoing reasons, the October 5, 1978, initial decision of the Licensing Board is *affirmed*. We shall, however, retain jurisdiction for a period of 20 days from today over the condition imposed by the Licensing Board with respect to the transportation of loads over the spent fuel pool. See pp. 276-277, *supra*. If the applicants do not apply for an alteration of the condition within that period, the retained jurisdiction will then automatically terminate.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

³²It is our understanding that Oregon's major concern is with routine operation in a mode other than that described in the design report. Inadvertent operation of the pool outside of the design report commitments may be reportable by the applicant in accordance with the reporting requirements of the outstanding standard technical specifications for Westinghouse pressurized water reactors. See §§6.9.1.8 f and i, and 6.9.1.9 c and d.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Michael C. Farrar, Chairman
Dr. John H. Buck
Dr. W. Reed Johnson

In the Matter of

PHILADELPHIA ELECTRIC
COMPANY et al.

Docket No. 50-278

(Peach Bottom Atomic Power
Station, Unit 3)

March 23, 1979

The Appeal Board approves the stipulation regarding the cooling system for Peach Bottom Unit 3 and the accompanying technical specifications (agreed to by all parties but the intervenor citizens' groups) and dismisses the exceptions to LBP-74-42.

RULES OF PRACTICE: SETTLEMENT OF CONTESTED PROCEEDINGS

It is Commission policy, and NRC rules expressly provide, that fair and reasonable settlement of contested initial licensing proceedings are encouraged. This policy is particularly applicable where the suggested resolution "is appropriate in the circumstances of this case, meets the requirement of NEPA, and is otherwise in the public interest." *Consolidated Edison Company* (Indian Point, Unit 3), CLI-75-14, 2 NRC 379 at 837 (1975).

Mr. Mark J. Wetterhahn, Washington, D.C., for the applicants, Philadelphia Electric Company, *et al.*

Assistant Attorney General Karin W. Carter, Harrisburg, Pennsylvania, for the Commonwealth of Pennsylvania.

Special Assistant Attorney General John B. Griffith, Annapolis, Maryland, for the State of Maryland.

Mr. Raymond L. Hovis, York, Pennsylvania, for the intervenors, York Committee for a Safe Environment, Save Solanco's Environment, and Environmental Coalition on Nuclear Power.

Messrs. Richard S. Watt and Myron Bloom, Philadelphia, Pennsylvania, for the U. S. Environmental Protection Agency (**Mr. Stephen R. Wassersug**, Director, Enforcement Division, Region III, on the stipulation).

Mr. James M. Cutchin, IV, for the Nuclear Regulatory Commission staff.

DECISION

1. After a long period of negotiation, the applicants and the governmental parties to this proceeding have reached agreement on how to deal with the questions raised by the discharge of heated water from Unit 3 of the Peach Bottom station. In implementation of that agreement, they have submitted for our approval a stipulation covering the cooling system for that unit.¹ The intervening citizens' groups have refused to join in the stipulation, however, and so we must examine it carefully before deciding whether to use it as a basis for resolution of the issues pending before us.

This nuclear facility, located in Pennsylvania on the Conowingo Pond portion of the Susquehanna River (just 3 miles north of the Maryland border), has been operating for well over 4 years pursuant to a Commission license.² But several factors have made it difficult to resolve the issues covered by the stipulation: the evolving implementation of the Federal Water Pollution Control Act, as amended in 1972 (FWPCA);³ the somewhat divergent interests and authority of the several governmental entities involved in water pollution control;⁴ and the applicants' efforts to ob-

¹As the parties point out in their stipulation, action on these matters will also affect Unit 2, which shares a condenser cooling system with Unit 3.

²Facility Operating License No. DPR-56, dated July 2, 1974, as amended. See LBP-74-42, 7 AEC 1022 (1974). Unit 2 has been operating even longer. See LBP-73-32, 6 AEC 724 (1973), *affirmed in part, and reversed in part*, ALAB-216, 8 AEC 13, *reversed in part*, CLI-74-32, 8 AEC 217 (1974), *reversed in part sub nom. York Committee for a Safe Environment v. NRC*, 527 F.2d 812 (D.C. Cir. 1975).

³Pub. L. 92-500, 86 Stat. 816 (codified at 33 U.S.C. §§1151 *et seq.*).

⁴See, specifically, the FWPCA and the National Environmental Policy Act (NEPA), 42 U.S.C. §§4321 *et seq.* For a detailed discussion of the legislative and regulatory framework for water pollution control, particularly as to thermal pollution from nuclear power plants, see our decision in *Public Service Company of New Hampshire* (Seabrook Units 1 and 2), ALAB-366, 5 NRC 39, 48-52, *affirmed*, CLI-77-8, 5 NRC 503, 508 (1977).

tain approval of less stringent standards than would otherwise limit the discharge of heated water into Conowingo Pond.

The Licensing Board, which duly issued its decision before the time had come for the Environmental Protection Agency (EPA) to promulgate effluent limitations pursuant to the FWPCA, found that thermal discharges resulting from operation of Units 2 and 3⁵ would "cause frequent and substantial violations" of the water quality standards of both Pennsylvania and Maryland.⁶ As a remedy, it ordered installation of a closed-cycle cooling system by July 1, 1977; however, it authorized operation of the facility prior to that date with an open-cycle mode employing the three banks of "helper" cooling towers already in place. The applicants, staff, and intervenors all excepted to the initial decision; at the conclusion of oral argument in December 1974 we urged the parties to attempt to resolve the water-related issues via negotiation.⁷

In their attempt to reach a settlement in the ensuing months, the parties faced a complicated state of affairs. We can outline very briefly the series of events which gave rise to that situation. In October 1974, EPA promulgated its thermal discharge standards, which, at bottom, mandated closed-cycle cooling with "no discharge of heat" after July 1, 1981.⁸ The applicants sought an exemption under FWPCA Section 316 from that prospective requirement, contending that the standard was more restrictive than necessary for preserving the ecology of Conowingo Pond. During December 1974, EPA, after obtaining the requisite certification from Pennsylvania, issued

⁵See fn. 1, *supra*. Unit 2 had previously been licensed on the judgment that discharges from it alone did not present the same problem as those from the two units combined. See ALAB-216, *supra*, 8 AEC at 43-44; CLI-74-32, *supra*, 8 AEC at 217-18. Unit 1, a relatively small, high temperature gas reactor, was deactivated some time ago and is thus of no concern here.

⁶Pennsylvania is the State in which the discharge occurs and was therefore responsible for issuing the certificate required under Section 401 of the FWPCA concerning compliance with Federal standards and appropriate State law. See *Seabrook*, *supra*, 5 NRC at 51. the FWPCA further provides that where the discharge from a facility in one State may affect the water of a downstream State—such as Maryland in this proceeding—the downstream State may obtain a hearing before the Federal agency authorized to license the facility; the agency must condition the license "in such manner as may be necessary to insure compliance with applicable water quality requirements." FWPCA Section 401(a) (2). The Board below held such a hearing at Maryland's request.

⁷Tr. 166-69. Following that up, in September 1975 we held a settlement conference with counsel for all the participants. Since that time the parties have periodically notified us regarding their negotiations.

⁸EPA saw the closed-cycle mode as the only means of achieving the FWPCA's standard of "best available technology economically achievable," and thought that standard could be met in advance of July 1983, the latest date allowed by statute. The Court of Appeals for the Fourth Circuit has since set aside some of those regulatory standards. *Appalachian Power Co. v. Train*, 545 F.2d 1351, *as supplemented*, *id.* at 1380 (1976).

for Units 2 and 3 a permit under the FWPCA's National Pollutant Discharge Elimination System ("NPDES permit"). Because the Section 316 exemption request was a long way from decision, the permit mandated "no discharge of heat"; that regime was to begin July 1, 1977.⁹ The applicants duly sought a hearing to challenge the permit terms. On May 1, 1975, Pennsylvania presented to EPA conditions for the NPDES permit¹⁰ requiring that its State water quality standards not be violated (between that date and June 30, 1977) outside of an exempt "mixing zone" established thereby.

Thereafter, the parties now before us negotiated settlements outside the NRC arena. In August 1975, the Philadelphia Electric Company (acting on behalf of the station's co-owners) agreed to construct two additional cooling towers;¹¹ correspondingly, Pennsylvania said it would suspend at least temporarily its requirement that closed-cycle cooling be in place by July 1, 1977.¹² That agreement was taken into account in a May 1977 settlement among the company, Pennsylvania, Maryland, and EPA that yielded a revised NPDES permit.¹³

Likewise, the agreement now before us reflects the NPDES settlement. Specifically, it sets forth as substitutes for a number of current operating license conditions¹⁴ two new ones that (1) state that the revised NPDES permit governs thermal discharge matters to the extent it deals with them and (2) establish a reporting, analysis, and filing procedure for the licensees to follow in the event of modification of effluent limitations (pursuant to Section 316) or of the NPDES permit. The signatories also offer a substitute set of corresponding technical specifications.

2. As both we and the Commission have recognized, Section 511(c) (2) of the FWPCA requires that we accept EPA's determinations on effluent limitations.¹⁵ But here, owing to the pendency of the Section 316(a) proceeding, we do not have in hand a final determination on how much heat

⁹EPA did not explain why it imposed the 1977 deadline rather than allowing the plant the additional 4 years that would elapse before it had to comply with the general "no discharge" date of July 1, 1981.

¹⁰See *Seabrook, supra*, 5 NRC at 51.

¹¹Addition of the two towers, now operational, permits pre-discharge cooling of essentially all the flow from the facility's condensers; the pre-existing system cooled about 58% of the flow.

¹²More precisely, it agreed to suspend the requirement at least pending the outcome of the Section 316(a) proceeding; but that dispute was unresolved as of July 1, 1977.

¹³These two agreements settled the applicants' appeals from portions of both the Pennsylvania certification and the NPDES permit. The NPDES settlement reserved to the parties various rights and privileges concerning review, enforcement, and subsequent requirements.

¹⁴The existing conditions relate to installation of closed-cycle cooling and to interim facility operation.

¹⁵See *Seabrook, supra*, ALAB-366, 5 NRC at 51-52; CLI-77-7, 5 NRC at 543.

the cooling system will ultimately be allowed to discharge into Conowingo Pond.¹⁶ We therefore have some obligation to examine the short-term thermal discharge limitations and cooling system required for Peach Bottom. Nothing, however, prevents us from relying on the existing settlements and proffered stipulation, if otherwise appropriate and in the public interest, in fulfilling that obligation.

We noted in *Seabrook* that FWPCA Section 511(c) (2) seeks to avoid duplication “by leaving to EPA and the States the decision as to the water pollution control criteria to which a facility’s cooling system [will] be held.” 5 NRC at 51-52. In this instance, the EPA Section 316(a) proceeding, to which the two States are parties, will provide that decision. Of more immediate significance to us at this juncture, EPA and the two affected States have joined the NRC staff in stipulating that no irreversible harm to the Conowingo Pond environment will result from interim operation with the open-cycle system employing the five “helper” cooling towers, all of which are now operational. We have been provided no justification for second-guessing the short-term assessments and agreements by the very officials who—without any oversight by us—will have to resolve the basic long-term questions. In particular, nothing in the record casts doubt on the validity of their judgment that the present system is essentially equivalent to a closed-cycle one in terms of limiting the heat discharged (see fn. 11, *supra*).

Moreover, NRC rules expressly provide—and the Commission stressed several years ago, in analogous circumstances—that “the fair and reasonable settlement of contested initial licensing proceedings is encouraged.” 10 CFR 2.759, cited in *Consolidated Edison Company* (Indian Point Unit 3), CLI-75-14, 2 NRC 835 (1975), *vacating in part* ALAB-287, 2 NRC 379 (1975). To be sure, the present situation differs from that presented in *Indian Point 3* in that here the private intervenors have not joined in the proffered stipulation. But, as we explain later, their concerns do not warrant out disapproving the suggested resolution, which we think fits the description the Commission employed in *Indian Point*: it “is appropriate in the circumstances of this case, meets the requirements of NEPA, and is otherwise in the public interest.” CLI-75-14, *supra*, 2 NRC at 837.

In this regard, before judging whether the stipulated proposal would adequately preserve environmental values in the short term, we asked the intervening citizens’ groups for a “detailed statement” of any objections they might have; we also noted our willingness to grant them extra time if they needed it to prepare a full statement of their views. Their prompt but brief

¹⁶We do know that the permanent system will have to meet the statutory standard of limiting thermal discharges sufficiently to “assure the protection and propagation of” the Conowingo Pond ecology.

response was (1) to withhold endorsement of the procedures that had led to the proposed settlement and (2) to reiterate their position that only closed-cycle cooling will preserve the integrity of Conowingo Pond.¹⁷ For these reasons, they expressed inability to join in the stipulation.

As to the first point, we are unwilling—at least absent a detailed explanation of intervenors' procedural complaints—to invalidate the long, complex, and finally successful settlement efforts of the other parties to this unusual proceeding. Insofar as the second point (the merits) is concerned, we are uncertain whether the intervenors' alarm is over the interim situation, or the long term, or both. In any event, with respect to interim operation, our judgment is that, given the level of performance attainable by the five helper cooling towers, the stipulated solution is in the public interest—particularly in view of the ongoing responsibility and authority that rests with some of its signatories. And, as far as the long term is concerned, we need simply reiterate that the EPA Section 316(a) proceeding will give the final answer, and that only it can do so.

For the above reasons, we *approve* both the "Stipulation among Certain Parties and Participants" and the accompanying technical specifications as fulfilling the NRC's responsibilities concerning thermal discharges from Unit 3 of the Peach Bottom facility.¹⁸ Accordingly, the exceptions to LBP-74-42 are *dismissed*.¹⁹

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

¹⁷See "Detailed Statement of Intervenors' Views Regarding Stipulation," dated September 13, 1978.

¹⁸Although we have not cast our opinion in the terms of the parties' proposed stipulated findings on "NEPA aspects of water-related issues," we have no essential disagreement with what is contained there.

¹⁹In addition to their water-related exceptions, the intervenors preserved for Unit 3 certain arguments they had made in connection with the licensing of Unit 2. Those arguments have since been disposed of in the Unit 2 proceeding, however, and are thus no longer of concern here (see fn. 2, *supra*).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

CAROLINA POWER AND
LIGHT COMPANY

Docket Nos. 50-400

50-401

50-402

(Shearon Harris Nuclear Power
Plant, Units 1, 2, 3, and 4)

50-403

March 23, 1979

Petitioner's request that its petition to intervene, the denial of which by the Licensing Board had previously been affirmed by the Appeal Board, be returned to the Licensing Board for reconsideration is denied as essentially moot in view of the hearing's completion and petitioner's participation, though limited, in the hearing.

Messrs. George F. Trowbridge and John H. O'Neill,
Jr., Washington, D. C., for the applicant Carolina
Power and Light Company.

Mr. Wells Eddleman, Durham, North Carolina, *pro se*
and for the Kudzu Alliance.

MEMORANDUM AND ORDER

On February 13, 1979, we affirmed the Licensing Board's decision denying intervention to Wells Eddleman and the Kudzu Alliance in connection with the remanded "management capability" aspect of this construction permit proceeding. ALAB-526, 9 NRC 122. On March 5th, during the course of the evidentiary hearing below, Mr. Eddleman sent us a postcard requesting that we "return" the intervention question to the Licensing Board in light of what he believed to be that Board's "apparent willingness now to reverse its initial ruling" on that score. His somewhat cryptic

message did not tell us on what he based that belief.

We need not decide to what extent Mr. Eddleman was correct in his perception of a changed attitude on the part of the Board below (see, perhaps, February 28th Transcript, pp. 2378-2413). Nor do we need to go into whether such a change would have been sufficient to convince us to reconsider our own decision upholding the denial of intervention. For Mr. Eddleman was allowed to participate in the hearing in a limited fashion (*i.e.*, by assisting counsel for certain parties whose views were akin to his own), the hearing has since been concluded, and at the end of it Mr. Eddleman concurred in the thought that he had "had a productive participation" in the proceeding, at least "within the limits that are placed by having to go through counsel" (Tr. 3786, March 8, 1979). We therefore consider his postcard request to be essentially moot and *deny* it on that basis.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Dr. W. Reed Johnson

In the Matter of

Docket No. 50-344

PORTLAND GENERAL ELECTRIC
COMPANY, et al.

(Control Building)

(Trojan Nuclear Plant)

March 27, 1979

The Appeal Board affirms the Licensing Board's decision to permit interim operation of the facility prior to a final decision on the nature and timing of modifications to the control building.

LICENSING BOARD: JURISDICTION

A Licensing Board does not have the power to explore matters beyond those which are embraced by the notice of hearing for the particular proceeding.

RULES OF PRACTICE: SHOW-CAUSE

A party with safety concerns unrelated to those within the reach of the proceeding at bar may request the Director of Nuclear Reactor Regulation to institute a show-cause proceeding looking to the modification, suspension or revocation of the license.

Messrs. Ronald W. Johnson, Portland, Oregon,
and **Maurice Axelrad** and **Joel S. Wight**,
Washington, DC, for the licensees, Portland
General Electric Company, *et al.*

Ms. Nina Bell, Portland, Oregon, for the Con-
solidated Intervenors.

Mr. Eugene Rosolie, Portland, Oregon, for the intervenor, Coalition for Safe Power.

Mr. Joseph R. Gray for the Nuclear Regulatory Commission staff.

DECISION

Before us is the joint appeal of the Consolidated Intervenors¹ and the Coalition of Safe Power from the December 21, 1978, partial initial decision of the Licensing Board in this special proceeding involving the Trojan nuclear facility. See LBP-78-40, 8 NRC 717. The background of the proceeding, as well as the substance of the result reached below, are set forth in our opinion denying motions for a stay of the effectiveness of the partial initial decision pending the outcome of the appeal. See ALAB-524, 9 NRC 65 (January 30, 1979). We need not rehearse that discussion here. Suffice it for present purposes to note that all that the Licensing Board was required to consider, and did consider, was whether (and if so on what conditions) interim operation of the Trojan facility should be permitted prior to a determination (yet to be made) regarding the precise nature and timing of certain modifications to the facility's control building. Those modifications are required in order to bring the control building into conformity with the seismic criteria applicable to this facility.

In denying a stay in ALAB-524, we determined that no showing had been made by the intervenors that the Licensing Board had erred in finding that, given the conditions it was imposing upon interim operation, there was the requisite reasonable assurance that such operation would not produce a seismic-related danger to the public health and safety. We have now taken a second look at that pivotal finding, this time with the benefit of full briefing of the appeal and the opportunity to undertake a close independent examination of the entire underlying record. We adhere to our belief that there is no reason to disturb the finding.²

The appeal also challenges a number of ancillary rulings of the Licensing Board. Upon a careful consideration of each, none of the challenges appears sufficiently substantial to warrant extended discussion. There is, for

¹David B. McCoy, C. Gail Parson, and Nina Bell.

²In reviewing the record in this context, we gave particularly close attention to the intervenors' claims respecting such matters as the adequacy of the fire protection system (including its ability to survive a seismic event) and the use of the square root of the sum of the squares (SRSS) technique in determining whether the unmodified control building could withstand a 0.25g earthquake.

example, a patent lack of merit to such assertions as (1) the Board both abused its discretion and violated intervenors' constitutional due process rights when it declined to subpoena *as a Board witness* an individual whom the intervenors wished to have testify;³ (2) before pre-modification interim operation could be permitted, an environmental impact statement had to be prepared;⁴ and (3) another condition precedent to allowing interim operation was a full reevaluation of the previously determined need for the power which would be generated by interim operation of the facility. Indeed, without meaning to question the sincerity of intervenors in pressing claims of that stripe, the absence in the jurisprudence of any conceivable support for the claims suggests to us that they might not have been advanced at all had intervenors been represented by counsel. Be that as it may, we are satisfied that to dwell at length upon them (or the intervenors' other arguments) would not serve a useful purpose.⁵

In short, we decide that the Licensing Board treated all of the issues necessary to a reasoned decision on the interim operation question;⁶ that is ultimate safety findings are adequately supported by the record; and that it committed no substantive or procedural error which either affected

³The intervenors did not endeavor to subpoena that individual to testify as *their* witness. Their purpose in seeking to have him subpoenaed as a Board witness was to have the financial burden attendant upon his appearance (*i.e.*, witness fees and transportation expenses) assumed by the Government.

⁴In ruling that the authorization of interim operation did not need to be preceded by the preparation and issuance of either an environmental impact statement or an environmental impact appraisal and negative declaration (see 10 CFR 51.5), the Board below observed that there was nothing to indicate that such operation would involve environmental impacts other than or different from those previously evaluated at the construction permit and operating license stages. 8 NRC at 744-745.

⁵We might have been disposed to give more extended treatment to intervenors' several points had the decision below not authorized simply interim plant operation for a relatively short period of time. Of course, the consideration that long-term operation is not involved had no bearing upon our obligation to comb the record with enough care to insure that it provided an adequate basis for allowing the plant to operate at all in advance of the required control building modifications. But in our judgment that consideration does influence the extent to which we are obligated to discuss in detail appellate assertions of a wholly insubstantial character. This is particularly so where, as here, the Licensing Board has furnished a reasoned basis for its findings and conclusions on the crucial questions.

⁶The intervenors endeavored to raise issues manifestly beyond the bounds of the issues identified in the notice of hearing which triggered this special proceeding. The Licensing Board concluded (8 NRC at 745), that it lacked the jurisdiction so to expand the scope of the proceeding, citing as authority *Public Service Company of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 NRC 167, 170-71 (1976). The *Marble Hill* decision clearly supports that conclusion; it squarely holds that a licensing board does not have the power to explore matters beyond those which are embraced by the notice of hearing for the

(Continued on next page)

substantial rights of the intervenors or brought into legitimate doubt the correctness of the result reached below. Accordingly, we are content to affirm that result summarily, essentially on the strength of the Licensing Board's decision.⁷

The December 21, 1978 partial initial decision is *affirmed*.
It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

(Continued from previous page)

particular proceeding. Contrary to the intervenors' suggestions, this was a holding of general applicability; *i.e.*, it was not restricted to the precise situation presented in *Marble Hill* (where an attempt had been made to inject anti-trust issues into a proceeding which had been convened to consider solely safety and environmental questions).

Nonetheless, if intervenors have safety concerns unrelated to those within the reach of the proceeding at bar, there is a remedy available to them. Specifically, they may request the Director of Nuclear Reactor Regulation to institute a show-cause proceeding looking to the modification, suspension, or revocation of the Trojan operating license. See 10 CFR 2.202, 2.206; *Public Service Company of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-513, 8 NRC 694, 696 (December 21, 1978). Needless to say, we intimate no opinion on whether the grant of such relief would be appropriate here. As noted in *Seabrook*, that would be for the Director to decide (subject to possible Commission review). Our point is simply that the intervenors proceeded in the wrong forum to the extent that they sought below to press claims unrelated to the issues which had been specified for hearing.

⁷To avoid any possible misunderstanding respecting the reach of our affirmance, it bears repetition that the Licensing Board decided nothing more than that the facility might operate until such time as it entered a further order "in conjunction with the decision on the scope and timeliness of modifications from a safety standpoint . . .". (8 NRC at 747) In other words, it remains to be determined below not merely the nature and timing of the modifications, but also whether (and, if so, on what conditions) the facility should be allowed to operate while the work is being performed. Manifestly, therefore, we are not called upon to look into any such questions at this stage; rather, they will become ripe for our consideration only after the Licensing Board completes the additional evidentiary hearing at which they will be addressed and then renders judgment upon them. It need be added only that it appears that that Board appreciates the desirability of an expeditious resolution of the matters still before it and is managing the conduct of the further proceedings with that end in mind. We encourage it to continue to do so.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Charles Bechhoefer, Chairman
Glenn O. Bright
Oscar H. Paris

In the Matter of

Docket Nos. 50-387
50-388

PENNSYLVANIA POWER & LIGHT
COMPANY
ALLEGHENY ELECTRIC COOPERATIVE,
INC.

(Susquehanna Steam Electric
Station, Units 1 and 2)

March 6, 1979

The Licensing Board, acting as an intervention board, rules on various contentions advanced by petitioners for intervention. Completing its ruling on the contentions, the Licensing Board acts as a hearing board and rules on several matters before it, including establishment of a preliminary discovery and hearing schedule.

**RULES OF PRACTICE: CONTENTION REQUIREMENT FOR
INTERVENTION**

A Licensing Board is not required to recast a petitioner's contentions to make them acceptable. It is also not precluded from doing so.

RULES OF PRACTICE: CROSS-EXAMINATION BY INTERVENORS

Any intervenor may cross-examine and submit proposed findings and conclusions of law on other parties' contentions and issues raised by the Licensing Board, if any.

FWPCA: EPA AUTHORITY

Although the health effects of a substance discharged by a plant under an NPDES permit issued by the Environmental Protection Agency are

litigable before the NRC, the quantity of the substance permitted to be discharged under an NPDES permit is not.

OPERATING LICENSE PROCEDURE: CONTENTION REQUIREMENT

Consideration of such matters as need for power and various plant alternatives is more appropriate at the construction permit stage, before a plant has been built, than at the operating license stage, where a completed plant must be assumed. A contention raising issues of this type in an operating license proceeding must include a strong showing that there exists a significant issue which had not previously been adequately considered or significant new information which had developed after the construction permit review.

OPERATING LICENSE HEARINGS: NEPA ISSUES

Consideration of need for power and various plant alternatives is more appropriate at the construction permit stage. At the operating license stage, a contention raising issues of this type must make a strong showing that there is a significant issue not considered adequately before or significant new information developed after the construction permit hearing.

NEPA: COST-BENEFIT ANALYSIS

A licensing board may not consider end uses of electricity in the cost-benefit analysis.

NEPA: COST-BENEFIT ANALYSIS

In striking the cost-benefit balance, it is appropriate to compare the increase in radiation from a particular plant to normal background radiation.

RULES OF PRACTICE: RESPONSIBILITIES OF PARTIES

Licensing boards and the general public should be able to ascertain from a single document the staff's perception of the nature and extent of the relationship between each significant, unresolved, generic safety question, and the operation of the reactor.

LICENSING BOARD: SCOPE OF REVIEW

In an operating license proceeding where a hearing is to be held to consider other issues, licensing boards are enjoined, in the absence of an issue

raised by a party, to determine whether the Staff's resolution of the applicable generic safety issues is at least plausible and adequate to justify operation.

OPERATING LICENSE HEARINGS: HEALTH AND SAFETY ISSUES

Special circumstances must be shown before questions on pressure vessel integrity are acceptable as matters in controversy. The special circumstances doctrine is premised on the low probability of rupture of pressure vessels which are constructed in accordance with applicable requirements. It never was intended to preclude inquiry into whether the pressure vessel is constructed in accordance with such requirements.

OPERATING LICENSE PROCEDURE: CONTENTION REQUIREMENT

The intent of the early notice procedures applicable to operating license proceedings is to reveal at as early a date as possible the matters in dispute between the parties. Expedition of a proceeding, which the early notice procedures was designed to foster, is desirable, but it never should be permitted to blur or place roadblocks in the resolution of issues which have potential safety significance.

NEPA: COST-BENEFIT ANALYSIS

Decommissioning costs necessarily comprise a portion of the cost-benefit analysis which must be made. What needs to be shown is that the estimated costs do not tip the balance against the plant and that there is reasonable assurance that an applicant can pay for decommissioning.

OPERATING LICENSE HEARINGS: HEALTH & SAFETY ISSUES

As a health and safety matter, it has long been held that offsite transportation of spent fuel is outside the scope of an operating-license proceeding. *Wisconsin Electric Power Company* (Point Beach Nuclear Plant, Unit 2), ALAB-31, 4 AEC 689, 693, 697 (1971); *Trustees of Columbia University in the City of New York*, ALAB-50, 4 AEC 849, 863 (1972).

ATOMIC ENERGY ACT: SCOPE OF INFORMATION REQUIRED FOR LICENSING

That the Atomic Energy Act does not, as a prerequisite to an operating license, require an affirmative determination that high-level nuclear wastes

can be permanently disposed of applies as well to the disposal of low-level wastes.

NEPA: LAND-USE INQUIRY

Site archeology is a subject which, as a practical matter, can only be considered prior to the authorization of construction or, at the latest, during the early excavation phases of construction.

RULES OF PRACTICE: CHALLENGE TO COMMISSION REGULATIONS

An operating license proceeding is not a proper forum for challenging arrangements authorized by the Price-Anderson Act.

ATOMIC ENERGY ACT: SCOPE OF INFORMATION REQUIRED FOR LICENSING

Applicants need not provide any measures for the specific purposes of protection against the effects of military attacks directed against a facility. 10 CFR Section 50.13; *Siegel v. Atomic Energy Commission*, 400 F.2d 778 (D.C. Cir. 1968). Nor need they factor into their application measures designed to cure or mitigate any alleged NRC deficiencies with respect to whatever responsibilities that agency may have in the area of military preparedness.

TECHNICAL ISSUES DISCUSSED: EVACUATION PLANS

SPECIAL PREHEARING CONFERENCE ORDER

Our memorandum and order concerning petitions for leave to intervene, dated October 26, 1978 (unpublished), recounted that, in response to the August 9, 1978, notice of opportunity for hearing in this operating license proceeding (43 Fed. Reg. 35406), timely intervention petitions had been filed by the Environmental Coalition on Nuclear Power (ECNP), by Colleen Marsh (on behalf of herself and 11 other individuals), by the Susquehanna Environmental Advocates (SEA), and by the Citizens Against Nuclear Danger (CAND). In addition, as we pointed out, the Bureau of Radiation Protection, Department of Environmental Resources, of the Commonwealth of Pennsylvania, sought to participate as an "interested State" pursuant to 10 CFR 2.715(c). We ruled that each of the petitioners for intervention had made an adequate showing of standing to participate

subject, in the case of ECNP, to further supplementation in one limited respect.

We further pointed out that, for a petition to be accepted, it must include at least one contention which complies with the Commission's requirements in 10 CFR 2.714(b) but that, as permitted by NRC rules, all except one of the petitioners had not yet filed any contentions. We therefore declined to rule at that time on the outstanding petitions but instead indicated our intent to hold a special prehearing conference to consider the petitions. The conference was later scheduled for January 29-31, 1979, with supplemental petitions required to be filed by January 15, 1979 (see 43 Fed. Reg. 59450, December 20, 1978).

The petitioners filed timely supplements to their petitions setting forth their contentions and, in the case of ECNP, the additional information concerning standing which we had earlier found to be necessary. Each petitioner appeared at the prehearing conference, which was held in Wilkes-Barre, Pennsylvania, at the time previously scheduled. We permitted the Applicants and NRC Staff to respond to the supplemental petitions, and both of them did so. Based on these materials, together with the discussion of the contentions which occurred at the prehearing conference, we conclude that ECNP has cured the earlier deficiency in its demonstration of standing, that each of the four petitioners has set forth at least one appropriate contention and, for that reason, a hearing should be held and each of the four petitioners admitted as a party-intervenor. We are also granting the request of the Bureau of Radiation Protection, Department of Environmental Resources, of the Commonwealth of Pennsylvania to participate as an "interested State" pursuant to 10 CFR 2.715(c). A notice of hearing, in the form of the attachment to this order, is today being issued.

Given our previous rulings, and the lack of any challenge at this time to ECNP's showing of standing, we need not further discuss that subject. Each of the petitioners, in our view, has demonstrated its standing to participate in this proceeding. But because there is considerable difference of opinion among the parties and petitioners as to the acceptability of many, if not most, of the contentions, we will discuss them in some detail in Part I of this opinion. Part II discusses certain other matters presented to us.

I

We are treating various contentions by their subject matter and are combining into single contentions those of different petitioners which raise the same or similar questions. In doing so we have rewritten many of the contentions. We recognize that, as the Staff points out, a Board is not required to recast contentions to make them acceptable. *Commonwealth Edison*

Company (Zion Station, Units 1 and 2), ALAB-226, 8 AEC 381, 406 (1974). We are also not precluded from doing so. In this instance, such a course commended itself to us because of the similarity of different contentions, the commingling in some contentions of certain extraneous, irrelevant, or legally unacceptable statements, and the desirability of defining issues simply and directly, while including therein all matters raised by the petitioners which are suitable for litigation in this proceeding.

Contentions hereafter shall be referred to in terms of the numbers and subparts which the Board has assigned to them.¹ For purposes of the conduct of discovery and presentation of direct testimony, the Board contentions will be considered to be sponsored by the petitioners whose contentions or parts thereof are incorporated therein (as indicated by the discussion preceding each contention). Those whose contentions on a particular subject have been rejected may, of course, participate in the conduct of cross-examination and the submission of proposed findings and conclusions on other parties' contentions which have been accepted, as well as on Board-sponsored issues, if any, as provided by *Northern States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 and 2),

¹In discussing the various petitioners' contentions, we have utilized the same numbering systems as utilized by those petitioners in their supplemental intervention petitions, with two exceptions. We have admitted one Marsh contention (Board Contention 13) and have denied two others which appeared in the original petition but were not repeated in the supplemental petition. We have numbered the CAND contentions chronologically with the following numbers corresponding to the dates on which they were submitted:

Board's Chronological Number	Date Submitted	CAND's Contention Number
1	12/28/78	1
2	12/28/78	2
3	12/28/78	3
4	12/28/78	4
5	12/29/78	1
6	12/29/78	2
7	1/3/79	1
8	1/3/79	2
9	1/5/79	1
10	1/5/79	2
11	1/8/79	1
12	1/8/79	2
13	1/9/79	1
14	1/9/79	2
15	1/10/79	1
16	1/10/79	2

ALAB-244, 8 AEC 857, 863-871 (1974); *id.*, ALAB-252, 8 AEC 1175, 1178-1181 (1975); *affirmed*, CLI-75-1, 1 NRC 1 (1975).

1. Health effects of the uranium fuel cycle (ECNP 1, 2; SEA 5, 6, 9)

ECNP and SEA each raise issues concerning the health effects of the uranium fuel cycle. Specifically, ECNP contends that the health effects of long-lived isotopes which would be released from the uranium fuel cycle required for the operation of the Susquehanna plant have been misrepresented and underestimated by the Applicants, in particular because each of those isotopes has allegedly not been considered for its "full detoxification period" (Contention 1). In addition, ECNP contends that the cost-benefit analysis for the facility is faulty because it completely neglects the health costs of all the long-lived isotopes that will be released (Contention 2). As examples of isotopes which have "eluded full environmental analysis," the petitioner lists Tc-99, Se-79, I-129, Cs-135, and "the alpha-particle emitters." Although the language of ECNP's supplemental petition appears to limit the contention to health effects only, ECNP's representative indicated during the special prehearing conference that Contention 1 seeks as well to litigate the quantities of long-lived isotopes that would be released (except for those isotopes specifically listed in Table S-3 of 10 CFR 51.20) (Tr. 9-10).

For its part, SEA contends that the radiation exposure of miners and of the general public which would result from mining the uranium required to fuel the Susquehanna units was ignored in the Environmental Report (ER) (Contention 5). The contention also states that the number of cancer and premature deaths caused by this radiation should be stated in the ER. A similar contention is set forth by SEA with respect to the mill tailings that would be produced by the mining activities required to supply fuel for the facility (Contention 6). With regard to the reprocessing phase of the fuel cycle, SEA acknowledges that occupational exposure is mentioned but contends that the ER should also address the number of cancer and premature deaths that would result therefrom (Contention 9).

The Applicants and the Staff do not object to the contentions insofar as they assert that the radiological health effects of the uranium fuel cycle, including mining, mill tailings, and reprocessing, should be considered in the cost-benefit balance of the facility (see Applicants' and Staff's answers to the supplements to the petitions of ECNP and SEA; also, Tr. 12, 14-15, 226-228). Both object, however, to ECNP's contention insofar as it questions the quantities of radioisotopes released from the fuel cycle. They view such a contention as a challenge to the Commission's regulations because

the quantities of all isotopes released in the fuel cycle, except radon-222, are set forth in Table S-3 of 10 CFR 51.20 (Tr. 15-16).

At the special prehearing conference ECNP claimed that the language of footnote 1 to Table S-3 does not exclude from litigation isotopes which are not addressed at all in the table and, accordingly, that the quantities of such isotopes may be considered (Tr. 17). The Staff and Applicants, on the other hand, assert that all pertinent isotopes are listed in Table S-3 and those that are not should be considered to have a value of zero (Tr. 15-17).

With regard to the isotopes listed in ECNP's petition, we note that Table S-3 includes a specific quantity for I-129. Further, Cs-135 is addressed in NUREG-0116 (Appendix A), one of the background documents listed in footnote 1; therefore Table S-3 is to be read as if a zero entry had been made for that isotope (see footnote 1 to Table S-3). Tc-99 and Se-79 are fission products, and "the alpha-particle emitters" mentioned by ECNP are transuranic elements. Table S-3 includes specific quantities for gaseous "fission products and transuranics" and for liquid "fission and activation products." All of the isotopes listed by ECNP, therefore, can be deemed to be included in Table S-3.

We need not here decide whether releases of every conceivable isotope must be considered to be included in Table S-3, but we can and do agree with the Applicants and Staff that Table S-3 encompasses the pertinent isotopes mentioned by the petitioners, except for radon-222. With respect to radon-222, the Commission has said that both the quantity released and its health effects may be litigated (footnote 1 to Table S-3). Therefore, ECNP may question the quantity of radon-222 but no other isotope contained in its list. On the other hand, the health effects of all isotopes released in the uranium fuel cycle constitutes a cognizable issue. Accordingly, we admit the following contention:

1. The quantity of radon-222 which will be released during the fuel cycle required for the Susquehanna facility has not been, but should be, adequately assessed. The radiological health effects of this radon should be estimated and these estimates factored into the cost-benefit balance for the operation of the plant.

The radiological health effects of all isotopes other than radon-222 which will be released during the fuel cycle required for the Susquehanna plant have been misrepresented and underestimated. In particular, the health effects of each long-lived isotope which will be released from the fuel cycle for Susquehanna should be reassessed. The appropriately determined effects must be factored into the cost-benefit balance for the operation of the plant.

2. Health effects of low-level radiation and other discharges from the facility (ECNP 2; CAND 6, 15)

ECNP contends that the cost-benefit analysis performed by the Applicants and Staff is faulty "because it neglects completely the health costs due to *all* of the long-lived radioactive isotopes released, or caused to be released, to the environment by the operation of Susquehanna" (emphasis on original). In addition, it contends that the cost-benefit balance is distorted because radiation attributable to Susquehanna's operation is compared with background radiation. ECNP claims that, if such a comparison were justified, the benefits of the electrical output of Susquehanna should be compared with benefits of the solar energy incident in the United States (see Tr. 12).

CAND contends that nuclear wastes, such as cesium-137 and cobalt-60, and the chlorine which will be discharged from the plant into the Susquehanna River will pose a serious public health danger to the citizens of Danville, which draws its drinking water from the river. For that reason, CAND claims that the NRC "should order the Applicants to install an improved liquid waste treatment system designed to remove all traces of chlorine and nuclear wastes from the processed water before discharge into the river" (Contention 6). Elsewhere, CAND contends that the "sustained discharge of low-level radiation" resulting from the operation of the plant will pose a long-term threat to the life and health of women of childbearing age and to their future progeny (Contention 15).

The Applicants object to the admission of ECNP's contention on the ground that it lacks specificity. To the extent that the contention seeks to raise the issue of whether it is appropriate to compare radiation attributable to Susquehanna with background radiation, the Applicants maintain that this issue has been decided by the Appeal Board in *Maine Yankee Atomic Power Company* (Maine Yankee Atomic Power Station), ALAB-175, 7 AEC 62, 63 (1974); *id.*, ALAB-161, 6 AEC 1003, 1012 (1973). The Staff likewise believes that the contention lacks specificity but acknowledges that "a contention may be admitted dealing with whether the cost-benefit balance for the facility is rendered of no worth (1) by a consideration of the incremental radiation to be caused by the facility compared with background radiation, and (2) by a failure to consider all radioactive isotopes released or caused to be released by operation of the facility." The Staff maintains that ECNP must identify all isotopes which it contends were not considered.

With regard to the contentions of CAND, the Applicants do not object to the admission of Contention 6 to the extent that the issue to be litigated deals with the health effects of three effluents: chlorine, cesium-137, and

cobalt-60. Both the Applicants and Staff point out, however, that the amount of chlorine to be released from the plant is determined by the facility's National Pollution Discharge Elimination System (NPDES) permit issued under Section 402 of the Federal Water Pollution Control Act (FWPCA) and cannot be further limited by the NRC. Additionally, they observe that the portions of the contention which request that NRC impose a "zero release" limit on radioisotopes is a challenge to the Commission's regulations in 10 CFR Parts 20 and 50. The Staff also interprets that portion of the contention which raises the issue of chlorine discharge to be an attempt to reopen a matter decided at the construction permit stage and opposes its admission for that reason. At the prehearing conference, however, the Staff said that it would have no objection to the contention if interpreted in the same manner as the Applicants found acceptable, *i.e.*, as raising the issue of the health effects of chlorine, cesium-137, and cobalt-60 discharges on the citizens of Danville (Tr. 301).

With regard to CAND's Contention 15, the Applicants again have no objection to litigating an issue relating to the health effects of low-level radiation (see Tr. 356). The Staff, on the other hand, initially interpreted the contention as a challenge to the Commission's regulations and objected to its admission. At the prehearing conference, however, it agreed that the contention could be litigated if its scope were as stated by the Applicants (Tr. 355-56).

We are in agreement with the Applicants and the Staff concerning the admissibility of a contention which relates to the effect on the NEPA cost-benefit analysis of the health effects of low-level radiation, in the sense of the "residual risks" as defined in *Maine Yankee*, ALAB-161 and ALAB-175, *supra*, in particular 7 AEC at 63, footnote 2 (1974). We also agree that the health effects of chlorine discharged by the plant may be litigated. The quantity of chlorine discharged may not be questioned because the maximum amount of such discharge is fixed by the terms of the Applicants' discharge permit (which is premised on requirements of the Environmental Protection Agency). That matter is under the exclusive jurisdiction of EPA, not the NRC. See *Tennessee Valley Authority* (Yellow Creek Nuclear Plant, Units 1 and 2), ALAB-515, 8 NRC 702 (December 27, 1978); *cf. Southern California Edison Company* (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-248, 8 AEC 957, 975-77 (1974). NRC's consideration of the health effects of the chlorine discharge must be based on the amounts specified in the discharge permit.

We reject ECNP's claim that the benefit of incident solar energy should be balanced against the benefits of electrical energy generated by the Susquehanna plant. Such a comparison has no meaning in the context of a proceeding inquiring whether an individual facility produces a benefit. That the

benefit may be less, more, or different from that produced by incident solar energy is like comparing apples and oranges and is simply irrelevant. We also reject ECNP's claim that it is inappropriate to compare radiation attributable to Susquehanna with background radiation. The Appeal Board has sanctioned the use of background radiation as a measure of "the dimensions of [radiation] exposure in normal operations." *Maine Yankee, supra*, ALAB-161, 6 NRC at 1012. Whether that measure has been properly applied is, of course, a matter which may be litigated. Finally, we reject CAND's request that NRC impose a "zero release" of radioisotopes. There has been no showing made by CAND that the facility's releases will not meet the "as low as reasonably achievable" standards of NRC regulations. (CAND's contention to this extent constitutes a challenge to the Commission's regulations in 10 CFR Part 20 and 10 CFR Part 50, Appendix I.)

We admit the following contention:

2. The residual risks of low-level radiation which will result from the release from the facility of radionuclides, and particularly from the release of cesium-137 and cobalt-60, into the Susquehanna River, and the health effects of chlorine discharged into the river, have not been, but must be, adequately assessed and factored into the NEPA cost-benefit balance before the plant is allowed to go into operation.

3. Uranium supply (ECNP 3; SEA 4)

The Applicants and Staff (see Tr. 21) have agreed that the adequacy of the supply of uranium, and the price of that uranium, for the facility are matters which can be litigated insofar as they bear upon the facility's cost-benefit balance. See *Kansas Gas & Electric Company* (Wolf Creek Generating Station, Unit 1), ALAB-462, 7 NRC 320, 323-26 (1978); *Gulf States Utilities Company* (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760, 787-93 (1977); *id.*, ALAB-317, 3 NRC 175, 180-85 (1976). Both of these matters are included in both ECNP's and SEA's contentions. We agree with the Staff that the portions of ECNP's contention which bear upon the effects of low-level radiation from mining and mill tailings are not relevant to a uranium supply contention; to the extent they are relevant at all, they are considered in the context of the health effects throughout the fuel cycle of low-level radiation (Board Contention 1, *supra*). But for reasons spelled out in conjunction with need for power contentions (see Board Contention 4, *infra*), and contrary to the position taken by the Staff, we find SEA's utilization of information appearing in the Applicants' Environmental Report (ER) and Final Safety Evaluation Report (FSAR) as bases for a contention to be entirely appropriate.

The following contention is admitted:

3. Known and assured reserves of uranium are insufficient to supply the lifetime fuel required for Susquehanna 1 and 2 in a growing economy. Neither the ER nor the FSAR discusses the adequacy of such fuel supply. The historic growth rate for nuclear-generated electricity, a measure of uranium consumption, is about 32% annually, for the years 1961 through 1977. Even if this growth rate drops more than in half to 15%, all of the estimated reserves of uranium will have been consumed prior to the end of the 30-year life of Susquehanna 1 and 2. Higher fuel prices will result, as is evidenced by the approximate 400% price rise in the price of uranium fuel in the last 6 years. In addition, much uranium for the facility will have to be imported. These costs, when added to other costs, will tip the cost-benefit balance against operation of the facility.

4. Need for power (ECNP 4, 6; Marsh 5C; SEA 15; CAND 5)

All of the petitioners contend that, for one reason or another, the Susquehanna facility will not be needed. They cite differing reasons for this conclusion. ECNP relies in its Contention 4 on information appearing in the Applicants' Environmental Report (ER) tending to indicate the existence of high reserve levels, together with "very modest increases in electrical energy conservation efforts." It claims that there has been no adequate study of the effects of conservation on the need for Susquehanna. Further, it claims in Contention 6 (which it agrees can be combined with 4, see Tr. 46) that the analysis of alternatives (particularly conservation and solar energy) has been inadequate. For their part, Ms. Marsh and SEA also rely on the information appearing in the ER, whereas CAND relies on recent earnings statements of the Applicants (suggesting the existence of "excess capacity") together with the objectives of the "National Energy Program" to cut the growth rate of electrical energy demand (presumably through conservation). CAND also explained that its contention was meant to assert at least that, even if Unit 1 were needed, Unit 2 would be superfluous (Tr. 295).

Both the Applicants and NRC Staff oppose all of the "need for power" contentions. The Applicants admit that, as reflected in their ER, the lead Applicant, Pennsylvania Power & Light, has, and will continue to have for some time, high reserve levels. They agree that claims of this type (particularly those of Ms. Marsh and CAND) would ordinarily form the core of a valid contention, but that, in this instance, there is nothing to litigate since the claims are not challenged. But they also assert that the units are justified on economic grounds notwithstanding the high reserve levels and that the petitioners have not challenged this justification. Further, they assert that

claims involving conservation and alternate power sources are not "reasonable alternatives" at the operating license stage and hence need not be considered.

The Staff takes a somewhat different view. It first takes the position that information appearing in the Applicants' ER is essentially irrelevant; "[i]t is the EIS and not the ER which must be adequate and provide a basis for Commission action." The Staff also takes the position that information different from that considered at the construction permit stage of review must be, but has not been, set forth. Finally, it urges that the contentions lack adequate bases. At the prehearing conference, however, the Staff admitted that a contention asserting that lack of need for the plant tilts the cost-benefit balance against authorizing operation was not objectionable (Tr. 35-36).

At the outset, we must reject the Staff's claim as to the essential irrelevance of the ER. It may be true, as the Staff asserts, that the important document in evaluating the adequacy of an agency's environmental review is the agency's final impact statement. See *Public Service Company of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503, 525 (1977); *Boston Edison Company* (Pilgrim Nuclear Generating Station, Unit 2), ALAB-479, 7 NRC 774, 792-794 (1978). But that does not mean that a petitioner for intervention cannot look to the ER for factual material in support of a proposed contention. Indeed, the ER is likely to be one of the best sources of information available to a petitioner for intervention to raise issues concerning the environmental impacts of a plant. As a predicate to its consideration of a licensing application, NRC requires the submission of such a report, at both the construction permit and, as here, the operating license stages of review. 10 CFR 51.20, 51.21. The Staff may rely on information appearing in the ER in performing its further review, although it may also choose not to do so. In our view, no Commission rule prevents petitioners for intervention from choosing to make similar use of such information.

There is no question that consideration of such matters as need for power and various plant alternatives is more appropriate at the construction permit stage—before a plant has been built—than at the operating license stage, where a completed plant must be assumed. Undoubtedly reflecting that circumstance, the regulations respecting operating license environmental reports specify that matters need be discussed therein "only to the extent that they differ from those discussed or reflect new information in addition to that discussed" during the construction permit stage of review. 10 CFR 51.21. For those reasons, as another Licensing Board recently pointed out, a contention raising issues of this type must include "a strong showing . . . that there exists a significant issue which had not previously been adequate-

ly considered or significant new information which had developed after the construction permit review." *Detroit Edison Company* (Enrico Fermi Atomic Power Plant, Unit 2), LBP-79-1, 9 NRC 73, 86 (January 2, 1979).

In our view, the requisite showing has here been made with respect to need for power and the consideration of conservation and solar energy as alternatives. The ER presents substantially different need for power information than was considered at the construction permit stage. The Applicants admit as much (Tr. 28). Although the ER also attempts to provide an economic justification for plant operation, that is a matter going to the merits, not to whether an adequate contention has been presented. Moreover, the subject of conservation does not appear to have been mentioned, either in the construction permit Licensing Board's initial decision (LBP-78-33, 6 AEC 978 (1973)) or in the underlying FES (dated June 1973). We recognize, as the Applicants claim (Tr. 48), that in 1976 ECNP sought to have the Commission suspend the construction permits in part because conservation had not been adequately considered. The Commission treated ECNP's petition as a request for a show-cause order, but we were unable to determine whether it was ever formally acted upon. (The portion which dealt with certain other matters was referred to the Appeal Board and later denied. *Public Service Electric & Gas Company* (Salem Nuclear Generating Station, Units 1 and 2), *et al.*, ALAB-426, 6 NRC 206 (1977).) The foregoing does not preclude our considering the question here. Solar energy was treated but briefly in the construction permit FES (where it was summarily rejected, see FES, §9.1 2a at p. 9-5) and also was not mentioned in the initial decision. For these reasons, we are admitting a contention incorporating these topics.

With respect to the other matters raised in these contentions, we find them either not relevant to the subject matter of the contention or lacking in the requisite specificity and bases. We note, however, that we are declining to admit certain portions of the various contentions which seek to challenge certain end uses of electricity, particularly space heating, on the ground that we are precluded from considering that claim. See *Consumers Power Company* (Midland Plant, Units 1 and 2), ALAB-123, 6 AEC 331, 351-52 (1973); *Public Service Company of Oklahoma* (Black Fox Station, Units 1 and 2), LBP-76-38, 4 NRC 435, 438 (1976).

The admitted contention reads as follows:

4. The Susquehanna facility (or, at least, Unit 2 thereof) is not needed; and, as a result, the cost-benefit balance is tilted against authorization of operating licenses (or, at least, a license for Unit 2), for the following reasons:
 - a. Information supplied in the Applicants' ER shows that, at the

very low growth rate scenario, the entire output of both units will be available for sale outside the service area of the Applicants as the units come on line (ER, Table 1.1-15).

- b. The electric capacity of the lead Applicant in 1977 was 40% greater than customer needs and demands from existing facilities. Latest projections of energy use and requirements during the next 30 years for the Applicants' service area, the period equal to the projected plants' "useful life," show that the Applicants can meet the needs of their customers through existing facilities and sources.
- c. The National Energy Program contemplates that steps be followed in order to achieve a lowered growth rate in electrical demand of less than 2% annually. Yet there has been no demonstration that the effects of conservation efforts designed to achieve that goal have been factored into the analysis of need for this facility. The conservation programs suggested by the Applicants are not designed to encourage either meaningful energy conservation or efficient energy use. Instead, these programs are aimed at encouraging continued electrical energy usage, regardless of whether electricity is the most efficient form of energy for the job at hand or not. One such example is the Applicants' encouragement of reliance on expensive electrically operated mechanical heating and cooling devices, like heat pumps, in the name of energy conservation. As another example, there has been no comparison of the cost of upgrading the thermal insulation in existing residences and commercial buildings in the service area of the Applicants with the cost (environmental and economic) of operating the Susquehanna facilities. Furthermore, there has been no discussion, in connection with energy conservation, of end use efficiencies or what have come to be known as "second law efficiencies," or of the health benefits of energy conservation.
- d. Solar energy in any of its various forms has not been considered as an alternative to Susquehanna. By ignoring this commonly used alternative energy source, the Applicants are hoping to prevent home use of solar heating and hot water applications and to encourage use of electricity.

5. Models used to calculate Low-Level Radiation Doses (ECNP 5)

The Applicants take the position that, insofar as this contention presents specific challenges to the models they have used in calculating individual and population doses, it is an admissible contention. The latter part they

regard as a challenge to the doses themselves as specified in 10 CFR Part 20 and 10 CFR Part 50, Appendix I, and hence not admissible under 10 CFR 2.758. The Staff takes the position that the entire contention is a challenge to the Commission's effluent limits in 10 CFR Part 20 and, in any event, is too general and hence is inadmissible. It conceded, however, that a challenge to specific models could be entertained (Tr. 39-40, 45). ECNP explained that it did not intend to challenge any effluent limitations but, rather, only the models used to calculate such doses (Tr. 38-39). It described the latter portion as raising a question as to the health effects of doses calculated through use of the models in question (Tr. 42).

There being no models prescribed by regulation for such calculations, we accept the contention as a challenge to the models specified, as agreed upon by the Applicants. Whether appropriate data were used in developing such models is an appropriate component of this inquiry. The portion dealing with the health effects of low-level radiation is not relevant to this subject area, although other accepted contentions deal with it (see Board Contentions 1 and 2, *supra*). The accepted contention reads:

5. Certain models used by the Applicants to calculate individual and population radiation doses are inaccurate and obsolete. The deficiencies are compounded by the arbitrary selection of data from inappropriate sources for the purpose of formulating these models. Specifically:

- a. the milk transfer coefficient for iodine has been underestimated (see *Health Physics*, 35, pp. 413-16, 1978);
- b. the models use factors which convert alpha particle dose in rads to rems which are far too low (see *Health Physics*, 34, pp. 353-60, 1978);
- c. the models use factors which underestimate the radiation effect, on a per rad basis, for the very low energy beta and gamma radiations, as from H-3 and C-14 (see *Health Physics*, 34, pp. 433-38, 1978).

6. Evacuation (ECNP 7; Marsh 6; SEA 8; CAND 9)

The Commission's regulations governing protective measures (including evacuation) in the event of a serious accident require that Applicants demonstrate that appropriate measures can and will be taken to protect individuals within the facility's low population zone (LPZ). See *New England Power Company* (NEP, Units 1 and 2), *et al.*, ALAB-390, 5 NRC 733 (1977). More recently, the Commission has issued proposed regulations which, in certain circumstances, would permit emergency planning measures to be imposed for areas outside the LPZ. See 43 Fed. Reg. 37473

(August 23, 1978). Those proposed regulations are to be used as "interim guidance," and emergency plans are to be reviewed at the operating license stage "in accordance with the interim guidance of the proposed amendment or, depending on timing, the amendment as promulgated in final form." *Id.* at 37475.

Under the proposed regulation, emergency planning for areas outside the LPZ need not be undertaken in every case, but only where there is presented "particular information why such a plan would be warranted." *Detroit Edison Company* (Enrico Fermi Atomic Power Plant, Unit 2), LBP-79-1, 9 NRC 73, 80-81 (January 2, 1979). The proposed regulation includes only limited guidance in this respect, stating:

The extent to which emergency planning . . . should extend to areas beyond the LPZ shall be based on the design features of the facility and the physical characteristics of the environs in the vicinity of the site, taking into account the emergency protective action criteria developed by appropriate Federal authorities, and by appropriate State and local governmental authorities in cooperation with the Commission.

The statement of considerations for the proposed rule does elaborate on the type of "physical characteristics" which may be relevant—including the "numbers and proximity to the site boundary of resident and transient persons and the relative speed with which warnings can be communicated to them, the availability and character of evacuation routes and means of transportation, the availability and locations of structures suitable for sheltering people, and the presence of institutions (such as hospitals, nursing homes, and schools) which may require special emergency planning arrangements." 43 Fed. Reg. at 37474. Beyond that, it appears to place great emphasis on the importance of "emergency action criteria, arrived at through a coordinated effort among local, State, and Federal authorities." *Ibid.* Such criteria are to be used to evaluate arrangements made by the Applicants with Federal, State, and local officials to assure that necessary evacuation or other protective actions will be taken. Moreover, it appears that such matters as the evacuation of "large numbers of persons . . . engaged in outdoor recreational activities in the vicinity of a plant" are to be governed by "appropriate protective action criteria, such as EPA protective action guides," and that such "considerations may lead to planning for protective actions beyond the LPZ." *Id.* at 37474-75.

ECNP and CAND each seek to explore evacuation of areas outside the LPZ. ECNP urges "prompt notification and evacuation of all areas in which persons may be exposed to radiation doses in excess of those permitted by existing radiation exposure standards for the general public and Protective Action Guides." In calculating such radiation doses, ECNP

wishes to consider, *inter alia*, "accidents more severe than the design basis accident." For its part, CAND seeks evacuation for the "tens of thousands of hospitalized and institutionalized persons in nursing homes and mental treatment facilities, as well as the physically and mentally handicapped within a 50-mile radius of Salem Township." When asked at the prehearing conference to identify particular areas encompassing such hospitalized and institutionalized persons, CAND mentioned only Danville, Nanticoke, and Dallas, Pennsylvania (Tr. 319). The construction permit FES lists Nanticoke as being 11 miles from the site (FES, Table 2.1). Dallas appears to be about 20 miles from the site, and Danville somewhat farther (see FES, Fig. 2.1).

In terms of the Commission's proposed regulations, neither ECNP nor CAND have identified any physical characteristics in the vicinity of the site which could reasonably give rise to a claim that evacuation beyond the LPZ should be considered. ECNP mentioned the "river basin location with relatively limited modes of . . . ingress and egress from the vicinity of the plant" (Tr. 63). The river basin location is applicable to a multitude of nuclear plant sites and is not the type of information which, *per se*, could justify consideration of evacuation beyond the LPZ. The asserted limited ingress and egress from the plant would be relevant to evacuation irrespective of whether there are circumstances which would bring the proposed regulations into focus; we are admitting that portion of the contention for consideration in that context.

ECNP's reference to Pennsylvania's Protective Action Guides does, however, bring into play the proposed regulations. We read them as at least authorizing inquiry into evacuation of such areas as may be necessary to achieve compliance with those guides. As ECNP points out, the guides were used as the basis for emergency planning in at least one other case—that involving the Three Mile Island facility near Harrisburg, Pennsylvania—and, upon checking the Appeal Board decision in that case, it does not appear to us that there were any particular physical site characteristics which caused the Protective Action Guides rather than the Part 100 standards to be utilized. *Metropolitan Edison Company* (Three Mile Island Nuclear Station, Unit No. 2), ALAB-486, 8 NRC 9, 15-16, 23 (1978). (The Licensing Board decision did not discuss which standards had been utilized. LBP-77-70, 6 NRC 1185 (1977).) Indeed, that case was heard prior to the promulgation of the proposed regulations, when even more restrictive standards were extant. That being so, it would be anomalous to close all inquiry here as to the feasibility and necessity of an emergency plan designed to conform to the Protective Action Guides. We admit that portion of ECNP's contention.

ECNP also wishes to explore evacuation in the event of a Class 9 accident. As a basis, it cites the recent disavowal by NRC of the reactor safety

study (WASH-1400). We reject that claim both as a challenge to 10 CFR 100.11(a), n. 1, which specifies the type of accident to be considered in evaluating an emergency plan, and as contrary to the Commission's longstanding policy—preceding the preparation of WASH-1400 and hence not affected by the study's disavowal—of not considering the consequences of Class 9 accidents (see discussion of SEA Contention 10, *infra*, pp. 323-324).

CAND's claim with respect to hospitalized and institutionalized persons, including the aged and infirm, must be rejected because the localities named are well beyond the area for which emergency planning might be required, either under Part 100 standards or under the Protective Action Guides. Further, no special physical characteristics of the area have been asserted. To the extent that the contention wishes to explore the evacuation of such persons within the smaller areas covered by part 100 or the Protective Action Guides, it fails for lack of specificity—*i.e.*, no hospitals or institutions within (or adjacent to) those areas have been named. We note that the Staff's construction permit Safety Evaluation Report reports an Applicants' statement that "there are no schools, hospitals, nursing and/or convalescent homes, mental institutions, prisons and/or jails, or military bases within the low population zone." SER, §2.1 at p. 8.

ECNP raises a question concerning the ability of Pennsylvania's Office of Radiological Health to respond in the event of an emergency. This claim would be relevant to an emergency plan irrespective of the area covered by that the claim was raised only at the appellate level and was dismissed for grounds. First, they assert that the same question was resolved in the Three Mile Island proceeding; an examination of that decision, however, reveals that the claim was raised only at the appellate level and was dismissed for lack of sufficient evidence to warrant reopening the record. See ALAB-486, *supra*, 8 NRC at 22, fn. 21. ECNP here asserts that it will produce additional evidence on this matter (Tr. 64, 68). The Applicants also claim that participation of the Office of Radiological Health is not necessary in an evacuation (Tr. 149). While that may be so—since ECNP contends otherwise (Tr. 146-147), it is a matter to be resolved by evidence—it is clear to us that that organization does play at least a significant role in the Applicants' emergency plan. (The Commonwealth of Pennsylvania confirmed that the office's participation was at least "desirable" (Tr. 150).) This part of ECNP's contention is admissible.

ECNP and Ms. Marsh each wish to litigate whether the Applicants' emergency procedures are adequate because of the failure to provide evacuation drills and warnings. We agree with the Applicants, however, that the Commission has taken action which, in effect, generically rules out contentions of this sort. In denying a rulemaking request to require ap-

plicants to take steps of this kind, the Commission pointed out that "the proposed rule would not further ensure the health and safety of the public, and in fact may increase the probability of injuries and loss of life, in addition to causing other inconveniences and costs not commensurate with the benefit." 42 Fed. Reg. 36326, 36328 (July 14, 1977). Moreover, a similar claim was turned down on the merits in *Three Mile Island*, ALAB-486, *supra*, 8 NRC at 16-17. With this background, and given the generic (rather than site-specific) character of the claim, it appears to us that denial of such a claim would be a foregone conclusion. The contentions raising it are therefore denied.

SEA's contention challenges the adequacy of training of personnel who will be participating in emergency evacuation procedures and also the "adequacy of safeguards" to protect those persons. SEA confirmed that the "safeguards" referred to protection from radiation hazards (Tr. 231-32). With that understanding, SEA's contention is admitted.

As admitted, the evacuation contention reads as follows:

6. The emergency plan proposed by the Applicants is not sufficient to assure prompt notification and evacuation of all areas in which persons may be exposed to radiation doses in excess of those permitted by existing radiation exposure standards for the general public and Protective Action Guides. Specifically:
 - a. The plan fails to account adequately for narrow roads and adverse weather conditions in the vicinity of the site.
 - b. There is considerable question of the ability of Pennsylvania's Office of Radiological Health to fulfill its assigned functions in the event of an emergency. The Director of that office stated at a public meeting that his staff would not be able to respond at all hours to an accident at a nuclear facility. He has also, by affidavit, denied having made such a statement. This question must be resolved. Furthermore, the office has been unsuccessful in obtaining the amount of funding required to provide adequate qualified staff and equipment to be able to expand its capability to monitor and respond to a radiation emergency situation at Susquehanna.
 - c. The plan includes insufficient information with respect to either the training of or the adequacy of radiation hazard safe-guards to protect local emergency units which may be required to participate in emergency evacuation procedures or which may be required to deal with onsite situations. The plan does not state whether the public or the utility will provide the training in protection and procedure required by local emergency units to coordinate a safe, systematic evacuation.

7. and 8. Unresolved generic safety issues (ECNP 10)

ECNP seeks to explore the various unresolved generic safety issues relevant to the Susquehanna facility. It has explicitly named several such issues. The Applicants agree that three of them are litigable. (One of the others has been withdrawn. Tr. 178.) The NRC Staff would reject the entire contention because of lack of specificity.

Recent Appeal Board decisions have stressed the importance of assuring that generic safety issues applicable to a particular reactor are satisfactorily resolved for that reactor. *Virginia Electric and Power Company* (North Anna Nuclear Power Station, Units 1 and 2), ALAB-491, 8 NRC 245 (1978); *Gulf States Utilities Company* (River Bend, Units 1 and 2), ALAB-444, 6 NRC 760 (1977). They have also emphasized that licensing boards, and the general public, should be able to ascertain from a single document (such as the SER) "the staff's perception of the nature and extent of the relationship between each significant, unresolved, generic safety question, and the eventual operation of the reactor under scrutiny"—"without the need to resort to extrinsic documents." *River Bend, supra*, 6 NRC at 775; *North Anna, supra*, 8 NRC at 248. In an operating license proceeding such as this, where a hearing is to be held to consider other issues, licensing boards are enjoined, in the absence of an issue raised by a party, to determine whether the Staff's resolution of various generic safety issues applicable to the reactor in question is "at least plausible and . . . if proven to be of substance . . . adequate to justify operation." *North Anna, supra*, 8 NRC at 249, fn. 7.

At the incipency of an operating license proceeding, a petitioner for intervention is at a substantial disadvantage in ascertaining whether generic safety issues applicable to the reactor have been satisfactorily resolved. The Staff will not have yet issued its SER on this subject—here, it is some time in the offing (Tr. 169). Moreover, information concerning the status of many of the generic issues appears to be peculiarly under the control of the Staff. In any event, resort to extrinsic documents is required. Such an undertaking may well be a practical impossibility for a petitioner (see Tr. 172).² That being so, the degree of specificity upon which the Staff is insisting for this contention appears to us to be unreasonable for this stage of the proceeding. This is so notwithstanding the "early notice" procedures applicable to operating license proceedings and the intent of those procedures to reveal at as early a date as possible the matters in dispute between the parties.

We agree with the Applicants that ECNP at this stage has identified three unresolved matters with sufficient precision to warrant their accep-

²Cf. *North Anna*, ALAB-529, 9 NRC 153, 153-54 (February 24, 1979).

tance as matters in controversy. (One of these matters in reality involves two different unresolved questions, and we will admit them as separate issues.) But we disagree with the Applicants' further position that the statement that "[t]he reactor pressure vessel may not survive the thermal shock of cool ECCS water after blowdown without cracking" must be rejected as lacking the showing of "special circumstances" which the Commission has heretofore ruled must be demonstrated to raise a question regarding pressure vessel integrity. *Consolidated Edison Company of New York* (Indian Point, Unit No. 2), CLI-72-29, 5 AEC 20 (1972); see also *Wisconsin Electric Power Company* (Point Beach Nuclear Plant, Unit 2), ALAB-137, 6 AEC 491, 503 (1973); *Consumers Power Company* (Midland Plant, Units 1 and 2), ALAB-123, 6 AEC 331, 336 (1973). The "special circumstances" doctrine is premised on the low probability of rupture of pressure vessels which are constructed in accordance with applicable requirements. It never was intended to preclude inquiry into whether the pressure vessel is constructed in accordance with such requirements. With respect to the ability of a pressure vessel to withstand the thermal shock of cool ECCS water after blowdown without cracking, the requirements appear in the Standard Review Plan at §5.3.3, "Reactor Vessel Integrity," Part II.6 (at p. 5.3.3-4). We admit this contention as asserting that the Applicants have not conformed to those requirements (Since this contention does not concern itself with any of the generic safety issues, we are separating it from the rest of the contention on that subject.)

The general concerns expressed by ECNP about other generic safety issues are not stated with sufficient specificity to be admitted at this time. Because the SER treating such issues has not yet been issued, we believe that ECNP should be given an opportunity after such issuance to specify (with reasons) which issues it believes have not been adequately resolved. This is particularly so in view of the review which the operating license board must in any event give to such issues, as specified in *North Anna, supra*. ECNP's views might well be of assistance in this review. Although the Commission's "early notice" procedures might be read as contemplating an earlier identification of issues, we believe that imposing such a requirement would effectively eradicate one of the sources available to the Board to determine whether an issue has indeed been satisfactorily resolved. The "early notice" procedures were not intended, in our view, to produce this result. Expedition of a proceeding, which the "early notice procedures" was designed to foster, is desirable, but it never should be permitted to blur or place roadblocks in the resolution of issues which have potential safety significance.

The acceptable contentions read as follows:

7. The nuclear steam supply system of Susquehanna 1 and 2 contains

numerous generic design deficiencies, some of which may never be resolvable, and which, when reviewed together, render a picture of an unsafe nuclear installation which may never be safe enough to operate. Specifically:

- a. The pressure suppression containment structure may not be constructed with sufficient strength to withstand the dynamic forces realized during blowdown.
 - b. The cracking of stainless steel piping in BWR coolant water environments due to stress corrosion has yet to be prevented or avoided.
 - c. BWR core spray nozzles occasionally crack, a problem which reduces their effectiveness.
 - d. The ability of Susquehanna to survive anticipated transients without scram (ATWS) remains to be demonstrated. In this regard, reliance on probabilistic numbers, as 10^{-7} per year, is unwise and unsafe.
8. The Applicants have not adequately demonstrated compliance with the Standard Review Plan, §5.3.3, "Reactor Vessel Integrity," Part II.6. As a result, the reactor pressure vessel may not survive the thermal shock of cool ECCS water after blowdown without cracking.

9. Decommissioning (ECNP 12; Marsh 5B; SEA 3; CAND 8)

The Commission's regulations currently impose few requirements with respect to decommissioning. On the safety side, they require an operating license applicant to submit, as part of the financial qualifications inquiry, information showing that it "possesses or has reasonable assurance of obtaining the funds necessary to cover . . . the estimated costs of permanently shutting the facility down and maintaining it in a safe condition." 10 CFR 50.33(f); see also 10 CFR Part 50, Appendix C, I.B, and II.B. Safety requirements concerning termination of facility licenses are spelled out in general terms by 10 CFR 50.82, but that provision only comes into effect when a licensee seeks to dismantle or decommission a facility. From an environmental standpoint, decommissioning is not specifically covered by regulation. But the costs of decommissioning (both environmental and economic) necessarily comprise a portion of the cost-benefit analysis which the Commission must make. See 10 CFR 51.23(c) and 51.26(a). Very general guidelines as to what information concerning decommissioning an applicant must supply appear in Regulatory Guide 4.2, "Preparation of Environmental Reports for Nuclear Power Stations" (NUREG-0099, July 1976), §5.8.

It should be noted that in no way do these provisions prescribe or pro-

scribe any particular method of decommissioning (or even require that a particular method be identified). Nor need alternative methods be discussed. Finally, the regulations do not provide any authority for the Commission to require a particular method of decommissioning or a particular method of financing the costs thereof. All that need be shown is that the estimated costs do not tip the balance against the plant and that there is reasonable assurance that an applicant can pay for them. The estimated costs provided by applicants can, of course, be controverted.

About a year ago, NRC published an "Advance Notice of Proposed Rulemaking" which indicated that the Commission was considering amending its regulations to provide more specific guidance on decommissioning criteria for nuclear facilities. 43 Fed. Reg. 10370 (March 13, 1978). Among the topics under consideration were, *inter alia*, the technology, costs, and environmental impact of decommissioning, the suitability of at least one particular financing plan, and whether detailed information on decommissioning should be provided prior to the issuance of licenses rather than, as at present, only when a licensee desires to decommission its facility. As of this time, that proceeding is still underway.

With this in mind, we turn to the particular decommissioning contentions which are before us. The decommissioning contentions of Ms. Marsh and SEA explicitly challenge the financial costs submitted by the Applicants, and ECNP's contention may be read as doing so. All of those petitioners indicated that they were interested in both the safety and environmental aspects of those costs (Tr. 180-81, 206, 220). The contention we have admitted raises the questions of the adequacy of the costs provided by the Applicants and the implications of such costs upon both the cost-benefit balance for the facility and the financial qualifications of the Applicants.

On the other hand, the decommissioning contentions of ECNP, SEA, and CAND seek to explore matters other than the financial costs thereof. To the extent that all of these petitioners seek to discuss the health effects of decommissioning, and its effect on the facility's cost-benefit balance, their contentions are admitted. But to the extent that they seek to raise other matters—such as the specification of the particular details of a decommissioning method, or the imposition of a particular method of financing the decommissioning of the facility—they are denied. NRC regulations currently impose no such requirements. Indeed, these are some of the very matters likely to be under consideration in the Commission's forthcoming rulemaking proceeding. But until NRC rules are changed, we are bound by the existing rules; conversely, if the rules are amended prior to the conclusion of this proceeding, the Licensing Board will be bound thereby to the extent delineated by the Commission. See *Potomac Electric Power Company*

(Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 82-83 (1974).

We are admitting the following contention:

9. The Applicants have underestimated both the health costs and the monetary costs of decommissioning the Susquehanna facility. The monetary cost estimates are derived from an industry-sponsored study which is obviously biased, with cost estimates far below what the actual cost of decommissioning will be. Such cost will at least be equal to the cost of construction. Further, the statement by the Applicants that it is "generally agreed" that the decommissioning of a large nuclear power facility poses no new occupational or environmental hazards is erroneous. There are serious radiation hazards, particularly for workers. As a result:
 - a. these costs, when added to other monetary and health costs of the facility and the nuclear fuel cycle, tilt the cost-benefit balance against authorizing operation of the facility;
 - b. the Applicants are not financially qualified to assume the monetary costs of decommissioning.

10. Transportation of spent fuel (Marsh 1C, 2C, 4C; SEA 1; CAND 12)

Ms. Marsh and SEA seek to raise environmental and safety questions concerning the offsite transportation of spent fuel. The environmental impacts of such transportation are specified by Table S-4 of 10 CFR 51.20(g). No further discussion is required by Applicants, and no contention challenging the values specified therein may be entertained. Because it does not appear that Ms. Marsh or SEA wish merely to balance the values specified in Table S-4, their contentions (insofar as they raise environmental impact questions) must be rejected. *Cf. Douglas Point*, ALAB-218, *supra*, 8 AEC at 84-89. Furthermore, as a health and safety matter, it has long been held that offsite transportation is outside the scope of an operating license proceeding. *Wisconsin Electric Power Company* (Point Beach Nuclear Plant, Unit 2), ALAB-31, 4 AEC 689, 693, 697 (Contention 32) (1971); *Trustees of Columbia University in the City of New York*, ALAB-50, 4 AEC 849, 863 (1972). The contentions of Ms. Marsh and SEA must be rejected for that reason as well.

The CAND contention may be differentiated from the other transportation contentions in at least one respect. Although it is somewhat ambiguous, we were told that it covers onsite as well as offsite transportation (Tr. 341). As a basis, CAND referred to a derailment which had occurred on a spur rail line built on the site by the Applicants.

To the extent that CAND's contention covers offsite transportation, it is

subject to the same objections as the contentions of Ms. Marsh and SEA and hence will not be entertained. But a different situation exists with respect to onsite accidents, or at least accidents which might be deemed to affect a safety-related structure, system, or component of the facility. We construe such accidents as falling within the scope of the requirements in 10 CFR Part 50, Appendix A ("General Design Criteria for Nuclear Power Plants"), Criterion 4, which reads, in relevant part:

Criterion 4—Environmental and missile design bases. Structures, systems, and components important to safety . . . shall be appropriately protected against dynamic effects, including the effects of missiles . . . that may result from equipment failures and from events and conditions outside the nuclear power unit.

We recognize that CAND has not identified any structures, systems, or components important to safety which might arguably be affected by an onsite rail accident. Prior to any hearing on this contention, it must do so. (We also would expect the Staff to consider whether a rail accident might conceivably affect any safety structure.) But CAND has at this stage put forth sufficient information to warrant further inquiry into the matter. We therefore accept its contention insofar as it focuses upon onsite rail accidents.

We note that the environmental impact of an onsite rail accident may or may not be covered by Table S-4. The table does not pinpoint the location of the accidents it covers. Nor does it differentiate the impacts of various accidents, including those which may affect a reactor's safety structures. On the other hand, the table itself covers only transportation "to and from" a reactor, which could lead to the conclusion that onsite accidents are not covered. We need not here decide this question, however; it appears to us that the environmental impacts of onsite accidents are not likely to vary appreciably from those of offsite accidents except insofar as safety structures, systems, and components may be affected. That being so, the impacts of rail transportation onsite, to the extent they may differ from the impacts in Table S-4 (which in any event must be considered), are adequately encompassed by the safety contention we are admitting.

The admitted contention reads:

10. Notwithstanding the requirements of 10 CFR Part 50, Appendix A, Criterion 4, structures, systems, and components important to safety have not been adequately protected against the effects of rail accidents onsite, including those involving shipments of spent fuel. A significant accident has already occurred, and the rail line is not adequately designed to assure that such accidents will not

occur in the future, with a potential impact on safety structures, systems, or components.

11. Storage of radioactive wastes (Marsh 1B, 2B, 4B; SEA 2; CAND 4, 13)

A number of contentions seek to raise questions with respect to the ultimate storage of both high-level and low-level radioactive wastes. With respect to the safety aspects of high-level wastes, the Commission has stated, in denying a request for rulemaking on waste disposal, that it "would not continue to license reactors if it did not have reasonable confidence that the wastes can and will . . . be disposed of safely." 42 Fed. Reg. 34391, 34393 (July 5, 1977). This statement has been relied upon to exclude the long-term storage of waste from consideration in licensing proceedings. *Northern States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41, 48-50 (1978). Moreover, on review of the Commission's denial of the rulemaking request, the Court of Appeals for the Second Circuit held that the Atomic Energy Act does not, as an operating license prerequisite, require an affirmative determination that high-level nuclear wastes can be permanently disposed of. *Natural Resources Defense Council v. NRC*, 582 F.2d 166 (2d Cir. 1978). These rulings would perforce seem to chart a course applicable as well to the disposal of low-level wastes. Furthermore, from an environmental standpoint, the impacts of the disposal of both high and low-level wastes are within the scope of Table S-3 to 10 CFR 51.20. (The health effects of such impacts may be considered, but they are comprehended by the contention relating to the health effects of the uranium fuel cycle which we are admitting. See discussion of Contention 1, *supra*.) Given these rulings, SEA Contention 2 and CAND Contention 13 cannot be accepted as matters in controversy.

Ms. Marsh's contention relates to the onsite storage of both high-level and low-level radioactive wastes, for periods up to 10-15 years. Whether the Applicants' proposal complies with the NRC requirements in this regard is a valid subject of inquiry at an operating license hearing. The Applicants do not object to this contention; the Staff reads it as applying only to ultimate storage and would exclude it for that reason. We agree with the Applicants that the contention can be read as applying to onsite storage for 10-15 years; as so limited, we accept it. (CAND Contention 4, which asserts that the spent fuel storage pool is not designed to withstand the direct impact of "sustaining rounds of high explosives, either from a general aviation aerial bombardment or paramilitary mortar rocket fire," must be rejected as either a national defense matter which the facility need not be designed to withstand (see 10 CFR 50.13) or, alternatively, as posing a threat beyond

the level for which a licensee is required to provide (see 10 CFR 73.55(a)).)

As accepted, the waste storage contention reads:

11. The proposed project creates an unreasonable risk of harm to the health and safety of petitioners and their private property, and violates the Commission's standards for protection against radiation in 10 CFR 20.1 and 20.105(a), in that the Applicants have failed to provide adequately for safe onsite storage, for periods of up to 10 to 15 years, of spent fuel and low-level radioactive wastes.

12. and 13. Other safety-related contentions of Ms. Marsh (Marsh 1D, 2D, 4D; Marsh original 5D)

Ms. Marsh has asserted two additional safety-related contentions to which the Applicants have not voiced any objection. We agree they should be admitted and we admit the following contentions:

12. The proposed project creates an unreasonable risk of harm to the health and safety of petitioners and their private property, and violates the Commission's Standards for Protection Against Radiation in 10 CFR 20.1 and 20.105(a), in that the design fails to solve the problem of flow-induced vibration in the core, thereby creating in-vessel sparger failure.
13. Applicants have failed to respond adequately to and comply with NRC's notice of violation issued by letter of May 10, 1978, stemming from an inspection of the facility on March 20-23, 1978, involving preliminary alignment of safety-related core isolation tolerance exceeding 0.002 inches established by field engineer supervisor.

14. Capacity factors (Marsh 5A)

Marsh Contention 5A declares that the proposed facility is unreasonably costly and uneconomical because the output of electricity produced will be lower in relation to cost than electricity generated by existing (presumably other) forms of energy. It may well lack "reasonable specificity" as claimed by the Staff. However, the Applicants are willing to read the contention as placing in issue the capacity factors set forth by the Applicants in their cost-benefit balance. In that context, it is a matter which is suitable for litigation, and as so construed, we admit it as a contention. The contention reads:

14. The facility's cost-benefit balance as set forth by the Applicants overstates the benefits of the facility since it utilizes overoptimistic capacity factors. The facility will not be capable of producing the amount of electricity predicted by the Applicants, so that its bene-

fits will be less than predicted and the cost-benefit balance adversely affected.

15. Occupational exposures (SEA 7)

In this contention, SEA seeks to litigate the health effects of occupational exposures of maintenance workers, and workers engaged in the construction of Unit 2 while Unit 1 is in operation. It claims that the ER and FSAR inadequately reflect these health effects. SEA also contends that Unit 1 should not begin operation until construction of Unit 2 is completed in order to avoid unnecessary exposure of workers.

The Applicants and Staff offer no objection to a contention concerning the radiological health effects arising from the exposure of maintenance and construction workers. But they do object to that portion of the contention which they claim seeks zero radiation exposure for construction workers, on the ground that it constitutes a challenge to the permissible radiation levels for occupational exposure specified in 10 CFR Part 20.

We find both facets of the contention admissible. Occupational exposures are governed by standards appearing in 10 CFR Part 20, and the health effects of exposures at the level of such standards are one of the "residual risks" which may be considered pursuant to *Maine Yankee*, ALAB-161 and ALAB-175, *supra*. But even the prescribed standards are not limited to a recitation of acceptable doses of radiation. In addition to the dose limits which must be adhered to, the regulations provide that "persons engaged in activities under licenses" should make "every reasonable effort to maintain radiation exposures . . . as low as is reasonably achievable" (ALARA). 10 CFR 20.1(c). The latter term is defined to mean . . . as low as is reasonably achievable taking into account the state of technology, and the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to the utilization of atomic energy in the public interest.

Id. In that context, SEA's contention that Unit 1 should not begin operation until Unit 2 is completed as admissible, as a claim that the Applicants have not satisfied the ALARA standard. SEA has proposed a mode of operation where occupational exposures will in fact be zero. Whether that mode can be deemed to satisfy the ALARA standard, as SEA is apparently claiming here, is a matter of evidence, not of regulatory prescription.³

³We reject the Applicants' attempt to confine the ALARA standard to releases "to unrestricted areas" and hence to make it not applicable to occupational exposures (Tr. 229-31).

(Continued on next page)

We admit the following contention:

15. The ER and FSAR are inadequate in that they do not detail the health effects caused by the exposure to radiation of maintenance workers and workers working on Unit 2 of the station while Unit 1 is in operation. These health effects are such that, when added to other costs, the cost-benefit balance will be tipped against the facility. In addition, the occupational radiation exposures are not "as low as is reasonably achievable," as required by 10 CFR 20.1(c). Under this standard, there need be no exposure of workers working on Unit 2 while Unit 1 is in operation, since Unit 1 should not begin operation until construction is completed on Unit 2.

16. Cooling tower discharge (CAND 2)

CAND contends that 70 million gallons of "radioactive evaporated water" which will allegedly be vented daily from the facility will pose an economic threat to the dairy industry. It also suggests that the Price-Anderson Act provides inadequate compensation for the resulting injury and that the Pennsylvania legislature should therefore provide relief.

The Applicants consider the portion of this contention dealing with the effects of radioactive evaporated water as referring to cooling tower discharges and, as such, do not object to its admission (although they question its premises). But they oppose the remainder. We agree with that assessment. The challenge to the Price-Anderson statutory scheme cannot be entertained for reasons spelled out in conjunction with Marsh Contention 3, p. 323, *infra*, whereas possible action by the Pennsylvania legislature is outside our jurisdiction. We admit the following contention:

16. Seventy million gallons of radioactive evaporated water to be vented daily from the Susquehanna facility's cooling towers will pose an economic threat to the dairy industry in the eastern-central area of Pennsylvania. This threat has not been properly evaluated.

17. Transmission lines (CAND 14)

The environmental impacts generated by the routing of transmission

(Continued from previous page)

Given the punctuation in 10 CFR 20.1(c), we read the reference to "unrestricted areas" to apply only to "releases of radioactive materials in effluents." Furthermore, the ALARA standard has indeed been applied to occupational exposures. See *Northern States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41 (1978), where the Appeal Board vacated (on ground of mootness) a Licensing Board's application of the ALARA standard to occupational exposures but expressed no doubt over its applicability to such exposures.

lines has long been a subject suitable for litigation in a licensing proceeding. See e.g., *Virginia Electric and Power Company* (North Anna Station, Units 1 and 2), ALAB-325, 3 NRC 404 (1976). This contention does not put into question the routing of transmission lines but, rather, the environmental impacts of a certain type of line (the UHV line) which has been proposed by the Applicants. It seeks to require the Applicants to use lines in the 138,000-230,000-volt range rather than 500,000-volt UHV lines. As an alternative, it seeks to have the UHV lines built underground.

The Applicants do not object to a contention placing in issue the environmental impacts of their transmission system. But they object to a contention which could require them to modify a transmission system authorized at the construction permit stage and already largely constructed.

We agree that the impacts of the proposed transmission system may be litigated. Analytically, the issue is little different from the routing issues which are routinely considered. Moreover, we are not at this time precluding consideration of the proffered alternatives. Those alternatives would come into play only if the impacts of the Applicants' system were such that the cost-benefit balance might be affected thereby, or if it appeared that, upon a "mini" cost-benefit balance, the substitution of an alternative would mitigate environmental impacts to a degree and at a cost warranting the change. We are clearly empowered to consider such alternatives and to impose such license conditions as may be necessary to minimize environmental impacts, at the operating license as well as construction permit stage. *Kansas Gas & Electric Company* (Wolf Creek Nuclear Generating Station, Unit 1), CLI-77-1, 5 NRC 1, 8 (1977). At this point, it does not appear desirable for us to cut off potential remedies as a matter of law. Should there prove to be significant impacts of the Applicants' transmission system which were not adequately considered at the construction permit stage, reconsideration of alternatives might well be appropriate. Again, we stress that the reasonableness of any given alternative would be subject to a cost-benefit analysis; that, however, goes to the merits of the contention, not to its acceptability.

The following contention is accepted:

17. The Applicants' plans for transmitting electricity generated by the Susquehanna facility utilize ultra-high voltage (UHV) transmission lines, which produce noise pollution, cause electrical shock from flashovers, create television and radio interference, create strong electrostatic and electromagnetic fields that adversely affect living organisms along the UHV transmission right-of-way and beyond, and generate dangerous levels of ozone that will cause more injury to vegetation than any other pollutant and can also have harmful effects on human health. For that reason, the Applicants should

be barred from transmitting electricity from the facility, if and when it becomes operational, over UHV lines and should be required to use lines in the range of 138,000-230,000 volts maximum. Alternatively, the Applicants should be required to place the UHV lines underground, using compressed gas as an insulator.

18. Herbicides (ECNP 8)

This contention seeks to explore the health effects of the use of certain herbicides to maintain the clearance of transmission line rights-of-way. ECNP identified the herbicide with which it is primarily concerned as 2, 4, 5-T (Tr. 156). We acknowledge that, as the Applicants and Staff claim, the use of this herbicide was extensively considered at the construction permit stage (see, e.g., LBP-73-38, *supra*, 6 AEC at 984; construction permit FES, §4.1.2, and Appendix E) and that ECNP has provided no additional information which would warrant reconsideration of the matter at this time.

A new development has taken place, however, which causes us to accept this issue. On March 1, 1979, the Environmental Protection Agency took "emergency suspension" action against 2, 4, 5-T as a result of significant new evidence linking that herbicide with miscarriages among women in Oregon. Included among uses which are to be suspended until the risks and benefits can be more fully evaluated are spraying of transmission line rights-of-way. Although the Applicants' use of 2, 4, 5-T would in any event be subject to EPA requirements, and although the suspension action is not yet final, under present circumstances there has been no valid evaluation of the impact of the means intended to be used by the Applicants to maintain the clearance of the rights-of-way.

We admit the following contention:

18. Routine or occasional use of environmentally persistent or inadequately tested herbicides (particularly 2, 4, 5-T) to maintain clearance of transmission line rights-of-way, as proposed by the Applicants, poses a somatic, abortifacient, teratogenic, and potentially mutagenic threat to the health and safety of persons living near or traversing these areas. This is evidenced by the "emergency suspension" action taken on March 1, 1979, by the Environmental Protection Agency against 2, 4, 5-T. If this suspension remains in effect, there will have been no environmental evaluation of the means to be used by the Applicants to maintain the clearance of transmission line rights-of-way.

19. Other contentions

We reject all of the other contentions presented by the various peti-

tioners, for reasons which we here briefly summarize.

ECNP 9: This contention seeks a halt of construction pending the conduct of certain archeological investigations. This relief does not relate to that which can be granted in an operating license proceeding. Moreover, site archeology is a subject which, as a practical matter, can only be considered prior to the authorization of construction or, at the latest, during the early excavation phases of construction.

ECNP 11: This general challenge to reliance on "single failure" events lacks sufficient specificity to be considered. Moreover, to the extent it constitutes a challenge to the reliance on "single failure" events permitted by 10 CFR Part 50, Appendix A, it must be rejected pursuant to 10 CFR Section 2.758.

Marsh 1A, 2A, 4A: This multipart contention has been withdrawn (Tr. 188-190, 200).

Marsh 3: This proceeding is not a proper forum for entertaining a challenge to arrangements authorized by the Price-Anderson Act. *Florida Power & Light Company* (Turkey Point, Units 3 and 4), Commission Memorandum and Order, 4 AEC 787, 788 (1972); see also *Potomac Electric Power Company* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 81, fn. 7 (1974). This contention constitutes such a challenge. Further, we note that the Supreme Court has recently upheld the validity of the Price-Anderson Act. *Duke Power Company v. Carolina Environmental Study Group, Inc.*, 438 U.S. 59 (1978).

Marsh 5D: This complaint that the Pennsylvania Utility Commission allows the subject plant to be included in the rate base is a matter for that Commission to consider; it is outside our jurisdiction.

Marsh original 5B: This claim that "Class 8" accidents involving pipe breaks are more likely to occur than indicated in the Applicants' ER, and that their effluent releases would exceed those permitted by 10 CFR Part 20, lacks any basis. Moreover, Part 20 establishes standards for routine, not accidental, releases; to utilize Part 20 standards as the criteria for accidental releases would amount to a challenge to those standards. Absent a showing not here made, such challenges are not permitted. 10 CFR 2.758.

Marsh original 5E: This contention relates to defects in certain hydraulic snubbers which, the Applicants advise, are not being utilized at Susquehanna. Absent a showing to the contrary (which has not been made), the claim appears irrelevant to this facility.

SEA 10: This contention seeks a discussion of the consequences of a "serious" (presumably Class 9) accident. As a basis, it cites the recent "discredit[ing]" of studies indicating that the risks of such an accident are small. Although not identified, the allegedly discredited study is undoubtedly that represented by WASH-1400, with respect to some conclusions of

which the Commission has recently withdrawn its endorsement. Nonetheless, the Commission has, since long before WASH-1400, taken the position that the consequences of such accidents need not be discussed because of the low probability of their occurrence, and this position has been upheld by the courts. *Porter County Chapter v. AEC*, 533 F.2d 1011, 1017-18 (7th Cir.), *cert. denied*, 429 U.S. 945 (1976); *Carolina Environmental Study Group v. AEC*, 510 F.2d 796 (D.C. Cir. 1975); *Ecology Action v. AEC*, 492 F.2d 998 (2d Cir. 1974); see also *Offshore Power Systems* (Floating Nuclear Power Plants), ALAB-489, 8 NRC 194 (1978); *Long Island Lighting Company* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831 (1973). The policy in no manner was premised upon the results of WASH-1400. Moreover, unless and until repudiated by the Commission, the policy is binding upon us.

To the extent a portion of this contention may be read as a challenge to the Price-Anderson Act, it must be rejected for the same reason as Marsh Contention 3, *supra*.

SEA 11 and CAND 3: These contentions seek further ECCS testing as a prerequisite to licensing. They must be regarded as challenges to the ECCS performance requirements which are specified in 10 CFR Section 50.46 and Appendix K to Part 50 and, hence, must be rejected under 10 CFR Section 2.758.

SEA 13 and 14: These contentions are not really contentions at all, but rather, merely requests for specified information about the Applicants' security plan for the facility. Such plans are not subject to public disclosure (10 CFR Section 2.790(d)(1)) and their availability to parties is subject to a number of limitations. See *Pacific Gas and Electric Company* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-410, 5 NRC 1398, *review declined*, CLI-77-23, 6 NRC 455 (1977). Moreover, the Applicants have agreed to meet with the SEA representative to determine whether, consistent with security requirements, some or all of the sought information may be made available to SEA (Tr. 243-45). SEA indicated it was satisfied with this approach (Tr. 244). That being so, and given the lack of any specific contention, we find this resolution to be appropriate.

CAND 1 and 16: Contention 1 seeks to impose conditions on the potential licensees based on national defense considerations, whereas Contention 16 complains that certain deficiencies in NRC's organization may have national defense implications. Applicants need not provide any measures for the specific purpose of protection against the effects of military attacks directed against a facility. 10 CFR Section 50.13; *Siegel v. Atomic Energy Commission*, 400 F.2d 778 (D.C. Cir. 1968). Nor need they factor into their application measures designed to cure or mitigate any alleged NRC deficiencies with respect to whatever responsibilities that agency may have in the

area of military preparedness. These contentions must thus be viewed as challenges to NRC regulations and are barred by 10 CFR Section 2.758 (absent conditions not here alleged). Moreover, neither raises an issue within the scope of an operating license proceeding.

CAND 7: This contention raises the possibility of severe droughts and seeks to require the Applicants to construct a reservoir as a condition of operation. It assumes that the Susquehanna River will be used for cooling purposes in the event of an emergency. However, the facility does not rely on Susquehanna River water for emergency cooling purposes but instead will utilize an onsite spray pond. See the Staff's construction permit Safety Evaluation Report (SER), Section 6.3. Moreover, NRC has no authority to require construction of a reservoir. If an insufficient water supply were to eventuate, the facility will be required to shut down. such a mode of operation will, of course, be considered in the cost-benefit analysis for the facility. *Cf. Philadelphia Electric Company* (Limerick Generating Station, Units 1 and 2), ALAB-262; 1 NRC 163 (1975).

CAND 10: This contention seeks to require the Applicants to perform certain research tasks. Upon inquiry of the Board, it became apparent that what is being sought is a general research project, not one related specifically to the Susquehanna facility (Tr. 328-31). NRC does not appear to have authority to impose such general research projects on its licensees. *Cf. Consolidated Edison Company of New York, Inc.* (Indian Point, Units 1, 2, and 3), ALAB-436, 6 NRC 547, 601-624 (1977).

CAND 11: This contention seeks to put into issue certain aspects of the facility's quality assurance (QA) program, but its only basis is a GAO report unrelated to the Susquehanna plant. CAND asserts no information at all bearing upon QA at the Susquehanna facility, including any reasons why the requirements of applicable regulations in 10 CFR Part 50, Appendix B, may not be satisfied. The contention is thus rejected for lack of an adequate basis. (But see Part II, Section 2, *infra*, p. 326.)

II

As indicated earlier in this opinion, each of the four petitioners for intervention has demonstrated that it has standing to participate in this proceeding and has advanced at least one suitable contention. Upon so finding—as we do here—our duties as an intervention Licensing Board are completed. Nevertheless, a number of other matters have arisen which require action or comment but which more properly are within the purview of the Licensing Board appointed to conduct the hearing. Because that Licensing Board and the intervention board are comprised of the same members, this

portion of this opinion will be utilized to treat the matters properly before the hearing board.

1. Three of the four petitioners have filed requests for financial assistance, in the form of attorneys' fees, costs of expert witnesses, and miscellaneous costs (see supplemental petitions of ECNP and SEA, and Marsh motion dated January 22, 1979). The Staff questions whether NRC has authority to grant such assistance, and there appears to be substantial foundation for its doubts in this regard. See *Transnuclear, Inc.* (Low-Enriched Uranium Exports to Euratom Member Nations), CLI-77-31, 6 NRC 849, 852-53 (1977), citing *Greene County Planning Board v. FPC*, 559 F.2d 1227 (2d Cir. 1977), *cert. denied* 434 U.S. 1086 (1978). But irrespective of its legal authority, the Commission has made it clear that financial assistance is not to be granted 'in a proceeding of this type. *Nuclear Regulatory Commission* (Financial Assistance to Participants in Commission Proceedings), CLI-76-23, 4 NRC 494 (1976). We are bound by that ruling. See *The Detroit Edison Company* (Greenwood Energy Center, Units 2 and 3), ALAB-376, 5 NRC 426 (1977); *Consumers Power Company* (Midland Plant, Units 1 and 2), ALAB-382, 5 NRC 603 (1977).

2. During the special prehearing conference, we heard a number of limited appearance statements offered in accordance with 10 CFR 2.715(a). We asked the Applicants and/or Staff to prepare responses to those statements not comprehended by the admitted contentions (Tr. 144). In addition, one of the statements raised a particular question concerning the Applicants' quality assurance program (Tr. 83-84). We requested that the Staff report to us with respect to that matter (Tr. 269, 339).

In conjunction with Board Contention 15 (derived from SEA 7), the Board also put the Applicants on notice that it wished to explore the question whether construction activities on Unit 2 would have any effect on the safety of Unit 1, after that unit becomes operational (Tr. 228). We expect to particularize our questions in this area at a later date.

3. At the prehearing conference, the Applicants asked that the hearing be a bifurcated one—with environmental questions considered in advance of safety questions. In the absence of any objection, we adopted that suggestion. We were also asked to identify the contentions which would be heard at each session. We view the contentions we have accepted as follows:

Environmental: 1, 2, 3, 4, 9, 14, 15, 16, 17, 18

Safety: 5, 6, 7, 8, 9, 10, 11, 12, 13, 15

Contentions 9 and 15 include both environmental and safety considerations. We will hear them with the safety contentions inasmuch as

some of the relevant material will be included in the Staff's Safety Evaluation Report (or supplements thereto). The cost-benefit balance for the facility will, of course, have to be kept open to incorporate our resolution of those issues.

We have been advised by the Staff (Tr. 366-67) that the Draft Environmental Statement (DES) is scheduled to be issued in May 1979 and the Final Environmental Statement (FES) in late October 1979; and that the Safety Evaluation Report (SER) is scheduled for late March 1980 and the supplement for late July 1980. If those schedules hold, we would anticipate that the environmental hearing could be held in December 1979 or January 1980 and the safety hearing in September 1980. With that in mind, we establish the following preliminary schedule (which is based on that proposed by the Applicants and not objected to by any of the potential intervenors).

1. Discovery commences	Issuance of this order
2. Last day for submission of first round discovery requests	May 25, 1979
3. Responses to first round discovery requests	June 29, 1979
4. Last day for submission of supplemental discovery requests on environmental issues	July 27, 1979, or 30 days after service of DES, whichever is later
5. Responses to supplemental discovery requests on environmental issues	Within 30 days after service of request
6. Further discovery requests on new information appearing in FES	Within 10 days after service of FES
7. Responses to discovery on new information in FES	Within 15 days of service of request
8. Last day for submission of supplementary discovery requests on issues to be dealt with at safety hearing	30 days after service of SER or SER supplement, as applicable
9. Responses to supplementary discovery requests on safety issues	Within 30 days after service of request based on SER; 15 days after service of request based on SER supplement

It should be noted that supplementary discovery requests may be based only on information appearing in newly issued documents or in response to first round discovery requests. In the latter case, however, the request should be submitted within 30 days of service of the first round response.

Motions for summary disposition may be filed at any time up to 45 days prior to a scheduled hearing date, with responses to be filed 3 weeks thereafter. Hearing dates are not now being scheduled, but it is anticipated that they will follow issuance of the FES and SER supplement, respectively, by approximately 45-60 days (depending, in part, on whether motions for summary disposition are pending). Testimony in writing will be required to be filed 21 days prior to the start of the environmental or safety hearings, as appropriate.

The foregoing schedule is, of course, preliminary. Future events may affect it substantially. But we are setting it forth in order to give guidance to the hearing participants as to our present intentions.

4. ECNP has requested that a copy of the transcript be made available at government expense, to each of the four intervenors. It noted that the normal practice of making available one copy to the intervenors would here impose a severe hardship because the intervenors are "widely scattered" (Tr. 368-69, 371). We cannot grant this request, however, for it would contravene the Commission's current policy on financial assistance to intervenors. We understand that the Staff, as a courtesy, will lend one of its copies to the intervenors (Tr. 370). In addition, we understand that there is precedent for making available the copy which is placed in the local public document room to intervenors on a temporary basis. Although that copy is intended for the use of the general public, it appears that the intervenors are the most interested segment of that public—*i.e.*, the only segment with sufficient interest to have sought to participate. Thus, on a temporary basis, the intervenors should be permitted to use—away from the local public document room—the copy normally placed there. We request the Staff to make the necessary arrangements. The intervenors will be expected to determine among themselves the recipients of the two copies available to them collectively. We expect that the intervenors will permit other members of the public who request it (including the press) to have reasonable access to the transcripts.

5. ECNP also requested that one of the Commissioners be asked to serve on the Licensing Board designated to conduct this hearing (Tr. 372-73). As we pointed out, that request is beyond the scope of our authority. Moreover, it would be inappropriate for us to take any action in this regard. A litigant should not be able to have a voice in the selection of members of an adjudicatory tribunal before which it will appear. If it so desires, the

Commission could of course reconstitute the Board to include one or more of its members.

For reasons stated in Part I of this opinion, the requests for a hearing and petitions for leave to intervene of ECNP, Ms. Marsh, *et al.*, SEA, and CAND are *granted*. The request of the Bureau of Radiation Protection, Department of Environmental Resources, of the Commonwealth of Pennsylvania to participate as an "interested State" pursuant to 10 CFR 2.715(c) is also *granted*. The matters in controversy shall be the contentions stated in Part I.

For reasons stated in Part II of this opinion, the requests of ECNP, Ms. Marsh, and SEA for financial assistance are *denied*. A preliminary schedule as outlined in Section 3 is *adopted*. ECNP's request for transcripts is disposed of in accordance with the discussion in Section 4. ECNP's request that a Commissioner be asked to serve on the hearing board is *denied*.

This order is subject to appeal to the Atomic Safety and Licensing Appeal Board pursuant to the terms of 10 CFR 2.714a. Objections to this order may also be filed by parties as provided by 10 CFR 2.751a(d).

IT IS SO ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD
DESIGNATED TO RULE ON
PETITIONS FOR LEAVE TO
INTERVENE.

Charles Bechhoefer, Chairman

THE ATOMIC SAFETY AND
LICENSING BOARD

Charles Bechhoefer, Chairman

Dated at Bethesda, Maryland,
this 6th day of March 1979.

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

ATOMIC SAFETY AND LICENSING BOARD

**Elizabeth S. Bowers, Chairman
Dr. Richard F. Cole
Ernest E. Hill**

In the Matter of

Docket No. 50-397 OL

**WASHINGTON PUBLIC POWER
SUPPLY SYSTEM**

(WPPSS Nuclear Project No. 2)

March 6, 1979

The Licensing Board denies petitions to intervene in this operating license proceeding. No hearing to be held.

RULES OF PRACTICE: STANDING TO INTERVENE

Where an organization seeks to intervene in an operating license proceeding as of right based on the interest of its members, at least one member must have the requisite personal interest for standing at the time the petition for intervention was filed. The organization cannot cure the absence of such interest by acquiring a new member with the requisite interest after the deadline for filing of petitions has passed, without meeting the requirements for late filings under 10 CFR 2.714(a).

RULES OF PRACTICE: STANDING TO INTERVENE

The economic interest of a ratepayer is not sufficient to allow standing to intervene as a matter of right since concern about rates is not within the scope of interests sought to be protected by the Atomic Energy Act or the National Environmental Policy Act.

**ORDER SUBSEQUENT TO THE PREHEARING
CONFERENCE ON JANUARY 25, 1979**

On July 26, 1978, the Commission published in the FEDERAL REGISTER notice of "Receipt of Application for Facility Operating License; Notice of

Consideration of Issuance of Facility Operating License; and Notice of Opportunity for Hearing" for WPPSS Nuclear Project No. 2. 43 Fed. Reg. 32338. The notice provided that any person whose interest may be affected by this proceeding may file a petition for leave to intervene on or before August 28, 1978. The facility is a boiling water nuclear reactor located on the Hanford Reservation in Benton County, Washington. The application requested authorization to operate at a core power level of 3,323 megawatts thermal with an electrical output of 1,100 megawatts electric.

THE PETITIONERS

On August 28, 1978, a timely joint petition to intervene was filed by two individual Petitioners, Susan M. Garrett and Helen Vozenilek, on their own behalf and on behalf of a group called the Hanford Conversion Project (HCP).¹ The individuals, who live in Portland, Oregon, based their "interest" on the allegation that (1) they are indirect ratepayers, (2) they live downstream from WPPSS-2 and an accidental release of radioactivity could be transported to them via wind currents, river flow, and the food chain with harmful effects, (3) the "job return" on a nuclear plant is less than in other alternate energy investments, (4) Price-Anderson, and (5) they enjoy recreational benefits of the Columbia River which will be denied if an accident contaminates the river. The petition listed 12 members of HCP giving their home addresses. The petition also stated many members live in the vicinity of the facility.

The NRC Staff responded on September 18, 1978, by pointing out that the two individuals live more than 150 air-miles and 200 river-miles from the site. The Staff concluded that the individuals failed to particularize a possible injury to themselves that realistically might result from plant operation citing *Duquesne Light Company* (Beaver Valley, Unit 1), ALAB-109, 6 AEC 243, 244 (1973); *Tennessee Valley Authority* (Watts Bar, Units 1 and 2), ALAB-413, 5 NRC 1418 (1977). The Staff also stated that the location of the members of HCP closest to the facility was more than 50 miles from WPPSS-2.

On September 22, 1978, the Applicant opposed the petition of the individuals on the bases that (1) they live approximately 180 air-miles and 220 river-miles downstream from the site and that their location is too remote to be affected by either normal operations or a credible accident, and (2) the economic interest as a ratepayer does not confer standing as a matter of

¹The State of Washington by letter of August 18, 1978, stated if a "hearing is held" it would like the opportunity to make a limited appearance under 10 CFR 2.715(a).

right.² The Applicant also stated that the location of the membership of HCP was beyond the geographic zone which might be affected by the operation of WPPSS-2 since the closest member is approximately 65 air-miles from the facility.³

On October 11, 1978, the Board issued an order which recited the allegations of the Petitioners and the responses of the Applicant and Staff. The order stated that there would be a prehearing conference on November 15. The order also stated "if Petitioners wish to file an amended petition to correct the deficiencies which have been correctly identified by the Applicant and the Staff, it must be filed by November 1, 1978, with service on Applicant and Staff as well as the Board and the Office of the Secretary." (Due to errors in service of the Board's order, the prehearing was rescheduled for November 21 with the amended petition, if any, due November 10. For unavoidable reasons, the prehearing was rescheduled first to January 11 and finally held on January 25, 1979.)

An amended petition (referred to as #2) was filed on November 10, 1978, by Ms. Garrett and Creg Darby (also of Portland). An affidavit was subsequently filed authorizing him to represent HCP in place of Helen Vozenilek.⁴ Mr. Darby petitioned both as an individual and as co-chairman of HCP. There was no mention of his out-of-time filing but he did state that he has a Bachelor of Arts degree; has taken courses in math and physics; has studied safety and economic issues of nuclear power and that he is an independent student of philosophy, with a special interest in the philosophy of science.

²The economic interest of a ratepayer is not sufficient to allow standing to intervene as a matter of right since concern about rates is not within the scope of interests sought to be protected by the Atomic Energy Act. *Kansas Gas & Electric Company, et al.* (Wolf Creek Generating Station, Unit 1), ALAB-424, 6 NRC 122, 128 (1977); *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Units 1 and 2), ALAB-413, 5 NRC 1418, 1420-21 (1977); *Detroit Edison Company* (Greenwood Energy Center, Units 2 and 3), ALAB-376, 5 NRC 426 (1977); *Public Service Company of Oklahoma, et al.* (Black Fox Nuclear Power Station, Units 1 and 2), LBP-77-17, 5 NRC 657 (1977). Nor is such interest within the zone of interests protected by the National Environmental Policy Act. *Portland General Electric Company* (Pebble Springs Nuclear Plant, Units 1 and 2), ALAB-333, 3 NRC 804 (1976).

³*Louisiana Power & Light Company* (Waterford Steam Electric Station, Unit 3), ALAB-125, 6 AEC 371, 372, n. 6 (1973). *Portland General Electric Company* (Trojan Nuclear Plant), ALAB-496, 8 NRC 308, (September 12, 1978) (40 miles); *River Bend, supra*, 7 AEC 222 (1974) (25 miles); *Virginia Electric and Power Company* (North Anna Power Station, Units 1 and 2), ALAB-146, 6 AEC 631 (1973) (16 miles); *Northern States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-107, 6 AEC 188 (1973) (40 miles); *Waterford, supra*, 6 AEC 371 (1973) (20 miles); *Pacific Gas and Electric Company* (Humboldt Bay Power Plant, Unit 3), ASLB Order (May 15, 1978) (20 miles).

⁴Undated Notice of Withdrawal of Appearance of Helen Vozenilek attached to Petition 3 but it stated Creg Darby would represent her personal interests.

The petition stated that Ms. Garrett is a law graduate of Northeastern University and that she was active in the Trojan proceeding. The #2 petition stressed that Petitioners consumed products from the Columbia River and products raised within 50 miles of the WPPSS-2 site. It also stated Petitioners were potential parents. Attached to the #2 petition were affidavits from several members of HCP who reside more than 50 miles from the facility. Two other affidavits were flagged for special attention. Mr. H. C. Roll lives in Oceanside, Oregon, more than 200 air-miles from WPPSS-2, but owns land 10 to 15 miles from the site. He rents the land and two residences to tenants. He alleges that the rental value of his land could be adversely affected and that an accidental release from the plant could damage the land and his tenants. He states he is a member of HCP. The affidavit is dated November 8, 1978. The second affidavit specifically mentioned was from Mrs. Ruth C. Long who stated that she resides with her family about 12 miles from the plant and its operation could affect home, garden, children, and husband. She states she is a member of HCP. The affidavit is dated November 6, 1978.

The Staff responded on December 14, 1978, by reiterating that the individual Petitioners' distance from the plant is too remote and their consumption of food products is no more than a generalized grievance. The Staff concluded their interest is insufficient. The Staff stated that the "interest" of HCP rests on the membership of Ruth C. Long and would be established if she was a member on August 28, 1978, when the original petition had to be and was filed. The Staff mentions that a separate letter from Mr. Roll establishes that he was not a member at that time.⁵ (At the prehearing conference, the representative of HCP [Garrett] indicated that Long and Roll became members of HCP at the time they signed the affidavits. Tr. 31, 32.)

On December 15, 1978, the Applicant stated that the Petitioners did not identify the location of the "recreational use" of the Columbia River so it cannot be assumed to be near the site and to recognize the consumption of food products which may have been produced near the site as conferring standing would have the effect of establishing "standing" in a California proceeding for an individual on the east coast who ate California oranges.

In addition, Applicant pointed out that Mr. Darby did not comply with the requirements of 10 CFR 2.714 for the filing of late petitions and his petition should be denied on lack of interest and out-of-time.

The Applicant stated that HCP's standing rests on the "interest" of five of its members (Roll, Snow, Beadle, Faller, and Long). It rejected Snow,

⁵Letter dated November 7, 1978, from H. C. Roll to Doreen L. Nepom applying for HCP membership, (attached to Petition #2).

Faller, and Beadle since they live more than 50 miles from the plant. It rejected Mr. Roll since he was not a member of HCP on August 28, 1978, and that his allegation of possible financial loss to his rental property does not give him standing nor can he establish "interest" on behalf of his tenants. The Applicant rejected Mrs. Long on the assumption that she became a member of HCP after August 28, 1978, and failed to comply with the provisions of 10 CFR 2.714 in that no justification for nontimely filing was made.

On January 10, 1979, Petitioners filed another petition (#3) but it did not refer to "interest" or good cause for late filing of Mr. Darby except to mention Petitioners did not believe the NRC Staff would represent their interests and there were no other Petitioners. The #3 petition superseded #2 in part but not totally.

The Applicant, NRC Staff, Petitioners Garrett and Darby, and the State of Washington were present at the prehearing conference on January 25, 1979.

At the prehearing conference, Petitioners repeated their claim of individual interest based on living downstream on the Columbia River (Tr. 9). Both Applicant and Staff opposed the petition and stressed the fact that Petitioners must have a "real stake" in the proceeding to be granted intervention in an operating license proceeding and in this matter; Petitioners' distance from the site is too remote for their interests to be affected (Tr. 11, 12, and 15). The State of Washington⁶ recited the history of its proceedings relative to WPPSS-2 and stated its position that there was a need for the power from the facility (Tr. 17-22).

Regarding HCP, the Petitioners stated they read the Board order of October 11, 1978, as permitting total amendment of the petition and that therefore the affidavits of Mr. Roll and Mrs. Long were timely (Tr. 8). Petitioners argued that the Board should not be bound by the distance rule of 50 miles since there are several possible sources of radiation release at the Hanford Nuclear Reservation. Both Applicant and Staff protested that Mr. Roll and Mrs. Long were not members of HCP when the original petition had to be and was filed and they have not made the showing for late filing required by §2.714 in addition to Mr. Roll's lack of interest. Applicant and Staff argued that the cut-off filing date for the petition was to ascertain "interest" and that the permission granted by §2.714 to file supplements was limited to the contentions (Tr. 32-40).

Petitioners argued that while they did not concede there was a late filing they addressed the criteria for late filing in §2.714 (Tr. 42-47). The Applicant challenged the Petitioners' position on each of the five factors (Tr.

⁶The State also, by letter of September 27, 1978, urged the Board to deny the petitions.

50-53), and the Staff responded adversely to Petitioners' allegations point-by-point stating that the Staff's position on these points would also apply to discretionary intervention (Tr. 53-56).

If Mrs. Long or any other affiant from HCP was in attendance at the prehearing conference, their presence was not made known to the parties or the Board.

INTERVENTION AS A MATTER OF RIGHT

Applicant and Staff both argued that the purpose of the original filings of petitions with cut-off date of August 28, 1978, was to identify any persons whose interest may be affected by the proceeding. They both contend that the purpose of subsequent amendments to original filings as provided for under §2.714(a) (3) and (b) is the setting forth of contentions and not for the purpose of adding new members to satisfy the "interest" requirement. Applicant and Staff contend that, absent a nontimely filing demonstration⁷ the showing of "interest" must be made on the basis of the membership as described in the August 28, 1978, original filing (Petition #1). Applicant and Staff strongly contend that on the basis of the August 28, 1978, filing (Petition #1) intervention as a matter of right must be denied because the necessary "interest" was not demonstrated. The Board agrees. The two individual Petitioners, Susan M. Garrett and Helen Vozenilek are too remote⁸ (180 air-miles and 220 river-miles) to be affected by the proceeding. All other members of HCP, a Portland, Oregon based organization were identified as living more than 50 miles from the plant and therefore do not have an interest which may be affected. There is no allegation of recreation in the vicinity of the site. The original petition (#1) must fail because the "interest" [which] may be affected by the proceeding, "within the meaning of Section 189a. of the Atomic Energy Act, 42 U.S.C. 2239(a)" has not been demonstrated.

Given that Petition #1 fails for lack of demonstrable "interest," a unique question arises as to whether the "interest" defect can be cured by acquiring a new member, residing in the vicinity of the plant, more than 2 months after the deadline for filing of petitions. The Board concludes that while the "interest" requirement may be "particularized" for timely petitioners it cannot be cured by an organization who acquires a new member considerably after the fact who has not established good cause for the out-of-time filing.⁹

⁷10 CFR 2.714(a) (1).

⁸At the prehearing conference, it was clarified that Helen Vozenilek has withdrawn except to remain a member of HCP.

⁹By "particularized" the Board had in mind two points relative to interest. The #1 petition
(Continued on next page)

The second petition contained additional members' names including Mr. Creg Darby. Only two, Mr. Roll and Mrs. Long, claimed an interest within 50 miles of the site. Mr. Roll lives several hundred miles from the site at Oceanside, Oregon, but he owns improved farmland 10 to 15 miles from the site. He has tenants living in the two residences and farming the land. Mrs. Long resides with her family approximately 12 miles from the site. It was established at the prehearing that neither Mrs. Long nor Mr. Roll were members of HCP on the filing date of August 28, 1978, but joined HCP in early November when they prepared their affidavits. We consider them late Petitioners who must meet the criteria of §2.714 for out-of-time filing as well as establishing interest. We interpret §2.714(a) (3) to permit amending a petition relative to interest as limited to those individuals who made a timely filing and are merely particularizing how their interest may be affected. We do not believe it is an open invitation for an organization whose membership is far removed from the facility and who claimed to have membership in the vicinity of the site to later try to recruit individuals in the vicinity as members and gain a retroactive recognition of interest. We do not have to consider the question of the out-of-time filing of Mr. Darby or other HCP members (except Roll and Long) since their location from the plant is too remote to establish a possibility of harm from normal or accidental releases from the plant. Mr. Darby lives in Portland. We realize that there is a possibility that people residing in Portland may consume produce, meat products, or fish which originate within 50 miles of the site but to allow intervention on this vague basis would make a farce of §2.714 and the rationale in decisions pertaining to petitions to intervene.

Mr. Darby and Ms. Garrett, while protesting that Petitioners Roll and Long were not out-of-time Petitioners, attempted to fulfill the requirements for late filing set forth in §2.714(a) (1) (i-v) on behalf of the Petitioners as members of HCP. In relevant part, Section 2.714(a) provides:

Nontimely filings will not be entertained absent a determination by the Commission, the presiding officer, or the atomic safety and licensing board designated to rule on the petition and/or request, that the petition and/or request should be granted based upon a balancing of the following factors in addition to those set out in paragraph (d) of this section:

- (i) Good cause, if any, for failure to file on time.

(Continued from previous page)

alleged "recreational benefits" but did not state if this was meant to allege use within the vicinity of the plant. If this had been in fact, clarification would have been meaningful. The petition also said members resided in the vicinity of the plant. If this had been the fact, particularization would have been meaningful.

- (ii) The availability of other means whereby the petitioner's interest will be protected.
- (iii) The extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record.
- (iv) The extent to which the petitioner's interest will be represented by existing parties.
- (v) The extent to which the petitioner's participation will broaden the issues or delay the proceeding.

(1) It was stated that Mrs. Long and Mr. Roll were not previously aware of the proceeding. As a lawyer, Mr. Roll should have been aware of the FEDERAL REGISTER notice. It is understandable that Mr. Roll would not see the local press releases (issued July 26, 1978) but Mrs. Long resides in the local area. The Petitioners apparently did not make an effort to keep informed. We do not believe "good cause" has been established. (2) Since Petitioners' interest is to prevent or delay the operation of WPPSS-2, it may be correct that that interest will not be protected by others. The State of Washington, after public hearings, approved WPPSS-2 and pleads for the need of its power. The NRC Staff supports operation of the plant. (3) The Petitioners have not been convincing that they can assist in developing a sound record. A review of the contentions shows that Petitioners allege that the application does not adequately meet the law or the regulations but there is actually nothing specific to show a familiarization with the plant or the documents relating to the facility. None of the contentions met the specificity requirements of §2.714. The only proposed contention that was reasonably site-specific was an unsupported allegation that WPPSS-2 was located directly over a major fault line (Tr. 85-89). It will be the responsibility of the NRC Staff to investigate this allegation. In our opinion, developing a sound record calls for more than a sincere desire to put on a direct case or to try to have effective cross-examination. (4) Petitioners have stated that their interest will not be represented by the NRC Staff. In our judgment, even if this is correct, it does not warrant on its own admitting a late intervenor. (5) There is no doubt that the proceeding would be delayed by a hearing. The resources of both Staff and Applicant would be expended on the hearing rather than continuing the facility review without the interruption of a hearing.

It is our determination that neither Mr. Roll or other HCP members (except Mrs. Long) whose names were added to the #2 Petition have established a proximity to the site which would establish interest. Mr. Roll's in-

terest is based primarily on speculative financial loss and does not have merit. An occasional trip (unspecified) by Mr. Roll to his farm is insufficient to determine his health and safety would be endangered. Mrs. Long's location in the vicinity of the plant site establishes that her interest could be affected, but the Board has determined she has failed to meet any of the criteria in 10 CFR 2.714 which warrants accepting a late petition.

On the basis of the pleadings and results of the prehearing conference, the Board finds that Petitioners' intervention as a matter of right must be denied.

INTERVENTION AS A MATTER OF DISCRETION

The Board has considered the criteria established by the Commission for determining whether, in those cases where timely petitioners fail to meet standards for intervention as a matter of right, discretionary intervention should be granted.¹⁰ Considering those factors weighing in favor of allowing intervention, it may be said that the extent to which Petitioners' participation may reasonably be expected to assist in the development of a sound record is minimal owing to a lack of resources. As regards the nature and extent of Petitioners' property, financial, or other interest in the proceeding, these also may be described as nonexistent or minimal. The HCP is a nonprofit activists' coalition of individuals and member groups concerned with the issues of nuclear energy and nuclear weaponry. The effect of a Board order denying Petitioners' intervention will be that no public hearing will be held. The Board feels that in this case the interests of the public including Petitioners' interest will be adequately protected by the Staff.

Accordingly, the Board can see no justification for granting intervention as a matter of discretion for timely Petitioners in this proceeding.

IT IS SO ORDERED.

**FOR THE ATOMIC SAFETY
AND LICENSING BOARD**

Richard F. Cole, Member

Ernest E. Hill, Member

Elizabeth S. Bowers, Chairman

Dated at Bethesda, Maryland,
this 6th day of March 1979.

¹⁰*Pebble Springs, supra*, at 616.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Andrew C. Goodhope, Chairman
Dr. Richard F. Cole
Dr. George A. Ferguson

In the Matter of

Docket No. 50-549 CP
(Health and Safety)

POWER AUTHORITY OF THE
STATE OF NEW YORK

(Greene County Nuclear
Power Plant)

March 9, 1979

Licensing Board grants in part and denies in part applicant's motion for summary disposition of certain contentions.

RULES OF PRACTICE: SUMMARY DISPOSITION

In order to grant a motion for summary disposition, the record must demonstrate clearly that there is no possibility that there exists a litigable issue of fact.

EXCLUSION AREA: CONTROL REQUIREMENT

Compliance with 10 CFR 73.55, physical security requirements, is not required until the operating license stage of a facility. In a construction proceeding, a preliminary discussion of protection of vital equipment is all that is required.

**DECISION AND ORDER RULING ON
MOTIONS FOR SUMMARY DISPOSITION**

The Applicant, Power Authority of the State of New York (PASNY), and the NRC Staff have both filed motions for summary dismissal of certain contentions previously allowed for adjudication in this proceeding. PASNY has moved to dismiss ten such contentions and the NRC Staff has

moved to dismiss three contentions which PASNY also included in the ten covered by its motion. The NRC Staff in a subsequent filing has supported PASNY's motion on the essentials of all ten of the contentions which PASNY moves to be dismissed. Consequently both of the motions will be considered jointly.

The technical issues discussed in this decision and order include security, site geology, seismic design, missile protection, valve submergence, systems separation, aircraft hazards, external flooding, occupational exposure, exclusion area.

Preliminarily it should be pointed out that most of the areas of health and safety brought into issue by the contentions which are the subject of these motions for summary disposition have been the subject of a great deal of testimony already in the record of the joint environmental hearing before this Board and the New York State Public Service Commission Siting Board. These hearings are still continuing.

A number of intervenors filed written opposition to the motions for summary disposition by their counsel. These intervenors are Citizens to Preserve the Hudson Valley (CPHV), Columbia County Survival Committee (CCSC), and Mid-Hudson Nuclear Opponents (MHNO). Other intervenors who appeared at oral argument on these motions include Cementon Civic Association (CCA) and an individual, Mary Berner of Athens, New York. After oral argument, Mary Berner filed a document opposing both the motions of the Applicant and the NRC Staff. Other intervenors who filed no answers to the motions and did not appear include Greene County, New York, *et al.* (GC) and Columbia County, New York.

Oral argument was held on January 17, 1979, in Albany, New York, and all parties present were heard on the motions at that time.

This Board is issuing this ruling pursuant to its authority granted in 10 CFR 2.749. We have kept in mind that in order to grant a motion for summary disposition, the record before us must demonstrate clearly that there is no possibility that there exists a litigable issue of fact. Where we have been in doubt or felt that parties should be permitted or required to proceed further than the existing record, we have denied the motions for summary disposition.

Specific Rulings on Motions for Summary Disposition

I. CONTENTION—PLANT SECURITY

Both the NRC Staff and the Applicant have moved for summary disposition of Greene County stipulated contention I.A. which is as follows:

- I. The Preliminary Safety Analysis Report ("PSAR") prepared by the Applicant does not provide reasonable assurance, as required by 10 CFR 50.35 and 50.40 that (a) the health and safety of the public will not be endangered, and (b) the Applicant is financially qualified to engage in the proposed activities in accordance with the Commission's regulations in the following respects:
 - A. The Applicant has not demonstrated that the proposed site is suitable from the point of view of complying with the security requirements of Part 73 of 10 CFR due to the easy access to the site from the Hudson River and the resulting exposed nature.

Greene County failed to answer the motion for summary disposition and failed to appear for oral argument. The parties who did file responses to the motions or appeared at oral argument opposed the granting of dismissal of this contention.

In support of its motion, the NRC Staff has submitted the affidavit of Michael J. Gaitanis. In support of its motion, the Applicant has submitted the affidavit of Mario J. Maltese. These affidavits establish the following:

1. Applicant is committed to erecting two chain link fences 50 feet apart around the perimeter of the security area, with electronic surveillance at all times and security force monitoring (Maltese Affidavit 1, paragraph 5; Gaitanis Affidavit, page 2).
2. All safety related structures, systems, and components are located within the double chain link security fence (Maltese Affidavit 1, paragraph 5; Gaitanis Affidavit, page 2).
3. The physical barriers, electronic and security force surveillance, and controlled access procedures will regulate access to the plant whether the approach is from the water side or land side (Maltese Affidavit 1, paragraph 6; Gaitanis Affidavit, page 2).

As pointed out by the NRC Staff in their motion, compliance with 10 CFR 73.55 is not required until the operating license stage. A preliminary discussion of the facility pertaining to protection of vital equipment is all that is required at this stage. After considering the two affidavits submitted in support of the motions, testimony in the record as to security plans and commitments, and the fact that no intervenor raised any serious question as to the security of the proposed facility, this Board is compelled to grant the motions of the NRC Staff and the Applicant to dismiss this contention from further consideration.

II. CONTENTION—ADEQUACY OF SITE GEOLOGY

The Applicant has moved for summary disposition of Greene County Contention I.C. and Mid-Hudson Nuclear Opponents Contention 2 (in part). Intervenor contends that the site geology is inadequate, that submarine geology under the Hudson River has not been investigated, and that geology described in the PSAR is not the geology of the Cementon site. The specific contentions are as follows:

The PSAR does not adequately assess the geology of the site and the risk it may impose in terms of nuclear safety in that the impact or possible consequences of blasting in the vicinity of the Cementon site has not been adequately evaluated in the PSAR and in that the Power Authority of the State of New York's purported description of the geology of the Cementon site is not, in fact, a description of the site but relates to an area located approximately 15 miles away. [Greene County, *et al.*—Unstipulated Contention I.C.]

. . . Neither is the geological data and evaluation sufficient to determine the site's geological suitability for nuclear power development. Submarine geology under the Hudson River has not been adequately investigated and evaluated. [Mid-Hudson Nuclear Opponents and Shirley Brand—stipulated Contention 2 (in part).]

Applicant's motion for summary disposition addresses the adequacy of site geology and its assessment. The impact of blasting operations is not considered as part of the motion (Tr. 80-S through 84-S). NRC Staff supports the motion and in support of its position submitted the joint affidavit and incorporated testimony of Donald M. Caldwell and John Kelleher. Applicant relies upon the affidavit of Mr. John H. Peck. Intervenor Greene County, *et al.*, neither answered the motion nor appeared at the hearing held for the purpose of oral argument on the motion. Intervenor Mid-Hudson Nuclear Opponents opposed the motion.

Applicant proposes the following material facts as to which no genuine issue exists:

1. Applicant followed all applicable NRC criteria and regulations in geologic and seismologic investigations of the Cementon site (Peck Affidavit 1, item 4).
2. Applicant assessed the geology of the proposed Greene County Nuclear Power Plant site and not of a location 15 miles distant (*id.*, items 5 and 6).

3. Regional and site studies of the geology provided no evidence that capable faulting exists beneath the Hudson River in the vicinity of the site (*id.*, items 7 and 8).
4. The Applicant and NRC Staff determined that the site is geologically acceptable (*id.*, items 8 and 9).
5. The Cementon site is geologically acceptable for construction of the proposed nuclear power plant (*id.*, item 9).
6. An evaluation of geologic conditions including the Hudson River has been conducted and determined to be essentially the same as the site geology presented in PSAR §§2.5.1 and 2.5.2. This was determined from review of published geological material and extensive geologic mapping along the riverbanks. In addition, borings in the Hudson River in the vicinity of the Cementon site support the interpretation of geologic continuity across the River. (*id.*, item 7).

Staff affiants Caldwell and Kelleher reviewed Applicant's affidavit on this issue and found it to be consistent with their incorporated testimony (Caldwell and Kelleher Affidavit, item 7). The Staff concludes that the geologic section beneath the Hudson River is similar to that in the site area (*id.*, item 8). The Staff admits that no detailed investigations have been carried out regarding the geologic conditions underlying the Hudson River but states however, that an evaluation has been carried out based on regional considerations. This evaluation leads the Staff to conclude that capable faults do not exist beneath the river. Staff bases this conclusion on two lines of evidence. The first is related to the tectonic evolution of the region and the second is the absence of any coherent pattern of seismicity such as is commonly associated with active faulting (Caldwell and Kelleher—incorporated testimony, pp. 1-3). Staff also finds that the PSAR provides an adequate basis for analysis of the geology of the site and that the PSAR does describe the geology of the Cementon site (*id.*, pp. 4, 5).

Intervenors Mid-Hudson Nuclear Opponents and Shirley Brand argue that "the Applicant's position is based upon proposed testimony, affidavits, and proposed exhibits, all of which are self-serving, and none of which have been subject to cross-examination or tested in the crucible of the hearing process" (Kafin answer to motion, December 15, 1978, p. 2). Intervenor further argues that the submarine geology under the Hudson River has not been studied, and that you do not know what is there until you look. Intervenor also points out that the bottom of the Hudson River is within the exclusion zone (Tr. 69-S, 70-S). Intervenor parallels the instant case with the

situation of a west coast nuclear plant (Diablo Canyon) where submarine geology adjacent to the site was not explored and subsequent findings revealed a fault(s) (Tr. 72-S, 73-S).

Regarding Greene County, *et al.*, Contention I.C., and specifically with the allegations that the description of the geology is not, in fact, a description of the Cementon site but relates to an area located approximately 15 miles away, we find no basis for the allegation and accordingly grant Applicant's motion for summary disposition on that specific issue. The basis for that decision is as follows.

Section 2.749(b) describes, at least in part, the obligations of opposing parties in summary disposition proceedings. The pertinent section is as follows:

. . . When a motion for summary decision is made and supported as provided in this section, a party opposing the motion may not rest upon the mere allegations or denials of his answer; his answer by affidavits or as otherwise provided in this section must set forth specific facts showing that there is a genuine issue of fact. If no such answer is filed, the decision sought, if appropriate, shall be rendered.

In view of the fact that Greene County, *et al.*, did not file any response, written or oral, and considering the filings, including affidavits and incorporated testimony of both Applicant and Staff, the Board grants summary disposition in the pleadings for Greene County unstipulated Contention I.C.

Regarding MHNO stipulated Contention 2, the Board concludes that sufficient geologic data and evaluation has been provided to determine the site's geological stability and suitability. The Board concurs with both Applicant and Staff that the site is geologically acceptable for placement of a nuclear power plant. The only question remaining concerns the submarine geology under the Hudson River and whether the information provided by Applicant and Staff are sufficient to support the interpretation of geologic continuity across the river. It is this question which will be addressed at the evidentiary hearing. Accordingly, Applicant's motion on MHNO stipulated Contention 2 is granted, in part, and denied, in part.

III. CONTENTION—SEISMIC DESIGN

The Applicant has moved for summary disposition of Mid-Hudson Nuclear Oponents Contention 2 (part) and Cementon Civic Association Contention I.C., and Columbia County Contention 6, and Columbia County Survival Committee Contention 8.

Intervenors contend that the seismic design of the proposed facility is inadequate in that the ground acceleration associated with the proposed safe

shutdown earthquake (*i.e.*, 0.2 g) has been underestimated and the impact of the extensive quarrying operations on geologic stability and seismic design has not been fully assessed. The specific contentions are as follows:

Petitioners contend that the seismic design of the proposed facility is inadequate in that the ground acceleration associated with the Applicant's proposed safe shutdown earthquake (*i.e.*, 0.2 g) has been underestimated. [Mid-Hudson Nuclear Opponents and Shirley Brand, stipulated Contention 2, part.]

The petitioner contends that the Staff and Applicant have failed to fully assess the geological data and evaluation sufficiently to determine the site's geological stability, particularly with regard to the extensive quarrying operations of the three local and contiguous cement plants. [Cementon Civic Association, stipulated Contention I.C.]

The petitioner contends that there has been an insufficient evaluation of the effects of quarrying and placement of large amounts of earth on the stability of subterranean geologic formulations. [Columbia County, stipulated Contention 6.]

Petitioner contends that the Applicant's PSAR has not adequately considered the susceptibility of the site to earthquakes. [Arthur Reuter and Columbia County Survival Committee, stipulated Contention 8.]

Applicant's motion on the above contentions relates to seismic design and the effects of quarrying and displacement of large amounts of earth on the stability of subterranean geologic formations. The impact of blasting operations at the quarries was not considered as part of the Applicant's motion (Tr. 83-S). Applicant relies on the affidavit of John H. Peck (Affidavit No. 2) and contends the following:

1. Applicant followed all applicable NRC criteria and regulations in determining the safe shutdown earthquake ("SSE") (Peck Affidavit 2, items 4 and 5).
2. The maximum earthquake postulated on the site has a ground acceleration of 0.12 g (Peck Affidavit 2, item 5).
3. The SSE for the Greene County Plant has a design value of 0.2 g (Peck Affidavit 2, item 5).
4. The NRC Staff concluded that the 0.2 g value for the SSE is adequate (Peck Affidavit 2, items 6 and 7).

5. The Applicant performed geologic investigations of the quarries and the relationship between seismic activity and quarrying (Peck Affidavit 2, item 8).
6. Seismic activity has been noted at Wappingers Falls and none has been found at Cementon (Peck Affidavit 2, items 9 and 10).
7. The Wappingers Falls area is geologically dissimilar from Cementon (Peck Affidavit 2, items 9 and 11).
8. Quarrying operations would not produce a seismic event which would exceed the SSE; minor earthquakes, if induced by quarrying at all, would not realistically constitute a safety hazard (Peck Affidavit 2, items 9, 10, and 11).

In support of Applicant's motion, the NRC Staff filed the affidavit of John Kelleher with incorporated supplemental testimony entitled "Safe Shutdown Earthquake and Relationship of Quarrying to Seismicity." Mr. Kelleher states that he has reviewed Applicant's affidavit on seismic design (Affidavit No. 2 of John H. Peck) and concludes that it is consistent with his own testimony. NRC Staff contends, in its Safety Evaluation Report (SER, §2.5), that based upon their review the proposed value of 0.2 g is adequate when used with the Regulatory Guide 1.60 design spectra (Kelleher incorporated testimony, p. 3, lines 9-11). In arriving at that conclusion, the Staff considers the following factors (*id.*, lines 13-24):

1. No capable faults have been identified in the vicinity of the site; thus there is no reason to expect earthquake activity to be localized near the site.
2. The tectonic provinces shown by Rodgers¹ are acceptable as a basis for evaluating the proposed earthquake design basis.
3. The historic seismicity of the site region differs markedly from the southern sector of the tectonic province (Valley and Ridge) within which it is located.
4. The effects of quarrying (possible induced seismicity due to loading and unloading of various areas) are well within the proposed design limits.

¹Rodgers, John, "The Tectonics of the Appalachians," Wiley-Interscience, New York, 1970.

Staff Affiant Kelleher discusses the Wappingers Falls, New York, earthquake, citing Pomeroy and others² who concluded that the 3.3 magnitude earthquake at Wappingers Falls may have been triggered by crustal unloading associated with quarrying operations in the presence of high horizontal compressive stress. It was pointed out, however, that the stress changes involved in the off-loading are small compared to the failure strength of rocks or in relation to the regional stress conditions so that the Wappingers Falls area must have been in a condition close to failure. Simple stress calculations made by Pomeroy and others (*id.*, p. 695) indicate that under special circumstances off-loading may trigger the release of stored regional tectonic stress, but in the absence of such store stress there is not significant energy in the off-loading process to cause a significant earthquake. Applicant and Staff both state that the geologic conditions in the Cementon area are different from those in the Wappingers Falls area. Wappingers Falls has a history of seismic activity while the Applicant's study of the Cementon area reveals no seismicity in the historical record in the vicinity of the quarries. On that basis both Applicant and Staff conclude that no potential seismic event induced by quarrying (off-loading of materials) would exceed the SSE derived from consideration of regional tectonics.

A review of the Pomeroy, *et al.*, article on the Wappingers Falls events, however, reveals that prior to quarrying operations the historic record showed essentially no seismic activity in the Wappingers Falls area. A pertinent portion of the conclusion section of the article is as follows:

The historic record shows essentially no activity in the area prior to commencement of quarrying operations and a pattern of low intensity seismic activity occurring infrequently after the quarrying began. [Pomeroy, *et al.*, p. 697.]

The Board has reviewed the filings including cited references and transcript³ and concludes that there is sufficient doubt as to the dissimilarity of Cementon and Wappingers Falls that it cannot grant Applicant's motion.

IV. CONTENTION—MISSILE PROTECTION

The Applicant has moved for summary disposition of Citizens to Preserve the Hudson Valley Contention I.B.2. This motion has been supported by the NRC Staff. Intervenor has opposed the Applicant's motion.

²Pomeroy, Paul W., Simpson, David N., and Sbar, Marc L., "Earthquakes Triggered by Surface Quarrying—The Wappingers Falls, New York, Sequence of June 1974," Bulletin of the Seismological Society of America, Volume 66, pp. 685-700, June 1976.

³During oral argument, Mr. John Nickolitch, representing the Cementon Civic Association,
(Continued on next page)

Stipulated Contention I.B.2. states:

B. The PSAR is deficient with regard to its description and analysis of the following design features or principal safety considerations as required by 10 CFR 50.34:

2. The adequacy of missile protection design to meet Commission criteria such as the generation of pump flywheel missiles by reactor coolant pump overspeed.

In moving for summary disposition of this contention, Applicant relies on Affidavit No. 1 of William Willoughby II, and asserts the following material facts as to which there is no genuine issue to be heard:

1. The Applicant has addressed all applicable NRC criteria for missile protection in the PSAR and in response to NRC Staff questions (Willoughby Affidavit 1, paragraphs 4, 7, and 8).
2. The plant missile protection design objectives are in conformance with applicable NRC design criteria (*id.*, paragraphs 8 and 10).
3. The Applicant identified those safety components which must be protected from missiles (*id.*, paragraph 5).
4. The Applicant has designed missile barriers to safeguard safety-related equipment (*id.*, paragraphs 4 and 9).
5. Documents submitted by the Applicant demonstrate that proper protection of safety components against all missiles will be provided (*id.*, paragraph 6).
6. The potential for missile generation from the reactor coolant pump flywheels is an acceptably low probability event (*id.*, paragraphs 7 and 10).
7. Reactor coolant pump flywheels are designed to comply with applicable NRC criteria (*id.*, paragraphs 7 and 10).

(Continued from previous page)

referred to summer 1973 newspaper accounts of earth tremors felt at Catskill, and questioned whether such events were taken into account. Mr. Nickolitch said that he found no mention of the event either in the PSAR or in Mr. Peck's affidavit (Tr. 19-S, 20-S). Applicant rebutted this argument by stating that the specific event referred to by Mr. Nickolitch occurred some 263 miles away from the site and is listed on page 3 of PSAR Table 2.5.2-4 (June 15, 1973, magnitude 5.2 with intensity of III as determined by local accounts) (Tr. 75-S). Applicant stated that the event was considered and did not alter the conclusion reached (Tr. 75-S).

8. The NRC Staff concluded that plant safety-related systems and components will be adequately protected against all missile damage (*id.*, paragraphs 4, 8, 9, and 10).

The NRC Staff supports the Applicant's motion with respect to this contention relying on the affidavits of James J. Watt (No. 1), Marcus Greenberg, Felix Litton, and Frank Rinaldi. The affidavit of Litton specifically addresses loss of integrity of the reactor coolant pump flywheel and concludes that the measures taken at the Greene County Nuclear Plant to ensure integrity of the reactor coolant pump flywheel satisfy the recommendations of Regulatory Guide 1.14. This compliance provided a basis acceptable to the Staff for satisfying Criterion 4, "Environmental and Missile Design Basis" of Appendix A of 10 CFR Part 50. This compliance notwithstanding, Litton notes that a generic review is being conducted of flywheel overspeed conditions. In the event results of the review indicate additional safety measures are required, postconstruction permit design changes will be made to ensure that an acceptable safety margin is maintained. The affidavits of Watt, Greenberg, and Rinaldi address, respectively, protective measures against internally generated missiles inside the containment, internally generated missiles outside the containment, and the adequacy of barrier protection against missiles. Each witness has affirmed that the design of the proposed facility is in compliance with the requirements as stated in General Design Criterion 4 and, hence, acceptable for the construction permit stage.

Intervenor CPHV opposes the Applicant's motion for summary disposition. Intervenor acknowledges that the "Applicant's position [on the issue raised by this contention] is based upon hundreds of pages of proposed testimony, affidavits, and proposed exhibits following negotiations between the Applicant and the NRC Staff, [in which] each issue has been addressed by design modifications which will mitigate the adverse health and safety consequences described by the contentions." Intervenor does not accept this approach and desires a public hearing in order to subject his issue to the "crucible of the hearing process." The Board is not persuaded by Intervenor's arguments in opposition to this motion and is of the opinion that the Applicant and the NRC Staff have satisfactorily addressed the issue of the adequacy of the design of the proposed Greene County Nuclear Power Plant relative to missile protection. Sufficient information has been provided to give reasonable assurance that the final design will conform to the design bases with an adequate margin for safety. This information has been provided in the PSAR, SER, and Supplement No. 1 of the SER. The Board notes that the Nuclear Regulatory Commission identified missile effects as a safety issue and undertook to reevaluate design criteria for the

barriers used as protection from missiles.⁴ It is believed that current criteria are conservative and provide substantial safety margins which have led the Commission to categorize missile effects to have a negligible risk potential (*id.*, p. 34).

Upon review of arguments, with exhibits, by the Applicant and the NRC Staff in support of this motion, and absent any substantial evidence from Intervenor in opposition, the Board grants the Applicant's motion for summary disposition.

V. CONTENTION—VALVE SUBMERGENCE

The Applicant has moved for summary disposition of Citizens to Preserve the Hudson Valley (CPHV) Contention I.B.4. This motion has been supported by the NRC Staff. Stipulated Contention I.B.4. states:

- B. The PSAR is deficient with regard to its description and analysis of the following design features or principal safety considerations as required by 10 CFR 50.34:
 - 4. The likelihood that valves designed to mitigate accident consequences may become submerged during operation of the emergency core cooling system.

The Applicant relies on Affidavit No. 2 of William Willoughby II in its motion and asserts the following:

- 1. The Applicant described in the PSAR the methods used in plant design to ensure that all valve and valve motors within containment required to mitigate the consequences of an accident will not be submerged during ECCS operation (Willoughby Affidavit 2, paragraph 5).
- 2. The design basis for prevention of submergence is in compliance with applicable NRC criteria (*id.*, paragraphs 5 and 8).
- 3. Safety-related valves and valve motors within containment will be located at elevations above postulated water levels (*id.*, paragraph 6).
- 4. The passive devices incorporated into the design assure that water from reactor coolant system and containment spray will drain properly (*id.*, paragraph 7).

⁴Report to Congress "Identification of Unresolved Safety Issues Relating to Nuclear Power Plants," NUREG-0510, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, January 1979.

5. The NRC Staff has determined that the information supplied by the Applicant resolves the subject of this contention at the construction permit stage (*id.*, paragraph 8).

In supporting the Applicant's motion for summary disposition of this contention, the NRC Staff relies upon the assurance given by the Applicant that no safety-related valve or valve motors, located inside the containment, will be submerged following a loss-of-coolant accident, this being accomplished by locating valve motors above the maximum possible water level.

Intervenors (CPHV) have provided no basis for their assertion that valves may become submerged.

The Board notes that the final plant design will be reviewed for conformance at the operational license stage to verify that the Applicant complies with preconstruction assurances. It is the opinion of the Board that valves which are located above the maximum possible water level are unlikely to be submerged. We find no triable issue here. The Applicant's motion for summary disposition is granted.

VI. CONTENTION—SYSTEMS SEPARATION

The Applicant has moved for summary disposition of Citizens to Preserve the Hudson Valley Contention I.B.5. The NRC Staff supports this motion. Contention I.B.5. states:

- B. The PSAR is deficient with regard to its description and analysis of the following design features or principal safety considerations as required by 10 CFR 50.34:
 5. The adequacy of the physical separation of redundant safety systems, especially electrical systems, will not be sufficient in ensuring the "single failure criterion" (*i.e.*, that a failure in one part of a safety system will not affect [its] redundant counterpart).

Affidavit No. 3 of William Willoughby II, in support of Applicant's motion for summary disposition of this contention, affirms that:

1. Physical separation of safety-related electrical systems is assessed and design criteria are provided in the PSAR (Willoughby Affidavit 3, paragraphs 4 and 8).
2. Physical separation of other safety-related systems is discussed in PSAR Sections 3.5, 3.6.5 and in the Greene County Nuclear Power Plant Fire Protection Program and Fire Hazards Analysis (*id.*, paragraphs 4 and 8).

3. Appropriate design criteria have been selected to ensure proper protection of safety-related systems against fires, floods, missiles, LOCA, and effects of high energy pipes (*id.*, paragraphs 5 and 7).
4. NRC Staff has concluded that NRC criteria for separation and protection of safety systems, including electrical systems have been met (*id.*, paragraphs 6 and 8).
5. A single failure occurring in one safety-related train will not cause the loss of function of its redundant counterpart (*id.*, paragraph 7).

The NRC Staff, in support of the Applicant's motion, proffers the affidavits of Spottswood B. Burwell and Joseph P. Joyce. This testimony is supplemental to information on this issue contained in the SER and affirms that, after review of the design information provided in the PSAR, the Staff finds that the Applicant is committed to develop and follow sufficient design criteria for physical separation of redundant safety-related electrical systems to assure that the single failure criterion can be satisfied.

The Board notes that systems interactions in nuclear power plants have been categorized by the NRC as a potentially high risk item (NUREG-0510, page A-12; see footnote 4, *supra*, for complete reference). While the NRC Staff believes that its review procedures and safety criteria provide reasonable assurance of independence required for safety, it has initiated a task force to confirm that present procedures adequately account for potentially undesirable interactions. The Board is of the opinion that current NRC studies on this topic relate to Intervenor's concerns. We will hear evidence on this issue. Applicant's motion for summary disposition is denied.

VII. CONTENTION—AIRCRAFT HAZARDS ANALYSIS

Both the NRC Staff and the Applicant have moved for summary disposition of Columbia County Survival Committee and Arthur L. Reuter, stipulated Contention 5.A. This contention is as follows:

The site is unsuitable by reason of its lying in an air corridor for international air travel. The Hudson River is a regular corridor for international air travel. Moreover, the Cementon site is in the flight pattern for practice runs from Westover (Mass.) Air Force Base. It is obviously exposed to particular hazard.

In support of their motion, the NRC Staff refers to filed testimony of Jacques B. J. Read of the NRC Staff. Dr. Read's testimony establishes:

1. That there are no significant airstrips within 5 miles of the site and that no other airports are situated close enough to constitute identifiable hazard to the site.
2. That the nearest military practice activity is 53 miles away.
3. That there are no flying activities from Westover Air Force Base over or within 10 miles of the site.
4. That there is agreement between the NRC and Department of Defense preventing any training flights from approaching operating nuclear power plants.
5. That the nearest Federal airway passes 6 miles from the site.
6. That the jet route system for international air travel from New York to Europe routes flights over Long Island Sound about 100 miles to the east of the plant site.
7. That the NRC Staff has utilized its standard methods for determining whether a site is exposed to an unacceptably high risk from an airplane crash and concluded that no such risk exists at the proposed plant, and that the methods used have been approved by the Appeal Board in *Metropolitan Edison Company* (Three Mile Island, Unit 2), ALAB-486, 8 NRC 9 (1978).

Based upon this testimony, the NRC Staff concludes that there are no unacceptable hazards from any aircraft activity.

The Applicant relies upon the Affidavit No. 1 of Andrew W. Barchas and comes to the same conclusion as the NRC Staff.

The intervenors have not filed any evidence in support of their contention but argue that many planes have been observed to fly over the proposed site or nearby and that, if given a chance, they can demonstrate that the risk of a plane crash into the proposed site is indeed quite high (Tr. 53-S). They will be given an opportunity to present such evidence. Consequently, the motions of the NRC Staff and the Applicant for summary dismissal of this contention are denied.

VIII. CONTENTION—EXTERNAL FLOODING

The Applicant and the NRC Staff have moved for summary disposition of Citizens to Preserve the Hudson Valley (CPHV) Contention I.B.1. In-

tervenors contend that Applicants have not adequately described and analyzed the plant design with respect to external flooding phenomena. Contention I.B.1. states:

I. The Preliminary Safety Analysis Report ("PSAR") prepared by the Applicant does not provide reasonable assurance, as required by 10 CFR 50.35 and 50.40 that (a) the health and safety of the public will not be endangered, and (b) the Applicant is financially qualified to engage in the proposed activities in accordance with the Commission's regulations in the following respects.³

B. The PSAR is deficient with regard to its description and analysis of the following design features or principal safety considerations as required by 10 CFR 50.34:

1. Plant design with respect to external flooding phenomena.

The Applicant relies upon the affidavit of Andrew W. Barchas (Affidavit No. 2). The NRC Staff relies upon the affidavits and incorporated testimony of Gale P. Turi and Marcus Greenberg. Intervenor's oppose the motion and further contend that the Applicant and Staff have misapplied Regulatory Guide 1.59 ("Design Basis Floods for Nuclear Power Plants, Revision 2," August 1977) and failed to understand accurately the nature of the Hudson River. Intervenor's contend that the wrong design basis was used (Tr. 29-S) and it is well within reasonable probabilities for an east coast hurricane to blow inland causing both an inland probable maximum river flood, a probable maximum surge at the ocean, and upstream dam failures. Intervenor's admit they have no engineering expertise but take the position that these are questions about which reasonable men can disagree and that they should be permitted to have an open dialogue in a public forum to test the various opinions and judgments put forward by Applicant and Staff (Tr. 26-S, 27-S).

Applicant proposes the following material facts as to which no genuine issue exists:

1. The Applicant in the PSAR has assessed and analyzed external flooding phenomena for the determination of design water levels at the site. These analyses are presented in the PSAR (Barchas Affidavit 2, item 6).
2. The external flooding analyses were conducted in accordance with Regulatory Guide 1.59, "Design Basis Floods for Nuclear Power Plants" (*id.*, items 6 and 7).

³Financial qualifications are not considered to be part of Applicant's or Staff's motion for summary disposition in the pleadings.

3. The external flooding analyses correctly considers combinations by hydrometeorological and seismic events which were selected in accordance with Regulatory Guide 1.59 (*id.*, items 7, 8, and 12).
4. The plant is designed such that no safety-related system or component will be affected by external flooding events (*id.*, items 13, 14, and 15).
5. The combination of the most severe natural phenomena and seismic events as asserted by CPHV is so improbable as not to require consideration (*id.*, items 9, 10, and 11).
6. The NRC Staff evaluated external flooding events and plant design and concluded that 10 CFR 50.34 and General Design Criterion 2 are satisfied (*id.*, item 7).

The NRC Staff proposes the following as their list of material facts as to which there is no genuine issue to be heard:

1. The Greene County Nuclear Power Plant will be located at an elevation of 30 feet mean sea level (msl) (incorporated testimony of Turi and Greenberg, p. 4, line 17).
2. The maximum flood level on the Hudson River will be 28.5 feet msl (*id.*, p. 3, line 9).
3. The occurrence or probable maximum precipitation in the area is estimated to result in a maximum water level of 30.2 feet msl, which was used by the Applicant as the controlling design basis flood elevation of external flooding (*id.*, p. 4, lines 7-12).
4. The Applicant has committed itself in the PSAR to protect from flooding all safety-related systems and components required for safe shutdown or for mitigation of the consequences of an accident by locating them in seismic Category I buildings with all access to these structures being 6 inches above plant grade (30.5 feet msl) (*id.*, p. 4, line 20 through p. 5, line 3).
5. All construction joints which may be required to resist water pressure will have water stops (*id.*, p. 5, lines 3-6).
6. Applicant has represented that penetrations of the service water lines of the annulus building will be sealed to prevent in-leakage (*id.*, p. 5, lines 10-12).

7. Applicant has also represented that the annulus and containment structures will have a continuous waterproof membrane below grade. In addition, any potential in-leakage due to cracks in the annulus building walls or leaking water stops will be collected in sumps and pumped out (*id.*, p. 5, lines 13-16).

Applicant and Staff each describe the combinations of hydrometeorological and seismic events which were selected and used in the external flooding analysis as design basis events in accordance with criteria presented in Regulatory Guide 1.59 and in American National Standards Institute (ANSI) N 170-1976. The five (5) design basis events were:

1. combination of a probable maximum flood⁶ on the Hudson River and a 25-year hurricane surge at the battery;
2. combination of a standard project flood⁷ on the Hudson River co-incident with the seismic failure of dams and the mean tidal stages at the battery;
3. combination of a 25-year flood on the Hudson River and a probable maximum hurricane⁸ at the battery;
4. combination of the standard project flood on the Hudson River and the standard project hurricane⁹ surge at the battery; and
5. the probable maximum precipitation¹⁰ at the site.

⁶The probable maximum flood is the hypothetical flood (peak discharge, volume, and hydrograph shape) that is considered to be the most severe reasonably possible, based on comprehensive hydrometeorological application of probable maximum precipitation and other hydrologic factors favorable for maximum flood runoff such as sequential storms and snowmelt.

⁷The standard project flood is a hypothetical flood that is produced by the critical concentrations of runoff from the most severe combination of precipitation (and snowmelt, if pertinent) that is considered "reasonably characteristic" of the drainage area involved.

⁸The probable maximum hurricane is a hypothetical hurricane having that combination of characteristics which will make it the most severe that can reasonably occur in the particular region involved. The hurricane should approach the point under study along a critical path and at an optimum rate of movement which will result in most adverse flooding.

⁹The standard project hurricane is a hypothetical hurricane intended to represent the most severe combination of hurricane parameters that is reasonably characteristic of a specified region, excluding extremely rare combinations. It is further assumed that the SPH would approach a given project site from such direction, and at such rate of movement as to produce the highest hurricane surge hydrograph, considering pertinent hydraulic characteristics of the area.

¹⁰The probable maximum precipitation is the estimated depth for a given duration, drainage

(Continued on next page)

Both the Applicant and Staff agree that design basis No. 1 produces the maximum flood level on the Hudson River at the plant site. Applicant estimates the probable maximum water elevation at 28.5 feet, mean sea level (a maximum stillwater level of 25 feet plus 3.5 feet wind wave effect) (Barchas Affidavit 2, p. 5; see also SER, pp. 2-15). The Staff independently estimated the flood level produced by a probable maximum flood on the Hudson River and the 25-year hurricane surge and without providing their estimates, concluded that the Applicant's estimate is acceptable.

Design basis event No. 5, the probable maximum precipitation will, according to both Applicant and Staff, result in a maximum water buildup of 0.23 feet above plant grade (Barchas Affidavit 2, p. 5, and Turi, Greenberg supplemental testimony, p. 4). Plant grade is at 30.0 feet msl (Barchas Affidavit 2, p. 5). Applicant states that no safety-related systems and components required for safe shutdown would be flooded since they are all located in seismic Category I buildings with all doors and access openings at least 6 inches above plant grade (*ibid.*).

The Staff and the Applicant contend that the combination of events selected as design basis events is reasonable and in accordance with the guidelines and regulations of the Commission. The Board agrees that the selection of events against which the plant is designed is sufficiently conservative that the health and safety of the public will not be endangered. The Board also agrees that the combination of events proposed by Intervenor CPHV (at Tr. 31-S, lines 22-24) is so unlikely to occur that it would be unreasonable to require that combination as a design basis. Accordingly, the Board finds no genuine issue of material fact to be heard and grants Applicant's and NRC Staff's motions on CPHV stipulated Contention I.B.1.

IX. CONTENTION—OCCUPATIONAL EXPOSURE

Intervenors contend that Applicant has not provided reasonable assurance that it will meet the occupational exposure criteria in 10 CFR Part 20. Stipulated Contention I.B.6. is raised by Citizens to Preserve the Hudson Valley (CPHV) in this proceeding. Subpart B.6. states:

- B. The PSAR is deficient with regard to its description and analysis of the following design features or principal safety considerations as required by 10 CFR 50.34;

(Continued from previous page)

area, and time of year for which there is virtually no risk of exceedance. The probable maximum precipitation for a given duration and drainage area approaches and approximates the maximum which is physically possible within the limits of contemporary hydrometeorological knowledge and techniques.

6. The ability or adequacy of plans for maintenance of equipment containing radiocobalt buildup to meet occupational radiological criteria set forth in 10 CFR Part 20.

Applicant contends that it has satisfied all applicable requirements and in support of its motion for summary disposition offers the affidavit of Andrew W. Barchas (Barchas Affidavit No. 3). The NRC Staff supports Applicant's motion and relies upon the affidavit of Thomas D. Murphy.

Applicant proposes the following material facts as to which no genuine issue exists:

1. Applicant has developed a program consistent with the applicable NRC criteria for radiation protection of occupational workers (Barchas Affidavit 3, item 5).
2. Applicant presented a program which will ensure that doses to workers will be as low as reasonably achievable (*id.*, items 5 and 7).
3. The plant is designed with specific consideration to the exposure of workers performing maintenance on plant equipment (*id.*, items 6 and 13).
4. The plant radiation protection program and plant design provides reasonable assurance that the occupational radiation dose is within the applicable NRC criteria and is as low as reasonably achievable (*id.*, item 8).
5. Specific measures taken to limit cobalt content in reactor coolant system materials are described in the PSAR (*id.*, item 9).
6. Applicant provides reasonable assurance that occupational exposures from radiocobalt buildup during plant maintenance will satisfy NRC regulatory criteria (*id.*, items 10, 11, and 12).
7. The NRC Staff concluded that corrosion product induced radiation fields should not exceed those presently experienced in operating reactors and that occupational exposures will be within the limits of 10 CFR Part 20 (*id.*, items 8 and 11).

The NRC Staff affiant Thomas D. Murphy independently reviewed Affidavit No. 3 of Andrew W. Barchas, and found that affidavit to be consis-

tent with his own testimony which was incorporated by reference¹¹ (Thomas D. Murphy, p. 2, item 5).

Intervenors oppose the motion contending that occupational exposure is a very serious problem, tha the agreement reached between Staff and Applicant on this particular issue is based upon the promise of an acceptable design, and in intervenors' view, that fails far short of what is required at this stage in the process (Tr. 99-S, 100-S). Intervenor also points out that the SER itself identifies the deficiency:¹²

The Applicant has not presented an acceptable design stage dose assessment nor has the Applicant shown that he used such a dose assessment to evaluate the plant radiation protection design and program. Also, further design work remains to be done on the primary shielding of the reactor vessel and the shielded entrance labyrinths of cubicles containing radioactive sources which may influence our conclusions on their effectiveness. [SER, p. 12-1, paragraph 3.]

Staff affiant Murphy states, and Applicant apparently concurs, that activated corrosion products have been shown to be a major source of occupational radiation exposure at operating nuclear power plants. Cobalt-60 has been shown to be the significant isotope contributing to the radiation levels around reactor coolant and auxiliary system components (incorporated testimony of T. Murphy, p. 2). The NRC Staff initially suggested a specification value of 0.1% maximum residual cobalt content (Co-59, the precursor of Co-60) for materials in contact with coolant for the Greene County Nuclear Power Station. Applicant PASNY argues that such a specification would increase material costs up to 5% and would not reduce cobalt values currently experienced. NRC Staff agrees that the increased cost will not provide commensurate exposure reduction benefits. Regarding the use of high cobalt-bearing alloys, such as Stellite, Applicant considers that the superior wear characteristics, compatibility with reactor coolant, and low exposed surface area argue for the selection of Stellite over other alloys. The NRC Staff agrees with Applicant's position at this time on the basis that Applicant uses high cobalt-bearing alloys only in areas where surfacing is required (*id.*, pp. 2 and 3). Staff affiant Murphy describes several features of Applicant's design and radiation protection program which he states is consistent with Staff's acceptance criteria of Regulatory Guide 8.8 and demonstrates that Applicant has adequate plans to protect workers in

¹¹"Supplemental Testimony of NRC Staff in Response to Citizens to Preserve the Hudson Valley, Stipulated Contention I.B.6. (Occupational Exposure)," by Thomas D. Murphy, incorporated by reference in Affidavit of Thomas D. Murphy, p. 1, item 4.

¹²Tr. 101-S, 102-S.

compliance with the standards for radiation protection contained in 10 CFR Part 20.

The Board is of the opinion that there is sufficient question concerning the resolution of this contention to warrant ventilation in the adversary process. The motion of Applicant for summary disposition is therefore denied.

X. CONTENTION—EXCLUSION AREA

The Applicant has moved for partial summary disposition of the Contention 1.A. of Citizens to Preserve the Hudson Valley (first sentence of subpart A). This contention is as follows:

A. The PSAR does not include sufficient information to insure that the Applicant can control all land within the exclusion area as required by 10 CFR Part 100. (Furthermore, the Applicant's subsequent request to decrease the size of exclusion area will cause the dose standards of 10 CFR Part 100 to be exceeded unless unapproved meteorological models are to be employed, or plant design changed.)

The Applicant has moved that the first sentence of this contention be summarily dismissed from further consideration. In support, the Applicant has demonstrated that it can control all activities in the land portion of the exclusion area since it has legal power to acquire and control such land (Pratt Affidavit 1). In its response to Applicant's motion, the NRC Staff agrees with this statement in section 2.1.2 of the SER Supplement No. 1 and consequently supports the Applicant's motion.

At oral argument, counsel for CPHV conceded that PASNY has the authority to obtain title to and control of the necessary land (Tr. 111-S).

There being no issue of material fact presented, the Applicant's limited motion for summary disposition of this contention is granted.

**ATOMIC SAFETY AND
LICENSING BOARD**

George A. Ferguson

Richard F. Cole

Andrew C. Goodhope, Chairman

Dated at Bethesda, Maryland,
this 9th day of March 1979.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Valentine B. Deale, Chairman
Dr. Quentin J. Stober
Ernest E. Hill

In the Matter of

Docket Nos. 50-338 SP
50-339 SP

VIRGINIA ELECTRIC AND
POWER COMPANY

(Proposed Amendment to
Operating License NPF-4)

(North Anna Power Station,
Units 1 and 2)

March 13, 1979

The Licensing Board implements the Appeal Board's decision in ALAB-522 and orders a prehearing conference to determine the issues for subsequent evidentiary hearing.

**COMMENTS ON ALAB-522;
ORDER SCHEDULING CONFERENCE**

1. The Atomic Safety and Licensing Appeal Board's decision ALAB-522, served January 29, 1979, reversed this Board's Amended Order and Recommendation on Petitions for Leave to Intervene, served December 19, 1978. The Amended Order had denied the respective petitions for leave to intervene, as amended, of Citizens Energy Forum and Potomac Alliance.

2. Referring to the Commission's regulation at 10 CFR 2.714(a)(2), this Board, after close consideration of the petitions and after a public conference with the petitioners and the parties, found that neither petition as amended had satisfied the requirement of the referenced regulation. Specifically, in the board's judgment, neither petition met the Commission's regulatory requirement of setting forth with particularity the petitioner's interest in the proceeding and how that interest may be affected by the results of the proceeding.¹ This Board also found no basis for permitting

¹Amended Order and Recommendation on Petitions for Leave to Intervene, served December 18, 1978 (Amended Order), paragraphs 35-39.

discretionary intervention pursuant to guidelines noted by the Commission in *Portland General Electric Company*, 4 NRC 610 (1976).²

3. In reversing this Board's decision, the Appeal Board bypassed the interest requirement of the Commission's regulation on intervention and in place thereof, invoked its own opinion citing as authority cases which it had previously decided. The Appeal Board's opinion, which effectively replaced the Commission's regulation, was centered on the theory that a petitioner for leave to intervene in a nuclear licensing proceeding is excused from the interest requirement as spelled out in the regulation if he lives close enough to the actual or proposed nuclear power plant. The Commission's regulation on intervention provides for no such exemption to the interest requirement.

4. Nevertheless, the Appeal Board followed its own rule that "close proximity" to the nuclear facility in question "has always been deemed to be enough, standing alone, to establish the requisite interest."³ In the case of *Citizens Energy Forum*, the record shows that its members live within a 50-mile radius of the North Anna Nuclear Power Station, that one couple lives a mile or so from the station, that another couple lives on the nearby shore of Lake Anna, and that a fifth member lives within 10 miles of the station. In the case of *Potomac Alliance*, the Appeal Board noted that the member of *Potomac Alliance* living closest to the North Anna Nuclear Power Station was approximately 35 miles away, and that another member residing in Richmond, Virginia, 45 miles distant from the facility, engages in canoeing on the North Anna River.

5. In citing its own cases to support its theory in the present situation that geographical proximity by itself satisfies the interest requirement specified in the Commission's regulation, the Appeal Board summarily equated, for purposes of its intervention decision, this proceeding for a limited amendment to an already existing operating license with proceedings for construction permits and operating licenses.⁴ Within the terms of its own theory, the Appeal Board's interchanging of full operating license and construction permit cases with the present case, for purpose of its intervention decision in the latter, lacks convincing justification.

6. Indeed, the Appeal Board itself has drawn a distinction between permitting intervention in a construction permit case, where a hearing is mandatory, and in an operating license case, where a hearing is not so. *Cincinnati Gas & Electric Company, et al.* (ALAB-305), 3 NRC 8 (1976), which involved the Licensing Board's grants of intervention to four petitioners for leave to intervene in an operating license proceeding, the Appeal Board

²*Id.*, paragraph 40.

³ALAB-522, 9 NRC 54, at 55 (January 26, 1979).

⁴*Id.*, 9 NRC at 54.

vacated the Licensing Board's grants of intervention. In doing so, the Appeal Board had the following to say at page 12 (footnote references omitted):

In sum, our admonition in *River Bend* bears repeating here. "In an operating license proceeding, unlike a construction permit proceeding, a hearing is not mandatory There is, accordingly, especially strong reason in an operating license proceeding why, before granting an intervention petition and thus triggering a hearing, a licensing board should take the utmost care to satisfy itself fully that there is at least one contention advanced in the petition which, on its face, raises an issue clearly open to adjudication in the proceeding." *We need only add that a board should take equal care in these cases to assure itself that potential intervenors do have a real stake in the proceeding. [Emphasis supplied.]*

The above advice by the Appeal Board to licensing boards dealing with petitions for leave to intervene in operating license cases does not appeal consistent with the Appeal Board's action in the captioned matter.

7. In the course of rationalizing its decision and adversely criticizing this board's Amended Order denying intervention to Citizens Energy Forum and Potomac Alliance, the Appeal Board badly misconstrued the Amended Order. Contrary to the Appeal Board's supposition about this Board's "seeming belief,"⁵ this Board did *not* require "as a precondition to intervention, that his [petitioner's] concerns are well-founded in fact."⁶ The Appeal Board made its error in reading into the Board's use of the term "particularize" that the board "necessarily had in mind more than a mere averment" The reality is that the Board was using the same root word as the Commission's regulation uses in requiring that a petition for leave to intervene shall set forth certain interest considerations "with particularity." 10 CFR 2.714(a)(2).

8. The erroneous character of the Appeal Board's interpretation that this Board insisted that the petition be well-founded in fact when the Board was simply echoing the Commission's requirement that petitioner shall set forth specified interest considerations with particularity is evidenced in paragraph 39 of the Board's Amended Order. There the Board stated in part (emphasis supplied):

It is not enough simply to call out neighboring waters, air, and agricultural products and to allege that these elements of the environment might or will be adversely affected to some undefined extent and in some

⁵*Id.*, 9 NRC at 54.

⁶*Id.*

⁷*Id.*

undetermined manner by the expansion of the spent fuel pool capacity. How the expansion of the spent fuel pool capacity might or will bring about environmental contamination, and the extent of such contamination, deserve to be described with particularity. General allegations of cause and effect relationships *without meaningful supporting allegations of specific facts* establishing a reasonable nexus between cause on the one hand and effect on the other are insufficient to support a petition for leave to intervene under the Commission's regulation.

9. In effectively directing grants of intervention to Citizens Energy Forum and Potomac Alliance, the Appeal Board presumably found that each petitioner had made at least one acceptable contention as intervention without an acceptable contention is an absurdity.⁸ Though the Appeal Board discussed the subject matter of a couple of possible contentions in the context of Citizens Energy Forum and Potomac Alliance's interest, no contention was identified as such to support intervention. Clearly, there is more to a contention for intervention purposes than a mere general expression of a concern, a worry, or a speculation. The Commission's regulation at 10 CFR 2.714(b) provides that the basis for each contention which a petitioner seeks to have litigated shall be set forth "with reasonable specificity."

10. The Appeal Board observed that its decision allowing intervention might not result in an evidentiary hearing if the Applicant should successfully pursue summary disposition procedures. From this Board's view, summary disposition procedures afford no excuse for loose allowance of petitions for leave to intervene—especially where a hearing is not mandatory.

11. By noting the foregoing comments on the Appeal Board's decision in association with a "live" case rather than later making some kind of an academic submittal, emphasis is given to old as well as newly developing questions which need resolution. The Board is convinced, as underscored by its recent experience, that clarification from the Commission with respect to the disposition of petitions for leave to intervene is in order.

12. Under the organizational structure and regulations of the Commission, the Appeal Board's decision ALAB-522 is no longer the subject of petition to the Commission by VEPCO or the NRC Staff, or by Citizens Energy Forum, or Potomac Alliance and it is now final so far as the Commission is concerned. The Appeal Board's decision never could be the subject of appeal or petition by this Board. The Appeal Board's decision is a matter for this Board to implement, and this Board is prepared to carry out

⁸See *Cincinnati Gas & Electric Company, et al.*, 3 NRC 8 (1976), at page 11 where the Appeal Board stated: "... without the identification of a valid contention, a petition to intervene may not be granted [footnote omitted]."

the decision to the best of its ability in keeping with the Commission's regulations. Accordingly, it is ordered that—

(a) A conference among VEPCO, the NRC staff, Citizens Energy Forum, and Potomac Alliance is scheduled for Thursday, March 29, 1979, beginning at 9:30 a.m. and to continue, if necessary, through Friday, March 30, 1979. The place of the conference is the Council Chambers (2nd floor), City Hall, 7th and Main Streets, Charlottesville, Virginia.

(b) The purpose of the conference is to determine the issues which will be the subject of an anticipated evidentiary hearing to be scheduled later in a formal notice of hearing. See 10 CFR 2.714(e) and (f).

(c) Representatives of the conferees are directed to communicate with one another in advance of the conference to attempt to settle upon an agreed statement of issues for consideration by the board and discussion at the scheduled conference. If a statement of issues is so agreed upon, VEPCO shall forward a copy to each member of the Board on or before Friday, March 23, 1979.

(d) In the absence of an agreed upon statement of issues, VEPCO, the NRC Staff, Citizens Energy Forum, and Potomac Alliance are each directed to file with members of the Board on or before Friday, March 23, 1979, its own proposed statement of issues for an evidentiary hearing. Such statements will be discussed at the conference scheduled herein for the following week.

(e) VEPCO's pending motion of consolidating Citizens Energy Forum and Potomac Alliance will be given further consideration.

(f) Limited appearances will not be scheduled for this conference. They will be scheduled for the anticipated evidentiary hearing.

13. The two technical members of the board, namely, Dr. Quentin J. Stober and Mr. Ernest E. Hill, participated in the preparation of this release and are in full accord herewith. But for geographical distances and time considerations, Dr. Stober and Mr. Hill would have joined the chairman in signing it.

Done this 13th day of March 1979 at Washington, D.C.

ATOMIC SAFETY AND
LICENSING BOARD

By Valentine B. Deale, Chairman

ATTACHMENT

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

**Docket Nos. 50-338 SP
50-339 SP**

**VIRGINIA ELECTRIC AND
POWER COMPANY**

**(Proposed Amendment to
Operating License NPF-4)**

**(North Anna Power Station,
Units 1 and 2)**

December 19, 1978

AMENDED ORDER AND RECOMMENDATION ON PETITIONS FOR LEAVE TO INTERVENE

1. The occasion for this amended order and recommendation was errors in paragraphs 13 and 22 of the original order and recommendation filed December 8, 1978. In the former paragraph it was stated that the NRC Staff had not responded to Potomac Alliance's supplemental material forwarded to the Board on September 15, 1978, whereas in fact, the NRC Staff had filed a response dated October 5, 1978. In paragraph 22 of the original order and recommendation, there was a mixup in references to two members of Citizens' Energy Forum (CEF). Since corrections of these mistakes implicate considerations bearing upon the Board's decision, the Board decided to issue this amended order and recommendation rather than merely issue an amendment of correction to a couple of sentences in the original order and recommendation. This amended order and recommendation replaces the original order and recommendation filed December 8, 1978.

2. On July 3, 1978, the Chairman of the Atomic Safety and Licensing Board Panel established this board to rule on petitions and/or requests for leave to intervene. The subject proceeding concerns VEPCO's requested amendment to the operating license of its North Anna Power Station for the purpose of expanding the capacity of the power station's spend fuel pool facility from 416 fuel assemblies to 966 fuel assemblies.

3. Two organizations filed timely petitions for leave to intervene, namely, Potomac Alliance and Citizens' Energy Forum.

Potomac Alliance

4. Potomac Alliance's petition for leave to intervene is deemed to embrace the following filings: (1) petition for leave to intervene, subscribed and sworn to on June 21, 1978, together with an affidavit of contentions in support of the petition; (2) amendment to petition for leave to intervene, together with three affidavits authorizing Potomac Alliance to represent affiants' interests in this proceeding; and (3) transmittals under letter of September 15, 1978, from Potomac Alliance, namely, motion to supplement amended petition for leave to intervene and two supplemental affidavits indicating the concerns of three affiants who had previously authorized Potomac Alliance to represent their interests in the proceeding.

5. According to its petition for leave to intervene, Potomac Alliance is a Washington, D.C., based organization with approximately 75 members living in Virginia and the District of Columbia. Potomac Alliance's petition states that at least three of its members live within a 45 mile-radius of the North Anna Power Station and that many of its members use recreational areas within a 30-mile radius of the plant, including State parks, bicycle trails, and historic sites.

6. In its petition, Potomac Alliance describes itself and its interest in relation to the present proceeding in the following terms (Amendment to Petition, pp. 1-2):

. . . The Alliance's principal purpose is to oppose nuclear power and to promote safe, renewable, efficient, and decentralized sources of energy. The Alliance's particular concern of relevance to this proceeding is with the potential health, safety, and environmental problems associated with the storage and possible releases of radioactive materials as a result of the applicant's proposed modification of its spent fuel storage pool at the North Anna Nuclear Power Station, Units 1 and 2.

Interests To Be Protected

The Petitioner is concerned that the proposed storage of substantially larger amounts of spent fuel in the northern Virginia area and to keep that spent fuel in the area for a substantially longer period than originally contemplated, significantly increases the risk to its members and the general public of exposure to radioactive waste products. These increased risks seriously jeopardize the health, safety, and psychological well being of the citizens of and visitors to the Washington, D.C. and northern Virginia areas, and seriously affects the quality of the regional environment.

VEPCO admits the total amount of radioactive material to be concentrated within the dimensions of the storage pool will be more than

twice the amount originally planned. The possibility that a small fraction of this amount of radioactivity might be released into the atmosphere presents human health, environmental, and economic costs that are so great as to render unjustified any benefits that might be anticipated.

No acceptable solutions for long-term storage of high-level wastes are in sight. At present there are no offsite facilities available to accept these wastes. The Alliance considers the lack of any long range waste storage plans (which in the original licensing and construction hearings were presumed to have been readied by this time) and the possibility that there may never be an acceptable solution, presents a threat of the gravest order. This threat may hang over the entire region for an indefinite period of time during storage, seriously affecting the quality of life and the environment. Thus, the North Anna proposal subjects the Petitioners and others to potential health, safety, and environmental dangers not adequately considered in any previous hearing.

7. Potomac Alliance enumerated a total of 38 contentions, nine of which appear in its original petition for leave to intervene and 29 of which appear in the amendment to its petition. Tr. 59.

8. At the prehearing conference in Charlottesville, Virginia, on Friday, September 8, 1978, which was provided for by the Board's order dated August 4, 1978 (43 Fed. Reg. 35561-2, August 10, 1976), Potomac Alliance's representative submitted the views of his organization as to why its petition qualifies under the Commission's regulation, entitled "Intervention," namely, 10 CFR 2.714, from the standpoint of meeting both the "interest" requirement and the "contention" requirement of the regulation.

9. At the conference, the representative of Potomac Alliance emphasized the interest of two of its members living in Charlottesville in canoeing on Lake Anna, on the shore of which VEPCO's North Anna Power Station is located, and in other lakes in the region for recreation. According to the Potomac Alliance's spokesman, they have an interest in "seeing to it that the quality of the water is maintained and that there is no contamination in the air." Tr. 45.

10. Additionally, they and another one of Potomac Alliance's members—a person living in Richmond—eat locally grown food, and accordingly, "there is obviously interest there, making sure that ground water, surface water, as well as the atmosphere, are as unpolluted as possible." Tr. 45.

11. Potomac Alliance's spokesman generalized that the interest noted in the above paragraph "would apply to all of the other members in the event

of some extraordinary accident in which we all might be affected." Tr. 45-46.

12. When the Board observed that its focus is on the proposed increase in the spent fuel storage capacity, Potomac Alliance's spokesman, evidently acknowledging the merits of the limited scope of this focus, in effect asserted that there will be "a margin of increased danger, increased risk" (Tr. 47) and that such margin, whatever it may be, is what his organization is concerned about.

13. This representative of Potomac Alliance went on to tell the Board at the prehearing conference as follows (Tr. 48):

We don't want to raise any issues that have been adjudicated. Apparently the plant—obviously the plant had been adjudicated to be safe within margins. There is certainly a risk, but that risk has been found to be reasonable, and we don't want to raise that at this point.

We do think, though, that they [VEPCO] are undertaking additional risks in this process. And while we don't require a call for reevaluation of the entire risk presented by the whole plant, we do think that there is an increase, and that it is important that we be allowed to intervene in this proceeding and if not help point them out and examine them, at least better understand them.

14. At the September 8 conference and in their earlier written responses to Potomac Alliance's petition, both VEPCO and the NRC Staff opposed the admission of Potomac Alliance as an intervenor. VEPCO contended that Potomac Alliance had not adequately shown an interest which will be affected by VEPCO's proposed expansion of the spent fuel pool capacity at the subject plants. Tr. 84. The NRC Staff expressed its opinion, too, that Potomac Alliance did not satisfy the "interest" requirement of the Commission's regulation governing intervention. Tr. 68.

15. By the letter of September 15, 1978, transmitting to the Board a motion to supplement its petition, together with two affidavits from three of its members living within 45 miles of the North Anna Power Station, Potomac Alliance sought to reinforce its amended petition. Any question of whether Potomac Alliance's filing of September 15, 1978, was untimely is bypassed as the filed material has been taken into account, in the Board's discretion, as a permissible extension to Potomac Alliance's oral statements at the conference.

16. As a result of this supplemental material, the NRC Staff changed its position from recommending that Potomac Alliance's petition for leave to intervene be denied in the absence of a showing of interest to a position of recommending that Potomac Alliance's petition be granted. In the NRC

Staff Response to Motion to Supplement Amended Petition for Leave to Intervene Filed by Potomac Alliance, at pages 3-4, the NRC Staff found on the basis of the affidavit of a Potomac Alliance member living in Richmond, Virginia, about 45 miles away from the plant, that "the Alliance has *minimally* satisfied the interest requirement of 10 CFR §2.714." (Emphasis included in NRC Staff response.)

17. The pertinent part of this affidavit by one Elizabeth H. Lonnes reads as follows:

It stands to reason that the more spent fuel that is stored at the site, the more likelihood there will be for an accidental release of radiation. Since we here in Richmond are downwind of the North Anna plant, we would be likely to receive a great deal of windborne radiation in the event of accidental release of radiation.

Another aspect of my concern centers around the fact that radioactive materials produced as fission byproducts tend to concentrate in the food chain, thus rendering fish and other edible aquatic life in the North Anna River and parts of the Chesapeake Bay inedible should a sufficient release of radioactive material occur. As you well know, Richmonders are quite fond of their seafood and many residents of central Virginia depend on it heavily in their diets.

A third aspect of my concern is for the recreational value of the North Anna River because it is excellent for canoeing and camping and it is close enough to my home that my family and I use frequently. In the event of a nuclear accident at the North Anna plant, it seems a virtual certainty that the river would be closed indefinitely to all recreational activities.

18. Potomac Alliance submitted a second affidavit by two of its members with its transmittal letter of September 15, 1978. The pertinent part of this affidavit by Richard L. Bocock and Candice H. Bocock, who reside in Charlottesville, Virginia, states:

We feel that the proposed expansion of spent nuclear fuel storage at Vepco's North Anna plant would pose an immediate threat to our health and safety. We live approximately 35 miles west of North Anna, and in the event of any accidents causing the release of nuclear waste or contaminated water from the storage pool into the environment, we could be exposed to the hazards of airborne radioactive material, if the direction of windflow is from the east, which often occurs during periods of atmospheric disturbance. Increasing the amount of fuel stored at North Anna increases our chances of suffering from exposure to these elements.

The NRC Staff was of the opinion that this statement of interest was insufficient to provide a basis upon which to confer standing upon Potomac Alliance.

19. VEPCO made no response to the supplemental material submitted by Potomac Alliance under the latter's letter of September 15, 1978.

20. Representatives of Potomac Alliance joined the tour of VEPCO's North Anna Power Station on Thursday, September 7, 1978, the tour having been arranged by the Board for orientation purposes. The tour which was open to limited representation of each of the parties, was the subject of a written announcement by the board on August 16, 1978. The tour centered on the North Anna Power Station's spent fuel pool facility which was in its last stages of construction.

Citizens' Energy Forum

21. Citizens' Energy Forum (CEF) filed a petition for leave to intervene dated June 21, 1978, a supplement to the petition dated July 10, 1978, and an amended petition and supplement served August 23, 1978 (hereinafter collectively referred to as "petition").

22. CEF's petition states that it is an educational, nonprofit organization working toward a policy of safe and realistic alternatives to nuclear energy, that its members live within a 50-mile radius of the North Anna Power Station, and that four of its members—two couples—live on the shore of Lake Anna and a fifth member lives within 10 mile of the North Anna Power Station.

23. According to CEF's petition, Mr. and Mrs. J. B. Vaughn, who live on the shore of Lake Anna at the first cooling lagoon for the North Anna Power Station, are "especially concerned with possible radioactive contamination of the ground water from which their well is supplied" and believe that "their health could be adversely affected by such contamination of their drinking water." August 21, 1978, Supplement to Petition, page 1.

24. The second couple, namely, Mr. and Mrs. James H. Rogers, living on the same lakeshore at the third cooling lagoon, is "concerned with the effects of the increased discharge and possible radioactive contamination of the waters of Lake Anna due to the increased waste storage proposed for the spend fuel at the facility." *Id.* The Rogers' are also concerned with "possible radioactive contamination of the air in their area due to accident or other circumstances associated with spent fuel storage." *Id.*

25. Also according to CEF's petition, Mr. Haven Perkins who lives within 10 miles of the North Anna Power station "is concerned with the possible effects of increased waste storage on agricultural products in the area of the facility, especially those products grown in his own home garden." *Id.*

26. The petition generally claims that CEF members living within a 50-mile radius of the North Anna Power Station "stand to be severely and adversely affected should the proposed compaction of spent fuel rods occur." July 10, 1978, Supplement to Petition. The petition, as supplemented, includes a list of 24 CEF members residing within such area.

27. According to CEF's spokesman at the conference on September 8, 1978, CEF consolidated its contentions into one document, entitled "Supplement to Petition for Leave to Intervene" and dated August 21, 1978. Its contentions numbered 22. Tr. 13.

28. VEPCO takes the position it is willing to concede under what it describes as "very, very liberal" rules of the Commission in favor of intervention as construed by licensing boards and appeal boards (Tr. 77) that CEF has satisfied both the interest and the contention requirements. Tr. 81-82. The NRC Staff, which prior to the hearing had concluded that CEF's petition met the contention requirement but fell short of meeting the interest requirement, changed its position on the basis of statements at the conference by Mrs. J. B. Vaughn (Tr. 37-41, 63) to one of supporting CEF's petition for leave to intervene. Tr. 65.

29. At the prehearing conference, Mrs. Vaughn stated that she does authorize Citizens' Energy Forum to represent her interest in this proceeding as she had described her interest to the Board earlier at the conference. Tr. 63. In her statement of interest at the conference, Mrs. Vaughn, who said she was also speaking for her husband, began and ended the description of her position with the underlying general assumption, in effect, that all hazards involved in the plant's licensing would be doubled if VEPCO's proposed amendment to its operating license were granted; particulars about this general assumption were not forthcoming. Tr. 38, 40. Mrs. Vaughn expressed an unexplained fear that spent fuel from another VEPCO nuclear power plant would be stored at the North Anna plant immediately. Tr. 40. Mrs. Vaughn stated, too, without providing any details, that compaction of the spent fuel assemblies "seems to be a hazard in itself." Tr. 39. In addition, Mrs. Vaughn, without providing particulars, noted her concern that "the possibility of increased weight is a very serious consideration" in the background of the previously settled controversy over a fault issue (Tr. 40) and that "there is a possibility of ground water contamination." Tr. 40.

30. No CEF representative was able to join the tour of VEPCO's North Anna Power Station on Thursday, September 7, 1978.

Applicable Regulations

31. There are two regulatory requirements under 10 CFR 2.714 which must be met by a petition for leave to intervene before it will be granted.

The first requirement is the "interest" requirement and the second is the "contention" requirement.

32. The "interest" requirement of 10 CFR 2.714 is stated at subparagraph (a)(2) therein, as follows:

The petition [for leave to intervene] shall set forth with particularity the interest of the petitioner in the proceeding, how that interest may be affected by the results of the proceeding, including the reasons why petitioner should be permitted to intervene, with particular reference to the factors in paragraph (d), and the specific aspect or aspects of the subject matter of the proceeding as to which petitioner wishes to intervene.

33. The referenced factors in paragraph (d) of 10 CFR 2.714 are as follows:

(1) The nature of the petitioner's right under the Act to be made a party to the proceeding.

(2) The nature and extent of the petitioner's property, financial, or other interest in the proceeding.

(3) The possible effect of any order which may be entered in the proceeding on the petitioner's interest.

34. With respect to the "contention" requirement of 10 CFR 2.714, paragraph (b) states as follows:

. . . the petitioner shall file a supplement to his petition to intervene which must include a list of the contentions which petitioner seeks to have litigated in the manner, and the bases for each contention set forth with reasonable specificity. A petitioner who fails to file such a supplement which satisfies the requirements of this paragraph with respect to at least one contention will not be permitted to participate as a party . . .

Conclusion and Reasons Therefor

35. In the Board's judgment, neither Potomac Alliance nor Citizens' Energy Forum satisfied the "interest" requirement of the Commission's regulation on intervention at 10 CFR 2.714(a)(2). Having reached that conclusion, the Board passes no judgment on the contentions of the petitioners. Quite clearly, petitioners do not qualify for intervention merely by articulating one or more acceptable contentions without having established an interest within the applicable regulatory terms.

36. A liberal disposition toward intervention does not destroy the re-

quirements of the regulation on intervention. More specifically, the permissiveness of the regulation on intervention in allowing petitioners freely to amend their petitions within broad limits, the practice of the NRC Staff of aiding the petitioners in the preparation of their petitions for leave to intervene, the Board's own emphasis upon the regulatory requirements of intervention to forestall unawareness or misunderstanding by the petitioners of the opposite requirements, both in its order of August 4, 1978, and at the conference of September 8, 1978, the Board's initiation of the conference itself to give petitioners the opportunity to support their petitions in face of earlier written challenges of their validity by VEPCO and the NRC Staff, and the Board's relaxed attitude toward accepting a petitioner's amendment to its petition after the prehearing conference, all were directed toward facilitating the presentation of successful petitions on the assumption that there were factual bases for meeting the intervention requirements. The record shows that intervention is obviously not a procedural action in this licensing proceeding or other licensing proceedings which the Commission or its licensing boards have sought to avoid.

37. The Board is not persuaded that Potomac Alliance's petition, including its motion to supplement amended petition for leave to intervene with accompanying affidavits, described any adequate interest with sufficient particularity or that it satisfactorily represented how an acceptable interest might be affected by the results of the proceeding. Potomac Alliance's petition did not give satisfactory attention to the limited subject matter of the proposed amendment to VEPCO's operating license, that is, the expansion of the spent fuel pool capacity. The petition did not particularize the impact which such expansion would have on specific interest of the petitioner and the manner by which the impact might be expected to come about. The board has concluded that it is not enough, for example, to justify intervention for a Richmond resident living 45 miles downwind from the plant merely to identify her concern that people in her area "would be likely to receive a great deal of windborne radiation in the event of accidental release of radiation." Affidavit of Elizabeth H. Lonnes. And similarly with the other expressions of general concern in the affidavit of the Richmond resident and in the affidavit of the two Charlottesville residents—none of which is adequately related to the proposed expansion of the spent fuel pool capacity. The emphasis of the petition reflected no meaningful explanation of the relationship between petitioner's stake and a decision granting the proposed amendment to VEPCO's operating license.

38. Similarly, CEF's petition for leave to intervene is regarded as deficient as it fails to particularize a casual relationship between injury to an interest of petitioner and possible results of the proceeding, that is, a decision to allow VEPCO to expand its spent fuel pool capacity. The bare recital that

five of CEF's members living on the shore of Lake Anna or within 10 miles of the North Anna Power Station are "concerned" about possible radioactive contamination of one or another part of the environment or products thereof as a result of the proposed increase of waste storage at the power station does not meet the interest requirement of setting forth with particularity how a specific interest may be affected by the results of the proceeding. Nor does the statement by Mrs. Vaughn at the prehearing conference (Tr. 37-41) cure the essential deficiency of CEF's petition.

39. On the subject of intervention as of right, the Commission in *Portland General Electric Company*, 4 NRC 610 (1976), stated at page 613 that the "applicability of judicial standing rules to questions of standing to intervene in administrative proceedings is clearly permissible," and it further stated at page 613:

To have "standing" in court, one must satisfy two tests. First, one must allege some injury that has occurred or will probably result from the action involved. Under this "injury in fact test" a mere academic interest in a matter, without any real impact on the person asserting it, will not confer standing . . .

It is not enough simply to call out neighboring waters, air, and agricultural products and to allege that these elements of the environment might or will be adversely affected to some undefined extent and in some undetermined manner by the expansion of the spent fuel pool capacity. How the expansion of the spent fuel pool capacity might or will bring about environmental contamination, and the extent of such contamination, deserve to be described with particularity. General allegations of cause and effect relationships without meaningful supporting allegations of specific facts establishing a reasonable nexus between cause on the one hand and effect on the other are insufficient to support a petition for leave to intervene under the Commission's regulation.

40. Having decided that neither Potomac Alliance nor Citizens' Energy Forum (CEF) may intervene as a matter of right, it remains for the board to decide whether one or both may intervene as a matter of the board's discretion under the guidelines noted by the Commission in the *Portland General Electric Company*, *id.* After reviewing the record from the standpoint of whether discretionary intervention would likely result in a useful contribution to the proceeding, the Board is of the opinion that the petitioners have not shown any significant ability to contribute on substantial issues of law or fact which the NRC Staff might not otherwise properly raise in its evaluation of the proposed amendment to VEPCO's operating license.

ORDER AND RECOMMENDATION

For the foregoing reasons, the Board orders that the petition for leave to intervene of Potomac Alliance and the petition for leave to intervene of Citizens' Energy Forum (CEF) are hereby denied.

The Board recommends that—

(a) in its evaluation of VEPCO's proposal to expand the spent fuel pool capacity of the North Anna Power Station, the NRC Staff consider the contentions of both petitioners as though the contentions had been presented in limited appearances;

(b) the NRC Staff reduce to writing in question form for written answer by VEPCO such contention or contentions, in part or in any combination, which the NRC Staff deems relevant to the proceeding; and

(c) the NRC Staff made its questions and VEPCO's written answers directly available to the two petitioners and to appropriate news agencies for the information of the respective memberships of the two petitioners and for the information of members of the public living in or about the general vicinity of VEPCO's North Anna Power Station.

Pursuant to 10 CFR 2.714a, this amended order may be appealed to the Atomic Safety and Licensing Appeal Board within ten (10) days after service of the order. The Appeal shall be asserted by the filing of a notice of appeal and accompanying supporting brief. Any other party may file a brief in support of or in opposition to the appeal within ten (10) days after service of the appeal.

The technical members of the board, namely, Mr. Ernest E. Hill and Dr. Quentin J. Stober, specifically agree with this Amended Order and Recommendation on Petitions for Leave to Intervene.

Dated at Washington, D.C., this 19th day of December 1978.

**ATOMIC SAFETY AND
LICENSING BOARD**

By Valentine B. Deale, Chairman

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

**HOUSTON LIGHTING AND
POWER COMPANY**

Docket No. 50-466

**(Allens Creek Nuclear Generating
Station, Unit 1)**

April 4, 1979

The Appeal Board affirms the decision of the Licensing Board in part, upholding the Licensing Board's denial of the intervention petitions of three appellants. The Licensing Board's denial of the intervention petitions of four other appellants is vacated and remanded for further proceedings. The remaining appeal from the Licensing Board's denial of an intervention petition is dismissed as moot. The petition for directed certification of a successful intervenor is denied on the understanding that the Licensing Board will reconsider its treatment of the contentions set forth in the organization's intervention petition.

RULES OF PRACTICE: APPELLATE REVIEW

It is settled under the Commission's Rules of Practice that a petitioner for intervention may not take an interlocutory appeal from Licensing Board action on this petition unless that action constituted an outright denial of the petition.

RULES OF PRACTICE: ADMISSIBILITY OF CONTENTION

The Appeal Board's holding in *Douglas Point*, ALAB-277, 1 NRC 539 (1975), that any early findings made by a Licensing Board, in circumstances where the applicant had disclosed an intent to postpone construction for several years, would be open to reconsideration "only if supervening

developments or newly available evidence so warrant” does not support a later Licensing Board’s action in imposing a similar limitation on the right to raise issues which were not encompassed by the early findings.

RULES OF PRACTICE: STANDING TO INTERVENE

Organizations such as the National Lawyers Guild are not clothed with independent standing to intervene in NRC proceedings. Any standing which such an organization possesses, however “unique” its qualifications to address particular issues, is wholly derivative in character. It must appear that at least one of the persons which the organization purports to represent has an interest which may be affected by the licensing action being sought.

RULES OF PRACTICE: STANDING TO INTERVENE

An affidavit which makes conclusionary assertions not susceptible of verification by either other litigants or the adjudicatory tribunal is insufficient to establish standing. Both the Board and the other parties are entitled to be provided with sufficient information to enable them to determine for themselves whether standing exists.

RULES OF PRACTICE: STANDING TO INTERVENE

Where an organization’s entitlement to intervene is wholly dependent on the personal standing of its members, at least one of those members must be identified specifically.

RULES OF PRACTICE: STANDING TO INTERVENE

Where an organization’s standing depends on its being the representative of a member who has the requisite affected personal interest, except in instances where representational authorization could appropriately be presumed, there must be a demonstration that that member has authorized the organization to represent his interests in the proceeding.

RULES OF PRACTICE: STANDING TO INTERVENE

The disclosure requirement for an organization seeking representational standing is not met by broad, vague, and essentially unsupported allegations that known opponents of nuclear power have been and will continue to be the victims of illegal harassment of various types at the hands of utilities and governmental agencies.

RULES OF PRACTICE: STANDING TO INTERVENE

Upon a determination that an adequate showing has been made that public revelation of the identity of a member of the petitioner organization might threaten rights of association, a licensing board should place an appropriate protective order upon that information.

Messrs. Jack R. Newman, Harold F. Reis and Robert H. Culp, Washington, D.C., and **J. Gregory Copeland and Charles G. Thrash**, Houston, Texas, for the applicant, **Houston Lighting and Power Company**.

Mr. Wayne E. Rentfro, Rosenberg, Texas, appellant *pro se*.

Mr. Jean-Claude De Bremaecker, Houston, Texas, appellant *pro se*.

Mr. John F. Doherty, Houston, Texas, appellant *pro se*.

Mr. F. H. Potthoff, III, Houston, Texas, appellant *pro se*.

Ms. Kathryn Hooker, Houston, Texas, appellant *pro se*.

Mr. Robert S. Framson and Ms. Madeline Bass Framson, Houston, Texas, appellants *pro se*.

Dr. David Marrack, Bellaire, Texas, appellant *pro se*.

Mr. Alan Vomacka, Houston, Texas, for the appellant, **Houston Chapter of the National Lawyers Guild**.

Mr. James M. Scott, Jr., Houston, Texas, for the petitioner for directed certification, **Texas Public Interest Research Group**.

Mr. Stephen M. Sohinki and Ms. Colleen P. Woodhead for the **Nuclear Regulatory Commission** staff.

Messrs. Anthony Z. Roisman, Douglas L. Parker, and Craig Iscoe, Washington, D.C., for the *amici curiae*, Natural Resources Defense Council and Institute for Public Representation.

DECISION

In late 1973, the Houston Lighting and Power Company filed an application for permits to construct two boiling water reactors to be known as Allens Creek Nuclear Generating Station, Units 1 and 2. On December 28, 1973, the Commission published in the Federal Register a standard "Notice of Hearing on Application for Construction Permits."¹ That notice of hearing specified that any interested person might file a petition for leave to intervene in the proceeding by January 28, 1974.² It also set forth the issues to be considered and decided by the Licensing Board in determining whether construction permits should be issued to the applicant.³

¹38 Fed. Reg. 35521.

²*Id.* at 35522.

³Those issues were (*ibid*):

ISSUES PURSUANT TO THE ATOMIC ENERGY ACT OF 1954, AS AMENDED

1. Whether in accordance with the provisions of 10 CFR 50.35(a):

- (a) The applicant has described the proposed design of the facilities 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;
- (b) 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;
- (c) 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
- (d) 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 facilities, and (ii) taking into consideration the site criteria contained in 10 CFR Part 100, the proposed facilities can be constructed and operated at the proposed location without undue risk to the health and safety of the public.

2. Whether the applicant is technically qualified to design and construct the proposed facilities; and

3. Whether the applicant is financially qualified to design and construct the proposed facilities;

4. Whether the issuance of permits for construction of the facilities will be inimical to the common defense and security or to the health and safety of the public.

(Continued on next page)

The only petition to intervene was filed by the State of Texas; it was granted.⁴ At the prehearing conference held by the Licensing Board on August 28, 1974, the applicant announced its intention to seek a limited work authorization and requested that an expeditious hearing be conducted on the environmental and site suitability issues which must be considered and decided in order to allow the issuance of such an authorization.⁵ In accordance with the request, the Board scheduled a hearing to consider "whether or not the site proposed for the reactors is suitable from the standpoint of radiological health and safety and issues relating to environmental matters."⁶

An evidentiary hearing on those uncontested matters was conducted on March 11 and 12, 1975 and proposed findings were thereafter submitted by the parties. On September 26, 1975 (no initial decision having been as yet rendered), the applicant notified the Board that the construction of the Allens Creek facility was being indefinitely deferred. Despite this development, and at the urging of the applicant based upon our decision in *Potomac Electric Power Company* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-277, 1 NRC 539 (1975), the Licensing Board proceeded to issue a partial initial decision. LBP-75-66, 2 NRC 776 (1975). Itself alluding to *Douglas Point*, the Board undertook to make findings on various environmental and site suitability matters "in order to provide early answers to some questions and to conserve the effort that has been expended in the belief that no litigant will be prejudiced in the circumstance that the only Intervenor has withdrawn its contentions." 2 NRC at 779.⁷ It concluded that:

(Continued from previous page)

ISSUE PURSUANT TO NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 (NEPA)

5. Whether, in accordance with the requirements of Appendix D of 10 CFR Part 50, the construction permits should be issued as proposed.

⁴Texas later withdrew its contentions because additional information supplied by the applicant and the NRC staff resolved its concerns.

⁵See 10 CFR 50.10(e).

⁶Order dated November 14, 1974. See also order dated January 29, 1975.

⁷The Board's findings included an assessment of the following:

I. Environmental Matters.

- (1) Impacts on land use of construction and operation of the proposed facility, primarily, withdrawal of land from agricultural use, conformance with National Historic Preservation Act for archaeological sites, effect on flood elevations, effects on Allens Creek and the Brazos river, e.g., thermal, and introduction of effluents due to construction.
- (2) Environmental effects of the fuel cycle and transportation of fuel to and from the site.

(Continued on next page)

The matters reviewed to date, which are reflected in the foregoing findings, have demonstrated no reason why the [Allens Creek] site is not a suitable location for nuclear power reactors of the general size and type proposed under the requirements of the Atomic Energy Act of 1954, as amended, and Commission regulations promulgated thereunder.

Id. at 812. It went on to direct that:

This Partial Initial Decision (as it may be subsequently modified) shall constitute a portion of the Initial Decision to be issued upon completion of the remaining environmental and site suitability matters and the radiological health and safety phase of this proceeding.

Ibid.

In the absence of exceptions to it, we reviewed the partial initial decision on our own initiative. In affirming that decision on December 9, 1975, we took pains to observe that "(1) the Licensing Board has not completed its environmental or safety review; and (2) even those findings already made are subject to later revision should further developments or new information so warrant." ALAB-301, 2 NRC 853, 855.

More than a year and a half later, on August 19, 1977, the applicant notified the Board that it had decided to proceed with only one of the two units and that it had amended its construction permit application to reflect

(Continued from previous page)

- (3) Social and economic effects of construction and operation of the reactor, *e.g.*, temporary and long-term increased demands on housing, schools, medical facilities, increased tax revenues, and recreational uses of proposed reservoir.
- (4) Proposed preoperational environmental monitoring.
- (5) Probability of occurrence and possible environmental consequences of radiological accidents.
- (6) Alternatives to the proposed transmission line routes and the possible benefits of reduced land commitment through use of cooling towers instead of the reservoir.

II. Site Suitability

- (1) Adequacy of engineered safety features to meet dose guideline values (10 CFR Part 100) for persons within minimum exclusion distance, low population zone, and population center distance.
- (2) Presence of nearby activities, *e.g.*, industrial, transportation, or military facilities, which must be designed against.
- (3) Hydrology of the proposed site.
- (4) Geology of the proposed site, including an extensive analysis of possible faulting and the potential for subsidence due to ground water withdrawal.
- (5) Atmospheric dispersion conditions at the proposed site.

(Continued on next page)

that fact.⁸ The Board was asked to reactivate the licensing proceeding.

In the wake of this notification, the Board published a "Notice of Intervention Procedures" on May 31, 1978.⁹ The notice provided that petitions to intervene could be filed with respect "to matters that have arisen because of the changes in the proposed plans for the station."¹⁰ Five parties sought intervention in response to that notice. The Board subsequently (on September 1, 1978) issued an amended notice for the assigned reason that the May notice had been too limited in scope. The amended notice provided that petitioners could seek intervention with regard to contentions "aris[ing] because of the changes in the proposed plans for the station and with respect to new evidence or information that had not been available prior to the . . . Appeal Board's Memorandum and Order of December 9, 1975 [*i.e.*, ALAB-301]."¹¹

The amended notice brought forward a substantial number of additional petitions. In all, twenty-four persons or organizations sought intervention. One of the petitioners, the Texas Public Interest Research Group, took the additional step of asking, in effect, that the Board reconsider the limitation it had imposed on the scope of contentions. On November 30, 1978, its motion for that relief was denied.

In a lengthy order issued on February 9, 1979, the Licensing Board ruled separately on all twenty-four of the petitions. Four were granted. For a variety of reasons, the balance of them were denied. Several were found not to have established the requisite "interest affected by the proceeding." Others failed because the Board found that the contentions asserted lacked specificity or basis or were precluded from consideration by Commission policy or regulation. One was rejected as untimely. Lastly, a number were denied because, to the extent otherwise acceptable, the contentions stated therein neither were based upon information that became available subsequent to December 1975 nor arose from the proposed changes in the plant design.

⁸The amendment was accompanied by changes in the applicant's Preliminary Safety Analysis Report. These changes included, *inter alia*, a reduction in gross electric generating capacity from 2400 to 1200 Mw, reflecting cancellation of Unit 2; a reduction in the number and size of associated facilities; a reduction in the size of the cooling lake from 8250 to 5120 acres (together with some alterations in its configuration); a significant reduction (almost 50%) in estimated water use requirements; and a re-design of certain effluent control systems to meet current requirements.

⁹43 Fed. Reg. 23666.

¹⁰*Ibid.*

¹¹43 Fed. Reg. 40328, 40328, 40329 (September 11, 1978). The five petitioners who had sought intervention in response to the earlier notice were notified of the expanded scope by an order dated August 14, 1978, and were given additional time to submit contentions under the altered standard.

Eight of the rejected petitioners have appealed the Licensing Board's decision. The applicant urges affirmance on each appeal; the staff supports some but not all of the appeals.

In addition, one of the four successful petitioners, the Texas Public Interest Research Group, seeks interlocutory review by way of directed certification of the limitation imposed by the Licensing Board in the September 1 amended notice. Although admitting that organization to the proceeding, the Board invoked that limitation in rejecting a number of its contentions. Both the applicant and the staff oppose the grant of the sought relief on the dual grounds (1) that no showing was made of extraordinary circumstances warranting interlocutory review; and (2) that, in any event, the limitation was correct.

I

One of the appeals before us involves the denial in the February 9 order of the intervention petition of John F. Doherty. On March 19, 1979, subsequent to the filing of that appeal, the Licensing Board issued an order in which, for reasons not germane here, it granted intervention to Mr. Doherty. In view of this development, the applicant has moved to dismiss the appeal as moot.

It is settled that, under the Commission's Rules of Practice, a petitioner for intervention may not pursue an interlocutory appeal from Licensing Board action in connection with his petition unless that action constituted an outright denial of the petition. 10 CFR 2.714a, 2.730(f); *Puerto Rico Water Resources Authority* (North Coast Nuclear Plant, Unit 1), ALAB-286, 2 NRC 213 (1975). Thus, even though, in recently granting intervention, the Licensing Board did not overturn its prior rejection of the Doherty contentions then considered, his appeal from that rejection will no longer lie. *Ibid.* It must therefore be dismissed.

It appears, however, that the test applied by the Licensing Board in ruling certain of the Doherty contentions inadmissible was the same as that invoked by the Board for a like ruling on some of the contentions of other petitioners, whose appeals remain alive before us. We consider those appeals in Part II, *infra*. For the reasons developed there, we have concluded that the test is not acceptable and are calling upon the Board to reexamine each contention rejected on the basis of it. In the interest of avoiding a possible reversal of the eventual initial decision (should Mr. Doherty then exercise his right to press the claims raised by his now aborted appeal), the Licensing Board doubtless will wish to pursue the same course with respect to the Doherty contentions, as well as to provide him with the same reasonable opportunity to amend his petition that is being accorded to those other petitioners. See pp. 387-388 and fn. 16, *infra*.

II

For want of an admissible contention, the Licensing Board similarly denied the petitions to intervene of appellants Wayne E. Rentfro, Jean-Claude De Bremaecker, Madeline B. and Robert S. Framson, Kathryn Hooker, F. H. Potthoff, III, and David Marrack. We have scrutinized the grounds assigned by the Board for its ruling on each rejected contention, together with the arguments advanced before us either in opposition to or in support of the ruling. In the instance of Mr. De Bremaecker and Ms. Hooker, we find no error warranting reversal and, accordingly, affirm the denial of intervention to them. With regard to the other appellants in this group, however, further Licensing Board consideration of their petitions is required.

A. As we have seen, in inviting the submission of new intervention petitions once the applicant had asked in 1977 that the construction permit proceeding be resumed, the Licensing Board put severe limitations upon the contentions that could be raised in any such petition. More particularly, the amended notice of "intervention procedures" issued by the Board in September 1978 decreed that any contentions put forth by a petitioner had either to arise from proposed changes in plant design or to be based upon "new" evidence or information; *i.e.*, information that had not been available prior to our December 9, 1975 affirmation (in ALAB-301) of the partial initial decision of the Licensing Board.

Thus, by the terms of the notice, the Board was foreclosing (absent plant design changes or newly available information) the raising even of safety and environmental issues which had been neither considered in depth (if at all) at the uncontested two-day evidentiary hearing in March 1975 nor addressed in the partial initial decision issued in November of that year. Needless to say, there are many potential issues falling in that category. The 1975 hearing was not convened for the purpose of hearing *all* safety issues. Rather, in the safety area, focus was upon those matters which needed to be resolved as a precondition to the issuance of the limited work authorization which, at the time, the applicant was still seeking (*i.e.*, those issues relating to the suitability of the proposed site "for a reactor of the general size and type proposed from the standpoint of radiological health and safety considerations . . ." (10 CFR 10.50(e) (2))). Moreover, although a full environmental review must precede a limited work authorization (*ibid.*), it is equally plain that the partial initial decision did not come to grips with all of the issues required to be examined by reason of NEPA. To the contrary, the Board itself stressed that the partial decision was but a portion of the initial decision "to be issued upon completion of the remaining environmental and site suitability matters and the radiological health and safety phase of this

proceeding. Still further, although the Licensing Board may not have been aware of it, it now appears that the staff initiated a study late last year for the purpose of reexamining its prior conclusions (set forth in a 1974 Final Environmental Statement) respecting how the Allens Creek site compares with potential alternative sites. The staff's brief to us detailed the nature of the study (at pp. 31-35) and informed us that, when completed, the analysis and conclusions derived therefrom would be submitted to the Licensing Board in the form of supplemental testimony. It is therefore evident that the alternative site question—one of the most potentially significant of all of the environmental matters which need be explored in a licensing proceeding—remains wide open.

In the totality of these circumstances, we are persuaded that the amended notice issued in September 1978, in common with the predecessor notice of "intervention procedures" issued 3 months earlier (see p. 383, *supra*), was too restrictive. No doubt, the Board quite properly placed a limitation upon the relitigation by a new intervenor of issues which had been thoroughly explored at the 1975 hearing and dealt with in the partial initial decision. In the absence of newly discovered evidence or a material change in circumstances, there is every reason why a party should not be permitted to reopen an issue which was fully considered and settled at an earlier time. But we perceive inadequate justification for treating as beyond the scope of permissible present inquiry an issue which got no or scant attention at the earlier hearing and/or which the Licensing Board itself believed to be left open by the partial initial decision.

Our *Douglas Point* decision, ALAB-277, *supra*, assuredly does not provide any such justification.¹² The question there posed was whether a Licensing Board should move forward with a construction permit proceeding in circumstances where the applicant for the permit had disclosed an intent to postpone construction for several years. That Board had answered that question in the negative; in its view, it was legally required to defer further consideration of all issues in the proceeding until such time as the applicant manifested a desire to commence construction of the facility. We saw it differently. Discerning no legal impediment "to an early scrutiny of any of the issues which must be resolved before the ultimate licensing action is taken" (1 NRC at 544), we went on to determine that such scrutiny of at least some of those issues might well serve the interests of all concerned. *Id.* at 545-47. We had in mind particularly those issues as to which (1) there was a high

¹²Once again, *Douglas Point* was the foundation of the Licensing Board's determination to render a partial initial decision on site-related issues notwithstanding the fact that, at the time, the construction of Allens Creek had been deferred indefinitely. See LBP-75-66, *supra*, 2 NRC at 779; ALAB-301, *supra*, 2 NRC at 854.

degree of likelihood that any early findings would retain their validity; and (2) early resolution (even if not necessarily conclusive) would provide the parties with a timely indication of whether, for example, the site met applicable safety standards and was environmentally acceptable as well. *Ibid.*

In connection with these determinations, we did convey the message that any early findings would be open to reconsideration only if "supervening developments or newly available evidence so warrant." *Id.* at 545, 552-53.¹³ But we did not go on to imply, let alone hold, that the Licensing Board might later impose a similar limitation on the right to raise issues which were *not* encompassed by the early findings. Had we thought that result would be permissible, we would have said so expressly. Beyond that, we would have been called upon to supply an explanation. As is readily apparent from even a cursory reading of ALAB-277, the rationale underlying what was there decided not only is devoid of any such explanation but, if anything, undercuts the notion that early hearings and findings on *some* issues can control the treatment of *other* issues when, at a much later date, the proceeding is resumed.

In sum, we hold that no contention advanced by the appellants could properly be rejected simply because it did not arise from proposed plant design changes and was not based upon either new evidence or information unavailable prior to December 1975. Rather, it would also have to appear that the contention was addressed to matters heard in March 1975 and decided in the November 1975 partial initial decision. To the extent inconsistent with this holding, the September 1, 1978 amended notice of "intervention procedures" placed an unwarranted limitation upon the right to intervene and, accordingly, could not lawfully be invoked in passing upon appellants' intervention petitions.

B. At least one of the contentions of Mr. Rentfro, the Framsons, Mr. Potthoff, and Dr. Marrack appears to have been rejected on the strength of the improper restriction contained in the amended notice. This being so, we are constrained to remand their petitions to the Licensing Board for further evaluation of the contentions so rejected in light of the views we have just expressed.¹⁴ The Board shall then take such action on the petitions as may be

¹³The same message was conveyed when we reviewed in ALAB-301 the partial initial decision in this case. See p. 382, *supra*.

¹⁴Insofar as concerns the remainder of the contentions of these appellants, we have found no Licensing Board error warranting reversal. See, however, fn. 16, *infra*, indicating that further action may have to be taken in regard to some of them.

appropriate in light of the conclusions reached on the reevaluation.¹⁵ Before taking that action, each of those four petitioners must be accorded a reasonable opportunity to amend his or their petitions to assert any additional contentions that might have been advanced had not the Licensing Board imposed the erroneous limitation. On the basis of what is before us, we cannot exclude the possibility that the limitation had an inhibiting effect upon their selection of the contentions to be put forth in their petitions.¹⁶

III

At this point, it is appropriate to turn to the petition for directed certification filed under 10 CFR 2.718(i) by the Texas Public Interest Research Group (TEX-PIRG). That petition in essence asks us to decide, in the context of the Licensing Board's rejection of a number of its contentions, the

¹⁵We appreciate that the Board below had other criticisms of the single contention of Mr. Potthoff which was rejected as not based upon new evidence or information. See February 9 order at p. 68. It is not clear, however, whether those criticisms were intended to represent an alternative ground for rejection of the contention.

¹⁶There is one additional matter that need be considered. In their appellate papers, the Framsons repeated the assertion that they (and others) made below, to the effect that the Licensing Board gave them too little time to formalize their contentions. Specifically, they complain that that Board's order of October 24, 1978 setting a prehearing conference for November 17, 1978 created an unfair situation. This resulted, they point out, because under the Rules of Practice (10 CFR 2.714(b), as amended effective May 26, 1978, 43 Fed. Reg. 17798 (April 26, 1978)) contentions must be filed 15 days before such a conference (in this instance, by November 2). But, they say, by the time the Board's notice reached them (around October 28), the time was too short to prepare the contentions in adequate form.

The Framsons' argument points up an obvious gap in the rules. We recognize that a petitioner can and should use the period following the filing of his petition to gather the material and do the analysis necessary to prepare adequate contentions. But the rules might well provide that petitioners be given more advance warning that the final bell is about to sound than was done here. In the absence of such a provision, we have only a vague due process standard to guide us.

We note that the argument presented here is not a purely academic one. Several of the contentions advanced by the now successful appellants were rejected because they were vague or lacked sufficient articulated basis. In this circumstance, we can insure that any possible injustice that might have been done is corrected—by allowing any of the successful appellants who were so affected to attempt to rehabilitate the contentions that were rejected for such reasons. No delay will be occasioned by their salvage efforts, for they can utilize for that purpose the same time period to which we have already held them entitled in order to avoid the effect of the improper limitations on subject matter previously imposed upon them (see p. 387, *supra*).

question which we have just addressed in Part II, *supra*.¹⁷ There is no need to do so. We are confident that, as we have suggested be done in the case of the Doherty contentions (see p. 384, *supra*), the Licensing Board will promptly reexamine its rulings on TEX-PIRG contentions in light of the conclusions we reached in Part II; and, as well, provide that organization with the same opportunity to amend its petition as has been accorded to the four successful appellants (see p. 388 and fn. 16, *supra*).¹⁸

IV

Unlike the other appellants, the Houston Chapter of the National Lawyers Guild (Guild) was denied intervention on the ground that it had failed to establish its standing. Order, pp. 61-63.¹⁹ The Licensing Board reached this conclusion because of the deliberate refusal of the Guild to identify by name and address any of its members whose interests might be affected by the outcome of the proceeding within the meaning of 10 CFR 2.714(a).

The reason assigned by the Guild for the refusal was that it was legally required to do no more than allege in its petition (as it did) that it "has more than fifty (50) members who reside in [certain Texas counties] in close proximity to the proposed nuclear power plant." In this connection, the Guild insisted that a more precise identification of those members would occasion an invasion of their privacy and subject them to the surveillance, intelligence gathering, and security activities of this Commission, the applicant, and Texas law enforcement authorities. The Licensing Board found this explanation unacceptable. It reasoned that, absent the information which the Guild had declined to furnish, it could not determine whether the

¹⁷Because TEX-PIRG was granted intervention, it could not take an appeal now from the rejection of those contentions. See p. 384, *supra*. A petition for directed certification is a permissible vehicle for seeking our interlocutory review of licensing board rulings. *Public Service Company of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-271, 1 NRC 478 (1975). The grant of such petitions is discretionary, however, and we exercise that discretion sparingly. *Pacific Gas and Electric Company* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-504, 8 NRC 406, 410 (1978).

¹⁸The Natural Resources Defense Council filed a motion for leave to file an *amicus curiae* brief in support of the petition for directed certification. The motion is denied and the brief which accompanied it is therefore not accepted for filing.

¹⁹The Licensing Board also determined (order, pp. 63-65) that there was insufficient warrant for permitting intervention as a matter of discretion under the teachings of *Portland General Electric Company* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610 (1976). The Guild's appeal does not challenge that determination but, rather, is confined to the standing (*i.e.*, intervention as a matter of right) issue. Because appeal boards do not engage in review *sua sponte* of licensing board rulings on intervention matters, we will similarly restrict our consideration here to the controversy over the Guild's standing.

organization actually does represent members who consider that they will be affected by the issuance of a construction permit for Allens Creek or rather, was simply seeking the "vindication of its own value preference." Order, p. 63.

The Guild's two-page appellate brief is largely a repetition of its invasion of privacy claim. There appears to be some suggestion, however, that the Guild has standing of its own by virtue of the proximity to the proposed facility of its "residence" (in Houston, approximately 45 miles east of the Allens Creek site). In addition, we have before us a brief *amici curiae* submitted by the Natural Resources Defense Council and the Institute for Public Representation, in which the Guild's position is supported at much greater length and with considerably more analysis.²⁰ For their part, both the applicant and the staff urge affirmance.

A. The starting point in the consideration of the Guild's appeal is that, contrary to its seeming belief, organizations of its stripe are not clothed with independent standing to intervene in NRC licensing proceedings. Rather, any standing which the Guild may possess is wholly derivative in character. It must appear that at least one of the persons it purports to represent does in fact have an interest which might be affected by the licensing action being sought; here, the issuance of a construction permit for the Allens Creek facility.

This point was settled in our decision several years ago in *Allied-General Nuclear Services* (Barnwell Fuel Receiving and Storage Station), ALAB-328, 3 NRC 420 (1976). *Barnwell* was a proceeding on an application for a materials license to receive and store irradiated fuel assemblies at a facility in South Carolina. A petition for leave to intervene in the proceeding was filed by the American Civil Liberties Union of South Carolina (ACLU/SC). The petition was founded largely upon that organization's asserted concern with, and "unique qualifications" to address, the "civil liberties issues" which it sought to raise. The Licensing Board concluded that allegations of that sort were insufficient to establish standing. LBP-76-12, 3 NRC 277, 286 (1976). We agreed and, on a finding that the petition lacked a particularization of how the interests of one or more members of the ACLU/SC might be affected by the issuance of the sought materials license,²¹ affirmed the denial of intervention. 3 NRC at 421-23.

²⁰The brief *amici* was lodged together with a motion for leave to file it. Although deciding to accept the brief, we chose not to call for responses. Nonetheless, the applicant filed a response, which we have fully considered.

²¹It should be noted that the ACLU/SC, in contrast to the Guild here, had supplied an affidavit executed by one of its members who resided relatively close to the Barnwell facility. That affidavit had not, however, specified the injury which the member thought she might sustain as a result of the grant of the license application.

Our action rested squarely on the teachings of *Sierra Club v. Morton*, 405 U.S. 727 (1972), in which the Supreme Court had held that the Sierra Club could not predicate its standing to seek to enjoin Federal agency approval of the commercial development of a portion of a national game refuge adjacent to the Sequoia National Park upon its asserted "special interest in the conservation and the sound maintenance of the national parks, game refuges, and forests of the country." As we observed, the basis for that holding was that, although an organization whose members are injured may represent those members in a proceeding for judicial review,

. . . a mere "interest in a problem," no matter how longstanding the interest and no matter how qualified the organization is in evaluating the problem, is not sufficient by itself to render the organization "adversely affected" or "aggrieved" within the meaning of the APA. The Sierra Club is a large and long-established organization, with a historic commitment to the cause of protecting our Nation's natural heritage from man's depredations. But if a "special interest" in this subject were enough to entitle the Sierra Club to commence this litigation, there would appear to be no objective basis upon which to disallow a suit by any other bona fide "special interest" organization, however small or short-lived. And if any group with a bona fide "special interest" could initiate such litigation, it is difficult to perceive why any individual citizen with the same bona fide special interest would not also be entitled to do so.

The requirement that a party seeking review must allege facts showing that he is himself adversely affected does not insulate executive action from judicial review, nor does it prevent any public interests from being protected through the judicial process. It does serve as at least a rough attempt to put the decision as to whether review will be sought in the hands of those who have a direct stake in the outcome. That goal would be undermined were we to construe the APA to authorize judicial review at the behest of organizations or individuals who seek to do no more than vindicate their own value preferences through the judicial process. The principle that the Sierra Club would have us establish in this case would do just that.

405 U.S. at 739-40; footnotes omitted.

B. 1. It is patent from the foregoing that, in determining the Guild's standing, the Licensing Board was not merely entitled but obligated to satisfy itself that there was at least one member of the Guild with a particularized interest which might be affected by the outcome of the proceeding (in the context of the Guild petition, the issuance of a construction

permit for Allens Creek). The question thus becomes whether, in discharging that obligation, the Board lacked the right to insist that there be a specific identification of the member or members upon whose interest the assertion of representational standing necessarily was bottomed. Put another way, was the Board required to presume that the Guild had a member with the requisite affected interest on the strength of nothing more than the naked representation in its petition that a certain number of Guild members reside within "close proximity" to the site of the proposed facility?

Laying to one side the right of privacy claim,²² we think that question requires a negative answer. According to its petition, the Guild is "a voluntary association of over 5,000 lawyers, law students, legal workers, and jail-house lawyers . . . which is dedicated to the need for basic change in the structure of our political and economic system." Although it may be reasonable to suppose that most (perhaps all) Guild members share that dedication as well as subscribe to the general objectives of the organization as spelled out in the petition,²³ it scarcely follows perforce that each considers that construction of the Allens Creek facility would invade some personal interest "arguably within the zone of interests sought to be protected or regulated" by either the statutes this Commission enforces or the Constitution. *Association of Data Processing Service Organizations v. Camp*, 397 U.S. 150, 153 (1970); *Portland General Electric Company* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613 (1976). Insofar as we are aware, joining and retaining membership in the Guild does not signify adherence to any particular views regarding the desirability of nuclear power facilities, either from a civil liberties standpoint or otherwise. Nor, more importantly, does there appear to be any necessary link between holding Guild membership and possessing an interest which might be affected by the construction or operation of such a facility. Indeed, for all

²²That claim will be discussed later. See pp. 397-401 *infra*.

²³a. To aid in making the United States and the State Constitutions, the law and the administrative and judicial agencies of the government responsive to the will of the American people;

b. To protect and foster our democratic institutions and the civil rights and liberties of all the people;

c. To promote justice in the administration of the law;

d. To keep the people informed upon legal matters affecting the public interest;

e. To encourage, in the study of the law, a consideration of the social and economic aspects of the law.

that appears on this record, the personal interests of any particular Guild member might be advanced, rather than harmed, by the construction of Allens Creek—i.e., the proposed licensing action would cause the member no injury in fact at all.

The alleged fact that there are Guild members who live in the general vicinity of the Allens Creek site does not alter matters. To be sure, persons who live in close proximity to a reactor site are presumed to have a cognizable interest in licensing proceedings involving that reactor. *Virginia Electric & Power Company* (North Anna Nuclear Power Station, Units 1 and 2), ALAB-522, 9 NRC 54, 56 (January 26, 1979). But there is no like presumption that every individual so situated will deem himself potentially aggrieved by the outcome of the proceeding (an essential ingredient of standing). Some may and some may not. Because of this consideration, the petitioner organization in *North Anna* did not and could not content itself with the simple assertion that it had members living in the shadow of the facility there in question. To establish its representational standing, it additionally supplied the statement of one of those members, which explicitly identified the nature of the invasion of her personal interest which might flow from the proposed licensing action.²⁴

But even if an organization's standing could be founded on nothing more than its having members residing in close proximity to the facility site, the Guild's position would not be improved. Absent disclosure of the name and address of one such member, it is not possible to verify the assertion that such members exist. In a footnote in their brief, the *amici curiae* endeavor to brush this consideration aside by noting that the veracity of the Guild's allegation that it has nearby members that has never been challenged and, were it to be, the Board below could require a Guild officer to submit an affidavit attesting to the truthfulness of the allegation. What this line of reasoning ignores is that both the Board and the other parties were entitled to be provided with sufficient information to enable them to determine *for themselves*, by independent inquiry if thought warranted, whether a basis existed for a formal challenge to the truthfulness of the assertions in the Guild's petition. Beyond that, we are unprepared to accept *amici's* implicit thesis that standing may be established by means of an affidavit which makes conclusionary assertions not susceptible of verification by either other litigants or the adjudicatory tribunal. We know of no authority for such a novel and unattractive proposition, which to us runs counter to fundamental concepts of procedural due process.

In sum, in circumstances where (as here) an organization's entitlement

²⁴The member also confirmed that she had authorized the organization to represent that interest. We discuss below whether such an authorization is required. See pp. 395-397, *infra*.

to intervene is wholly dependent upon the personal standing of at least one of its members, there is every justification for insisting that the member be identified specifically. Such insistence does not, as *amici* would have it, engraft new requirements for organizational standing upon those now enforced by the Federal courts. Rather, it is a matter of obtaining the necessary assurance that one of the established requirements is met; namely, that the members of the organization "would otherwise have standing to sue in their own right." *Hunt v. Washington State Apple Advertising Comm'n*, 432 U.S. 333, 343 (1977). At the risk of undue repetition, the indisputable fact is that, without the disclosure which the Guild declined to make, the petition contained an inadequate averment of facts necessary to allow an informed determination that, in actuality, that organization *does* possess a member with the requisite personal standing.

It is true (as *amici* stress) that, in *Hunt*, the Supreme Court did not refer specifically to an obligation to disclose the names of individual members. On the facts of that case, however, any such reference would have been entirely superfluous. *Hunt* involved a suit brought by a Washington State Commission seeking to invalidate a North Carolina statute regulating the labeling of closed containers of apples sold in, offered for sale in, or shipped into North Carolina. The Commission had been created by the Washington legislature for the express purpose of promoting and protecting that State's apple industry, which accounted for nearly one-half of all apples shipped in closed containers in interstate commerce. It was comprised of 13 Washington apple growers and dealers, elected by their fellow growers and dealers. Its activities were financed by assessments levied against the entire industry.

In these circumstances, there would have been no room for any claim (and none was made) that the Commission's assertion of standing was defective for want of an identification of a specific grower or dealer with the requisite personal interest in the outcome of the suit. By legislative decree, the Commission served as the representative of all growers and dealers within the State. Further, it was manifest on the face of things that the North Carolina statute under attack adversely affected the economic interests of the entire industry. In the words of the Supreme Court, it had the "obvious consequence" of "prohibiting the display of Washington State apple grades on containers of apples shipped into North Carolina" and, accordingly, "presented the Washington apple industry with a marketing problem of potentially nationwide significance." 432 U.S. at 337. All this being so, it is hardly surprising that the North Carolina challenge to the Commission's standing (and the Court's resolution of the challenge) focused upon issues quite different than that with which we are confronted here; e.g., North Carolina's assertion that the Commission was not a proper

representative of apple industry interests. *Id.* at 342.

2. In light of the Guild's steadfast refusal to reveal the name and address of at least one of its members with personal standing, it was unnecessary for the Licensing Board to reach the additional question as to whether, as was done in *North Anna* (see fn. 24, *supra*), that member must expressly have authorized the organization to represent his interest. The *amici* point, however, to the statement in the order below (at p. 63) that the Guild had failed to allege facts "showing that it actually represents named members who reside at certain distances from the proposed plant and who claim they will be adversely affected by the granting of the construction permit." We are then told by the *amici* that, if this was intended to constitute a holding that an authorization is required, the Board was in error.

We are normally reluctant to reach questions that need not be decided in the particular case at bar. In this instance, however, the authorization issue appears to be of sufficient potential recurring importance that there is reason to settle it now. We accordingly do so.

At the outset, it is important to understand precisely what the member would be called upon to authorize and for what purpose. From *amici's* argument, one might deduce that the issue is whether, in order to file an intervention petition, the organization perforce would be required to obtain the prior approval of one, or perhaps a majority, of its members. Indeed, *amici* goes so far as to suggest that what is in question is not merely whether permission to seek intervention is needed but, as well, whether the member or 'members' approval likewise would have to be obtained with respect to litigation strategy, settlement, the prosecution of appeals and the like.

In the *amici* were right in their formulation of the question, we would have little difficulty in accepting its answer to it. Beyond doubt, it is for an organization to determine for itself, in accordance with whatever procedures it may have developed for doing so, whether it will bring suit (or intervene in an administrative proceeding) on its members' behalf. So too, it is the right of the organization and its counsel, again in conformity with its own established internal procedures, to conduct litigation to which it has become a party as it sees fit. As the *amici* correctly observe, the member who is dissatisfied with the decision of the organization to seek (or not to seek) intervention, or with the course which the organization pursues in representing his interests, is free to resign.

But all this is a straw man here. No one, least of all the Licensing Board, has suggested that a member with a personal affected interest in the proceeding must have authorized the filing of the intervention petition in order to establish that the officer of (or attorney for) the organization who signed the petition was acting within the scope of his authority. More specifically, there has never been an intimation of *ultra vires* conduct on the part of the

Guild in this proceeding; had there been, the appropriate and total response would have been a demonstration that the decision to file the petition had been arrived at in a manner consistent with the Guild's internal procedures. The authorization at issue is, instead, addressed to the organization's *standing* to intervene. What the member would be called upon to do is to confirm not that he had directed or approved the filing of an intervention petition but, rather, that he had authorized the organization to represent his interests in the proceeding and thus had clothed it with his personal standing (which then could serve as the footing for the organization's standing to seek intervention if so inclined).

When properly viewed, then, the authorization issue takes on a cast materially different from that which the *amici* endeavor to place upon it. That is, it relates to the organization's obligation to establish its standing to intervene—and not to its right to manage its own affairs in accordance with its own procedures. Where an organization's standing hinges upon its being the representative of a member who has the requisite affected personal interest, it is obviously important that there be some concrete indication that, in fact, the member wishes to have that interest represented in the proceeding. As we see it, unless an organization's charter provides to the contrary, mere membership in it does not ordinarily constitute blanket authorization for the organization to represent any of the member's personal interests it cares to without his or her consent. In the context of the matter at hand, what possible foundation would exist for the Guild's standing were *none* of its members with a personal affected interest desirous of having that interest pursued?

This does not mean that, in the case of all organizations, there need be supplied a specific representational authorization of a member with personal standing. To the contrary, in some instances the authorization might be presumed. For example, such a presumption could well be appropriate where it appeared that the sole or primary purpose of the petitioner organization was to oppose nuclear power in general or the facility at bar in particular. In such a situation, it might be reasonably inferred that, by joining the organization, the members were implicitly authorizing it to represent any personal interests which might be affected by the proceeding.²⁵

²⁵For different reasons, no specific authorization would have been necessary in *Hunt v. Washington State Apple Advertising Comm'n*, *supra*. As earlier noted, by operation of Washington law the State Commission was authorized to represent the precise economic interests of apple growers and dealers which were sought to be vindicated in the suit against North Carolina. Moreover, the members of the Commission who authorized the filing of the suit were themselves clothed with personal standing.

We attach no special significance (as does the *amici*) to the absence of any mention of a

No similar inference, however, would be possible with respect to the Guild in this instance. By its own admission, that organization was not formed for the specific purpose of advancing opposition to nuclear power in general or the Allens Creek facility in particular; nor is there anything in its articulated objectives (see p. 392, *supra*) which might lead one to conclude that, by acquiring membership in the Guild, a person was perforce authorizing it to represent whatever interest he might have with regard to a proposed nuclear power plant. Accordingly, even had the Guild disclosed the name of a member who possessed a sufficient personal interest (*i.e.*, standing) to enable his intervention in the proceeding, it would have been open to the Licensing Board to require a showing that the member had authorized the organization to represent that interest.

C. What is left for consideration is whether, as both the Guild and the *amici* maintain, the disclosure requirement contravenes a constitutional right of association (or, as the Guild puts it, the "right to privacy in group association"). In support of the claim that it does, we have been referred to *NAACP v. Alabama*, 357 U.S. 449 (1958).

In that case, the State of Alabama had brought a State Court action in 1956 against the National Association for the Advancement of Colored People seeking to enjoin it from conducting further activities in that State. The bill in equity charged, *inter alia*, that, without satisfying the Alabama statutory requirement that a foreign corporation qualify before doing business in the State, "the Association . . . had organized various affiliates in Alabama; had recruited members and solicited contributions within the State; had given financial support and furnished legal assistance to Negro students seeking admission to the State university; and had supported a Negro boycott of the bus lines in Montgomery to compel the seating of passengers without regard to race." 357 U.S. at 452. Asserting various defenses, the NAACP filed a demurrer. Thereupon, "the State moved for the production of a large number of the Association's records and papers, including bank statements, leases, deeds, and records containing the names and addresses of all Alabama 'members' and 'agents' of the Association." *Id.* at 453. According to Alabama, this information was necessary to defend against the NAACP's denial that it was conducting an intrastate business within the meaning of the qualification statute. The court ordered production and, upon the NAACP's refusal to comply, held it in contempt.

Before the Supreme Court, the NAACP did not claim that, in any and all circumstances, a requirement that an organization disclose the names of

(Continued from previous page)

representational authorization requirement in *Sierra Club v. Morton*, *supra*, or *Warth v. Seldin*, 422 U.S. 490 (1975). The issue was apparently not raised in those cases and we perceive nothing in either decision which constitutes either an express or implicit holding on it.

its members abrogates constitutional guarantees. Rather, as characterized by the Court, its argument was that “in view of *the facts and circumstances shown in the record*, the effect of compelled disclosure of the membership lists will be to abridge the rights of its rank-and-file members to engage in lawful association in support of their beliefs.” Thus, the argument proceeded, “governmental action which, although not directly suppressing association, *nevertheless carries this consequence*, can be justified only upon some overriding valid interest.” *Id.* at 460 (Emphasis supplied).

It was this proposition—and not the much broader one which the Guild and *amici* seemingly press upon us²⁶—which the Court accepted in overturning the production order:

We think that the production order, in the respects here drawn in question, must be regarded as entailing the likelihood of a substantial restraint upon the exercise by petitioner's members of their right to freedom of association. *Petitioner has made an uncontroverted showing that on past occasions revelation of the identity of its rank-and-file members has exposed these members to economic reprisal, loss of employment, threat of physical coercion, and other manifestations of public hostility. Under these circumstances, we think it apparent that compelled disclosure of petitioner's Alabama membership is likely to affect adversely the ability of petitioner and its members to pursue their collective effort to foster beliefs which they admittedly have the right to advocate, in that it may induce members to withdraw from the Association and dissuade others from joining it because of fear of exposure of their beliefs shown through their associations and of the consequences of this exposure.*

Id. at 462-63 (Emphasis supplied).²⁷

The contrast between the situation confronting the Supreme Court and that here is so stark that we have not the slightest hesitance in concluding that the Licensing Board's order raises no colorable constitutional issue. With all due regard for the intensity of the controversy attendant upon this country's resort to nuclear power, it is at best doubtful that its climate can

²⁶For example, the *amici* assert (Br. p. 14) that “[t]he *only* exception to the prohibition against involuntary disclosure [of members' names] occurs when there is a demonstration of a compelling state interest in disclosure that outweighs the injury suffered by the persons who are denied the right of association.” In relying upon *NAACP* for that proposition, the *amici* at least implicitly suggest that the Court held that involuntary disclosure perforce involves an invasion of the right of association.

²⁷The Court went on to determine that the State had not shown a substantial enough interest in obtaining the names of ordinary *NAACP* members to overcome the Association's constitutional objections. 357 U.S. at 465.

be equated to that which engulfed the struggle for racial justice in the South during the late 1950s.

Be that as it may, there plainly is no parallel between what was being sought in *NAACP v. Alabama* for no good purpose²⁸—the names of *every* Association member in the *entire* State—and what was being sought here for a perfectly legitimate reason—the name of a *single* Guild member with a personal interest in this proceeding. Another important—and equally dispositive—distinction between that case and this one is the Guild did not even attempt to make a concrete demonstration that its members have been subjected in the past, or are likely to be subjected in the future should their identities be disclosed, to anything remotely approaching the kind of treatment that identified NAACP members were *shown* to have encountered. All that the Guild has supplied are broad, vague, and essentially unsupported allegations that known opponents of nuclear power have been and will continue to be the victims of illegal harassment of various types at the hands of utilities and governmental agencies.²⁹

If anything, the Guild might have been expected to make a more particularized showing of potential harassment than that which had been made by the NAACP. The events on the racial front in Alabama at the time, and their implications with regard to members of such organizations as the NAACP, were matters of common knowledge. The same cannot be said respecting the ingredients of the Guild's claim. Indeed, the objective indicia within our ken belie its insistence that, if identified, its members would suffer the consequences it describes.

Specifically, we can take official notice that the overwhelming majority of the organizations which have petitioned for leave to intervene in NRC licensing proceedings over the years have manifested no reluctance to disclose the name(s) of the member(s) upon whom they were relying for representational standing to oppose the facility.³⁰ If any of those members

²⁸As the Supreme Court observed:

The issues in the litigation commenced by Alabama by its bill in equity were whether the character of petitioner and its activities in Alabama had been such as to make petitioner subject to the registration statute, and whether the extent of petitioner's activities without qualifying suggested its permanent ouster from the State. Without intimating the slightest view upon the merits of these issues, we are unable to perceive that the disclosure of the names of petitioner's rank-and-file members has a substantial bearing on either of them.

357 U.S. at 464.

²⁹The Guild does not assert that, for reasons having nothing to do with opposition to nuclear power plants, its members might be harassed by these agencies were their identity known.

³⁰We cannot accept the suggestion that there has been no custom or practice of providing such names. Our experience in the licensing process is to the contrary. And that the names serve a useful purpose is borne out by the recent licensing board decision in *Washington Public Power Supply System* (WPPSS Unit 2), LBP-79-7, 9 NRC 330 (March 6, 1979).

paid a heavy price—or any price at all—because of that disclosure, we are not aware of it and it has not been documented by the Guild. Nor is there apparent reason to think that an unusual situation may obtain in the State of Texas. In two other proceedings likewise involving Texas reactors, intervention petitions very recently filed by organizations were accompanied by affidavits which disclosed the names and addresses of rank-and-file members who had not themselves signed the petition.³¹

In short, the record before us provides an insufficient factual foundation on which to base a finding that enforcement of the disclosure requirement here would invade the right of association of Guild members within the meaning of *NAACP v. Alabama*. That conclusion is dispositive of the appeal before us. Nonetheless, there is warrant to provide guidance to the licensing boards respecting the treatment of any similar claims which, in future cases, might be advanced with much stronger underlying support.

Upon a determination that an adequate showing has been made that public revelation of the identity of a member of the petitioner organization might threaten rights of association, the licensing board should place a protective order upon that information. The order should provide that the information need be supplied only to the members of the Board and one or more designated representatives of the other parties to the proceeding. Additionally, it should prohibit further dissemination of the information to anyone (other than a member of a reviewing tribunal).

The issuance and observance of a protective order along those lines would both safeguard the identified members' right of association and enable the Board and the parties to satisfy themselves that the organization's claim of standing is *bona fide*. It need be added only that this Commission and its adjudicatory boards have always proceeded on the assumption that the terms of all protective orders will be scrupulously observed by everyone who acquires confidential information under such an order. Were it not for that assumption, we would of course have been hard put to justify our holding 2 years ago in *Diablo Canyon*³² that, in certain circumstances, intervenors are entitled to receive access, under protective order, to facility physical security plans—most sensitive documents indeed.

For the reasons stated, the Licensing Board correctly denied the Guild's petition for want of an adequate demonstration of standing.

³¹*Houston Lighting & Power Company* (South Texas Project, Units 1 and 2), Docket Nos. 50-498, 499 (amended petition of Citizens Concerned About Nuclear Power, dated December 25, 1978); *Texas Utilities Generating Company* (Comanche Peak Steam Electric Station, Units 1 and 2), Docket Nos. 50-445, 446 (petition of Citizens Association for Sound Energy, dated February 28, 1979).

³²*Pacific Gas & Electric Company* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-410, 5 NRC 1398 (1977).

V

On the basis of the foregoing determinations:

1. So much of the February 9, 1979 order of the Licensing Board as denied the intervention petitions of appellants De Bremaecker, Hooker, and the Houston Chapter of the National Lawyers Guild is *affirmed*.

2. So much of that order as denied the intervention petitions of appellants Rentfro, Framson, Potthoff, and Marrack is *vacated* and the cause is *remanded* to the Licensing Board for further proceedings consistent with the views expressed in Part II of this opinion, pp. 385-388, *supra*.

3. The appeal of John F. Doherty is *dismissed* as moot, but the Licensing Board is encouraged to reconsider in the light of Part II, *supra*, its treatment of his intervention petition.

4. The petition for directed certification filed by the Texas Public Interest Research Group is *denied* on the understanding that, on its own initiative, the Licensing Board also will reconsider in the light of Part II, *supra*, its treatment of that organization's intervention petition.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

VIRGINIA ELECTRIC AND POWER
COMPANY

Docket Nos. 50-338 OL
50-339 OL

(North Anna Nuclear Power
Station, Units 1 and 2)

April 5, 1979

The Appeal Board denies a petition by the Union of Concerned Scientists for leave to intervene or, in the alternative, to appear as *amicus curiae*.

RULES OF PRACTICE: STANDING TO INTERVENE

An organization's alleged unique qualifications to address the issue on which it seeks to intervene are not enough to confer standing.

Mr. James M. Rinaca, Richmond, Virginia, (Messrs. Michael W. Maupin and James N. Christman, Richmond, Virginia, of counsel) for the applicant, Virginia Electric and Power Company.

Ms. Ellyn R. Weiss, Washington, D.C., for the petitioner, Union of Concerned Scientists.

Mr. Daniel T. Swanson for the Nuclear Regulatory Commission staff.

MEMORANDUM AND ORDER

In the course of its review *sua sponte* of the Licensing Board's decision authorizing operating licenses for the first two units of the North Anna

facility, this Board raised two safety issues. ALAB-491, 8 NRC 245 (1978). Following the receipt of additional information bearing upon those issues from the applicant and the NRC staff, we recently announced our intention to take evidence on both matters. ALAB-529, 9 NRC 153 (February 28, 1979). The applicant and the staff were directed to address certain specific topics in their prepared testimony. In addition, ALAB-529 invited the other parties to the proceeding to participate in the upcoming hearing upon a timely notification to us of their desire to do so and of the nature and extent of the planned participation. *Id.* at 158.

Both of the other parties—Geraldine Arnold and the Commonwealth of Virginia—provided such notification. For her part, Mrs. Arnold (through her counsel) advised us by letter of March 13, 1979, that she intended to participate fully on one of the two issues—that pertaining to the settlement of the land under the North Anna pumphouse. With respect to the other issue—which concerned the possibility of unacceptable damage to a safety system being occasioned by turbine missiles¹—, Mrs. Arnold indicated that her participation would depend upon whether this Board granted full participational rights to the Union of Concerned Scientists (UCS). In the wake of ALAB-491, UCS has filed, with our leave, *amicus curiae* briefs which focused upon the turbine missile issue. According to Mrs. Arnold, UCS now proposed to seek leave to intervene on that issue and, if the endeavor were successful, she would leave it to that organization to insure that the issue was fully ventilated. On the other hand, were the UCS endeavor to prove unsuccessful, Mrs. Arnold would “participate fully on this issue as well as on the pumphouse settlement issue by offering expert testimony, documentary evidence, and cross-examining witnesses” (March 13 letter, at p. 2).

On March 14, 1979, UCS took the step anticipated by Mrs. Arnold: it filed a petition with us for leave to intervene or, in the alternative, to participate as *amicus curiae* on the turbine missile issue alone. In support of its claim of standing to intervene, UCS asserted (at pp. 2-3) that it

... is a non-profit coalition of scientists, engineers, and other professionals supported by over 70,000 members of the public. UCS has authorized numerous technical studies on a range of issues pertinent to nuclear power and has pursued safety issues before various forums of the Atomic Energy Commission and Nuclear Regulatory Commission. Robert D. Pollard, nuclear safety engineer for UCS, presented an ex-

¹In ALAB-491, the issue had been framed more broadly as involving the ability of the plant to withstand damage from missiles generated either inside or outside of the plant. The information thereafter supplied by the applicant and the staff enabled us to reduce the scope of the issue to the turbine missile matter. ALAB-529, 9 NRC at 154.

tensive limited appearance on May 31, 1977 before the North Anna Licensing Board and UCS has pursued the turbine missile issue through *amicus* briefs at the appeal level.

UCS has many donor members residing within 40 miles of the *North Anna* site, including Mildred Marshall, Reginald Marshall, and Roger Hillas, Jr., all of Charlottesville, Virginia.

Additionally, acknowledging the tardiness of its petition, UCS discussed the factors governing the treatment of belated petitions, which are set forth in 10 CFR 2.714(a). We were told that a balancing of those factors favored the grant of the petition notwithstanding its being very late.

Both the applicant and the staff oppose the petition. The principal reasons assigned by them are essentially the same: (1) UCS lacks standing to intervene; and (2) the factors set forth in 10 CFR 2.714(a) weigh against allowing an untimely intervention here. In addition, those parties insist that permission to participate as *amicus curiae* should be denied. Among other things, we are reminded that the Commission's Rules of Practice do not make specific provision for full-scale participation in an evidentiary hearing by an *amicus*.

1. We agree with the applicant and the staff that UCS has not sufficiently demonstrated its standing to intervene on the turbine missile issue. On this point, our decision in *Allied-General Nuclear Services* (Barnwell Fuel Receiving and Storage Station), ALAB-328, 3 NRC 420 (1976), is controlling. There, the petitioner organization had identified a member who resided relatively close to the facility involved. But there had been no particularization of how the interests of that member might be adversely affected by the outcome of the proceeding. Rather, the petition had been founded largely upon the organization's asserted concern with, and "unique qualifications" to address, the issue on which it sought to intervene. On the authority of *Sierra Club v. Morton*, 405 U.S. 727 (1972), we held that that was not enough to confer standing. 3 NRC at 421-23. It follows that the very similar assertions of UCS (quoted above) likewise are insufficient.²

²It warrants emphasis that our conclusion that standing has not been established rests entirely upon the above considerations. In this connection, we have attached no significance to the fact that the persons specifically identified in the UCS petition were described as "donor" members of the organization (in our judgment there is no necessity here to explore the question whether representational standing can be based on the personal interests of a mere financial contributor to the organization). Further, we reject the argument of the applicant and the staff that UCS was required to produce a specific authorization to represent the interests of at least one of its members shown to possess personal standing. To be sure, such an authorization is

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2. We need not reach the question whether we have the authority to grant the alternative relief sought by UCS; *i.e.*, full participational rights in the hearing on the turbine missile issue as an *amicus curiae*. This is because we are satisfied that, in any event, such relief is not warranted in the circumstances of this case.

The turbine missile issue is, of course, an important one; were it not, we scarcely would have called for a hearing on it on our initiative. And it is also quite true that there are potential advantages to be derived if issues of consequence are heard and decided in an adversary context. Thus, without now passing judgment on the extent of Mr. Pollard's ability to make a substantial contribution on the turbine missile issue,³ had the existing intervenors manifested an unwillingness to participate on that issue we might well have been inclined to permit UCS participation.⁴

As we have seen, however, Mrs. Arnold (who is represented by counsel) is prepared to offer affirmative evidence and to cross-examine the witnesses for the other parties.⁵ If Mr. Pollard has a contribution to make to the development of the record on the turbine missile issue, there would seem to be no reason why this could not be accomplished by making him available to serve as a witness on Mrs. Arnold's behalf. Given its professed interest in having his testimony included in the record, there would appear to be little doubt that UCS would be agreeable to having him so appear. By the same token, in light of Mrs. Arnold's stated willingness to have UCS take over for her entirely (assuming we were to permit it), it is a fair inference that she would welcome the opportunity to present Mr. Pollard as her own witness.

In short, the UCS desire to have Mr. Pollard's conclusions on the turbine missile issue included in the record, and our interest in having all points of view fully aired, can be accommodated without taking the highly unusual step of allowing the organization to assume a participational role in the hearing itself as *amicus curiae*. Although, absent some formal status of its own, UCS will not be in a position to engage in cross-examination of

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normally an ingredient of a demonstration of representational standing. *Houston Lighting & Power Company* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 395, 397 (April 4, 1979). But the authorization may be presumed in the case of members of organizations such as UCS. *Id.* at 396.

³Mr. Pollard, who is employed by UCS, is the only individual specifically identified in the petition as possibly having expert knowledge of relevance to the issue. See p. 403, *supra*.

⁴If not as *amicus*, under a grant of intervention as a matter of discretion. See *Portland General Electric Company* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 614-17 (1976).

⁵Virginia's participation will be as an "interested State" under 10 CFR 2.715(c). The extent to which it will actually involve itself in the hearing is thus unclear.

witnesses for the applicant and the staff, no claim has been made that Mrs. Arnold's counsel is not able to discharge that function satisfactorily.

The petition of the Union of Concerned Scientists for leave to intervene or, in the alternative, to participate in the upcoming hearing as *amicus curiae* is *denied*.

It is so ORDERED.

• FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Michael C. Farrar, Chairman
Richard S. Salzman
Dr. W. Reed Johnson

In the Matter of

FLORIDA POWER AND LIGHT
COMPANY

Docket No. 50-389

(St. Lucie Nuclear Power
Plant, Unit No. 2)

April 5, 1979

The Appeal Board terminates its jurisdiction over the issue of steam generator tube integrity; dismisses, as moot, intervenors' motion to introduce a new contention on the issue of electric grid stability; denies motion for a stay; and directs the parties to file specified prepared testimony relating to the issue of electric grid stability and electric power reliability.

Messrs. Harold F. Reis, Washington, D.C., and Norman A. Coll, Miami, Florida, for the applicant, Florida Power and Light Company.

Mr. Martin Harold Hodder, Miami, Florida, *pro se* and as counsel for intervenors Rowena E. Roberts, *et al.*

Mr. William D. Paton for the Nuclear Regulatory Commission staff.

MEMORANDUM AND ORDER

Two issues remain open in this construction permit proceeding. One concerns the soundness of the St. Lucie 2 steam generator tubes; the other involves the stability of the applicant's electrical grid and, ultimately, the adequacy of the facility's emergency power systems generally.

We completed our review of other matters some time ago, affirming in ALAB-435, 6 NRC 541 (1977), the Licensing Board's decision¹ to authorize construction of a second pressurized water reactor at the Hutchinson Island site on Florida's east coast.² Review undertaken on our own initiative led us at that time, however, to retain jurisdiction over the steam generator tube issue. 6 NRC at 544-46. Three weeks later, we took up the second question now before us, on the basis of certain allegations that Robert D. Pollard (formerly a Commission staff member) had included in a letter to the Attorney General of the United States. Mr. Pollard's charges dealt, *inter alia*, with the reliability of the offsite electrical power system serving the St. Lucie facility.³

In ALAB-435, we instructed Florida Power and Light to submit a memorandum addressing several aspects of the steam generator tube integrity issue. It did so, and the NRC staff responded. Because a review of their submissions left us with a number of additional questions; on March 10, 1978, we directed the applicant to provide us with still further information.

At the same time, we took a similar step in connection with the grid stability issue. Previously, the staff had voluntarily filed a number of documents that it had compiled in response to Mr. Pollard's letter.⁴ As with the steam generator tube matter, the submissions prompted us to pose a number of questions to the applicant (and, in one instance, the staff).⁵

The March 10th order set a schedule for the filing of replies by the staff and intervenors. We there also requested that those parties discuss whether

¹LBP-77-27, 5 NRC 1038 (1977).

²Pursuant to 10 CFR 2.786(b) (5), the Commission denied intervenors' petition for review of our decision as it pertained to alternative site analysis. See the letter from the Secretary of the Commission to counsel for the intervenors dated December 23, 1977. Our decision was ultimately upheld upon judicial review. *Hodder v. NRC*, D.C. Cir. Nos. 76-1709 and 78-1149, December 26, 1978 (unpublished).

³See our order of October 28, 1977. Since that time, we have also taken up here the radon-release issue which is pending in a number of other proceedings as well. That issue is being handled separately and is not dealt with in this opinion.

⁴Specifically, the staff submitted on October 25, 1977, "A Further Evaluation of the Florida Power and Light Company Electric Power System," and on November 3, 1977, ten documents it had referred to in that evaluation.

⁵Mr. Pollard's letter had led to action on another front as well. By order of November 8, 1977, the Commission directed the Office of Inspector and Auditor to investigate the allegations that NRC employees had improperly failed to notify the Board below of relevant information. We therefore did not pursue a similar inquiry. See our order of November 25, 1977; see also our order of July 31, 1978. After reviewing the report that came out of that investigation, the Commission found that the lack of notification resulted from confusion, not from willful misconduct, on the part of the staff. It therefore held that further action was unwarranted and instructed us to proceed accordingly. Commission order of October 20, 1978. We, of course, are abiding by its conclusion and giving the matter no further consideration.

they believed that further formal proceedings were necessary.

By June 12, 1978, we had received the materials sought from the applicant and reply memoranda from the staff covering both topics. The intervenors had submitted no similar papers.⁶ Rather, on August 11, 1978, they filed a "Motion for a New Contention" on the offsite power grid and a "Motion for Stay" requesting suspension of the construction permit pending completion of the hearing they sought on the new contention. The applicant and staff opposed both motions.

On September 20, 1978, Martin Harold Hodder (who is counsel for all the intervenors as well as an intervenor himself) notified us by telephone that he wished to file additional pleadings. At Mr. Hodder's request, we informally agreed to delay any action pending receipt of his papers. Nothing more was heard for several months until, on January 29, 1979, intervenors filed a response to certain matters contained in Florida Power and Light's earlier papers. The response was accompanied by a motion (which the other parties have opposed) for leave to file it and to do so out of time.⁷ We are therefore now able to address the pending substantive issues and the intervenors' motions as well.

I

STEAM GENERATOR TUBES

As explained in ALAB-435, we retained jurisdiction over the steam generator tube issue primarily as a result of concerns raised by information on additional instances of tube "denting"⁸ that we had received in the *Prairie Island* proceeding.⁹ To recapitulate, denting—which has been particularly prevalent at seawater-cooled plants, but had been thought to be a legacy of the phosphate method of secondary water treatment—was reported for the first time at two plants that had always used "all volatile" secondary water treatment (AVT).¹⁰ Because of relevant similarities between those plants and the proposed St. Lucie Unit 2—i.e., Combustion

⁶See our order of July 31, 1978, paragraph 2.

⁷Just before filing these latest papers, the intervenors advised us by telephone that they would be submitting them.

⁸I.e., pinching due to growth of corrosion products in the crevices between the tubes and their support plates.

⁹See *Northern States Power Company* (Prairie Island Units 1 and 2), ALAB-427, 6 NRC 212, 216-18 (1977). That decision supplemented ALAB-343, 4 NRC 169 (1976), our first in-depth consideration of questions relating to the soundness of steam generator tubes in pressurized water reactors.

¹⁰The affected facilities were Maine Yankee and Millstone 2.

Engineering Company design, seawater cooling, and use of the AVT method—we were unable to complete our review of the matter without further study. Consequently, in ALAB-435¹¹ we directed the applicant to prepare

a memorandum containing a full, current description of (1) the steam generators; (2) the components of the condensate and feedwater systems; and (3) the method by which the secondary cooling water is to be treated. In each instance, the submission should emphasize those aspects of the plant's design and operating procedures which will be directed toward avoidance of steam generator sludge formation, tube corrosion, and denting; and the provisions, if any, which are being made to cope with denting should it nevertheless occur.

In its memorandum and affidavit of November 4, 1977, Florida Power and Light first identified three conditions that it said must exist simultaneously before tube denting will occur: (1) an area near the tube where impurities can become concentrated; (2) a rigid carbon steel support plate; (3) impurities—historically present due to inleakage of condenser cooling water—able to produce an acidic environment. The applicant asserted that the “eggerate design” tube support structures to be used at St. Lucie 2 would eliminate the tube to support plate gaps that could create the first condition and be flexible enough to avoid the second condition if corrosive products nevertheless developed. The applicant went to say that it planned to avert the third condition through condenser design features and strict operating procedures.¹² Additionally, it indicated it was supporting industry programs seeking solutions to the denting problem. With respect to elimination of tube corrosion and steam generator sludge formation at St. Lucie 2, the company described a number of features and plans; these included polished and heat-treated Inconel 600 tubes, feedwater recirculation and cleanup, deaeration of the condensate storage tank, and high steam generator blowdown.

The NRC staff's assessment (submitted on November 29, 1977) was that the applicant's “proposed design modifications are likely to improve the integrity of the steam generator systems.” The staff said it would give further consideration to the steam generator tube integrity issue at the final (*i.e.*, pre-operating license) safety review stage.

After reviewing the responses to ALAB-435, we asked (in our order of March 10, 1978) several questions that focused more specifically upon the

¹¹6 NRC at 546 (footnote omitted).

¹²The company did note also that St. Lucie 2 could accommodate demineralization if that sort of hardware were to be deemed necessary to maintain secondary water purity.

particular plans that the applicant had described. At the end of that month, Florida Power and Light again submitted a detailed affidavit; 3 weeks later the staff again endorsed the proposed system, saying it "represents the state-of-the art design and is sufficient to establish the level of assurance of safety requisite at the construction permit stage." The intervenors have not addressed the question in any of their papers.

To date, our treatment here of the steam generator tube issue has been much the same as it was in *Seabrook*—i.e., a series of questions prompted by information received in Prairie Island, and responses from applicant and staff. We find the papers thus far submitted are adequate for a decision; there is no need for further formal proceedings. The decision we reach follows our approach in *Seabrook*. As we said there:¹³

[W]e have analyzed the proposed steam generator and condenser design modifications within the framework of the general conclusions reached in ALAB-343 and ALAB-427 pertaining to the causative mechanisms of tube corrosion and denting. On the basis of that analysis, we are satisfied both (1) that the applicants are taking positive measures to deal with the problem of maintaining steam generator tube integrity; and (2) that these measures are appropriate ones given the present understanding of the nature and root of the problem.

In *Seabrook*, we stressed too the importance of continuing industry and governmental study of the problems of corrosion and denting. As mentioned above, in this proceeding applicant and staff have assured us that they are keeping abreast of developments in this area. We went on to indicate in *Seabrook* that the staff should not only scrutinize current research but also at the earliest possible date give effect at "all . . . pressurized water reactors in possession of construction permits" to any important new disclosures in this field.¹⁴ We emphasize here the continuing pertinence of those remarks.

Finally, we remind all parties that a permit to construct this plant is not a license to operate it. In the event that the issue is not resolved to the satisfaction of all concerned, a further opportunity to examine the question at a hearing will occur when an application for an operating license is filed.

¹³*Public Service Company of New Hampshire* (Seabrook Units 1 and 2), ALAB-442, 6 NRC 728, 729-30 (1977). Of course, our analysis here also reflects our review in *Seabrook*. See also *Kansas Gas and Electric Company* (Wolf Creek Unit 1), ALAB-462, 7 NRC 320, 337 (1978).

¹⁴*Id.* at 730.

II

ELECTRICAL GRID STABILITY AND EMERGENCY POWER SYSTEMS

The applicant and staff have filed a substantial amount of information pertaining not only to the physical features of the company's electrical grid but also to certain system occurrences and generic concerns. They prepared some of their descriptions, explanations, and assessments pursuant to our order of March 10, 1978; other documents were submitted as a result of either recent grid disturbances or Mr. Pollard's allegations (see p. 408, *supra*).

After reviewing these extensive submissions, we still have unanswered questions concerning the stability of Florida Power and Light's electrical grid and, consequently, the reliability of AC power for Unit 2. In this connection, we note that the staff is of the opinion that there is "less overall assurance that St. Lucie will have electric power available from the external grid than there is for the general population" of nuclear plants located in nonpeninsular geographical areas,¹⁵ and that there has been no compensating augmentation of the onsite emergency power system.¹⁶

Because of the questions we have, further formal proceedings are necessary. We do not pause to set forth at this juncture the full reasoning which leads us to call for an evidentiary hearing; the recitation of questions which follows will serve as sufficient explanation for the parties. Of course, our final decision in the case not only will give the rationale for the result we reach, but also will provide the background information necessary for a full understanding of the problems involved.

We reach the conclusion that a hearing is required on our own analysis of the applicant's and staff's papers. That result, however, comports with the intervenors' belated motion to introduce a new contention.¹⁷ In the totality of circumstances, the following course is appropriate. The intervenors' motion to introduce a new contention is denied as moot, as the matter of electric grid stability and electric power reliability is to be explored on our own motion. As we indicate later in this opinion (see p. 417, *infra*),

¹⁵Fitzpatrick Affidavit of June 12, 1978, p. 5.

¹⁶*Id.* at 6. Although these circumstances were known to the staff at the time the Safety Evaluation Report was prepared, through confusion they were not mentioned there. See fn. 5, *supra*.

¹⁷As indicated earlier in this opinion, our order of March 10th (a year ago) gave the intervenors the explicit opportunity to comment on the applicant's submission on electrical grid stability. They did not do so within the time prescribed, but more than 3 months later sought to raise a new contention on this issue.

the intervenors will be provided the opportunity to participate in that exploration.¹⁸

Before scheduling and conducting the evidentiary hearing, however, the staff and applicant are (1) to prepare answers to the questions set forth below and (2) to submit those answers as part of an inclusive, self-contained package of prepared testimony containing all information relevant to the adequacy of the facility's emergency power systems. We adopt this course for the same reasons which led us recently to take a similar approach in the *North Anna* proceeding.¹⁹ The parties here, too, should focus primarily on the areas covered by our questions, but, as we said in *North Anna*, "their prepared testimony must be broader in scope." In both proceedings, this must be done because, "while we already have before us a wealth of material," it "has come before us in somewhat informal fashion." Additionally, here as there "the information is somewhat disjointed in the sense that it is necessary to locate and peruse a large number of varied documents to obtain a full picture . . ." Therefore, we can repeat our *North Anna* instruction:²⁰

In order to create a formal record which will lend itself to ready review by higher tribunals we request the parties to make their prepared testimony reasonably self-contained. In other words, the prepared testimony should itself contain significant background information and references and be structured so that it can be understood with minimal reliance upon documents filed at earlier times. If that is done, then, at the conclusion of the upcoming hearing, all the evidence necessary to understand and decide the issues will be found in the formal record made before us.

The testimony should, then, be in the format just indicated. Our principal concerns, which should receive the parties' primary attention, are as follows:

A. General Design Criterion (GDC) 17²¹

1. This criterion, entitled "Electric Power Systems," requires in its third paragraph (Emphasis added):

Electric power from the transmission network to the onsite electric distribution system shall be supplied by two physically independent cir-

¹⁸We deal with the intervenors' stay motion later in this opinion. In that connection, we have given due consideration to the latest set of papers they sought leave to file.

¹⁹*Virginia Electric and Power Company* (North Anna Units 1 and 2), ALAB-529, 9 NRC 153 (February 28, 1979) (involving different substantive issues).

²⁰*Id.* at 153, 154 (footnote omitted).

²¹See 10 CFR Part 50, Appendix A ("General Design Criteria for Nuclear Power Plants").

cuits (not necessarily on separate rights of way) designed and *located so as to minimize to the extent practical the likelihood of their simultaneous failure* under operating and postulated accident and environmental conditions. A switchyard common to both circuits is acceptable.²²

All three transmission lines connecting the St. Lucie station to the applicant's grid originate at the Midway Substation. The May 14, 1978 incident, in which all power at that substation was lost despite redundant incoming sources, demonstrates that these circuits are indeed susceptible to simultaneous failure.²³ The testimony should address whether the St. Lucie station nonetheless meets this GDC-17 requirement.

2. For its part, the first paragraph of GDC-17 appears to establish an unattainable set of conditions for electrical power systems generally. It reads as follows (Emphasis added):

An onsite electric power system and an offsite electric power system shall be provided to permit functioning of structures, systems, and components important to safety. The safety function for each system (*assuming the other system is not functioning*) shall be to provide sufficient capacity and capability to assure that (1) specified acceptable fuel design limits and design conditions of the reactor coolant pressure boundary are not exceeded *as a result of anticipated operational occurrences* and (2) the core is cooled and containment integrity and other vital functions are maintained in the event of postulated accidents.

This paragraph requires that an assessment of the sufficiency of the offsite power system start with the assumption that the onsite system is not functioning. That assessment must then consider the effect of "anticipated operational occurrences." But loss of the offsite power system itself may reasonably be considered to be such an occurrence. The parties should, therefore, explain how the St. Lucie plant can comply with the literal requirements of this paragraph as written. If it cannot, they should attempt to justify the situation in terms of the purpose of the requirement.

B. Failure of Offsite Power with Simultaneous Onsite Power Failure

In our order of March 10, 1978 (p. 5), we directed the applicant to discuss the consequences of the following sequence: (1) failure of offsite

²²As we now view it, subject to being persuaded otherwise, the "common switchyard" provision refers to the switchyard at the site and not to a distant facility (such as, in this instance, the Midway Substation).

²³See the applicant's May 25, 1978 "Report on System Disturbance, May 14, 1978."

power (and a presumption of resulting loss of the power generated by the station) followed by and combined with (2) failure of onsite power sources (*i.e.*, the emergency diesel generators) to start on demand. The focus was to be on safety related events that might occur between the loss of all AC power and the eventual restoration of an electric power source.

Both the applicant and staff responded that this sequence, which supposes the simultaneous failure of two onsite emergency power sources, is not a "design basis event" and thus had not been studied in detail. Nevertheless, both briefly discussed its consequences.²⁴

1. As we see it, the likelihood of loss of all AC power at St. Lucie may be expressed as the product of two factors: (1) the probability that there will be an offsite power failure involving the FPL network generally or the Midway substation in particular and a resulting loss of station power—which probability seems, based on historical events, to lie in the range 1.0-0.1 per year; and (2) the probability that neither of the two onsite AC power systems (diesel generators) will start. The probability that any one diesel generator will fail to start on demand is taken by the staff to be one per hundred demands, *i.e.*, 10^{-2} .²⁵ If these figures are accurate, then the combined probability for the "loss of all AC power" scenario is in the range 10^{-4} - 10^{-5} per year.²⁶ In this regard, the staff's Standard Review Plan for Nuclear Power Plants set forth numerical guidelines for determining whether an event "resulting from the presence of hazardous materials or activities in the vicinity of the plant" should be considered in designing the plant (*i.e.*, whether it is a "design basis" event).²⁷ Under these guidelines, events with a realistically calculated probability value of at least 10^{-7} per year (or 10^{-6} per year for a conservative calculation) must be so considered.

The "loss of all AC power" sequence is not precisely within the category of events contemplated by the Standard Review Plan. However, its ultimate result—assuming that power is not timely restored—is an unprotected loss of coolant accident, the consequences of which are likely to exceed the

²⁴Applicant suggests that the first safety related failure encountered would be excessive core heating due to the loss of water from the condensate storage tank, and that this would occur about 16 hours after the loss of AC power (Flugger Affidavit of March 31, 1978, p. 3).

The staff's judgment is that the first failure would be that of a primary pump seal, at about one hour after the loss of AC power—resulting in a small loss of coolant accident. (Fitzpatrick Affidavit of June 12, 1978, p. 11).

²⁵Fitzpatrick Affidavit of June 12, 1978, p. 4. Also see Regulatory Guide 1.108, Section B.

²⁶This conclusion further assumes that the failure of two diesel generators to start would be statistically independent events, an assumption which leads to the lowest likelihood of combined failure, and which might be nonconservative if there exists the potential for common failure modes for the onsite systems.

²⁷NUREG 75/087, Section 2.2.3, paragraph II.

guidelines of 10 CFR Part 100. We do not understand why this sequence of events (*i.e.*, loss of offsite power combined with failure of diesels to start), which appears to have a probability well above the guideline values, should not be taken into consideration in the design of the plant.²⁸ The parties are to address this point, setting forth their reasons for adhering (if they do) to a contrary position.

2. In line with the above discussion, the testimony is to analyze events that would occur between the "loss of all AC power" and the violation of either the fuel design limits or the design conditions of the reactor coolant pressure boundary (or any portion thereof). In particular, the parties should, if possible, reconcile their differing responses to question B.1(b) of our March 10, 1978 order,²⁹ or, if not, point up precisely where the disagreements lie.

3. The testimony should contain a discussion, supported by such data as is available, related to the time that might be required to start a diesel generator assuming it failed to respond to the initial, auto-start signal.

4. Finally, in the light of the discussion of points 2 and 3 above, the parties are to review possible measures for decreasing the likelihood of exceeding design limits on the reactor fuel and pressure boundary under the assumption that there is some time available to activate an auxiliary power source subsequent to a total loss of AC power.

C. System Reliability During Alert Status

According to the staff, the applicant is being required to define conditions in which it will put its power distribution system in an "alert status."³⁰ At such times, loss of offsite power would presumably be more likely than normal. We wish to be advised as to the existence of measures that might be taken to assure, or at least to increase, the reliability of the onsite power systems during an "alert status" period.

D. Ongoing Improvement of System Reliability

The testimony should provide a concise, up-to-date discussion of existing measures, or those planned for the near future, by which the reliability of the applicant's system may be enhanced. Particular attention should be paid to the seemingly excessive number of personnel errors which appear to have led to the May 14, 1978 outage and to have contributed to the May 16, 1977 disturbance.

²⁸We have accepted the Standard Review Plan guideline values as reasonable in another case. *Public Service Electric and Gas Company* (Hope Creek Units 1 and 2), ALAB-429, 6 NRC 229, 234 (1977).

²⁹See fn. 24, *supra*.

³⁰Fitzpatrick Affidavit of June 12, 1978, Enclosure 3.

Some of our questions may require information more readily available to one party than to the other, or involve issues more appropriately addressed in the first instance by one rather than the other. We leave it to the combined judgments of the applicant and staff to allocate principal or sole responsibility for such topics and also to identify those that both will cover. We suggest, however, that they confer to make sure that the prepared testimony as a whole deals thoroughly with all subjects.

Because they have already given considerable attention to the grid stability issue, the applicant and staff should be able to file their prepared testimony within 45 days from the date of this opinion.³¹ If the intervenors wish to participate in the upcoming hearing, they are to advise us within that same time period of the nature and extent of their planned participation; we will then give them the opportunity to file prepared testimony in response to that of the applicant and staff. The applicant and staff will also have a chance to respond on subjects that were within the other's principal responsibility (see the preceding paragraph). After all prepared testimony is in hand, we will confer with the active parties and establish a definite hearing schedule. It is our present intention to hold the hearing in the south Florida area.

As we have already pointed out, the course that we are following renders moot the intervenors' motion to admit a new contention on the grid stability issue. Beyond that, we deny their motion for suspension of the applicant's construction permit pending resolution of that issue. The reliability of Florida Power and Light's electrical grid is an issue that is not intimately bound up with the nature of the construction in progress; it will come to the fore when the time arrives to consider whether to license operation of St. Lucie 2. This does not eliminate the matter from consideration at the construction permit stage, but it does mean that allowing construction to continue during our review of this question will not harm intervenors' interests; on the other hand, suspending construction surely would harm applicant's.³²

In accordance with the foregoing, the jurisdiction over the issue of steam generator tube integrity retained in ALAB-435 is *terminated*; intervenors' "Motion for a New Contention" is *dismissed as moot*; the stay

³¹If this proves insufficient, the parties will be free to seek an extension of time.

³²See 10 CFR 2.788(e), which embodies the criteria for granting a stay set forth in *Virginia Petroleum Jobbers Ass'n v. FPC*, 259 F.2d 921, 925 (D.C. Cir. 1958). See also the Derrickson Affidavit of August 23, 1978.

motion is *denied*; and the parties are *directed to file prepared testimony* as specified.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

VIRGINIA ELECTRIC AND
POWER COMPANY

Docket Nos. 50-338 OL
50-339 OL

(North Anna Nuclear Power
Station, Units 1 and 2)

April 12, 1979

The Appeal Board requests briefing by the parties on whether the Board has jurisdiction to consider the merits of a safety question which is unrelated to the issues remaining undecided in an operating license proceeding. The staff had informed the Board of the question as part of its practice of notifying all Boards of significant new developments.

MEMORANDUM AND ORDER

In a number of pending proceedings, the staff recently notified the presiding licensing or appeal boards of the existence of a safety question concerning the "current practice of relying on nonsafety grade equipment to mitigate the severity of anticipated operational occurrences."¹ (See the "Board Notification" and attachments transmitted on April 2, 1979, by staff counsel.) One of the proceedings covered by the notice was this one, involving operating licenses for the first two units at North Anna.²

¹We held long ago that the staff is obliged to keep the boards apprised of significant new developments. *Duke Power Company* (McGuire Units 1 and 2), ALAB-143, 6 AEC 623, 625 (1973). Last summer, the staff adopted detailed procedures for fulfilling this obligation; this followed on the heels of a Commission policy pronouncement on the subject.

²Most of the other affected proceedings involve applications for construction permits, where, in comparison, the type of problem mentioned in the notice has little immediate impact (see ALAB-491, *infra*, 8 NRC at 247-48). The only other affected operating license proceeding now actively before an appeal board involves a reactor which will not soon resume operation; there is thus no immediacy there either.

The notice raises two questions in our minds. The first is jurisdictional; the second goes to the merits. As we explain below, we are calling upon the parties to inform us further on both aspects of the case.

A. Jurisdiction

Last August, we issued a decision setting forth the results of the review we had conducted on our own initiative in this proceeding. ALAB-491, 8 NRC 245. Acting within the constraints that limit the scope of that type of review, we there concluded that no further action on our part was required with respect to most matters. We did, however, withhold our approval in connection with two plant safety issues;³ in addition, we had earlier kept open the radon-release issue which is pending in a number of other proceedings was well.⁴

In short, we have only three issues now before us; all other issues have been resolved. Of course, all parties must keep us informed of new developments pertaining to those issues. But the obvious question is whether in these circumstances we still have jurisdiction to consider unrelated issues—such as the one covered by the staff document now before us.⁵ If not, then such issues are exclusively within the staff's bailiwick,⁶ and no purpose is served by bringing them to our attention. We have previously decided a closely related question in the context of construction permit cases. See, e.g., *Public Service Company of New Hampshire* (Seabrook Units 1 and 2), ALAB-513, 8 NRC 694 (December 21, 1978); *Public Service Company of Indiana* (Marble Hill Units 1 and 2), ALAB-530, 9 NRC 261 (March 19, 1979). Whether the same principles govern at this stage in operating license cases has not been passed upon.⁷

Against this background, we wish to have the parties brief us on our jurisdiction to consider the safety issue reflected in the staff's recent notice. The staff's brief is to be filed by May 11, 1979; the other parties may respond within 4 weeks thereafter.

³We eventually called for an evidentiary hearing on those two issues. See ALAB-529, 9 NRC 153 (February 28, 1979).

⁴See ALAB-491, *supra*, 8 NRC at 250, fn. 12.

⁵See also the March 30, 1979 letter from applicant's counsel (referring to a cracked splitter plate found at Unit 2), which adverts to this jurisdictional question.

⁶Subject to the right of others to petition the appropriate staff official to take action pursuant to 10 CFR 2.206, and the right of the Commission to review the staff decision on such a petition.

⁷Compare *Duquesne Light Company* (Beaver Valley Unit 1), ALAB-408, 5 NRC 1383, 1386 (1977). See also *Portland General Electric Company* (Trojan Nuclear Plant), ALAB-534 9 NRC 287, 289 fn. 6 (March 27, 1979).

B. The Merits

In the event we were to hold that we have jurisdiction to consider the matter, we would have to turn to the merits. We could, of course, put off any substantive action whatsoever until deciding the jurisdictional issue. In this case, however, our preliminary appraisal is that at that point we would be unable to pass upon the merits intelligently, for the documents before us are too cryptic. We think, then, that it is in the public interest to call now for clarification, so that we can later move forward without delay if the matter turns out to be one within the scope of our responsibility.

In order to appreciate the precise nature of the safety issue involved, we need additional information on (1) the functions the equipment in question is intended to serve in three different circumstances, *i.e.*, during ordinary operation, following an "anticipated operational occurrence," and after "other more severe events";⁸ (2) the difference between the standards that the equipment is now designed to meet and those that apply to "safety grade" equipment; and (3) what the consequences of that difference might be in each of the three different circumstances just referred to. Beyond that, we wish to have greater elaboration of the reasoning which underlies the conclusion⁹ that there is "no immediate safety significance to this issue." In this regard, we offer the reminder that, where operating reactors are concerned, it may well be unacceptable to rely on an asserted "low probability" of untoward events occurring, where there is a requirement that the plant be designed to withstand those events. See, *e.g.*, *Vermont Yankee Nuclear Power Corporation* (Vermont Yankee Station), ALAB-138, 6 AEC 520, 529, 530 fn. 31 (1973).¹⁰

The staff is to furnish us with a memorandum on the foregoing subjects at the same time it files its brief on jurisdiction. If appropriate, the other parties will then be called upon to respond; they need not take action now.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

⁸See the opening paragraph of the March 16th memorandum between staff technical personnel.

⁹Expressed in paragraph 3 of the March 16th memorandum (*supra*), and repeated in the March 29th memorandum to staff counsel.

¹⁰In the cited case, the events of concern appeared to be even less likely than the "anticipated" occurrences involved here.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

HOUSTON LIGHTING AND
POWER COMPANY

Docket No. 50-466

(Allens Creek Nuclear
Generating Station, Unit 1)

April 23, 1979

The Appeal Board denies petitions for reconsideration and clarification of ALAB-535, filed by the applicant and the staff respectively.

Messrs. Jack R. Newman, Harold F. Reis and Robert H. Culp, Washington, D.C., and J. Gregory Copeland and Charles G. Thrash, Houston, Texas, for the applicant, Houston Lighting and Power Company.

Mr. Edwin J. Reis for the Nuclear Regulatory Commission staff.

MEMORANDUM AND ORDER

This construction permit proceeding involving the Allens Creek facility was instituted in late 1973 by the filing of a standard notice of hearing. 38 Fed. Reg. 35521 (December 28, 1973). Because the only intervention in response to the notice of hearing was subsequently withdrawn, the proceeding went to hearing in March 1975 (on limited issues) without contest. Before the Licensing Board had an opportunity to render a decision, however, the applicant informed it (in September 1975) that construction of the facility was being indefinitely deferred. Nonetheless, at the applicant's urging, the Board proceeded to issue a partial initial decision on some, but not all, of the issues heard. LBP-77-66, 2 NRC 776 (1975). On December 9, 1975, we affirmed that decision. ALAB-301, 2 NRC 853.

More than a year and a half later, in August 1977, the applicant apprised the Board below that it wished to move ahead with its application, as recently amended. The amendment called for the reduction of the proposed facility from two units to one and was accompanied by changes in the applicant's Preliminary Safety Analysis Report (PSAR) which were tailored to that reduction.

This advice prompted the Licensing Board to issue in May 1978 a so-called "Notice of Intervention Procedures."¹ As thereafter amended on September 1, 1978,² the notice invited the filing of new petitions for leave to intervene, but indicated that they had to be limited in scope to contentions which either (1) arose from proposed changes in plant design (as reflected by the alterations to the applicant's PSAR); or (2) were based upon evidence or information not available prior to the issuance of ALAB-301 in December 1975.

A number of intervention petitions were filed in response to that invitation. But many of the petitioners seemingly paid little or no attention to the Licensing Board's limitation. Taking that limitation seriously, however, the Board rejected every petition which did not assert at least one otherwise acceptable contention that was founded upon design changes or new evidence or information. Order of February 9, 1979.

Some—albeit not all—of the petitioners who were denied intervention on that basis appealed to us. In ALAB-535, 9 NRC 377 (April 4, 1979), we addressed those appeals and ruled that the limitation imposed by the Licensing Board was unduly restrictive. More particularly, our conclusion was that:

No doubt, the Board quite properly placed a limitation upon the relitigation by a new intervenor of issues which had been thoroughly explored at the 1975 hearing and dealt with in the partial initial decision. In the absence of newly discovered evidence or a material change in circumstances, there is every reason why a party should not be permitted to reopen an issue which was fully considered and settled at an earlier time. But we perceive inadequate justification for treating as beyond the scope of permissible present inquiry an issue which got no or scant attention at the earlier hearing and/or which the Licensing Board itself believed to be left open by the partial initial decision.

9 NRC at 386. We remanded the cause to the Licensing Board for further proceedings in light of that determination.

¹43 Fed. Reg. 23666 (May 31, 1978).

²43 Fed. Reg. 40328 (September 11, 1978).

Now before us are motions filed by the applicant and the NRC staff. The applicant asks us to reconsider our disapproval of the Licensing Board's limitation upon new interventions. For its part, the staff purports to oppose reconsideration but seeks a "clarification" of ALAB-535.

A. In support of reconsideration of ALAB-535, the applicant maintains that, although not there explicitly so stated, we necessarily must have concluded that the original notice of hearing issued in December 1973 had lost its legal effect by the time of the resumption of the proceeding in August 1977. By way of elaboration, the applicant tells us that:

If, as we and the staff believe, the original notice was legally sufficient and of continuing validity, then the Board's subsequent notices can only be regarded as relaxing the hurdles which a non-timely petitioner would otherwise have had to scale. Were it not for those subsequent notices the Board would have had to determine, as to each petitioner, whether "good cause" existed for their respective non-timely petitions and whether on a balancing of the factors set forth in 10 CFR 2.714(a) granting of intervention was warranted. The Board eased that burden with its supplemental notices. It indicated that while "good cause" showings would be required, it would be receptive to non-timely filings on any other subject. The staff and applicant likewise suggested the availability of such relief.

Motion, pp. 4-5 (footnotes omitted).³ In short, according to the applicant, the May 1978 notice which (as amended in September 1978) we found to be too restrictive was "not designed to constrain intervention." Rather, it "enhance[d] public participation" by permitting untimely intervenors to enter the proceeding to raise certain matters without having to satisfy the requirements of 10 CFR 2.714(a) pertaining to belated petitioners. *Id.* at p. 5.

If, in fact, that notice had "indicated" on its face what the applicant claims to have been its intended message, we would indeed have been required to pass judgment on the continuing validity of the notice of hearing issued in 1973. But what conclusion we would have reached is, at best, uncertain. It well might be that a notice of hearing triggering a construction permit proceeding is not automatically vitiated by the applicant's later an-

³It is to be noted that the footnote reference provided for the applicant's characterization of what was "indicated" by the Board is not to anything contained in the "supplemental notices" (i.e., the "Notice of Intervention Procedures" issued in May 1978 and amended the following September). Rather, the applicant's sole support for that characterization is a Licensing Board memorandum and order issued on November 30, 1978—a full 3 months after the amended notice issued. Similarly, the "suggestion" of the staff and applicant alluded to in the quoted passage is to be found in papers submitted by those parties in December 1978 and January 1979.

nouncement that it is indefinitely postponing construction. More specifically, it is extraordinarily likely that such a notice would survive the announcement if the postponement were to prove to be of but a few months duration, following which the proceeding promptly resumes. On the other hand, however, were the postponement to stretch out to perhaps 5 to 10 years, there would be an equal certainty of the outright rejection of any claim that the proceeding could still be resurrected under the aegis of what, by that time, would have become a manifestly stale notice. Precisely where, between those two extremes, the line might appropriately be drawn is, as we see it, a difficult question. In the context of the period of time involved here, there would appear to be cogent arguments available on both sides of the controversy.

As it turned out, however, the terms of "Notice of Intervention Procedures"—both as first issued by the Licensing Board in May 1978, and later reissued in September in amended form—spared us the necessity of resolving that matter. For those terms are wholly inconsistent with the applicant's present thesis that potential new intervenors were being placed on direct notice that they would be obliged to make, in the words of Section 2.714(a), "a substantial showing of good cause for failure to file on time" (under the 1973 notice of hearing) unless they were prepared to limit their contentions to those authorized by the notices. Indeed, neither in its original nor its amended form does the "Notice of Intervention Procedures" even refer to the requirements for late filing of intervention petitions, let alone make clear that (in the Board's view at least) any petition filed in response to the notice would have to satisfy those requirements if not in compliance with the imposed contentions limitation.⁴

Taking every advantage of our familiarity with the provisions and nuances of the Rules of Practice pertaining to intervention petitions, we would have read the notices in question this way: The *Allens Creek* proceeding had been commenced and then suspended. It was now being resumed. Any person desiring to intervene could do so by filing a petition which satisfied the interest and contentions requirements set forth in Section 2.714(a)—requirements applicable to *all* petitions whether timely or not. But, insofar as contentions were concerned, the Board would (for reasons not made entirely clear) entertain only those which arose from plant design changes or were based upon new evidence.

This being so, we are scarcely prepared to fault an apparently like reading of the notices by persons less conversant with the intricacies of the rules. Nor are we impressed by the fact that, several months after the

⁴The same may be said for the Board's August 14, 1978 order referred to in fn. 11 of ALAB-535, 9 NRC at 383.

amended notice issued, the Licensing Board may have supplied a different reading in its November 30 memorandum and order. See fn. 3, *supra*. We would not have thought there to be room for any doubt regarding the unacceptability of interpreting notices of this kind on the basis of what the issuer may later say they were intended to mean, rather than on the basis of a fair reading of what was actually contained in the notice itself. Be that as it may, we wish now to dispel any such doubt.

In sum, given the amended "Notice of Intervention Procedures" *as written*, we perceived no issue before us as to either the continuing validity of the 1973 notice of hearing or the significance, if any, of the belatedness of the new petitions if considered as being in response to that notice. ALAB-535 is to be taken in that light and we are persuaded that, so taken, it arrived at a correct result.⁵ The applicant's motion for reconsideration must therefore be denied.

B. The ostensible principal purpose of the staff's motion is to obtain, by way of "clarification" of ALAB-535, a statement to the effect that the successful appellants must satisfy the late-filing requirements of 10 CFR 2.714(a)⁶ in order now to advance contentions beyond those authorized by the amended "Notice of Intervention Procedures." As readily appreciated by the Licensing Board,⁷ there is absolutely nothing in ALAB-535 which might possibly be taken as imposing any such obligation upon those petitioners. Thus, the motion must be deemed as seeking reconsideration rather than clarification. For the same reasons that required our rejection of the applicant's motion, that relief must be denied.

The staff also asks that we tell it whether we intended there to be a republication of the "Notice of Intervention Procedures."⁸ Had our thought been that such action was necessary or desirable, we would have said so. We thus obviously came to a contrary conclusion. That conclusion was founded on these considerations: First, the limitation contained in the May 1978 notice and September 1978 amended notice was ignored by a substantial number of the petitioners who sought intervention in response

⁵To be sure, our decision has the effect of deleting from the amended notices the improper limitation (relating to the scope of contentions) and leaving the remainder standing. We recognize that this gives the notices a reach quite likely never intended by the Licensing Board. This result may not be entirely satisfactory; but neither is any other remedial step that might be taken.

⁶See p. 425, *supra*.

⁷That Board entered an order on April 11, 1979 in which it interpreted ALAB-435 as *not* requiring the petitioners to establish "good cause" for their failure to have earlier raised those of their contentions which were outside the Board's limitation.

⁸The Staff's argument on this score (Motion, pp. 6-7) at least implicitly suggests that, if our decision were followed to its logical conclusion, full republication of the intervention notice would be required. The staff does not, however, urge us to direct that this step be taken.

to the invitation contained in those notices. It is thus at least doubtful that the limitation served to discourage potential petitions (although, as recognized in ALAB-535,⁹ it may have had an effect upon the choice and development of the contentions which were set forth in the petitions filed). Second, the publication of a new notice at this juncture could occasion very serious prejudice to the successful appellants because, depending upon the terms of the new notice, they might well be deprived of the benefits to which we have determined they were entitled under the amended notice. Given the time and resources which were expended by them in establishing their rights under that amended notice, such a result would be inequitable.

The petitions for reconsideration and clarification are *denied*.
It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

⁹⁹ NRC at 388.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARDS*

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar
Richard S. Salzman
Dr. W. Reed Johnson
Jerome E. Sharfman

In the Matters of

**PHILADELPHIA ELECTRIC
COMPANY, et al.**

**Docket Nos. 50-277
50-278**

**(Peach Bottom Atomic Power
Station, Units 2 and 3)**

**METROPOLITAN EDISON
COMPANY et al.**

Docket Nos. 50-320

**(Three Mile Island Nuclear
Station, Unit No. 2)**

**VIRGINIA ELECTRIC AND
POWER COMPANY**

**Docket Nos. 50-338
50-339**

**(North Anna Power Station,
Units 1 and 2)**

**PUBLIC SERVICE ELECTRIC
AND GAS COMPANY**

**Docket Nos. 50-354
50-355**

**Hope Creek Generating
Station, Units 1 and 2)**

*Every Appeal Panel Member is on one or more of the Boards hearing these proceedings; their collective designation is simply a convenience in issuing this joint order.

**FLORIDA POWER AND
LIGHT COMPANY**

Docket No. 50-389

(St. Lucie Plant, Unit No. 2)

**CAROLINA POWER AND
LIGHT COMPANY**

Docket Nos. 50-400

50-401

50-402

50-403

**(Shearon Harris Nuclear
Power Plant, Units 1, 2, 3,
and 4)**

**PUBLIC SERVICE COMPANY
OF NEW HAMPSHIRE et al.**

Docket Nos. 50-443

50-444

**(Seabrook Station, Units 1
and 2)**

**KANSAS GAS AND ELECTRIC
COMPANY AND KANSAS
CITY POWER AND LIGHT
COMPANY**

Docket No. STN 50-482

**(Wolf Creek Generating
Station, Unit 1)**

**NORTHERN STATES POWER
COMPANY (MINNESOTA)
AND NORTHERN STATES
POWER COMPANY
(WISCONSIN)**

Docket No. STN 50-484

**(Tyrone Energy Park, Unit
No. 1)**

**ROCHESTER GAS AND
ELECTRIC CORPORATION
et al.**

Docket No. STN 50-485

**(Sterling Power Project,
Nuclear Unit 1)**

DUKE POWER COMPANY

**(Cherokee Nuclear Station,
Units 1, 2, and 3)**

**Docket Nos. STN 50-491
STN 50-492
STN 50-493**

**THE TOLEDO EDISON
COMPANY et al.**

**Docket Nos. 50-500
50-501**

**(Davis-Besse Nuclear Power
Station, Units 2 and 3)**

**WASHINGTON PUBLIC
POWER SUPPLY SYSTEM**

Docket No. 50-513

(WPPSS Nuclear Project No. 4)

**TENNESSEE VALLEY
AUTHORITY**

**(Hartsville Nuclear Plant, Units
1A, 2A, 1B, and 2B)**

**Docket Nos. STN 50-518
STN 50-519
STN 50-520
STN 50-521**

**PUBLIC SERVICE COMPANY
OF INDIANA, INC.**

**Docket Nos. STN 50-546
STN 50-547**

**(Marble Hill Nuclear
Generating Station, Units 1
and 2)**

**TENNESSEE VALLEY
AUTHORITY**

**Docket Nos. 50-553
50-554**

**(Phipps Bend Nuclear Plant,
Units 1 and 2)**

April 25, 1979

The Appeal Board consolidates and orders heard first those radon cases where intervenors are actively participating and holds the remaining cases in abeyance for the time being.

To eliminate the need for a hearing on any question not involving a genuine issue of material fact, the Appeal Board, before fixing a trial date, allows 30 days for filing of motions for summary disposition. Applicants are directed to file any such motion jointly; intervenors are encouraged to act jointly in any of their filings.

MEMORANDUM AND ORDER

1. For reasons previously explained,¹ we must determine the consequences of radioactive radon gas releases attributable to the mining and milling of uranium fuel, and factor the result into the NEPA cost-benefit analysis for the nuclear power facilities involved in the captioned proceedings. To recapitulate briefly, we resolved against ordering the issue tried separately in each of the cases. We also decided not to consolidate them into a single proceeding for that purpose. Instead, we attempted a middle course. A record on the radon issue had already been made before a licensing board in a contested proceeding involving the *Perkins* facility and a decision by the *Perkins* board was imminent. We therefore directed incorporation of the *Perkins* record on radon into these cases and asked the parties for comments on the soundness of the *Perkins* decision.²

In due course that decision was handed down.³ The *Perkins* board found that the radon exposure generated by the uranium mining and milling processes, when compared to the fluctuating background of naturally occurring radon, was so low as to be *de minimis* and ruled that significant health or environmental consequences could not fairly be attributed to it. After we reviewed that decision and the comments we had elicited, certain intervenors were asked to elaborate on their objections by

setting forth (1) not only the respects in which they believe the radon release data and concentration levels in *Perkins* are inaccurate or otherwise deficient, but also the basis for their assertions and the potential significance of the deficiencies (i.e., the degree of impact that any corrections might have upon the *Perkins* figures); (2) whether, and if so why they believe a hearing is necessary on those topics or whether some other procedure for considering the matter is appropriate; and (3) what evidence, either written or oral as the case may be, they are prepared to offer.⁴

We then called upon the applicants and the staff to respond, instructing them to "focus, *inter alia*, on whether a hearing is necessary or whether some other procedure is appropriate" to resolve any disagreement.⁵

We also invited "any party in *any* of the pending proceedings who

¹See ALAB-480, 7 NRC 796, 799 (1978).

²*Id.* at 805-06.

³*Duke Power Company* (Perkins Station, Units 1, 2, and 3), LBP-78-25, 8 NRC 87 (July 14, 1978).

⁴ALAB-509, 8 NRC 679, 683-84 (1978).

⁵*Id.* at 684.

disagrees with the [Perkins] Licensing Board's approach'' to discuss the validity of the *Perkins* rationale on the health effects of the radon emissions, instructing them to assume the correctness of the board's emission level determinations for the purposes of their discussion.⁶ Our reason for this approach, we explained in ALAB-509, was that if the *Perkins* figures were correct and the *de minimis* rationale sound, there would be no further need to explore this question.⁷ We thereby sought to learn what (if any) contentions remained to be heard in light of *Perkins*.

In response to ALAB-509, the *Sterling* and *Tyrone* intervenors jointly filed a number of generalized and twenty-six specific objections to the adequacy of the *Perkins* record; they also criticized the validity of the *de minimis* rationale. The *Three Mile Island*, *Peach Bottom*, and *Hope Creek* intervenors also challenged the soundness of the *de minimis* rationale and urged its rejection.

The applicants in eleven of the captioned cases⁸ and the staff replied to those responses. In general, they supported the adequacy of the *Perkins* record on the radon issue and approved the employment of the *de minimis* rationale to decide the issue before us.

2. Our review of the papers has satisfied us that, except as to a few matters which we address shortly, issue is properly joined on the radon question and it is ripe for disposition either at trial or, possibly, summarily under 10 CFR 2.749.⁹ Before we turn to this, however, we again address the question of consolidation.

⁶*Ibid.* (Emphasis in original).

⁷*Ibid.*

⁸We received no responses from applicants in the *North Anna*, *Shearon Harris*, *Wolf Creek*, and *Davis-Besse* proceedings. The *Seabrook* intervenors previously indicated that they were not going to participate in this phase of the case and the *Seabrook* applicant also has not responded to ALAB-509.

⁹This section of the Commission's Rules of Practice, as amended a year ago (43 Fed. Reg. 17798, April 26, 1978), provides:

SUMMARY DISPOSITION ON PLEADINGS. §2.749. Authority of presiding officer to dispose of certain issues on the pleadings.

(a) Any party to a proceeding may, at least forty-five (45) days before the time fixed for the hearing, move, with or without supporting affidavits, for a decision by the presiding officer in that party's favor as to all or any part of the matters involved in the proceeding. There shall be annexed to the motion a separate, short, and concise statement of the material facts as to which the moving party contends that there is no genuine issue to be heard. Any other party may serve an answer opposing the motion, with or without affidavits, within twenty (20) days after service of the motion. There shall be annexed to such answer a separate, short, and concise

(Continued on next page)

(a) One reason underlying our decision against consolidating all these cases into one proceeding was the belief that some intervenors were less concerned with the radon question than others. Were this so, the possibility existed that we might be able to avoid some of the problems of scheduling and expense inherent in cases with more than two dozen litigants. This has proven true. Only *Sterling*, *Tyrone*, *Three Mile Island 2*, *Peach Bottom*, and *Hope Creek* intervenors took up the laboring oar. Intervenor groups in the remaining cases, either expressly or by their inaction, have allowed the course of our radon proceedings to be charted without them.¹⁰ Accordingly, we have decided to consolidate and hear first the cases where intervenors are actively participating and to hold the remainder in abeyance for the time being.¹¹

(Continued from previous page)

statement of the material facts as to which it is contended that there exists a genuine issue to be heard. All material facts set forth in the statement required to be served by the moving party will be deemed to be admitted unless controverted by the statement required to be served by the opposing party.

(b) Affidavits shall set forth such facts as would be admissible in evidence and shall show affirmatively that the affiant is competent to testify to the matters stated therein. The presiding officer may permit affidavits to be supplemented or opposed by depositions, answers to interrogatories or further affidavits. When a motion for summary decision is made and supported as provided in this section, a party opposing the motion may not rest upon the mere allegations or denials of his answer; his answer by affidavits or as otherwise provided in this section must set forth specific facts showing that there is a genuine issue of fact. If no such answer is filed, the decision sought, if appropriate, shall be rendered.

(c) Should it appear from the affidavits of a party opposing the motion that he cannot, for reasons stated, present by affidavit facts essential to justify his opposition, the presiding officer may refuse the application for summary decision or may order a continuance to permit affidavits to be obtained or make such other order as is appropriate and a determination to that effect shall be made a matter of record.

(d) The presiding officer shall render the decision sought if the filings in the proceeding, depositions, answers to interrogatories, and admissions on file together with the statements of the parties and the affidavits, if any show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law. However, in any proceeding involving a construction permit for a production or utilization facility, the procedure described in this section may be used only for the determination of specific subordinate issues and may not be used to determine the ultimate issue as to whether the permit shall be issued.

¹⁰See ALAB-509, *supra*, 8 NRC at 683 fn. 9.

¹¹We note that on October 3, 1978, the *Sterling* intervenors sought to consolidate their case with the *Tyrone*, *Wolf Creek*, *Marble Hill*, and *Seabrook* proceedings. As appears from this memorandum and order, their motion is in effect granted in part.

Our decision to proceed in this fashion rests on a balancing of many considerations, of which three are perhaps paramount. First, the radon issues are largely generic; that is, they apply equally in all cases. Nothing in the location of a nuclear power reactor affects the quantity of radon emissions generated in the course of mining and milling uranium fuel for it. (Whether the environmental consequences of those uranium fuel cycle activities, when added to other environmental costs of an individual facility, tip the balance against it will, of course, have to be decided separately.) Second, consolidating only five cases leaves us with a manageable number of litigants. Only three law firms are involved on the applicants' side and all are located in Washington, D. C.¹² The intervenors are also jointly represented, at least in part.¹³ Finally, moving along in the actively contested cases first will help insure against our overlooking relevant considerations when we come to review the remaining proceedings on our own initiative.

(b) With certain exceptions, the issues have been sufficiently crystalized in the responses to ALAB-509 to warrant their acceptance as litigable contentions. The exceptions involve three contentions jointly raised by the *Sterling* and *Tyrone* intervenors: numbers 8 and 19,¹⁴ which go to the cost of nuclear fuel, and number 25,¹⁵ concerning radon released from the fly ash of coal. The instant proceedings, however, are limited to considering the consequences of radon emitted in the course of mining and milling uranium for nuclear fuel. ALAB-480, *supra*, 7 NRC at 799. Because neither uranium fuel costs nor radon emitted by other fuels are material to those considerations, those contentions must be rejected as beyond the matters now before us.

(c) The next step would normally be fixing a time and place for the commencement of hearings.¹⁶ The responses of the staff and the *Tyrone* applicants to ALAB-509, however, raise the suggestion that issues respecting not only the level but also the consequences of radon emissions may be amenable to summary disposition.¹⁷ We agree that it is appropriate

¹²Messrs. Shaw, Pittman, Potts & Trowbridge represent applicants in *Tyrone* and *Three Mile Island*; LeBoeuf, Lamb, Leiby & MacRae those in *Sterling*; and Conner, Moore & Corber the *Peach Bottom* and *Hope Creek* applicants.

¹³Mr. Richard Ihrig represents both the *Tyrone* and *Sterling* intervenors for purposes of the radon issues; Dr. Kepford speaks for those in *Three Mile Island* and *Peach Bottom*. Mr. Caccia is active only in *Hope Creek*.

¹⁴At pp. 11 and 15 of the joint *Response of Ecology Action and Northern Thunder* to ALAB-509.

¹⁵*Id.* at pp. 16-17.

¹⁶We dealt with the need for formal discovery in ALAB-509, 8 NRC at 683 fn. 6. We have received no specific requests for discovery in the interim.

¹⁷See fn. 8, *supra*, and *Cleveland Electric Illuminating Company* (Perry Plant, Units 1 and 2), ALAB-443, 6 NRC 741, 752-57, and ALAB-449, 6 NRC 884 (1977).

first to eliminate the need for a hearing on any question not involving a genuine issue of material fact. Accordingly, before fixing a trial date, we shall allow the parties 30 days for filing the motions for summary disposition.¹⁸

In this regard, however, applicants other than those in *Tyrone* may also be contemplating filing such a motion. We direct all applicants to do so jointly.¹⁹ We are confident that counsel can formulate one set of pleadings and supporting documents. Doing so will relieve the intervenors (and ourselves) of the burden of analyzing repetitious papers.²⁰

In a similar vein, we encourage intervenors to respond jointly to any filing by applicants, and to act together if they move for summary disposition themselves. In recognition, however, that intervenors are not all represented by counsel and are geographically dispersed, we do not insist on joint filings on their part.

The staff may file its own motion, join in the motions of either side, or otherwise respond as it deems appropriate.

Finally, we remind all parties that the *Perkins* record is now a part of each case and we have a copy in hand. Consequently, there is no need to reproduce that record in order to rely upon it as support for a motion for summary disposition. Any party electing to do so, however, will be expected to give explicit references to the precise portions of the *Perkins* record it is relying upon.

For purposes of hearing and deciding the radon issues: (1) the proceedings in Docket Nos. 50-277 and 278 (*Peach Bottom*); 50-320 (*Three Mile Island*); 50-354 and 355 (*Hope Creek*); STN 50-484 (*Tyrone*); and STN 50-485 (*Sterling*) are consolidated; (2) parties in the consolidated cases have until May 25, 1979, to file motions for summary disposition under Rule 2.749; if such motions are filed, opposing parties may have 30 days to respond; (3) proceedings in the remaining cases are *held in abeyance* pending our further order.

It is so ORDERED.

FOR THE APPEAL BOARDS

Margaret E. Du Flo
Secretary to the Appeal Board

¹⁸See 10 CFR 2.711(a).

¹⁹See 10 CFR 2.715(a).

²⁰See *Tyrone Applicants' Memorandum* in response to ALAB-509, pp. 10-69, and *Sterling Applicants' Response* the same pp. 6-65, both dated April 9, 1969.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Michael C. Farrar, Chairman
Richard S. Salzman
Dr. W. Reed Johnson

In the Matter of

CONSUMERS POWER
COMPANY

Docket Nos. 50-329
50-330

(Midland Plant, Units 1 and 2)

April 27, 1979

Treating intervenors' motion seeking postponement of a Licensing Board prehearing conference as a petition for directed certification, the Appeal Board denies the motion.

RULES OF PRACTICE: APPELLATE REVIEW

The Commission's rules do not allow the Appeal Board to entertain interlocutory appeals. 10 CFR 2.730(f). In extraordinary circumstances, however, the Appeal Board can review interlocutory rulings by a petition for directed certification. 10 CFR 2.718(i), as construed in *Public Service Company of New Hampshire* (Seabrook Units 1 and 2), ALAB-271, 1 NRC 478 (1975).

LICENSING BOARD: DISCRETION IN MANAGING PROCEEDINGS

Matters of scheduling rest peculiarly within the Licensing Board's discretion; the Appeal Board is reluctant to review scheduling orders, particularly when asked to do so on an interlocutory basis. See *Public Service Company of Indiana* (Marble Hill Units 1 and 2), ALAB-371, 5 NRC 409, 411-12 (1977); ALAB-374, 5 NRC 417 (1977); ALAB-393, 5 NRC 767 (1977); ALAB-405, 5 NRC 1190, 1192 fn. 7 and accompanying text (1977); and ALAB-459, 7 NRC 179, 188 (1978).

Mr. Peter Flynn, Chicago, Illinois, for the movants.

MEMORANDUM AND ORDER

1. On April 9, 1979, the Licensing Board presiding over this remanded proceeding directed that a prehearing conference be held in Bethesda on Tuesday, May 1, 1979.¹ Earlier this week, on Tuesday, April 24, the intervenors mailed us a motion seeking postponement of that conference and an order directing the Board below to reschedule it at a time when intervenors' lead counsel could be in attendance. Additionally, the intervenors asked us to rule that the conference and all further proceedings must be held in Chicago.

The motion represented that it was being filed with us because the Licensing Board has refused to grant Intervenor's request for a postponement and rescheduling of the May 1, 1979 prehearing conference and briefing schedule, on the ground that it lacks the ability to do so as a result of the Appeal Board's instructions to it.

Although the motion itself referred to nothing in the record commemorating the request made to the Board below or its ruling thereon, an explanation did appear in a separate letter to the Licensing Board, a copy of which we later received. That letter recounted what had transpired during a telephone conversation (apparently on April 23rd or 24th) between intervenors' counsel and the Licensing Board Chairman. According to the letter, the Chairman advised counsel

that it was the Board's view that no postponement could be considered in light of what [counsel] understand[s] to be the Board's feeling that the Appeal Board has directed resolution of this matter as promptly as possible.

The letter indicated that this was why counsel was putting the matter before us.

2. The Commission's rules do not allow us to entertain interlocutory appeals. 10 CFR 2.730(f). In extraordinary circumstances, however, we can review interlocutory rulings at a party's request by way of a petition for directed certification. 10 CFR 2.718(i), as construed in *Public Service Company of New Hampshire* (Seabrook Units 1 and 2), ALAB-271, 1 NRC 478 (1975).

Treating the intervenors' papers as such a petition, we must deny the relief sought. We have emphasized repeatedly in the past that matters of scheduling rest peculiarly within the licensing board's discretion; we

¹The only issue now under active consideration by the Licensing Board involves the airing of charges that the applicant once attempted (unsuccessfully) to prevent full disclosure of certain facts. See ALAB-458, 7 NRC 155, 177 fn. 87 (1978).

enter that thicket reluctantly, particularly so when it is on an interlocutory basis. See *Public Service Company of Indiana* (Marble Hill Units 1 and 2), ALAB-371, 5 NRC 409, 411-12 (1977); ALAB-374, 5 NRC 417 (1977); ALAB-393, 5 NRC 767 (1977); ALAB-405, 5 NRC 1190, 1192 fn. 7 and accompanying text (1977); and ALAB-459, 7 NRC 179, 188 (1978).

To be sure, once before—in the antitrust phase of this same proceeding—we stepped in where it was plain that a licensing board scheduling order (which offended all the parties) had stemmed not from an exercise of board discretion but from a misapprehension of our mandate. ALAB-468, 7 NRC 465 (1978). It is not clear to us, however, that this is the situation here. Our latest order came down some 14 months ago and much has happened to change the course of events since then.² In light of this—and the absence of any first-hand indication that the Board below in fact believed that its options has been limited by us³—we are not prepared to attribute the Board's action to anything other than the exercise of its own discretion to schedule the proceeding as it saw fit. In these circumstances, there is no warrant for us to step in now and upset its ruling.

What we will do, against the stated possibility that the Board did believe itself somewhat hemmed in by our prior orders, is place the intervenors' papers and this decision before it⁴ so that, freed of any such constraint, it may reconsider its own ruling *if it wishes to*. We stress, however, that the Board need not do so if its earlier decision represented its unfettered judgment on how best to proceed in the matter.

Motion *denied*.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

²See *Vermont Yankee Nuclear Power Company v. Natural Resources Defense Council* and *Consumers Power Company v. Aeschliman*, 435 U.S. 519 (1978); the Commission's order of November 6, 1978; and the Licensing Board's order of January 4, 1979.

³Compare the papers before us with the Licensing Board's scheduling orders of January 4, February 9, and April 9, 1979.

⁴We are doing so this morning.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

Docket Nos. STN 50-498 OL
STN 50-499 OL

HOUSTON LIGHTING AND
POWER COMPANY, et al.

(South Texas Project,
Units 1 and 2)

April 3, 1979

The Licensing Board grants the requests for a hearing and petitions for intervention of two petitioners in this operating license proceeding. The State of Texas is admitted as an "interested State" pursuant to 10 CFR 2.715 (c). Three other hearing requests and petitions to intervene are denied; however, one petitioner is given 10 days to provide certain information, in which case its petition will be deemed granted.

RULES OF PRACTICE: STANDING TO INTERVENE

Judicial concepts of standing govern whether a petitioner has made an adequate showing of interest to become a party to a proceeding. *Portland General Electric Company* (Pebble Springs Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613 (1976).

RULES OF PRACTICE: STANDING TO INTERVENE

In Commission proceedings, a petitioner may base its standing upon a showing that his or her residence, or that of its members, is within the geographical zone which might be affected by an accidental release of fission products.

RULES OF PRACTICE: STANDING TO INTERVENE

An organization (such as the petitioner in question) seeking to obtain standing in a representative capacity must demonstrate that a member has in fact authorized such representation.

OPERATING LICENSE HEARINGS: NEPA ISSUES

In contrast to safety questions, the environmental review at the operating license stage need not duplicate the construction-permit review. 10 CFR 51.21. To raise an issue in an operating license hearing concerning environmental matters which were considered at the construction-permit stage, there needs to be a showing either that the issue had not previously been adequately considered or that significant new information has developed after the construction permit review.

RULES OF PRACTICE: STANDING TO INTERVENE

To establish the requisite "injury in fact" for standing, a petitioner must have a "real stake" in the outcome, that is, a genuine, actual, or direct stake, but not necessarily a substantial stake in the outcome.

RULES OF PRACTICE: STANDING TO INTERVENE

In granting discretionary intervention, the foremost consideration is the degree to which the petitioner would likely produce a valuable contribution to the decisionmaking process.

OPERATING LICENSE HEARINGS: HEALTH AND SAFETY ISSUES

There is no basis under the Atomic Energy Act or NRC rules for excluding safety questions at the operating license stage on the basis of their consideration at the construction permit stage. The only exception is where the same party tries to raise the same question at both the construction permit and operating license stages, and where principles of *res judicata* and collateral estoppel then come into play.

PREHEARING CONFERENCE ORDER RULING UPON INTERVENTION PETITIONS

This proceeding concerns the application by Houston Lighting and Power Company, *et al.*, for operating licenses for the South Texas Project, Units 1 and 2, two pressurized water reactors located approximately 15 miles southwest of Bay City, Texas, on the west side of the Colorado River in Matagorda County. A Notice of Opportunity for Hearing was published on August 2, 1978 (43 Fed. Reg. 33968). It established September 1, 1978 as the date by which requests for a hearing or petitions for leave to intervene were to be filed. This Board has been designated to rule on any such requests or petitions.

Five petitions for leave to intervene have been filed. In addition, the State of Texas seeks participation as an "interested State." The first intervention petition, dated August 24, 1978, but not received by the Applicants until September 6, and by this Board until September 11, was filed by David Marke. The second, undated but received by the Commission on August 31, 1978, was submitted by the Citizens Concerned About Nuclear Power, Inc. (CCANP). The third, an undated petition received by the Commission on November 1, 1978, was filed by D. Michail McCaughan, a member of "The Environmental Task Force." The fourth, submitted on January 19, 1979, was filed by Mr. Marke on behalf of the Austin Citizens for Economical Energy (ACEE). Finally, a petition dated February 23, 1979, was filed by Citizens for Equitable Utilities, Inc. (CEU).

Neither the Applicants nor the NRC staff have voiced any objection to the participation of the State of Texas, should there be a hearing. But the Applicants perceive fatal deficiencies in all of the other petitions. The staff would admit CEU (as well as Texas) but would deny the others.

Our Memorandum and Order regarding Petitions for Intervention, dated October 23, 1978, discussed the requirements which must be satisfied in order for an intervention petition to be granted, and we outlined what we viewed as certain deficiencies in the petitions originally filed by CCANP and Mr. Marke, particularly with respect to those petitioners' demonstration of standing to intervene. Because NRC rules provide petitioners a right to cure defects in their petitions until 15 days before the special prehearing conference contemplated by 10 CFR 2.751(a) (see 10 CFR 2.714(a) (3) and 2.714(b)), we declined to take final action on the petitions but ordered a special prehearing conference to consider them. Our order of November 17, 1978 provided similar treatment for Mr. McCaughan's petition. In a scheduling order also issued on November 17 (see 43 *Fed. Reg.* 55019, November 24, 1978), the petitioners were given until December 26, 1978 to file supplemental petitions, and the conference was scheduled for January 11, 1979. (The Applicants and NRC staff were afforded an opportunity to file responses to the supplemental petitions, to reach us no later than January 8, 1979.)

CCANP and Mr. Marke filed supplemental petitions. The Marke petition indicated, for the first time, that it was being filed not only on behalf of Mr. Marke in his personal capacity but also on behalf of ACEE, an organization. Mr. McCaughan did not file a supplemental petition.

In response to the supplemental petitions, the Applicants and NRC staff continued to oppose the admission as parties of CCANP and Mr. Marke (both individually and as a representative of ACEE). They each took the position that none of the petitioners had demonstrated standing and that all of CCANP's 6 contentions and Mr. Marke's 21 contentions were inadequate.

CCANP (through its representative) and Mr. Marke appeared at the prehearing conference held in Houston, Texas, on January 11, 1979, as did the Applicants and the NRC staff. Mr. McCaughan failed to appear (see Tr. 4). In addition, a limited appearance statement was made by the Executive Director of CEU, who advised that she had been unaware of the proceeding until the previous weekend but that the organization planned to file an intervention petition (Tr. 161). (As stated previously, CEU has filed such a petition.)

At the prehearing conference, we asked extensive questions concerning the standing and contentions of all the petitioners who were present. As a result, it appeared to us that there remained several deficiencies of technical nature in the petitions before us insofar as they attempted to set forth the interests of the various petitioners. (These deficiencies will be described in more detail in our discussion of the particular petitions.) We therefore afforded CCANP and Mr. Marke another opportunity to cure these defects (and the Applicants and staff an opportunity to respond).

CCANP filed supplementary material concerning its claim of standing in a representative capacity. Mr. Marke also filed additional information, which included an explicit petition for intervention on behalf of ACEE. In their response, the Applicants continued to assert that no petitioner had either demonstrated standing or set forth an appropriate contention. The Staff took that same position with regard to Mr. Marke and ACEE. But with respect to CCANP, the Staff changed its opinion and indicated that that group had cured the defects in its statement on standing and had adequately demonstrated its interest in the proceeding. The Staff continued to oppose CCANP's intervention, however, on the ground that no adequate contention had been set forth.

The Applicants also oppose the late-filed petition of CEU, on grounds not only of lateness but also of lack of standing and failure to state an adequate contention. The Staff favors admission of CEU on the grounds that CEU has standing of right, that it has set forth at least one valid contention, and that (upon balancing the relevant factors) its lateness should not bar its participation.

For the reasons which follow, we are granting the petitions of CCANP and CEU, as well as the request of the State of Texas to participate as an "interested State." We are denying the petitions of Mr. Marke and Mr. McCaughan. The petition of ACEE is conditionally denied, but will be considered to be granted if, within 10 days of the service of this order, that organization files additional information as later described.

We turn now to a discussion of the petitions of CCANP (Part I), Mr. Marke and ACEE (Part II), Mr. McCaughan (Part III), and CEU (Part IV). Certain other matters before us are dealt with in Part V.

I

A. There appears to be no disagreement about the general standards which we must apply in deciding whether CCANP (or, indeed, any of the others petitioners) has demonstrated its standing to become a party to this proceeding. We set them out ourselves in our Memorandum and Order of October 23, 1978. To repeat but briefly, we pointed out that, for a petition to be granted, it must set forth with particularity "the interest of the petitioner in the proceeding, how that interest may be affected by the results of proceeding, . . . and the specific aspect or aspects of the . . . proceeding as to which petitioner wishes to intervene." 10 CFR 2.714(a) (2). We also noted that, in its *Pebble Springs* decision, the Commission ruled that judicial concepts of standing govern whether a petitioner has made an adequate showing of interest in a proceeding and that, to do so, the petitioner must demonstrate (1) "injury in fact" and (2) that the interest is "arguably within the zone of interest[s]" protected by the relevant statutes—here the Atomic Energy Act and the National Environmental Policy Act (NEPA). *Portland General Electric Company* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613 (1976).¹ Furthermore where a petitioner fails to establish standing as of right, it may nevertheless be permitted to participate as a matter of discretion, where it can "make some contribution to the proceeding." *Id.* at 612.

1. It is in the application of those general principles to the facts at hand in this proceeding where there have been differences of opinion. CCANP's initial petition portrayed the group as one headquartered in San Antonio, Texas, which is over 150 miles from the site. No particular members were identified, but the members were described generally as "residents of San Antonio." Both health and safety and economic interests of the group's members were said to be affected by the operation of the facility.

In our Memorandum and Order of October 23, 1978, we pointed out that a petitioner may base its standing upon a showing that his or her residence, or that of its members, is "within the geographical zone that might be affected by an accidental release of fission products." *Louisiana Power and Light Company* (Waterford Steam Electric Station, Unit 3), ALAB-125 6 AEC 371, 372, n. 6 (1973). As we also pointed out, the longest distance heretofore determined to be within that zone is approximately 50 miles. *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Units 1 and 2),

¹At least one commentator takes the position that the "zone of interests" test no longer constitutes a component of the judicial concept of standing. Kenneth Culp Davis, *Administrative Law Treatise*, 1978 supp., Section 22.19-1 at p. 194. Nevertheless, Commission decisions requiring resort to the "zone" test have not been repudiated and hence, have been applied by us. See pp. 449, 456, *infra*.

ALAB-413, 5 NRC 1418, 1421, n. 4 (1977); see also *Northern States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-107, 6 AEC 188, 192-93 (1973) (40 miles). In addition, we cited several decisions where distances had been judged as too far to fall within the geographical zone affected by an accident. *Public Service Company of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, 1150 (1977) (125 miles); *Duquesne Light Company* (Beaver Valley Power Station, Unit No. 1), ALAB-109, 6 AEC 243, 244, n. 2 (1973) ("several hundred" miles). On the basis of this authority, we observed that the headquarters of CCANP (and the apparent residences of its members) in San Antonio are "too remote to confer standing."

In its supplemental petition, CCANP identified itself as a non-profit corporation, formed in April, 1978, with members in Bexar (San Antonio area) and Matagorda counties. Of its approximately 120 members, "[a]t least four" were said to reside within 25 miles of the South Texas project. Although their names and addresses were provided, there was no communication from any of those persons stating that he or she agrees with the group's contentions and wishes to be represented in this proceeding through the group. Moreover, the group's petition failed to name the individual authorized to represent it in the proceeding or to specify that the individual who had signed the petition was so authorized. The petition reiterated that the group's members would be affected by operation of the facility from both a health and safety and economic standpoint.

When a group seeks to obtain standing in a representative capacity for its members (as CCANP is attempting to do here), it must demonstrate that the particular members whom it purports to represent have in fact authorized such representation. *Allied-General Nuclear Services* (Barnwell Fuel Receiving and Storage Station), ALAB-328, 3 NRC 420, 422-23 (1976); *Detroit Edison Company* (Enrico Fermi Atomic Power Plant, Unit 2), LBP-78-37, 8NRC 575, 583 (1978); *id.*, LBP-79-1, 9 NRC 73, 77-78 (January 2, 1979).

When represented by one of its members, the group must also demonstrate that the member is authorized to do so. *Fermi*, LBP-78-37, *supra*, 8 NRC at 583; LBP-79-1, *supra*, 9 NRC at 77; see also *Omaha Public Power District* (Fort Calhoun Station, Unit No. 1), CLI-72-24, 5 AEC 9 (1972); *Watts Bar*, ALAB-413, *supra*, 5 NRC at 1421. At the prehearing conference, the Board was advised that the CCANP members who lived in Matagorda county had asked CCANP to represent their interests (Tr. 72), either by telephone or by letters (Tr. 74). CCANP offered to provide both the written authorization of one or more members for CCANP to represent them and the authorization of the CCANP member appearing at the conference to represent the group (Tr. 75-77). We permitted the group to submit such documentation (Tr. 88).

CCANP thereafter filed a statement by Mr. George J. Bunk stating that his home and property are within 7 miles of the site, that he is a member of CCANP and desires the organization to represent his interests in the proceeding, and that he adopts and supports the statements of interests and contentions in CCANP's "amended" petition. It also filed a statement by its two "Co-coordinators" (who "have the authority to make public the group's policies and decisions") that the person who had signed CCANP's supplemental petition (and had appeared for it at the prehearing conference) was authorized to do so and to represent the group's interests in the proceeding.

2. We need not dwell long on whether the economic interests of CCANP's San Antonio members may confer standing of right on the group. As the Applicants and Staff both point out, those interests clearly cannot do so. They stem from the members' status as ratepayers of one of the Applicants. Such interests fall outside the zone of interests arguably protected either by the Atomic Energy Act or NEPA and hence do not qualify under the Commission's "zone" test.² *Pebble Springs*, CLI-76-27, *supra*, 4 NRC at 613-14; *Watts Bar*, ALAB-413, 5 NRC at 1421.

On the other hand, the single CCANP member residing near the site who has authorized the organization to represent him clearly falls within the area which has heretofore been found to be potentially affected by an accident. The Applicants nevertheless assert that CCANP does not thereby acquire standing, for essentially two reasons. First, they claim that mere residence is not enough, that additionally there must be shown in some detail how the resident's interests will be affected by operation of the facility. In their view, such a showing has not here been made. Second, they assert that, for an organization to acquire standing through its members, it must be shown that the interests of the particular members coincide with the primary purposes of the organization. Again, they argue, that is not the case with respect to the one CCANP member who seeks to be represented in the proceeding. Neither of these reasons is meritorious.

With respect to the first, we need not decide whether residence, *per se*, is enough to confer standing. And we need not disagree with the Applicants' general claim that some "nexus" between the licensing action and the claimed injury must be shown. For CCANP has asserted considerably more than mere residence of one or a few of its members. Its supplemental petition states, for example, that

CCANP is concerned that its members may be subject to unnecessary risk

²Assuming, of course, that the "zone" test remains applicable. See fn. 1, *supra*. CCANP has adequately set forth "injury in fact" with respect to its San Antonio members who assertedly will pay higher electric rates as a result of the South Texas project.

of life and/or property from accident or ordinary operation of the South Texas Nuclear Project and that the danger of exposure to radiation will be greatly increased by the escape of radon gas from the reactor, leaks in the transport and/or storage of fuel and wastes, and human errors in the handling of radioactive material. CCANP is also concerned that mistakes and delays in construction which have occurred will adversely affect the operating safety of STNP

Moreover, all of its contentions raise health and safety issues. Although some of those contentions do not meet the requirements of the Rules of Practice, the ones that do (see pp. 448-451, *infra*) demonstrate satisfactorily why CCANP believes that at least some of its members may be endangered by operation of the reactor.

The Applicants support their "nexus" claim by a number of cases which suggest that some "nexus" must be demonstrated; but they place primary reliance, in both their January 5, 1979, and their February 1, 1979, briefs (pp. 6-8 and p.23, respectively) and at the prehearing conference (Tr. 11, 60-62), on the decision of the Licensing Board in *Virginia Electric and Power Company* (North Anna Power Station, Units 1 and 2), Docket Nos. 50-338-SP, 50-339-SP "Order and Recommendation" dated December 8, 1978 (unpublished). That opinion denied intervention in a spent-fuel-pool expansion proceeding on the basis that the persons seeking intervention, who lived or conducted recreational activities near the plant, had not adequately particularized how their interests might be affected. The general statements in the petitions there under review were much akin to those in CCANP's amended petition.

At the prehearing conference, we questioned the Applicants pointedly about the import of the *North Anna* decision, both because it stemmed from a proceeding of different dimensions from an operating license proceeding and also because it seemed somewhat odds with certain earlier Appeal Board rulings (Tr. 61-62). That our doubts were well-founded is reflected by the Appeal Board's subsequent reversal of the Licensing Board's order. ALAB-522, 9 NRC 54 (January 26, 1979). The Appeal Board's rationale, which is here set forth in relevant part, appears dispositive of the "nexus" claim advanced in this proceeding by the Applicants:

This concern . . . may be devoid of any foundation in fact. But that is quite beside the point in evaluating the sufficiency of the asserted interest of the . . . members living little more than a stone's throw from the facility. Contrary to the Licensing Board's seeming belief, we have never required a petitioner in such geographical proximity to the facility in question to establish, as a precondition to intervention, that his concerns are well-founded in fact Rather, close proximity has always been

deemed to be enough, standing alone, to establish the requisite interest [citation omitted].

9 NRC at 55-56.

We need only add that the other Commission decisions relied on by the Applicants for their "nexus" claim are also distinguishable. Neither involved an operating license proceeding. *Nuclear Engineering Company Inc.* (Sheffield, IL, Low-Level Radioactive Waste Disposal Site), ALAB-473, 7 NRC 737 (1978) (renewal and amendment of license to operate low-level radioactive waste disposal site); *Allied-General Nuclear Services* (Barnwell Fuel Receiving and Storage Station), ALAB-328, 3 NRC 420 (1976) (materials license to receive and possess spent fuel). And the asserted "civil liberties" interests in *Barnwell* and economic interests in *Sheffield* were too diffuse to determine their adequacy or sufficiency without further particularization—coupled with the circumstance that the residential "presumption" is logically applicable only to the type of health and safety interests which could be affected by a reactor accident the dimensions of which are unknown at the threshold stage of a proceeding. See *North Anna*, ALAB-522, *supra*, 9 NRC at 56.

The Applicants' other basis for opposing CCANP's standing is, in effect, that the interest of the single member being represented is not significant enough, or clearly enough in line with the group's objectives, to confer standing upon the group. We agree, of course, that the interests of members which a group seeks to represent (and which confer standing upon the group) must be "germane to the organization's purpose." *Hunt v. Washington State Apple Advertising Commission*, 432 U. S. 333, 343, 97 S. Ct. 2434, 2441 (1977). We also agree that intervention in a proceeding should be granted only to those with a "real stake" in the proceeding. *Cincinnati Gas and Electric Company* (William H. Zimmer Nuclear Power Station), ALAB-305, 3 NRC 8, 12 (1976). But we disagree with the Applicants in their further conclusions that intervention on behalf of the one Matagorda county member is not "germane" to CCANP's purposes or that CCANP does not through this member acquire a "real stake" in the proceeding.

CCANP's primary purpose may be educational. But it also exists for the purpose of "influencing policy regarding issues surrounding the use of nuclear power." Its intervention here might well produce that effect. In any event, we do not view this Board as the appropriate forum for determining close questions as to whether an organization is acting strictly in accordance with its authorizing charter. *Cf. Cleveland Electric Illuminating Company* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-443, 6 NRC 741, 747-48 (1977).

The "real stake" doctrine arises out of the Supreme Court's description

of the "injury in fact" standing test as "a rough attempt to put the decision as to whether review will be sought in the hands of those who have a direct stake in the outcome." *Sierra Club v. Morton*, 405 U. S. 727, 740 (1972). In our view, "real stake" as used by the Appeal Board thus must mean "genuine," "actual" or "direct stake," not "substantial stake." This view is confirmed by the Supreme Court's post-*Sierra Club* holding that the stake in the proceeding which must be demonstrated to acquire standing need only be a slight stake. *United States v. Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U. S. 669 (1973). In specifically eschewing a "significance" test, the Court there stated, . . . an identifiable trifle is enough for standing to fight out a question of principle; the trifle is the basis for standing and the principle supplies the motivation." *Id.* at 689, fn. 14.

Finally, the Applicants would have us distinguish between national organizations with a few local members and less comprehensive organizations with a few members geographically isolated from the center of the group's operations. That latter class, in the Applicants' view, must make a more substantial showing of interest—*i.e.*, more members residing near the facility—than the former. We find no basis in NRC regulations or decisions for drawing that distinction. And to do so would be inconsistent with the *SCRAP* ruling, *supra*.

In sum, we hold that CCANP has established that it has a "real stake" in the proceeding through its representation of Mr. Bunk's interests and that it has demonstrated standing of right to participate. That being so, we need not discuss whether discretionary intervention would be warranted.³

B. To permit intervention, a Board must find at least one contention which satisfies the Commission's requirements as to specificity and bases. 10 CFR 2.714(b); *Norther States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-107, 6 AEC 188, 194 (1973). The Applicants and Staff believe that none of CCANP's 6 contentions qualify. We find two of them to be admissible.

1. Contention 2 puts into issue whether construction of the plant has been carried out in accordance with applicable requirements. Six specific defi-

³We deny the Applicants' March 14, 1979 Motion for Additional Procedures, seeking discovery to determine when Mr. Bunk joined CCANP. We agree with the Staff that the requested discovery is not available under the Commission's rules. *Detroit Edison Company* (Enrico Fermi Atomic Power Plant, Unit 2), LBP-78-37, 8 NRC 575, 579-81 (1978). Moreover, assuming Mr. Bunk joined CCANP as late as December 22, 1978 (the date of the CCANP affidavit identifying him as a member), and assuming (although not deciding) both that the CCANP petition must be considered as untimely and that there was no good cause for a delay to that date, we balance the relevant factors of 10 CFR 2.714(a) in favor of CCANP's admission. In terms of these factors, the petition would differ from that of CEU, which we are granting (pp. 467-468 *infra*), only in that (1) it was not as late and (2) the contentions differ. CCANP is likely to assist us in resolving its two contentions which we have admitted (see p. 449, *infra*).

ciencies in construction or construction practices are specified (subparagraphs (b)-(g)). (Subparagraph (a) is too general to be considered as anything other than introductory.) A source for the information underlying the contention is specified.

The Applicants characterize the alleged deficiencies as “nothing more than complaints related to the not abnormal problems associated with the construction of nuclear power plants, routinely reported to the NRC and corrected pursuant to NRC—approved procedures.” That well may be true—but it is a matter of evidence going to the merits of the claim and not a basis for dismissing the contention. The reports referred to by the Applicants as resolving some—although not all—of the questions have not been put into evidence in any proceeding. They are entitled to be accorded no presumptive validity.

The Applicants also claim that CCANP purports to have no special expertise with regard to this contention. That is irrelevant. CCANP may utilize experts or consultants, just as the Applicants do. Indeed, it has indicated that it is considering that course (Tr. 73, 109).

On the other hand, the Staff finds that this contention as drafted fails to meet the specificity and bases requirements of 10 CFR 2.714(b), inasmuch as it does not tie the listed deficiencies with the particular section of 10 CFR Part 50, Appendix B, which each deficiency may have violated. In addition, the introductory phrase relating to the prematurity of the operating license request is said to be the result of a misunderstanding of the Commission’s early notice requirements.

We attribute those aspects of the contention to which the Staff objects as the product of drafting by laymen. We find the contention to raise specific questions as to the adequacy of construction, and we believe that these questions should be resolved on the record. The contention should be rewritten, however, to delete the references to the prematurity of the operating license request and to substitute therefor the provisions of NRC regulations or other requirements which the specific alleged practices may have violated. CCANP may wish to ask the Staff and/or the Applicants to assist in re-drafting the contention along these lines.

We stress that we are merely admitting the contention (as modified) at this stage. This, and every other, contention is subject to being disposed of by a motion for summary disposition under 10 CFR 2.749, prior to any evidentiary hearing.

2. CCANP’s other acceptable contention is number 3, asserting design defects in the reactor because of the overpressurization problem which has been found to exist in other pressurized water reactors. An NRC report (NUREG-0138) and the report of a nuclear engineer are cited as bases for the contention.

The Applicants claim that this contention consists of nothing more than conclusory statements based on a cursory recitation of operating incidents collected over 4 years from numerous plants, and that there is no allegation that the present regulatory standards for assuring pressure vessel integrity provide an insufficient margin of safety in the face of overpressurization transients. Again, we attribute this failure, if it be one, to drafting by laymen. NUREG-0138 itself demonstrates that, where the transients occurred, an insufficient margin of safety existed under current standards for assessing pressure vessel integrity. That such a condition assertedly applies to this facility is inherent in the contention.

In its brief, the Staff opposed this contention on the ground that it failed to specify "special circumstances" necessary to raise an issue concerning pressure vessel integrity. See *Consolidated Edison Company of New York* (Indian Point, Unit 2), CLI-72-29, 5 AEC 20 (1972). Our order of October 23, 1978 sought further information as to the existence of special circumstances; apparently none exist. But our order was based on the original form of the contention, in which it was not clear that the subject of the contention was overpressurization. That subject represents one of the generic safety issues identified by the Commission in a report to the Congress (NUREG-0410, January 1, 1978). It involves not pressure vessel integrity, as such, but the evaluation of measures which may be taken to reduce the likelihood of pressure transients such as have occurred in other pressurized water reactors, where the pressure in the vessel has exceeded the limits imposed by applicable technical specifications. At the prehearing conference, the Staff conceded that if overpressurization was all that was being raised by the contention, it is not covered by the "special circumstances" rule (Tr. 134-35). (The Applicants also stated that the "special circumstances" rule does not govern the instant contention (Tr. 132).) The Staff nevertheless believes the contention lacks specificity (Tr. 135).

We hold that, for this stage of the proceeding, the contention is sufficiently specific. As another Licensing Board noted, the primary responsibility for resolving generic issues applicable to a reactor lies with the Staff. *Pennsylvania Power and Light Company* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-79-6, 9 NRC 291, 311 (March 6, 1979). See also *Fermi*, LBP-79-1, *supra*, 9 NRC at 81. The Staff has not yet issued its Safety Evaluation Report (SER) covering unresolved generic issues. Until it does so, CCANP need be held to no greater specificity. In that connection, even if there were no contention on overpressurization, the hearing Board would be required to look at the question to determine whether the Staff's resolution of the question is "at least plausible and . . . , if proven to be of substance, . . . adequate to justify operation." *Virginia Electric and Power Company* (North Anna Nuclear Power Station, Units 1 and 2), ALAB-491, 8 NRC 245, 249 fn. 7 (1978).

As in the case of Contention 2, this contention should be rephrased in certain respects. The references to pressure vessel "rupture" and the concomitant release of radioactivity refers to the consequences of an accident more serious than the "design basis accident" (i.e., a "Class 9" accident). Those consequences need not be explored in a proceeding such as this. See, e.g., *Porter County Chapter v. AEC*, 533 F. 2d 1011, 1017-18 (7th Cir.), cert. denied, 429 U. S. 945 (1976); *Long Island Lighting Company* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831 (1973).

Those consequences are asserted to occur only if certain regulatory standards, and the margins of safety required to be adhered to with respect to pressure vessels, are not in fact satisfied. But if a plant does not meet such requirements, it will not be licensed to operate. For that reason, the contention should be rephrased in terms of failure to meet applicable requirements and to adhere to satisfactory safety margins (see Tr. 129).

In admitting this contention (as modified), we wish to note that we are aware of a new report on the subject of overpressurization. NUREG-0224, "Reactor Vessel Pressure Transient Protection," dated September, 1978. No party or petitioner drew our attention to this report, which purports to resolve the overpressurization generic issue. Whether it does so, and (if so) whether the Applicants will adhere to the recommendations set forth in the report, are appropriate matters for consideration in this proceeding.

3. We need treat CCANP's other contentions, which we reject, only briefly.

Contention 1 seeks a delay in the operating license hearing. As the Staff points out, it probably reflects a misunderstanding of the Commission's hearing procedures. Under those procedures, although the proceeding has been initiated, the hearing is a long time in the future. In any event the contention is a challenge to the Commission's "early notice" provisions and, under 10 CFR 2.758, cannot be entertained (absent a showing of "special circumstances" not here made).

Contention 4 seeks evacuation plans for the area within a 20-mile radius of the site. The distance named is derived from one of the analytical parameters incorporated into WASH-1400, the reactor-safety study which has recently been disavowed in some respects by the Commission. Under currently effective rules, however, an Applicant need not formulate an emergency plan for areas outside the low population zone (LPZ) (which here has an outer radius of 3 miles as set forth in the construction permit SER, Section 2.1, p. 2-5). *New England Power Company* (NEP Units 1 and 2), et al., ALAB-390, 5 NRC 733, 747 (1977). Even under recently proposed amendments (43 Fed. Reg. 37473, August 23, 1978), which we are directed to use as "interim guidance" (id. at 37475), there has been presented no "particular informa-

tion" why an evacuation plan extending 20 miles from the facility might be warranted. See *Susquehanna*, LBP-79-6, *supra*, 9 NRC at 306; *Fermi*, LBP-79-1, *supra*, 9 NRC at 80-81. The contention thus cannot be entertained.

Contention 5 asserts that the facility will present an undue health risk because of uncertainty as to the amounts and types of radioactive materials to be released into the environment. As the Staff points out, no such uncertainty exists. The facility must meet the emission standards specified in 10 CFR Part 20 and Part 50, Appendix I. There has been no allegation that it will not do so, or that the health effects of the prescribed releases would tip the NEPA cost-benefit balance against the plant. If the contention be a challenge to the prescribed standards, it is barred by 10 CFR 2.758. For these reasons, the contention is inadmissible.

Contention 6 seeks to raise questions as to the final ultimate disposal of radioactive waste. Whether viewed as a safety or an environmental matter, such contentions may not be entertained in a proceeding such as this. *NRDC v. NRC*, 582 F. 2d 166 (2d Cir. 1978); *Northern States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-455, 7 NRC 41, 45, 48-51 (1978).

II

A.I. Mr. Marke's original petition indicated that the petitioner was a resident of Austin, Texas (which is more than 100 miles from the site) but included no further information relevant to his standing. Our Memorandum and Order of October 23, 1978 pointed out that, under applicable Commission guidelines, such residence was "too remote" to confer standing.

In his supplemental petition, filed on December 26, 1978, Mr. Marke attempted to demonstrate that, notwithstanding such distance, he would nevertheless suffer injury through routine operation of the facility, as well as in the event of a "major accident." He also alleged that his health will be endangered by food consumed by him which is grown in the vicinity of the plant, and by water from the surrounding watershed consumed by him "during frequent visits for business and recreational purposes," as well as water introduced into the marine life cycle "affecting the seafood . . . gathered recreationally" by him. Further, he assertedly will suffer "mental anguish" as a result of the plant's operation. He also asserted that a major north-south rail line and a major highway lie near his home and office, respectively, and that the transportation of fuel assemblies and spent fuel which may occur thereon will endanger his health. Additionally, he stated that he regularly engages in recreational pursuits near the plant. Finally, he set forth certain economic ratepayer interests derived from his status as a customer of one of the Applicants.

In addition, for the first time, he noted that he was representing not only

himself as an individual but also ACEE, a private, non-profit group. The group was described as consisting of over 100 formally aligned members in Austin and other communities, as open to the public, and as being in existence prior to the Notice of Opportunity for Hearing in this proceeding. Mr. Marke listed the membership of the steering committee of ACEE, of which he was one. Two of the steering committee members had a listed address in Wadsworth, Texas, which was described as less than 8 miles from the site. Mr. Marke stated that he had been designated to represent ACEE's interests.

Mr. Marke also set forth certain reasons why he should be admitted as a matter of discretion. In describing the contribution he might make to the proceeding, he portrayed himself in the following terms:

Petitioner is a graduate of the University of Nevada and the University of California systems, having studied exclusively and extensively in the field of Nuclear Chemistry. Mr. Marke has been widely published in the scientific community on topics not only limited to radiochemistry, but in the field of radioisotope disposition and containment. Mr. Marke is regularly called upon by the city of Austin and the State of Texas, as well as other municipal bodies including the city of San Antonio, and various public groups in and around the other metropolitan areas of Texas for his expertise in the field of nuclear waste management. Mr. Marke has been an invited guest of the Texas House of Representatives Energy Resources Sub-Committee, testifying with regard to waste disposal operations contemplated in the state of Texas, has testified frequently before and at the request of the Electric Utilities Commission of Austin regarding not only nuclear matters, and not limited exclusively to waste disposal, but energy related matters on a broad spectrum. Marke's expert testimony and advice have further been solicited by the Austin city council in the nuclear field, as well as the traditional and non-traditional energy generating technologies. Further Mr. Marke has been called upon frequently by the Texas Energy Advisory Council for his expertise in the energy field, most particularly with regard to nuclear endeavors and the solar sciences. He has as well been engaged by that agency not only as a consultant but as a member of proposal evaluation panels in the contract awarding process of the Energy Development Fund administered by that agency.

The petitioner is currently employed as chief of research and development and general partner of Solar Dynamics Limited, of Austin, a Texas limited partnership, organized for the purpose of researching and developing solar/thermal electrical generating technologies. As principal scientist at Solar Dynamics petitioner Marke is daily and continually abreast of developments not only in energy technology but in energy

policy. As such he has been invited to testify on several occasions before the Department of Energy in efforts to establish, formulate, and define the national energy plan. He has kept himself well abreast of scientific developments in as many aspects of the energy field as possible, and considers that on the basis of expertise alone the board should exercise its discretion, granting him standing in the above captioned proceedings.

December 26, 1979 petition, pp. 14-16.

At the prehearing conference, we questioned Mr. Marke extensively on the nature of his asserted interests. We ascertained that the recreational activities in the vicinity of the plant consisted of fishing along the coast of the Gulf of Mexico between Galveston and Port Aransas, not on any schedule but at least bi-monthly and occasionally, during the winter months, bi-weekly (Tr. 34). On about half those occasions he would come within a distance of 40-50 miles of the plant (*ibid*). (Mr. Marke later stated that perhaps he fishes somewhat closer to the plant (Tr. 69).) He also indicated that he is more worried about routine plant releases affecting the fish and entering the food chain than about the effects of plant accidents (Tr. 56).

We also questioned Mr. Marke about whether ACEE itself wishes to become a party and, if so, why it had delayed in identifying itself and seeking such status (Tr. 25-32, 37-40). Mr. Marke was unable to provide definite answers to our questions in this regard.

At the conference, Mr. Marke also reiterated his plea for discretionary intervention. He stated:

I have a Bachelor of Science degree in Nuclear Chemistry from the University of Nevada. I have a Master of Science degree from the University of California at Berkeley. I was involved, until the mid-1960s, in operations at the University of California at Berkeley in the nuclear engineering laboratories there, as well as in the cyclotron laboratory.

If the Board desires, I will send a copy of my resume along with the next communication that I send, so that they can see the publications that I have done.

Tr. 58.

The "Amended Supplemental Petition" which we invited Mr. Marke to file was submitted on January 19, 1979. It updated certain information but reiterated many of the other statements in the earlier December 26, 1978, petition. The statement which we quoted concerning discretionary intervention was repeated verbatim. The January 19 filing included a petition by ACEE explicitly requesting leave to intervene "as an individual entity." The petition included an authorization by the two steering-committee members residing in Wadsworth, Texas, for ACEE ("and their specific appointee,

Mr. David Marke'') to represent them in the proceeding. The authorization further stated that

we are in support of the contentions of that petition in an effort to assure our health, safety, and the presentation of no danger to our real property. We further support as site representatives the position and operating guidelines of ACEE.

Finally, the ACEE petition included a statement by the group's Chairman that ACEE adopted Mr. Marke's contentions and authorized Mr. Marke to represent its interest.

In their response dated February 1, 1979, the Applicants reiterated their opposition to the intervention of both Mr. Marke, in his individual capacity, and ACEE. With respect to Mr. Marke's request for discretionary intervention, the response pointed out that a serious question existed as to Mr. Mr. Marke's credentials:

Applicants' counsel has had a number of publication indices¹⁴ checked; no citation to any publication by Mr. Marke was found. In addition, the records offices of the two campuses of the University of Nevada have advised that they have no record of the graduation there of a David Marke.¹⁵ The Office of Admissions and Records of the University of California at Berkeley advised that it has no record of a David Marke having attended the institution. We are further advised by the Office of the Recorder, University Extension, that there is no record of Mr. Marke's enrollment in extension, correspondence or independent study courses at Berkeley.

¹⁴*Nuclear Science Abstracts; Science Citation Index; INIS Atomindex; Readers Guide to Periodical Literature.*

¹⁵The Reno Records Office reported having a record of a Roy David Marke, Jr., who attended the College of Arts and Sciences for two semesters in 1964-1965.

February 1, 1979 brief, p. 8.

The Applicants acknowledged the possibility that their investigative efforts had been incomplete or that an error had been committed. But the possibility that at least some of Mr. Marke's representations made to us in support of his intervention were false or misleading seemed to us to be of sufficient import to call for the record's clarification. Therefore, by Order dated February 7, 1979, we stated that we should be advised of certain specified information concerning Mr. Marke's education, his employment and experience, and his published articles. The information was to be filed by Feb-

ruary 16, 1979. (Mr. Marke was read the Order by telephone on February 7, and a copy was mailed to him the same day.) No information in response to the February 7 Order has yet been filed, nor any communication requesting an extension of time to do so.

2. The crucial question which we face in ruling upon Mr. Marke's intervention petition is the significance of the statements made by him in support of discretionary intervention and the implications which his failure to respond to our February 7, 1979, order may impart to the remainder of his petition and to the likelihood that he will assist in developing a sound record. Before turning to that question, however, we will address whether Mr. Marke has demonstrated standing of right. For if he has, the likelihood that he will assist in developing a sound record is irrelevant. *Gulf States Utilities Company* (River Bend Station, Units 1 and 2), ALAB-183, 7 AEC 222, 227 fn. 11 (1974).

a. We have earlier discussed at some length the general standards governing standing of right in an NRC proceeding. Under those standards, Mr. Marke has not demonstrated that he has standing in his personal capacity. His economic interests are not within the "zone of interests" arguably protected by the Atomic Energy Act or NEPA. To the extent that his taxpayer status in Austin may constitute him a "stockholder" of one of the Applicants (the City of Austin), as he claims (see Tr. 56-58), we agree with the Staff (Tr. 68) that he is in the wrong forum to assert any complaints he has in that regard. Moreover, to the extent he is asserting possible harm to his interest of a health and safety or environmental nature, he has not provided any reasonable grounds for us to change our earlier expressed opinion that his residence and business location are too remote from the plant to confer standing. The possibility which he expressed that fuel assemblies or spent fuel will be shipped over the railroad or highway near his home or business is pure speculation; he has made no showing which suggests that the particular railroad or road are more likely to be used than any other railroad or highway. See *Exxon Nuclear Company* (Nuclear Fuel Recovery and Recycling Center), LBP-77-59, 5 NRC 518, 519-20 (1977).

Mr. Marke's fishing activities present a potential basis for finding that he has standing of right. On a number of occasions, the carrying on of recreational activities in areas in the general vicinity of a facility has been sufficient to confer standing. *Philadelphia Electric Company* (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-73-10, 6 AEC 173 (1973); *Virginia Electric and Power Company*, ALAB-522, *supra*, 9 NRC at 56-57; *Mississippi Power and Light Company* (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423 (1973). And as we have seen, residence as far away as 40 or 50 miles from a facility has also been found to be a basis for conferring standing (see p. 444 *supra*). But "occasional trips" to a community 23 miles from the site and other unspecified communities asserted to be

“near” the site has been held to be insufficient to confer standing. *Public Service Company of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, 1150 (1977). Although a close question, taking into account both the time in the area and the distance from the facility, the contact resulting from Marke’s presence about once a month within 40 or 50 miles of the plant (or possibly a little closer, although to an undefined extent) for fishing activities appears to us to be *de minimis* and insufficient to confer standing in this proceeding as a matter of right.

b. Although discretionary intervention is governed by a number of discrete factors, the one which is foremost—and of overwhelming significance here—is the degree to which the petitioner “would likely produce ‘a valuable contribution’ ” to the decisionmaking process. *Virginia Electric and Power Company* (North Anna Power Station, Units 1 and 2), ALAB-363, 4 NRC 631, 633 (1976); *Public Service Company of Oklahoma* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, 1145 (1977); *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Units 1 and 2), ALAB-413, 5 NRC 1418, 1422 (1977). In support of discretionary intervention, Mr. Marke supplied the extensive catalog of his occupational and educational background and experience, and allusions to his papers, to which we earlier made reference. That statement was sufficiently compelling to convince the Staff that Mr. Marke’s experience and education could support a finding that the petitioner could make a substantial contribution with regard to at least one of his contentions, should that contention be found acceptable. It opposed discretionary intervention only because it found that contention to lack the requisite specificity and basis.

Because of the events which followed (which we heretofore have described in some detail), we are left with substantial doubts concerning Mr. Marke’s qualifications and his ability or willingness to contribute to the decisionmaking process. Mr. Marke had every opportunity to counter the assertions made by the Applicants and he chose not to do so. He has given us no reason at all for failing to respond to our February 7, 1979, Order. This course of conduct represents a disrespect for the adjudicatory process in either of two ways. First, the process provides an effective medium for the Commission, through its licensing boards, to resolve disputed questions of fact; but a board cannot adequately resolve such disputes unless the statements made to it not only are truthful but are beyond any suspicion as to their veracity. Failure to adhere to the ground rules of the system, as Mr. Marke apparently has done, engenders such suspicion and hence can be construed as a contempt for the system. Second, even if the statements are in fact accurate, the failure to respond to the Board Order necessarily casts doubt on them as well as on the degree to which Mr. Marke might be expected to help create a sound record.

The unanswered questions have other implications. Not only do they cast doubt on Mr. Marke's ability or willingness to contribute to a sound record but, as well, they create a cloud over every statement he has made, such as with respect to his various contentions. Furthermore, although intervention petitions no longer need be under oath or affirmation, they nevertheless appear to be subject to the dictates of 18 U.S.C. §1001, which makes it unlawful, in any matter within the jurisdiction of any agency of the United States, for a person knowingly and willfully to make "any false, fictitious or fraudulent statements or representations." Mr. Marke may be in violation of the statute.

As will appear later, we find several of Mr. Marke's (and also ACEE's) contentions to qualify under the Commission's rules. But given the discretion available to us in determining whether discretionary intervention should be granted, we hold that Mr. Marke's failure to respond to our February 7, 1979 Order, and the implications attendant from such failure, outweigh any contribution to a sound record which could be made by permitting him to litigate (in his personal capacity) the contentions we find acceptable. We are accordingly denying his request for intervention as a matter of discretion.

3. There are many points of similarity between the petitions of Mr. Marke and ACEE. Among other matters, ACEE is centered in Austin, it appears to have designated Mr. Marke its representative for at least some purposes, and it has adopted Mr. Marke's contentions. With some justification, we could consider the group as Mr. Marke's *alter ego* and reject its petition for the same reasons as caused us to turn down Mr. Marke's petition. We have not followed that course, however. For the group is incorporated and appears to have an existence independent of Mr. Marke; it has a Chairman and a steering committee with members other than Mr. Marke; and two members of the steering committee reside in close proximity to the plant. For these reasons, we have considered the group's petition as separate from that of Mr. Marke and—except to the extent it may seek representation by Mr. Marke—not prejudiced by the questionable statements made by Mr. Marke in his own behalf.

a. ACEE has set forth but one basis under which we could find that it has standing as of right—the residence of two members of the steering committee (Mr. and Mrs. Robert Cook) in Wadsworth, Texas, assertedly less than 8 miles from the reactor. As the Staff points out, on the basis of the recent Appeal Board decision in the *North Anna* proceeding, ALAB-522, *supra*, "[i]f they are members, they satisfy the NRC's criteria for standing. If they are not members of ACEE, ACEE has not demonstrated standing as a matter of right" (NRC Staff response dated February 6, 1979, p. 4 footnote omitted). See also *Health Research Group v. Kennedy*, _____ F. Supp. _____ (D.D.C., No. 77-0734, March 13, 1979).

The Applicants acknowledge that ordinarily an inference can be made that members of an organization's steering committee are members of the organization. But they claim that in this instance no such inference can be made, as a result of the varying references in ACEE's and Mr. Marke's petitions, and statements made by Mr. Marke at the prehearing conference indicating that there may be a difference between ACEE's "constituency" and its "members." We agree. Moreover, in our view, it is significant that Mr. and Mrs. Cook have never been explicitly described as "members." In their authorization of ACEE to represent them, they referred to themselves only as "site representatives," stating that, *in that capacity*, they support the "position and operating guidelines" of ACEE. And in the several listings of steering committee members which have been supplied to us, Mr. and Mrs. Cook similarly are characterized as "site representatives."

A petitioner is responsible for providing a Board with sufficient information for determining whether that petitioner has standing of right. ACEE has not done so and, for that reason, we are ruling that it does not have standing. From what is before us, however, we are unable to ascertain whether ACEE's failure to clarify the membership status of Mr. and Mrs. Cook reflects the actual status of their affiliation with ACEE or, alternatively, whether it represents a lack of experience in preparing pleadings. If the latter, we do not believe it equitable to penalize ACEE. For that reason, we will permit ACEE, within 10 days of the service of this Order, to file a statement that Mr. and Mrs. Cook are members (and in fact were members as of December 26, 1978, the date when their names were first introduced into this proceeding and with respect to which we are evaluating ACEE's tardy application). If Mr. and Mrs. Cook were members on December 26, 1978, and if they so advise this Board in a timely fashion, our finding with respect to ACEE's standing will be considered to be changed to reflect that ACEE in fact has standing of right. Because of our experience with ACEE's representative, this statement must be *by affidavit*. (We reject the Applicants' claim concerning the substantiality of ACEE's interest for the same reasons we rejected the similar claim with respect to CCANP. See pp. 447-448 *supra*.)

b. ACEE's petition must also be regarded as untimely. The first reference to that group appeared in Mr. Marke's December 26 petition; for that reason, we will regard it as being submitted as of that date. We are thus required to balance the grant of the petition against the five factors specified in 10 CFR 2.714(a):

(1) The first factor (good cause for the delay) weighs against the petitioner. Despite our request (Tr. 41), ACEE made no attempt to explain why it had not made known on a timely basis at least its desire to have its interests represented.

(2) The second factor (whether there are other means whereby the petitioner's interest will be protected) weighs in favor of the petitioner. ACEE

could make a limited appearance pursuant to 10 CFR 2.715 (a), but both Commission and the Appeal Board have recognized that such an appearance is not an adequate substitute for participation as a party. *Nuclear Fuel Services, Inc.* (West Valley Reprocessing Plant), CLI-75-4, 1 NRC 273, 276 (1975); *Duke Power Company* (Oconee-McGuire), ALAB-528, 9 NRC 149, 150 (February 26, 1979).

(3) Assessment of the third factor—the extent to which ACEE's participation may reasonably be expected to assist in developing a sound record—depends on the representative who ACEE selects to represent it. If it should choose Mr. Marke, the factor would weigh against ACEE, for the same reasons which cause us to reject Mr. Marke's request for discretionary intervention. If it should select someone else, the likelihood would be substantially greater that ACEE could assist in developing a sound record, in light of the organization's expressed intent of utilizing "experts or consultants" in this proceeding. The factor would then weigh in ACEE's favor.

(4) Two of the ACEE contentions which we find acceptable (numbers 2, 18, and 21, considered collectively, and number 5) cover some of the same ground as the two CCANP contentions which we have admitted. To that extent, ACEE's interest is likely to be represented to some degree by CCANP. Because an operating license hearing is for the most part limited to accepted contentions, other parties to the proceeding will not have an opportunity to represent ACEE's interests with respect to the other matters it seeks to raise.⁴ This fourth factor therefore weighs slightly in ACEE's favor.

(5) The final factor—the extent to which ACEE's participation will broaden the issues or delay the proceeding—weighs in ACEE's favor. To be sure, the issues will be somewhat broadened. For to the extent ACEE's issues do not duplicate those of other parties, there will be additional matters to be litigated. But the proceeding is merely in its incipency and is not likely to be delayed. In any event, completion of Unit 1 is not currently predicted by the Applicants as occurring prior to November, 1981, allowing sufficient time to complete the proceeding with or without ACEE's participation.

Balancing the foregoing factors, we find that ACEE's untimely petition should be denied as long as ACEE elects to utilize Mr. Marke as its representative.⁵ Otherwise, the balance of factors would favor not precluding ACEE's participation because of untimeliness. If ACEE chooses to obtain an alternative representative, it should advise us that it intends to do so at the

⁴ACEE Contention 10 covers some of the same ground as CEU Contention 7. Because we have not accepted the CEU contention at this time, we cannot find that CEU will represent ACEE's interest in this regard.

⁵We read 10 CFR 2.713(c) as applicable only to attorney-representatives and not to the situation before us. Nonetheless, the questionable statements made by Mr. Marke, or alternatively his blatant disregard of this Board's Order, may be conduct of the type encompassed by 10 CFR 2.713(c) (2), (4), and (5).

same time it supplies the information relative to Mr. and Mrs. Cook's membership which we earlier stated that ACEE could provide. It should also supply us with the representative's name, address, and authorization to represent the group, if available.

b. As previously indicated, ACEE Contentions 2, 18, and 21 (considered collectively) overlap CCANP Contention 2; and ACEE Contention 5 overlaps CCANP Contention 3. We find them acceptable for the same reasons as we admitted the CCANP contentions. Even more than the CCANP contention, ACEE Contentions 2, 18, and 21 should be further particularized to specify the precise construction defects or practices which the petitioner has in mind and the QA provisions which it claims are being violated. Argumentative terms such as "negligent," "incompetent," and "fraudulent" appear to have no factual foundation or basis and hence should be deleted.

In order to authorize intervention by ACEE, we need only find one contention which satisfies the Commission's rules. We have here determined that at least two subject areas of ACEE's contentions qualify as acceptable contentions. Certain others also qualify; but given the outstanding contingencies with respect to ACEE's members and its representative, further discussion of the ACEE contentions at this time is not warranted. If necessary, the hearing Board (which consists of the same members as this one) will issue an order treating ACEE's remaining contentions.

III

The undated petition of D. Michael McCaughan, a member of "The Environmental Task Force," which did not reach us until November 1, 1978, is admittedly untimely. Beyond that, it is patently inadequate to serve as a basis for intervention.

In the first place, it is devoid of information which indicates that the petitioner may have standing of right. He apparently resides in Houston, Texas, which is some 70 miles from the facility—beyond the geographical zone which might give rise to a health and safety interest. Second, the 23 numbered paragraphs identify some concerns of the petitioner; as the Staff points out, they possibly can be considered as identifying the "aspects" of the proceeding in which the petitioner seeks to participate. Many raise questions beyond the scope of a proceeding such as this. And none includes any "bases . . . set forth with reasonable specificity," as required by 10 CFR 2.714(b), to permit it to be considered a valid contention.

Finally, the petitioner was given an opportunity to supplement his petition prior to the prehearing conference. He failed to do so. He also did not appear at the conference. Nor has there been any further communication from him. In these circumstances, a balancing of the factors relative both to untimely petitions, and discretionary intervention, clearly calls for denial of

the petition. Indeed, the petition appears to have been abandoned. We accordingly deny the petition.

IV

CEU's petition is likewise untimely. At the January 11, 1979 pre-hearing conference, we became aware that CEU wished to become a party, but its petition was not filed until approximately 6 weeks later.

The Applicants oppose the CEU petition on the basis of lack of standing, lack of admissible contention, and untimeliness. On the other hand, the Staff asserts that the group has demonstrated standing of right, that it has advanced two viable contentions, and that (upon a balancing of relevant factors) its petition should not be denied on the basis of untimeliness. Although we find that we need further information to rule on certain of CEU's contentions, we essentially agree with the Staff's analysis.

CEU seeks to base its standing solely on the residence and the business and recreational activities of its members. We have earlier pointed out that such a course is open to an organization (see pp. 443-445, *supra*). CEU states that it is a corporation organized in 1976. The corporate status does not preclude it from representing its members. *Public Service Company of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-322, 3 NRC 328, 330 (1976). CEU describes itself as having a "constituency" throughout the State of "many thousands," of which "over 5000" reside within a 50-mile radius of the plant and more than half of whom live within 30 miles of the facility. It has listed a group of cities and townships within 30 miles of the facility and the number of CEU members residing in each of those towns (totaling 3838 members collectively). It further has provided a general description of a number of the business and recreational activities undertaken by its members in areas close to the plant. Most important, CEU has identified one member—Mrs. Kenneth C. Buchorn—who possesses real property within 30 miles of the plant; it has supplied that member's authorization for CEU to represent her in this proceeding and a statement that she supports CEU's contentions "in an effort to assure my health, safety, and the presentation of no danger to my real property." There is also supplied an authorization for Mrs. Buchorn to represent CEU in the proceeding.⁶

The Applicants base their claim that CEU lacks standing of right on the proposition that it is impossible to ascertain the nature of the organi-

⁶The Staff ascertained that Mrs. Peggy Buchorn, the authorized representative, was the same person as Mrs. Kenneth C. Buchorn, the only identified member with interests within the "geographical zone of interest."

zation because of the varying descriptions appearing in the petition of its "constituency," "membership," "membership mailing list," and "persons represented." They state that those terms "are used in the petition in such a confusing manner that one cannot tell whether those described are actually 'members' of the organization." The Applicants acknowledge that one member (Mrs. Buchorn) does reside within the "geographic zone of interest." But they maintain that, given the identity of the authorized representative and the identified member, the petition "may be little more than a document filed by a person on her own behalf." Because the petition sought standing and participation not on behalf of Mrs. Buchorn individually but only on behalf of CEU, the Applicants would deny it as "no more than an individual attempt to obtain organizational status for individual action."

We disagree. The general descriptions of CEU which have been provided us, although not as precise or as informative as might be desirable, serve only to place into a meaningful context the organization's purposes. As the Staff has pointed out, "geographic proximity of a member's residence to a facility is deemed enough, standing alone, to establish the interest requirements of 10 CFR 2.714" (citing *North Anna*, ALAB-522, *supra*). As long as an organization possesses an organizational existence—which CEU appears to have—the circumstance that the organization's authorized representative and the single member who has authorized CEU to represent her interests are the same person does not operate to deprive CEU of standing in a representative capacity.⁷ In short, we hold that CEU has established standing of right.⁸

CEU has submitted 9 contentions. The Staff would accept two of them (numbers 1 and 5); the Applicants oppose all of them. We agree with the Staff that Contentions 1 and 5 are acceptable, but we withhold decision on the rest of them pending receipt of additional information.

⁷It may well be that Mrs. Buchorn does not have the personal financial capability to participate individually. Given the Commission's current policy of not providing financial assistance to intervenors but, at the same time, seeking means for alleviating the costs of such participation (see *Nuclear Regulatory Commission* (Financial Assistance to Participants in Commission Proceedings), CLI-76-23, 4 NRC 494, 514-16 (1976)), it would be anomalous indeed for us to erect an additional barrier to participation in a licensing proceeding.

⁸We grant the Applicants' March 26, 1979 motion for leave to lodge with us the opinion in *Health Research Group v. Kennedy*, _____ F. Supp. _____ (D.C.C., No. 77-0734, March 13, 1979). That opinion, which denied standing in a representative capacity to an organization which had no members (and was precluded by charter from having members) but which sought "standing solely as representatives of their contributors and supporters . . .," is consistent with the result we are reaching with respect to CEU, which clearly has identified at least one member, as well as with respect to ACEE, which has not clearly identified a member who could confer standing upon the organization (see p. 459, *supra*).

At the outset, we wish to note that none of the contentions are written in a form suitable for contentions. All of them appear to combine allegations suitable for contentions with argumentation why we should accept them. Even those which we are accepting at this time should be rewritten to assert only the specific matters at issue. The statements relied on by the Staff in its discussion of Contentions 1 and 5 represent the type of assertions to which the contentions should be limited. As provided later, CEU may wish to seek the assistance of the Staff and/or the Applicants in reformulating its contentions.

1. Contention 1 questions the analysis of hurricanes and tornadoes appearing in the Applicants' Environmental Report (ER) and the Staff's construction-permit Safety Evaluation Report (SER). The Staff states that to the extent CEU is contending that the operating wind speed of 120 mph with a peak gust value of 156 mph appearing in those documents is not sufficient, it states a valid contention. As a basis, CEU gives examples of hurricanes which have impacted the Louisiana and Texas coasts in the last 20 years and which, it claims, have exceeded this design basis. The Applicants claim that hurricanes were analyzed at the construction-permit stage and that no new information has been provided; and, further, that the claims are without merit.

Whether or not CEU's claims have merit is matter which must be determined through further adjudication. We cannot say at this time what weight should be given statements in the ER. And unlike environmental questions, there is no basis under the Atomic Energy Act or NRC rules for excluding safety questions at the operating license stage on the basis of their consideration at the construction permit stage—even when no additional information beyond that considered earlier has been supplied. This fact was poignantly recognized by a member of the Appeal Board in *Metropolitan Edison Company* (Three Mile Island Nuclear Station, Unit No. 2), ALAB-486, 8 NRC 9, 50-51 (1978) (separate opinion of Mr. Sharfman, concurring in part and dissenting in part).⁹ The only exception—also recognized by Mr. Sharman (*id.*, 8 NRC at 50, fn. 2)—is where the same party tries to raise the same question at both the construction permit and operating license stages, and where principles of *res judicata* and collateral estoppel then come into play. See *Alabama Power Company* (Joseph M. Farley Nuclear Plant, Units 1 and 2), CLI-74-12, 7 AEC 203 (1974). That being so, the construction permit SER—or even the initial decision—cannot operate to preclude relitigation of a safety issue at the operating license stage. (This is even more persuasively so where, as here, the construction permit proceeding was uncontested. *Cf.*

⁹No member of the Appeal Board majority in this case expressed any disagreement with the particular views of Mr. Sharfman which we are here citing.

Commonwealth Edison Company (LaSalle County Nuclear Station, Units 1 and 2), ALAB-193, 7 AEC 423, 425 (1974).)

2. Contention 5 is somewhat vague but, as the Staffs points out, it can be read as contending that, in calculating estimated airborne emissions and releases to comply with 10 CFR Part 50, Appendix I, the Applicants have failed to consider adequately the effects of humidity. It points to the "unusually high and relatively continual humidity level in the area."

The Applicants claim that the contention ignores the extensive consideration given this issue at the construction permit hearing. As we pointed out in conjunction with Contention 1, that is not a valid basis for precluding consideration of a safety issue at the operating license stage. The Applicants also assert that the impact of humidity was not ignored. But whether that is so goes to the merits of the contention and not to its acceptability. We repeat that the ER, which the Applicant cites, has not been introduced into evidence and cannot be used to resolve a claim going to the merits of a matter discussed therein.

3. As for CEU's remaining contentions, we do not have enough information to accept or reject any of them. The filing of CEU's petition after the special prehearing conference made this situation almost inevitable. Because we believe that certain of the matters raised may possibly warrant adjudication, we are affording CEU an additional opportunity to perfect certain aspects of its contention, along the following lines.

Contentions 2, 3, and 4 raise environmental questions which, according to both the Applicants and Staff, were considered during the construction-permit review. In contrast to safety questions, the environmental review at the operating license stage need not duplicate the construction-permit review. 10 CFR 51.21. To raise an issue in an operating license hearing concerning environmental matters which were considered at the construction-permit stage, there needs to be a showing either that the issue had not previously been adequately considered or that significant new information has developed after the construction permit review. *Fermi*, LBP-79-1, *supra*, 9 NRC at 86.

Contention 2 suggests that new information may exist with respect to the environmental impact of the facility's operation on certain forms of marine life, but it does not describe the information (or its source) with sufficient particularity for us to determine how new or significant the information is. Similarly, Contention 3 suggests that impacts on certain wildlife species were inadequately considered but does not provide enough details as to why this is so. In like manner Contention 4 suggests that flooding of the cooling pond has been inadequately considered, and that CEU members are aware of information on this subject which has not been considered in the environmental review; but again, it does not supply sufficient detail for us to evaluate the acceptability of the contention.

Given these deficiencies, we might reject all 3 contentions as failing to conform to the requisite standards. In view of the Commission's public interest responsibilities with respect to the balancing of environmental impacts, however, we have elected not to rule on these contentions at this time and to afford CEU an opportunity to supply the additional information we have outlined, assuming that it is available. In this connection, we disagree with the Applicants' and Staff's interpretation of a portion of Contention 3 as constituting a challenge to the standards of 10 CFR Part 50, Appendix I; we read it instead as seeking to raise the question of the "residual risks" of prescribed levels of emissions, as permitted by *Maine Yankee Atomic Power Company* (Maine Yankee Atomic Power Station), ALAB-161, 6 AEC 1003 (1973). If it chooses to revise these contentions, CEU should address whether our reading is accurate.

It is not entirely clear whether Contention 6 raises an environmental or a safety question; we read it as a safety matter which takes issue with the cow-milk pathway calculations for radiation exposure. Specifically, it seems to assert that, contrary to the information supplied by the Applicants there are cows closer than 5 miles to the plant. No specific information concerning the location of any milk-producing cows is provided. If CEU should have information demonstrating that such cows are present within 5 miles of the facility, the contention would be a valid one. This is so notwithstanding the Staff's claim that a reevaluation of milk-producing livestock in the area to determine the acceptability of emissions will be undertaken in accordance with the standard technical specifications which will be made part of the operating license. That goes to the merits of CEU's claim, not to the acceptability of its contention.

Contention 7 appears to raise a safety issue with respect to the availability of makeup water for the main cooling reservoir. The Applicants and Staff assert that the question was adequately considered during the construction permit review; but, as we pointed out in connection with Contention 1, that does not preclude raising the issue again at the operating license stage. The Applicants also point out that many of CEU's claims are simply incorrect; whether that is so goes to the merits of the contention, not its acceptability. In order for the contention to be acceptable, however, further particularization of the information or data relied on is necessary, to assure that a real issue is presented.

Contention 8 relates to the emergency plan for the facility; it claims that the only evacuation route for certain persons requires them to go closer to the cause of the evacuation in order to get away from it. A similar claim was accepted as a contention in *Fermi*, LBP-79-1, *supra*, 9 NRC at 80-81. See also *Southern California Edison Company* (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-248, 8 AEC 957, 963 (1974). In *Fermi*, however,

it was clear that the persons who were to be evacuated resided in an area where evacuation was required. Based on the information provided us, it is unclear whether that situation obtains here.

As previously indicated (p. 451, *supra*), currently effective Commission regulations do not require an emergency plan for areas outside the LPZ, which here has an outer radius of 3 miles from the plant. The currently proposed regulations which we are directed to apply pending adoption of final regulations¹⁰ do permit emergency planning measures in certain circumstances for areas outside the LPZ, but only where there is presented "particular information why such a plan would be warranted." *Fermi*, LBP-79-1, *supra*, 9 NRC at 80. Such information might consist of such matters as design features of the facility, particular physical characteristics of the area, the presence of institutions (such as schools), and the applicability of Federal or State emergency action criteria. *Pennsylvania Power & Light Company* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-79-6, 9 NRC 306, 308 (March 6, 1979).

The proposed Contention 8 refers to persons located east/southeast of the facility, "up to 17 miles distant from the plant." There is no showing whether any of those persons are located within the LPZ or the slightly larger area which might have to be evacuated under Federal or State emergency action criteria. Similarly, although there is reference to a school, there is lacking any information on the location of that school and its relationship to the Commission's proposed regulations. Absent information of this type, it is impossible to reach an informed judgment as to whether CEU has raised an issue which warrants adjudication.

Contention 9 is a safety contention which covers the same general area as CCANP Contention 2 and ACEE Contentions 2, 18, and 21 (considered collectively). We have indicated that the CCANP contention is acceptable, subject to minor revisions, and that ACEE's contention is acceptable if it is extensively particularized. We accord similar treatment to CEU's contention as to ACEE's (see p. 461, *supra*).

C. Because CEU's petition was untimely, we must balance the factors specified in 10 CFR 2.714(a) in ruling upon its intervention. We agree with the Staff that CEU's petition should not be denied because of untimeliness.

As both the Applicants and Staff point out, CEU has not shown "good cause" for its delay. Contrary to CEU's claim, adequate publicity was given to this proceeding. Moreover, CEU took more than 6 weeks from the pre-hearing conference (at which its representative appeared and made a state-

¹⁰The Staff takes the position that it is bound by the existing regulations and case law, rather than by the proposed rule. Because the Commission has decreed otherwise, we disagree. See 43 Fed. Reg. at 37475.

ment) before filing its petition. This factor thus does not weigh in favor of CEU.

The other factors, however, all weigh in the petitioner's favor. Other means for protecting CEU's interests (the second factor) are not adequate, for reasons stated in connection with ACEE's petition (p. 459, *supra*). Although the extent to which CEU may assist in developing a sound record (factor 3) is difficult to assess, the organization claims expertise in certain areas. Such expertise might be particularly useful with regard to CEU's claim respecting hurricanes (Contention 1). Except with respect to Contention 9, CEU's contentions are different from those of other parties which we have accepted; given the nature of an operating license proceeding, CEU's interests are thus not likely to be represented by other parties (factor 4). Moreover, as the Staff notes, CEU appears to have a much greater membership residing near the facility than do other parties. Finally, as in the case of ACEE, although CEU's intervention will broaden the issues, it is not likely to cause any delay which would disrupt the proceeding (factor 5).

In balancing the factors and determining that CEU's participation should not be barred for untimeliness, we stress that CEU is required to "take the proceeding as it finds it." *Nuclear Fuel Services, Inc.* (West Valley Reprocessing Plant), CLI-75-4, 1 NRC 273, 276 (1975). It thus cannot reserve any rights to submit new contentions, as a petitioner may normally do until 15 days before the first prehearing conference (which here has taken place). (For "good cause," of course, new contentions may be introduced at substantially later dates.) Moreover, because our determination on many of CEU's contentions has been delayed for lack of information (which we otherwise would obtain through the prehearing conference), CEU cannot be heard to complain if the discovery time with respect to any contentions which may hereafter be accepted is shorter than with respect to other contentions which we here have found acceptable.

V

1. With respect to the contentions of CCANP and CEU which we have accepted, but concerning which we have indicated that some further particularization or rewriting is called for, those parties may wish to seek the assistance of the Staff and/or the Applicants and to attempt to reach agreement on the wording of the various contentions. Within 30 days of the date of service of this Order, the parties are to report to the hearing Board their progress in this regard, including contentions as to which there is agreement as to final wording and those where a dispute remains. CEU may also wish to negotiate with the Staff and Applicants about the contentions on which we have not finally ruled; in any event, it should submit within 30 days either a stipulation or the further information we have called for in order to deter-

mine whether those contentions are acceptable. The hearing Board (which is composed of the same members as this one) will then make a final determination with respect to the "open" issues. *Cf. Fermi*, LBP-79-1, *supra*, 9 NRC at 87.

2. We have deferred ruling on most of ACEE's contentions pending its furnishing (within 10 days of the date of service of this Order) supplementary information relative to its membership and representative. If it submits the information which we have outlined, its petition will be deemed to be granted. (If any party believes that information which is submitted does not respond to the conditions we have set forth in that regard, it may move for reconsideration of this Order insofar as it may operate to admit ACEE as a party.) After receipt of such information, the hearing Board will proceed to rule on the ACEE contentions which have not been dealt with here.

3. On January 30, 1979, the United States District Court for the Northern District of Texas issued a memorandum opinion in the case of *West Texas Utilities Company and Central Power and Light Company v. Texas Electric Service Company and Houston Lighting & Power Company* (no. CA3-76-0633-F). That antitrust decision raises the possibility that one or more of the Applicants in this proceeding may not participate in the South Texas project and that the ownership of the project will have to be changed. In the event that should occur, there would be implications with respect to the financial qualifications of the Applicants to operate and decommission this facility and the need for the power which it will produce.

ACEE's contentions include one on need for power and another raising the question of the financial qualifications of one Applicant, the city of Austin. We have not yet ruled on those contentions. But whether or not those contentions are accepted, the Applicants are put on notice that they will be expected to address their financial qualifications (not limited to the city of Austin) and the need for this facility, given the various implications of the District Court decision.

For the foregoing reasons, the requests for a hearing and petitions for intervention of Citizens Concerned About Nuclear Power, Inc. (CCANP) and Citizens for Equitable Utilities, Inc. (CEU) are *granted*. The request and petition of Austin Citizens for Economical Energy (ACEE) is *denied*; but, if the information outlined in Part II of this Order is submitted within 10 days of the service of this Order, the ACEE petition will be deemed to be *granted*. The requests and petitions of David Marke and D. Michael McCaughan are *denied*. The request of the State of Texas to participate as an "interested State" pursuant to 10 CFR 2.715(c) is *granted*. The Appli-

cants' Motion for Additional Procedures is *denied*. A Notice of Hearing, in the form of the attachment hereto, is today being issued.

This Order shall be considered final for appeal purposes as of the date of its issuance; except that, with respect to ACEE, it shall be considered final as of the latest date when the information outlined in Part II of this Order (concerning ACEE's members and its authorized representative) could have submitted, or the date when it actually is submitted, whichever is earlier.

This order is subject to appeal to the Atomic Safety and Licensing Appeal Board pursuant to the terms of 10 CFR 2.714a. Any such appeal must be filed within ten (10) days after service of this Order or, with respect to the ACEE petition, within ten (10) days after the date specified above when the Order becomes final. The appeal shall be asserted by the filing of a notice of appeal and accompanying supporting brief. Any party other than appellant may file a brief in support of or in opposition to the appeal within ten (10) days after service of the appeal.

IT IS SO ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD designated
to rule on petitions for leave to
intervene.

Charles Bechhoefer, Chairman

Dated at Bethesda, Maryland,
this 3rd day of April 1979.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

Ivan W. Smith, Chairman
Dr. Frank F. Hooper
Gustave A. Linenberger

In the Matter of

**SOUTH CAROLINA ELECTRIC
AND GAS COMPANY**

Docket No. 50-395

(Virgil C. Summer Nuclear
Station, Unit 1)

April 9, 1979

The Licensing Board grants summary disposition on two contentions raised by an intervenor.

TECHNICAL ISSUES DISCUSSED:

Effects of thermal discharge; release of radioactive materials in effluents.

**MEMORANDUM AND ORDER DISMISSING
CONTENTIONS A6 AND A7**

The NRC Staff filed a motion dated October 3, 1978 with supporting affidavits for summary disposition with respect to Contentions A6 and A7. Staff asserts that the affidavits and Intervenor Bursey's responses to discovery demonstrate that there are no genuine issues of material fact-worthy of adjudication and moves the Board to dismiss the contentions as a matter of law. The motion is based upon 10 CFR 2.749.

In a Memorandum and Order dated November 7, 1978, the Board notified Intervenor Bursey, who appears in this proceeding *pro se*, that, without an answer from him, the Board favors granting the motion and would do so unless he files and prevails on the issues pursuant to Section 2.749.

Mr. Bursey filed a response dated November 22, 1978 in opposition to the Staff's motion. The Applicant, on December 4, 1978, filed its "Answer

to NRC Staff's Motion for Summary Disposition." Applicant's answer supported Staff's motion and included affidavits and other factual material. Functionally, Applicant's filing was itself a motion for summary disposition, even though it was styled as an "Answer." Mr. Bursey did not respond to Applicant's "Answer."¹

In our order below the Board grants Staff's motion to dismiss Contentions A6 and A7.

CONTENTION A6

Contention A6 The State of South Carolina has duly issued a certificate for Summer pursuant to Section 401 of the FWPCA, and has duly issued an NPDES permit under Section 402 of the FWPCA. The thermal effluents and the cooling system intake velocities presumably will comply with South Carolina's FWPCA standards. Even so, the thermal discharge from the Summer plant will result in a depletion of oxygen and a corresponding degradation of water quality downstream from the Monticello Reservoir. The thermal effluents will also adversely affect plankton and the spawning of landlocked striped bass in the Congaree River downstream from the Summer plant. Intake velocities in the cooling system will exceed 0.5 f.p.s. thus causing excessive mortalities of indigenous aquatic life. These impacts have not been adequately considered in the over-all cost-benefit analysis required by NEPA.

In accepting this statement of the contention in its Prehearing Conference Order of April 24, 1978 the Board limited the consideration of cooling system discharges to those effects arising from discharges which meet State water quality standards and the NPDES permit issued to the applicant under Section 402 of the Federal Water Pollution Control Act Amendment of 1972. These standards specify that the average monthly temperature rise above the ambient temperature of Monticello Reservoir as measured at a depth of 1 foot in the Fairfield pump storage intake shall be no more than 3°F.

The Staff submitted the affidavit of Paul Kanciruk, a behavioral ecologist employed at Oak Ridge National Laboratory. This affidavit specifically addressed three prime concerns in the Contention which are: (1) that the thermal discharge from the nuclear plant will result in depletion of

¹The Intervenor may not have been aware of his opportunity to respond to Applicant's affirmative support of the motion for summary disposition. This is not controlling. Staff's motion and supporting affidavits alone require the decision sought.

oxygen and a corresponding water quality degradation downstream from Monticello Reservoir in the Broad-Congaree River system, (2) that the thermal effluent will adversely affect plankton and spawning of striped bass in the Congaree River downstream from the plant, and (3) that intake velocities in the cooling system will exceed 0.5 fps and thereby cause excess mortalities of aquatic life. We will now address these three concerns in the order given above.

Oxygen Depletion and Water Quality

The more conservative of two analyses presented dealing with dissolved oxygen depletion assumes that (1) water passing through the Summer plant will lose 40% of its oxygen, and (2) then it moves without mixing or re-aeration as a surface flow across the reservoir to the Fairfield facility intake channel. This intake is 60 feet deep and the thermal effluent from the plant when discharged during the 7.5 hour Fairfield generating cycle would be represented as the upper 4.8 feet of the 60 foot water column. Water in the intake below the thermal effluent but above an assumed thermocline depth of 20 feet is assumed to be aerated and have a normal oxygen content. Since the plant intake removes water from the zone above the thermocline only the upper 4.8 of 20 feet or 24% of the *aerated water* discharged through the Fairfield facility is directly affected by the plant. Thus the percentage reduction in oxygen by the plant considering only the aerated strata is 40% of 24% or 9.6%. The oxygen content of the 40 foot thick layer beneath the thermocline (20 foot depth) which passes into the discharge is assumed to be zero (Kanciruk, p. 2). The Staff's analysis does not attribute any of the oxygen depletion of the layer below the thermocline to the thermal stability imparted to the reservoir by the plant's heat discharge which may in turn influence the positioning of the thermocline or the timing of thermocline formation.

The Staff model of oxygen depletion predicts that further dilution by aerated water of Parr Reservoir will leave a 5.4% reduction in oxygen, and dilution by the Saluda River and other tributaries will leave a 2.4% reduction in oxygen attributable to the plant discharge at the spawning site of striped bass in the Congaree River. This analysis is conservative because it does not take credit for any re-aeration of the effluent during its passage through the Fairfield facility or during movement down the Broad River system to the Congaree (Kanciruk, Appendix A, P. A 2).

The Staff's affidavit does not present data on oxygen concentrations and daily fluctuation in concentration in dissolved oxygen at the striped bass spawning sites in the Congaree, but data from a site upstream in the Broad River show that levels are high and that there are large monthly fluctuations.

tuations (Kanciruk, Table II). The Staff concludes that the small reduction from the plant discharge (2.4%) is within the range of daily and monthly fluctuations in the Congaree and therefore will not have a measurable adverse effect upon reproduction of striped bass or plankton (Kanciruk, p. 4). On the basis of this evidence which we find to be probative and finding no contrary evidence in either the Intervenor's response to the Staff summary disposition dated November 11, 1978 or in the Intervenor's deposition on June 13, 1978 the Board accepts this conclusion.

Thermal Effluents

The Staff's affidavit presents two analyses of thermal effluents. The more conservative analysis permits a temporary release of water, with a temperature rise 50% greater than the NPDES permit limit, to 4.5°F. The analysis also assumes that there is no thermocline in the Fairfield discharge and that water entering the discharge is uniformly at the elevated temperature. It also assumes no conductive or evaporative cooling in moving downstream through Parr Reservoir (Kanciruk, Appendix E). These assumptions add considerable conservatism to the model. This analysis predicts a maximum increase in temperature in the Congaree of 1.1 °F. from the plant's thermal discharge (Kanciruk, p. 6).

Daily temperature fluctuations in the Congaree during the spawning season can range from 2.7 to 4.5°F. with a monthly range of 18°F. Thus the Staff concludes that the temperature rise from the plant effluent at the nearest bass spawning site (35 miles downstream) will have no significant adverse effect.

In response to the Staff's motion for summary disposition of November 11, 1978, the Intervenor contends that the Applicant's original temperature rise of 4.3°F. has been lowered to 3.0°F. to meet State requirements. However; the temporary 50% increase (to 4.5°F.) allowed in the Staff model exceeds the 4.3°F. value. Thus the Staff's analysis based upon a temporary value higher than that originally proposed by the Applicant provides no evidence of significant adverse effects. The Board accepts the Staff's analysis and concludes that even when conservative assumptions are used that are above the State's temperature requirements, that there is no evidence that there will be adverse effects from the plant discharges upon plankton and striped bass spawning in the Congaree River.

Intake Velocities

The Staff's affidavit presents calculations which show that the intake velocities under normal conditions as measured between the trash rack and

travelling screen will average 0.48 fps (Kanciruk, Table VI, Appendix D). They will exceed 0.5 fps only at the low water stage in Monticello (0.51 fps) and under the unusual circumstance of an emergency drawdown (0.55 fps). The Staff's affidavit presents data (Kanciruk, Table VII, Appendix D) showing that the projected intake velocities are not excessive compared to those at other operating power plant facilities in the southeastern U.S., and also states that low intake velocities are not in and of themselves a guarantee of low fish impingement. A precise assessment of the impingement mortality must await data upon species composition of fish fauna. This as yet is not defined (Kanciruk, p. 8). The Staff concludes that the design intake velocities for the Summer station are not excessive and are within guidelines for similar generating facilities. The Board accepts this conclusion.

The Staff's analysis of intake velocities was not controverted in the Intervenor's response to the Staff Motion for Summary Disposition of Contentions dated November 11, 1978. In his deposition before the Board on June 13, 1978, the Intervenor acknowledged that he knew no information regarding impacts on indigenous species in neighboring water bodies assuming intake velocities in excess of 0.5 fps.

Intervenor's Response

Mr. Bursey's response to the Staff on Contention A6 is as follows:

In regards to Contention A-6, the discrepancy in the temperature of effluents being returned to natural waters must be further explored. The Applicant's original figures of 4.3 degrees above ambient for returning effluents has been lowered to 3.0 to coincide with State requirements. The Applicant has not demonstrated what different means will be employed to reduce the temperature effluents to meet the NPDES permit stipulations. Until this discrepancy is clarified, Contention A-6 should be retained for consideration by the Board.

In our Special Prehearing Conference Order of April 14, 1978 the Board declined to accept Intervenor's similar theory of his water quality contention. Citing *Southern California Edison Company* (San Onofre Nuclear Generating Plant, Units 2 and 3), ALAB-308, 3 NRC 20, 30 (1976), we held that it was for the State, not us, to enforce its permits. We assume administrative regularity, and Mr. Bursey has advanced no basis to suggest that South Carolina will not enforce its own permit.

Accordingly, based upon the merits of the Staff's Motion and, upon the additional independent basis of Mr. Bursey's default in addressing the issue according to the provisions of 10 CFR 2.749(b), the Board concludes that Contention A6 should be dismissed.

CONTENTION A7

Contention A7 The Applicant's ability to anticipate, detect, or mitigate the impact of accidental releases of radioactive materials to the Broad River is inadequate to protect the potability of the water supply for the municipalities of Columbia and West Columbia.²

In support of its motion, the Staff submitted the affidavit of Philip G. Stoddart, which addresses liquid radioactivity releases that might derive from the Summer facility. Such releases are characterized either as expected or anticipated operational occurrences or as accidental releases. The former fall in the category of Class 1 and 2 events, and the latter in the category of Class 3 through 9 events.³

The anticipated occurrences denote minor events such as upsets, leaks, and spills that result from design deficiencies, construction inadequacies, equipment malfunctions, or operator errors. Consistent with the guidance given in NUREG-0017,⁴ the applicant—in Section 11 of the FSAR and Section 3.5 of the ER—has analyzed the potential for such operational releases and found them to be well within the guidelines of 10 CFR Part 20. Mutually consistent assumptions of the Applicant and the Staff show an average annual liquid effluent release of 0.15 Ci to the environment, consistent with reported operating data for operational nuclear power plants.⁵

Releases resulting from accidents are considered to have a lower probability of occurrence than those discussed above, but offer the potential of exposures to the general population in excess of the limits set forth in 10 CFR Part 100. The only such postulated accident that might conceivably contaminate a drinking water supply with radioactive liquids would be the completed rupture of a liquid holdup tank that is located outside of the containment building. The Applicant—in Section 2.4.13.3—has analyzed the complete accidental release of a design basis inventory from such a tank, including the breakup of its foundation and any structure surrounding it. Such an accidental total release has been calculated to result in radioactivity concentrations in the river at the nearest municipal water intake below those

²The phrase, "especially during extreme low flow conditions" was deleted from Contention A7. Tr. 273.

³Proposed Annex to Appendix D, 10 CFR Part 50, 36 F. R. 22851, Dec. 1, 1976, later incorporated into Part 51.

⁴"Calculation of Releases of Radioactive Materials in Gaseous and Liquid Effluents from Pressurized Water Reactors (PWR-GALE Code)," April 1976.

⁵Stoddart, pp. 3, 4.

specified in 10 CFR Part 20. The Staff independently concurs in this analysis.⁶

The affidavit of Stoddart addresses the various measures and provisions documented by the Applicant to anticipate, detect, and mitigate liquid releases of radioactivity to the Monticello Reservoir, the Fairfield Storage Facility, and to the Broad River. The Staff has concluded that such measures and provisions are adequate, that "as low as reasonably achievable" dose criteria will be met, and that radioactivity concentrations at release points and at any downstream municipal water intake points will be a small fraction of the drinking water limits of 10 CFR Part 20.⁷

Intervenor's Response

We turn now to Mr. Bursey's response to the Staff's Motion, quoted here in its entirety regarding Contention A-7:

In regards to both Contentions A-6 and A-7, the intervenor asserts that there are genuine issues of material fact yet to be determined in the Applicant's ability to mitigate accidents that could result in the release of radioactivity above permissible levels into the Broad River. The Applicant's emergency apparatus (designed to mitigate the severity of accidents) within the reactor containment, has never been tested under stress conditions. Some calculations used to determine a design basis event in the Applicant's FSAR have proven erroneous. In September, 1978, there was an earthquake at the Summer site that was below the projected maximum intensity, but surpassed the maximum projected ground acceleration anticipated by the Applicant. The ability of tanks to withstand earthquakes (see Section 3 of the Staff's Motion to dismiss, page 14) must be reevaluated.

We cannot agree that the earthquake resistance of the Applicant's holdup tanks must be reevaluated, since the analysis of the impacts of accidental radioactive liquid releases assumes complete tank failure, regardless of the cause of said failure. The unsupported and vague statement about an alleged error in the FSAR cannot be afforded weight to militate against the Staff's Motion. Further, there is no requirement that the Applicant's "emergency apparatus" be tested under stress conditions; it is

⁶*Id.*, pp. 4, 5. Additionally, while not relying for our decision upon the Applicant's answer to the Staff's Motion for Summary Disposition, the Board notes that the Affidavit of William R. Baehr, submitted by Applicant, states (pp. 4, 5) that State and city officials have indicated a sufficient municipal storage capacity to permit isolating the municipal supply from the river, while a radioactive release is allowed to pass by the municipal intake point.

⁷Stoddart, pp. 5-9.

of the nature and type shown by operating experience with other reactors to be satisfactory. In short, Mr. Bursey has not met his burden of showing the existence of material facts at issue, and Contention A7 does not present a litigable contention.

ORDER

The Staff's Motion for summary disposition is granted. Contentions A6 and A7 are dismissed.

IT IS SO ORDERED.

**FOR THE ATOMIC SAFETY AND
LICENSING BOARD**

Gustave A. Linenberger, Member

Dr. Frank F. Hooper, Member

Ivan W. Smith, Chairman

**Dated at Bethesda, Maryland
this 9th day of April, 1979.**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Sheldon J. Wolfe, Chairman
Gustave A. Linenberger
Dr. E. Leonard Cheatum

In the Matter of

Docket No. 50-466-CP

HOUSTON LIGHTING AND
POWER COMPANY

(Allens Creek Nuclear Generating
Station, Unit 1)

April 11, 1979

In accordance with the Appeal Board's decision in ALAB-535, April 4, 1979 (which found too limiting the intervention procedure previously established for the resumption of this construction permit proceeding), the Licensing Board now issues an order admitting additional contentions of several intervenors, and granting an additional 30 days for various parties and petitioners to present adequate bases for contentions or assert additional contentions which they might have advanced but for the previously imposed limitations.

MEMORANDUM AND ORDER

MEMORANDUM

I

The instant Memorandum and Order is issued because of the Appeal Board's Decision, ALAB-535, dated April 4, 1979.¹ In ALAB-535, the Appeal Board held that our ultimate Corrected Notice of Intervention Procedures of September 1, 1978, 43 Fed. Reg. 40328 (September 11, 1978), placed "an unwarranted limitation upon the right to intervene, and, accordingly, could not lawfully be invoked in passing upon appellant's intervention peti-

¹The factual background is set forth at pages 1-10 of ALAB-535.

tions." (ALAB-535, 377, 387). The Appeal Board so concluded because, by the terms of the Corrected Notice, the Licensing Board "was foreclosing (absent plant design changes or newly available information) the raising even of safety and environmental issues which had been neither considered in depth (if at all) at the uncontested two-day evidentiary hearing in March 1975, nor addressed in the partial initial decision issued in November of that year." (ALAB-535, 385).

We fail to understand why the Appeal Board, after reviewing the record and more particularly our Memorandum and Order dated November 30, 1978,² did not perceive adequate justification for our limiting the scope and thrust of proposed contentions to those matters that had arisen because of changes in the proposed plans for the Allens Creek Nuclear Generating Station, Unit 1 and to new evidence or new information that had not been available prior to the date of the Appeal Board's Memorandum and Order of December 9, 1975 (ALAB-301, 2 NRC 853). It is true, as the Appeal Board pointed out, in our partial initial decision of November 11, 1975 (LBP-75-66, 2 NRC 776), we did not consider *all* safety and environmental issues because we were only determining site suitability. But the Appeal Board stopped there without recognizing and thus reaching and deciding the basic issue. The basic issue is and was whether, upon the request for resumption of proceedings which had been uncontested, members of the public, who had neither timely filed petitions for leave to intervene by the mandatory due date of January 18, 1974 as prescribed in the Notice of Hearing On Application For Construction Permits published on December 28, 1973; nor thereafter moved for leave to file untimely petitions pursuant to 10 CFR 2.714(a), could properly propose unbounded contentions.

As noted in our Memorandum and Order of November 30, 1978, in the absence of timely filed petitions, the Board could have proceeded in the resumed proceedings to hear the evidence adduced by the Applicant and the Staff in an *uncontested* hearing and rendered its decision upon health and safety and upon environmental issues as required by 10 CFR 2.104(b) (2) and (3). However, recognizing that there had been design changes and that new evidence might have become available since the Appeal Board's affirmation of our Partial Initial Decision on December 9, 1975, we concluded that we would issue the Corrected Notice of Intervention Procedures of September 1, 1978. Contrary to the Appeal Board's decision in ALAB-535, this Board's Corrected Notice in and of itself did not foreclose the filing of contentions ranging beyond plant design changes and newly discovered in-

²A copy is attached of this Memorandum and Order, which denied Texas Public Interest Research Group's Motion For Modification Of The Licensing Board's August 14, 1978 and September 1, 1978 Orders - Re: Limited Contentions.

formation. Our Corrected Notice merely gave recognition to the fact that, due to the petitioners' inaction, the Commission's Notice of Hearing On Application For Construction Permits and 10 CFR 2.714(a) barred unbounded contentions.

Since the Appeal Board did not reach and decide the basic issue, perforce we must voice our disagreement that our limitations upon the scope of proposed contentions were unwarranted, too severe, improper, or in any manner, unlawful.

Notwithstanding our comments, *supra*, we recognize that the Appeal Board's Decision is binding. Accordingly, in our Order, *infra*, corrective action is taken.

II

In footnote 16 at page 19 of ALAB-535, the Appeal Board indicated that, while the Board had complied with 10 CFR 2.714(b), in issuing our Order of October 24, 1978 which triggered a due date of November 2, 1978 for the submission of contentions, the petitioners had not been given sufficient advance warning and, thus, that any of the successful appellants should be allowed to redraft those contentions which we had rejected as being vague and lacking sufficient basis. The Appeal Board did recognize that a petitioner can and should use the period following the filing of his petition to research and prepare contentions. Unfortunately the Appeal Board did not take into account that (1) even prior to filing a petition for leave to intervene, it must be assumed that an individual has or should have a fairly concrete idea of what his proposed contentions will be, (2) at the special prehearing conference held on November 17 and 18, 1978, petitioners for leave to intervene were permitted to respond orally to the Applicant's and Staff's objections to their contentions (Tr. 353).

Again, notwithstanding our comments, *supra*, we recognize that the Appeal Board's decision is binding. Accordingly, in our Order, *infra*, corrective action is taken.

ORDER³

1. Mr. Rentfro's Contention 2 is admitted as an issue in controversy,

³Unless otherwise specifically noted, this Order does not address either those contentions rejected in our Order of February 9, 1979 which we deem to be unaffected by the Appeal Board's decision in ALAB-535 or those contentions which we deem to have been properly rejected for reasons other than that they did not comply with our limitations. Further, recognizing that Ms. Hinderstein and Ms. McCorkle could not appeal under 10 CFR 2.714a, we proceed to reconsider and admit certain of their contentions and to allow them to amend certain contentions in order to set forth the bases for them with reasonable specificity. The numbering of contentions herein corresponds to that used in our Order of February 9, 1979.

and he is admitted as an intervening party. Contention 1 remains rejected because it was fully considered and settled in our Partial Initial Decision, 2 NRC 776, 792-793 (1975), findings 61-64.

2. With regard to their Contentions 1 and 8, the Framsons shall have thirty (30) days from the date of this Order within which to amend, giving the bases for these contentions with reasonable specificity. Contention 11 remains rejected because it was fully considered and settled in our Partial Initial Decision, *supra*, at pages 793-797, findings 65-68.

3. Mr. Potthoff shall have thirty (30) days from the date of this Order within which to amend, giving the bases for Contention 1 with reasonable specificity.

4. Dr. Marrack shall have thirty (30) days from the date of this Order within which to amend, giving the bases with reasonable specificity for Contention 2(b) and (c), Contention 3, Contention 4 and Contention 6.

5. With regard to Mr. Doherty's Contention 4, he shall have thirty (30) days from the date of this Order within which to amend, giving the bases for this contention with reasonable specificity. Contentions 3, 5, 6, and 7 are admitted as issues in controversy.

6. PIRG Contentions 10, 11, and additional Contention 6 are admitted as issues in controversy. Since we admitted Doherty Original Contention 2 in our Order of March 19, 1979 (which we now renumber as Doherty Contention 8) we now admit PIRG Contention 8 but only to the extent that it parallels Doherty Contention 8 regarding the need for an automatic redundant scram system—PIRG and Mr. Doherty are consolidated as parties with regard to said two contentions.

7. Ms. Hinderstein's Contention 9 is admitted as an issue in controversy. With regard to Contentions 4 and 7, Ms. Hinderstein shall have thirty (30) days from the date of this Order within which to amend, giving the bases for these contentions with reasonable specificity.

8. Ms. McCorkle's Contentions 9, 14, and 17 are admitted. With regard to her Contention 3 which contends that the construction costs of the plant may be excessive, Ms. McCorkle shall have thirty (30) days from the date of this Order within which to amend, giving the bases for this contention with reasonable specificity. With regard to her Contentions 5, 7, and 15, she shall have thirty (30) days from the date of this Order within which to amend, giving the bases for these contentions with reasonable specificity.

9. If the Licensing Board's limitations, found to be unwarranted in ALAB-535, had an inhibiting effect upon the parties' and petitioners' (identified *supra*) selection of the contentions to be set forth in their petitions, they shall have thirty (30) days from the date of this Order within which to amend their contentions to assert any additional contentions they might have advanced; but for the imposition of the aforementioned limitations.

10. Because of ALAB-535, in the Order of April 6, 1979, we cancelled the Section 2.752 prehearing conference scheduled to begin on April 18, 1979. In light of the cancellation of the prehearing conference, due dates ordered in the past for the completion of discovery procedures are herewith rescinded. With regard to previously admitted contentions the parties shall proceed with and as expeditiously as possible conclude discovery procedures. With regard to contentions admitted in this Order, the parties shall immediately initiate discovery procedures. In a subsequent Order scheduling the Section 2.752 prehearing conference, the Board will specify the date for the completion of discovery.

Dr. Cheatum concurs but was unavailable to sign the instant Memorandum and Order.

IT IS SO ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Gustave A. Linenberger, Member

Sheldon J. Wolfe, Esquire, Chairman

Dated at Bethesda, Maryland
this 11th day of April, 1979.

ATTACHMENT

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
Atomic Safety and Licensing Board

Sheldon J. Wolfe, Chairman
Glen O. Bright
Dr. E. Leonard Cheatum

In the Matter of

HOUSTON LIGHTING AND
POWER COMPANY

Docket No. 50-466

(Allens Creek Nuclear
Generating Station, Unit 1)

November 30, 1978

MEMORANDUM AND ORDER

On October 27, 1978, a petitioner for leave to intervene, Texas Public Interest Research Group (PIRG), filed a Motion For Modification Of The Licensing Board's August 14, 1978 and September 1, 1978 Orders - Re: Limitations On Contentions. On November 13 and November 16, 1978 respectively, the NRC Staff and the Applicant filed Responses opposing the granting of the instant Motion.

MEMORANDUM

A. Background

On December 28, 1973, there was published at 38 *Federal Register* 35521 a Notice Of Hearing On Application For Construction Permits. Therein notice was given that a hearing would be held by an Atomic Safety and Licensing Board to consider the application filed under the Atomic Energy Act of 1954, as amended, by the Houston Lighting and Power Company for construction permits for two boiling water reactors designated as the Allens Creek Nuclear Generating Station (ACNGS), Units 1 and 2. Said Notice provided in pertinent part:

A petition for leave to intervene *must* be filed with the Secretary of the Commission and others as specified below by January 28, 1974. A petition for leave to intervene which is not timely will not be granted unless the Board determines that the petitioner has made a substantial showing of good cause for failure to file on time and after the Board has considered those factors specified in 10 CFR Section 2.714(a) 1—4 and Section 2.714(d). (Emphasis added).

The only petition for leave to intervene was filed by the State of Texas and, by Order of January 27, 1975, Texas was admitted as a party. A hearing was held on the application by the Board on March 11 and 12, 1975.¹ After proposed findings had been filed, by motion served on September 26, 1975, Applicant notified that its construction plans were indefinitely deferred. Notwithstanding, on November 11, 1975, the Board issued a Partial Initial Decision as to some environmental and site suitability matters and concluded that its findings "have demonstrated no reason why the ACNGS site is not a suitable location for nuclear power reactors of the general size and type proposed" (LBP-75-66, 2 NRC 776).

In a Memorandum and Order issued on December 9, 1975, the Appeal Board affirmed the Partial Initial Decision, but noted that the findings already made therein would be "subject to later revision should further developments or new information so warrant (ALAB-301, 2 NRC 853).

On August 19, 1977, Applicant advised the Board that it wished to resume licensing of only one of the two units previously planned and that it had amended its preliminary safety analysis report to show only one unit at the same site.²

Subsequently, on May 31, 1978, a Notice of Intervention Procedures was published at 43 *Federal Register* 23666. Therein, among other things, the Board stated that petitions for leave to intervene with respect to matters that have arisen because of the changes in the proposed plans for ACNGS might be filed on or before June 30, 1978. In a Memorandum and Order dated July 31, 1978, the Board directed that, by August 15, 1978, those persons (Including PIRG), who had evidenced intentions to intervene, must file statements to establish legal standing and statements listing their contentions. The Board further directed that the "scope and thrust of these contentions shall be limited to those changes or amendments identified in the Applicant's letter of August 19, 1977."

After discussing in a conference call the statements made by five petitioners for leave to intervene (including PIRG) that the Board's Memorandum and Order of July 31, 1978 was too restrictive with respect to the scope and thrust of contentions that could be proposed, we issued an Order dated August 14, 1978³ rescinding the July 31st Memorandum and Order.

¹On March 11, 1975, Texas filed a motion withdrawing its Contentions 1-4 because additional information supplied by the Staff and the Applicant and an opinion of the U.S. Geological Survey supported the view that the proposed site was geologically suitable.

²These amendments included changes in plant layout and orientation, changes in the circulating water intake and discharge structures, and a reduction in the size of the cooling lake.

³In a separate Order dated August 14, 1978, we granted Applicant's motion to withdraw the application to construct and operate Unit 2, without prejudice to the refiling of the application at a later time.

Therein, the Board (1) expanded the scope and thrust of proposed contentions (which had been limited to those matters that have arisen because of changes in the proposed plans for ACNGS) to include new evidence or new information that had now been available prior to the date of the Appeal Board's Memorandum and Order of December 9, 1975, and (2) directed that, by no later than August 30, 1978, the five petitioners for leave to intervene could submit a statement listing their contentions. On August 29, 1978, PIRG submitted a statement of contentions supplementing its petition for leave to intervene.

Our Corrected Notice of Intervention Procedures dated September 1, 1978 and published at 43 Fed. Reg. 40328 (September 11, 1978), noted that the wording of the Board's original Notice had been too limited and accordingly directed that petitions for leave to intervene with respect to matters that have arisen because of the changes in the proposed plans for ACNGS and with respect to new evidence or information that had not been available prior to December 9, 1975 could be filed on or before October 11, 1978.

Thereafter, numerous petitions for leave to intervene were filed. Our Order of October 24, 1978, directed (1) that a Section 2.751a special prehearing conference would be held on November 17 and 18, 1978, (2) that by no later than November 2, 1978, any person who had filed a petition for leave to intervene pursuant to our Corrected Notice of Intervention Procedures should file a supplement to his petition listing contentions, and (3) that those, who had filed petitions for leave to intervene pursuant to our original Notice and who had complied with our Order of August 14, 1978, could amend previously filed contentions by no later than November 2, 1978. Under date of November 1, 1978, PIRG filed additional contentions.

During the course of the special prehearing conference held on November 17 and 18, 1978, PIRG's interest and contentions, as well as those of other petitioners, were discussed.

B. The Motion For Modification Is Denied.

In the instant Motion, upon its own behalf and apparently upon the behalf of other petitioners whom it does not represent, PIRG requests that we modify our Orders of August 14 and September 1, 1978 to eliminate the two restrictions upon the admissibility of contentions raised by petitioners. PIRG argues that the premises of the orders, namely *res judicata* or collateral estoppel, have been incorrectly applied since the current petitioners were not parties to the hearings of March 11 and 12, 1975.

PIRG erroneously infers that the bases for our Order of August 14, 1978 and for our Corrected Notice of Intervention Procedures of September 1, 1978 were *res judicata* or collateral estoppel. These doctrines were not con-

sidered at all. The Board was well aware that none of the five initial or subsequent petitioners had complied with the mandatory filing date specified in the Commission's Notice of Hearing On Application For Construction Permits published on December 28, 1973—i.e., none had filed petitions for leave to intervene by January 18, 1974.⁴ We have always viewed the current proceedings as being a resumption and continuation of the previous proceedings which, in effect, had been suspended since the issuance of the Appeal Board's Memorandum and Order of December 9, 1975, and absent the filing of motions for leave to file untimely petitions for leave to intervene pursuant to 10 CFR 2.714, the Board could have proceeded to hear the evidence adduced by the Applicant and Staff and rendered its decision upon health and safety and upon environmental issues. However, recognizing that there had been design changes and that new evidence might have become available since December 9, 1975, and in light of the guidance provided by limitations in the Appeal Board's Memorandum and Order, the Board determined that the scope and thrust of any proposed contentions, which would dispute any findings in the Partial Initial Decision or would raise issues that were neither raised before this Board nor decided in our Partial Initial Decision, should be limited to those matters that had arisen because of the changes in the proposed ACNGS plans and to new evidence or information that had not been available prior to December 9, 1975. Having slept upon its rights either in not having timely intervened in this case prior to January 18, 1974 or in not having moved for leave to file an untimely petition for leave to intervene which, *inter alia*, would have had to have shown good cause for failure to file on time, PIRG (and indeed the other petitioners) cannot be heard to urge that permission should be granted to propose unbounded contentions.

Sheldon J. Wolfe, Esquire, Chairman

ORDER

PIRG's Motion For Modification Of The Licensing Board's August 14, 1978 and September 1, 1978 Orders - Re: Limitations On Contentions is denied.

⁴While, as noted previously, the State of Texas had been admitted as a party on January 27, 1975, it withdrew its contentions on March 11, 1975 which related only to the geological suitability of the proposed site.

IT IS SO ORDERED.

**THE ATOMIC SAFETY AND
LICENSING BOARD**

Dr. E. Leonard Cheatum, Member

Glenn O. Bright, Member

Sheldon J. Wolfe, Esquire, Chairman

**Dated at Bethesda, Maryland
this 30th day of November, 1978.**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Robert M. Lazo, Chairman
Dr. Emmeth A. Luebke
Dr. Cadet H. Hand, Jr.

In the Matter of

Docket Nos. 50-369
50-370

DUKE POWER COMPANY

(William B. McGuire Nuclear
Station, Units 1 and 2)

April 18, 1979

The Licensing Board issues its Initial Decision, making findings of fact and conclusions of law on the matters in controversy and authorizing the issuance of an operating license consistent with the conclusions of the Board. The Board's decision is stayed, however, until further order of the Board following the issuance of a supplement to Staff's Safety evaluation Report addressing the significance of any unresolved generic safety issues.

TECHNICAL ISSUES DISCUSSED:

Need for power; generating capacity; uranium availability and fuel costs; seismic design criteria; financial qualifications; consideration of solar alternative; Radon-222; release of radioactive materials in effluents to unrestricted areas.

Mr. J. Michael McGarry, Washington, D.C., and Mr. William L. Porter, Charlotte, North Carolina, for the Applicant Duke Power Company.

Mr. Jesse Riley, Charlotte, North Carolina, for the Intervenor Carolina Environmental Study Group.

Messrs. Edward G. Ketchen, Jr., Edwin J. Reis, Lawrence J. Chandler, and Richard K. Hoefling for the Nuclear Regulatory Commission Staff.

INITIAL DECISION

(OPERATING LICENSE PROCEEDING)

I. INTRODUCTION

This initial decision concerns the application filed with the Nuclear regulatory Commission by Duke Power Company (hereinafter "Applicant") for facility operating licenses which would authorize the operation of the William B. McGuire Nuclear Station, Units 1 and 2 (hereinafter "the facility"). The facility comprises two pressurized water nuclear reactors, each designed to operate at a core power level up to 3411 thermal megawatts with a net electrical output of 1180 megawatts. The facility is located on Applicant's site in Mecklenburg County, North Carolina, on the shore of Lake Norman approximately 17 miles northwest of Charlotte, North Carolina. Commercial operation is projected for mid-1979 for Unit 1 and for early 1981 for Unit 2.

On September 18, 1970, the Applicant filed an application with the Atomic Energy Commission, now the Nuclear Regulatory Commission,¹ (hereinafter "Commission" or "NRC") for permits to construct and operate the McGuire facility. Following reviews by the Commission's Regulatory Staff (hereinafter "Staff") and the Advisory Committee on Reactor Safeguards, as well as public hearings before an Atomic Safety and Licensing Board (hereinafter "Board") in Charlotte, North Carolina, on June 27-30, September 6-8, September 12-15, October 10-11, and October 24, and November 1-4, 1972, the Board on February 21, 1973, issued its "Initial Decision" authorizing issuance of permits to construct the McGuire facility.² Pursuant thereto, construction permit nos. CPPR-83 and CPPR-84 were issued on February 28, 1973. This administrative action was affirmed in *Carolina Environmental Study Group v. United States*, 510 F. 2d 796 (D.C. Cir., 1975).

On June 14, 1974, the Commission issued a notice of the receipt of an application by the Applicant for facility operating licenses for the McGuire facility and of opportunity for intervention and hearing on the operating licensing application (39 *Fed. Reg.* 20833). On October 1, 1974, the Board granted the Carolina Environmental Study Group's (CESG) petition to intervene. Following a prehearing conference, the Applicant, CESG, and the NRC Staff on June 3, 1975, entered into a Stipulation which identified the following matters as being the sole issues in controversy: (1) need for

¹Pursuant to the Energy Reorganization Act of 1974, 42 U.S.C. §5801 *et seq.*, the Nuclear Regulatory Commission succeeded to the licensing and regulatory functions of the Atomic Energy Commission.

²6 AEC 92 (1973).

power; (2) cost-benefit analysis of alternative generation; (3) seismology; (4) stud bolts; (5) financial qualifications; and (6) solar power. The Stipulation was approved by the Board in its Memorandum and Order of December 24, 1975, which admitted the stipulated contentions.

By Memorandum and Order of April 21, 1976, the Board specifically admitted Contentions 2(e), 2(f), 2(g), and 2(h) to which subsections the Applicant had excepted in the stipulation to the issues entered into by the parties on June 3, 1975. In addition, the Board ruled that Contention 4 was withdrawn by failure of CESG to pursue the matter in accordance with the Board's earlier ruling.

Applicant's motion for summary disposition on the need for power contention, the cost-benefits of alternative generation contention, the alternative of solar power contention, and the two safety related contentions was denied on March 18, 1977.³ The motion was denied on contentions related to environmental considerations because circumstances may have changed since these issues were formerly litigated, leading to the requirement for new environmental analysis at the time of the present Environmental Impact Statement. We recognize that the economic cost of a substantially complete facility is a "sunk cost".⁴ However, consideration of the current cost-benefit analysis, the current need for power forecast, and the alternative modes of generation of electricity are relevant to projected demand on Applicant's system at the present time. Applicant's motion for summary disposition on the safety-related issues was denied because such issues may be reexamined at the operating license stage though previously litigated between parties, if changed circumstances can be shown. *Power Reactor Development Company v. International Union of Electrical Workers*, 367 U.S. 396 (1960).

On March 11, 1977, the Order convening the public hearing was issued. Evidentiary hearings in this proceeding to consider the Stipulated Contentions (Nos. 1, 2, and 6) relating to environmental issues, viz. need for power, cost-benefit analysis of alternative modes of generation and solar power, were held in Charlotte, North Carolina, on March 28-31, April 1, and April 19-22, 1977. Contention 3 on seismology and contention 5 on financial qualifications were left for consideration in later proceedings following issuance of the Staff's safety evaluation report (SER) and the report of the Advisory Committee on Reactor Safeguards.

³Memorandum and Order Denying Motion for Summary Disposition, March 18, 1977.

⁴"Sunk costs" are those funds which have been expended or obligated in construction of the facility and must be covered regardless of the amount of electrical output produced. S. Keblusek, D. Nash, and J. Roberts Testimony, following Tr. 752, pp. 1-2. In considering the relative economics of alternative generating sources of energy, it is appropriate to compare the costs of constructing and operating the alternatives proposed with the operating costs, only of the completed nuclear facility where the costs of construction of the nuclear facility have been expended or obligated to a large degree.

Evidentiary hearings on the health and safety contentions, i.e., seismology and financial qualifications, and on the Radon-222 matter were held in Charlotte, North Carolina, on August 22-24, 30-31, 1978.

The decisional record in this proceeding consists of the following:

1. The material pleadings filed herein, including the petitions and other pleadings filed by the parties, and the orders issued by the Board during the course of this proceeding;
2. The transcripts of the prehearing conferences on January 16, 1975, and August 4, 1976, and the transcript of testimony of the evidentiary hearings in fourteen volumes with pagination from 135 to 2673;
3. All of the exhibits received into evidence which are identified in Appendix (A) to this Initial Decision.

In making the findings of fact and conclusions of law which follow, the Board considered the entire record of the proceeding and all of the proposed findings of fact and conclusions of law submitted by the parties. Each of the proposed findings of fact and conclusions of law which is not incorporated directly or inferentially in this Initial Decision is rejected as being unsupported in law or fact or as being unnecessary to the rendering of this Decision.

The Board is guided in this operating license proceeding by Appendix A, Section VIII of 10 CFR Part 2, which in subsection (b) provides that the Board will make findings on matters in controversy among the parties.

II. FINDINGS OF FACT

A. Contested Issues

Need for the McGuire Facility

Contention 1(a):

Operation of the McGuire Plant is not required in order to meet demands for power which can reasonably be anticipated for the remainder of this decade. The Applicant's forecasts alleging the necessity for the McGuire Plant are deficient in that, among other things, they do not significantly consider the following operative factors in the Applicant's service area: (a) the historical trend which shows significantly greater decline in peak demand growth rate since Circa 1968 and especially within the past 2 years, than the Applicant recognizes.

CESG proposes that the Board find that the increase in demand with time in the Applicant's service area is not exponential or "semilogarithmic" as found by the Staff. It is asserted that the evidence amply confirms that a maximum in percentage rate of growth occurred in the region of 1967 and since that time it has declined to about half what it was in 1967. Additionally, CESG urges that the Board find that Applicant's forecasts of peak demand have been consistently high and that Intervenor's modified IONCOE model provides the most reliable forecast information developed in this proceeding.

Applicant presented evidence, as shown in the table below, that the temperature corrected annual peak demands for 1968 to 1976 have increased at an annual rate of at least 7.0% with the exception of the years 1974 and 1975.

YEAR	ANNUAL PEAK - MW AS RECORDED	INCREASE OVER PREVIOUS YEAR		
		CORRECTED	MW	PERCENT
1968	5364.2	5432	597	12.3
1969	6031.5	5921	489	9.0
1970	6398.5	6423	502	8.5
1971	6723.1	6916	493	7.7
1972	7449.5	7580	664	9.6
1973	8235.6	8352	772	10.2
1974	8057.6	8291	(61)	(0.7)
1975	8600.6	8528	237	2.9
1976	9487.2	9122	594	7.0

Both the Applicant and the Staff are in agreement that the decrease in electrical power demand during 1974 and 1975 was primarily the result of the Arab oil embargo of 1973 and the downturn which was experienced by the U.S. economy in 1974 resulting in a 1.7 percent decrease in gross national product in real dollars during that year. From a growth standpoint, 1975 was also a slow economic year. Intervenor does not dispute the fact that the economy was in a recession during this period.

The following table from Staff testimony further illustrates the erratic nature of the historical loads, i.e., a decline in growth of peak loads for short periods attributed to short-term aberrations in the economy like the 1974-76 recession. The long-term trend in peak demand growth in the Duke service area is viewed as upward, and the forecast of growth in peak demand indicates that the operation of the McGuire units will be necessary to meet the growth of electrical demand by 1979-1981 when the McGuire units come on line. Even if this were not the case and the load demand leveled

off, as Intervenor suggests, the significant production cost savings realized by bringing the McGuire units on line as scheduled are sufficient to justify the operation of the two units on a basis of substitution for more expensive fuel.

TABLE 1
HISTORICAL PEAK LOADS ON
THE DUKE POWER COMPANY SYSTEM

YEAR	PEAK LOAD MWe	PERCENT CHANGE
1964	3,522	
1965	3,826	8.6
1966	4,440	16.0
1967	4,580	3.2
1968	5,364	17.1
1969	5,614	4.7
1970	6,284	11.9
1971	6,622	5.4
1972	7,450	12.5
1973	8,236	10.6
1974	8,058	-2.2
1975	8,422	4.5
1976	8,601	2.1

AVERAGE COMPOUND GROWTH

SOURCE: FES related to construction of Perkins Nuclear Station Units 1, 2, and 3, October 1975, and Information on Duke Peak Loads, Letter to Bernard C. Rusche, December 28, 1976.

Applicant's forecast involves a continuous process of revision to reflect changes in trends based on specific facts. As early as 1949, Applicant recognized a decay factor in its load growth and has adjusted that factor over the years based on its engineering judgement. Applicant forecasts that peak load will increase at an average annual compound rate of 6.7% between 1977 and 1981 with load management programs in effect. The following long-term forecasts of peak load appears in the testimony by Applicant.

Peak Period	Forecast Peak Load	Unit Additions	Date of Commercial Operation	System Capability	Percent Reserve
1977					
Summer	9,523			12,456	30.8
Winter	9,510			12,456	31.0
1978					
Summer	10,163	McGuire 1	1/1/79	12,456	22.6
Winter	10,235			12,456	21.7
1979					
Summer	10,820	McGuire 2	1/1/80	13,636	26.0
Winter	11,053			13,636	23.4
1980					
Summer	11,645			14,795	27.0
Winter	11,884			14,795	24.5
1981					
Summer	12,337	Catawba 1	7/1/81	14,795	19.9
Winter	12,685			15,948	25.7
1982					
Summer	13,059	Catawba 2	1/1/83	15,948	22.1
Winter	13,506			15,879	17.6
1983					
Summer	13,810	Cherokee 1	1/1/84	17,032	23.3
Winter	14,352			16,804	17.1
1984					
Summer	14,589	Perkins 1	1/1/85	18,084	24.0
Winter	15,220			17,823	17.1
1985					
Summer	15,400			19,103	24.0
Winter	16,112			19,010	18.0
1986					
Summer	16,243	Cherokee 2	7/1/86	19,010	17.0
Winter	17,019			20,290	19.2

1987					
Summer	17,122	Perkins 2	7/1/87	20,290	18.5
Winter	17,943			21,570	20.2
1988					
Summer	18,037	Cherokee 3	1/1/89	21,570	19.6
Winter	18,883			21,570	14.2
1989					
Summer	18,974	Perkins 3	1/1/90	22,850	20.4
Winter	19,825			22,850	15.3
1990					
Summer	19,943			24,130	21.0

The Staff's analysis shows there will be an increase in demand in the Applicants service area from 5.5 to 7.5% by 1979-1980, and the demand on the system will continue to increase after that time. These data show that there is a high likelihood that the facility will be needed by 1979-1981. (We take notice that the Applicant issued a press release on July 19, 1977, to announce that the commercial operation dates for McGuire Units 1 and 2 have slipped six months (to mid-1979) and one year (to early 1981) respectively. These new operation dates fall within the 1979-81 timeframe for operation of the McGuire Units which was analyzed by the Staff and Applicant. The Staff's forecast of peak load and reserve margin analysis is as follows:

	1977	1978	1979	1980	1981
Forecast Peak Load, MWe					
at 7.5%	9,733	10,436	11,247	12,091	12,998
at 6.5%	9,552	10,173	10,853	11,539	12,289
at 5.5%	9,374	9,889	10,433	11,007	11,612
Reserve Margin w/McGuire					
at 7.5%	28.0	19.0	21.2	22.4	13.8
at 6.5%	30.4	22.4	25.9	28.2	20.4
at 5.5%	32.9	26.0	30.7	34.4	27.4

**Reserve Margin
w/o McGuire**

at 7.5%	28.0	19.0	10.7	2.8	-4.3
at 6.5%	30.4	22.4	15.0	7.8	1.2
at 5.5%	32.9	26.0	19.4	13.0	7.1

Using compound growth rates from a 1975 base, the Staff tabulation shows that the 1979 reserve margin without McGuire will fall below recommended Federal Power Commission guidelines of twenty (20%) percent for the southeast region, and by 1980 they would fall well below FPC guidelines without McGuire.⁵ By 1981, without McGuire, the reserve margins will be at unacceptable levels. The Federal Power Commission (FPC) considers a twenty (20%) percent reserve margin to be appropriate for power systems operating in the southeast region. Reserve margins of thirty (30%) percent are not unreasonable for the Applicant's system. Reserve margins of fifteen (15%) percent are the minimum reasonable requirement.

Independent projections of population and economic activity within the Carolinas and the Applicant's service area demonstrate that, although slowing somewhat, a high level of growth will occur throughout the late 1970's and early 1980's. The Staff's forecast of power demand and that of the Applicant are in this respect consistent with the forecasts developed by other agencies, such as the Federal Energy Administration (FEA), the Oak Ridge National Laboratories (ORNL), and the North Carolina Utilities Commission (NCUC).

The NCUC developed its own independent projections of peak load. Its forecast of electrical power requirements for the Applicant's service area through 1980 shows an average annual total sales growth of 6.94% with an annual average peak load growth in the same period of 6.90%. In addition, the NCUC projected that the peak load growth rate will increase 6.59% per annum during the period 1986-1990. The report shows a peak demand of 16,756 MW in 1968 and 21,629 MW in 1990. These projections were the result of a thorough study of need for power within the State of North Carolina which was directed by State law. This State evaluation was the subject of extensive public hearings in which CESG, the Intervenor in this proceeding, was an active participant. Intervenor's witness testified and presented his methodology which reflected a 2-3% growth rate through 1986. This result was not adopted by NCUC.

The FEA based its national forecast upon three cases; a reference case, a conservation case, and an electrification case. In each instance, the growth in peak load demand through 1985 is expected to be at least 3.9% per annum with possible growth of up to 6.9% per annum, depending upon the

⁵Now Federal Energy Regulatory Commission.

growth projection being analyzed. It projects that electricity consumption in residential, commercial, and industrial consumption in South Atlantic States will increase at a rate of 6.5 percent, 5.1 percent, and 10.2 percent, respectively, faster than the national average rate of growth. The ORNL forecasts annual growth rates of electricity demand through 1990 from 5.4 to 8.0 percent for North and South Carolina and 5.4 to 7.3 percent for the South Atlantic Region.

Applicant's forecast for peak load growth from 1977 to 1981 is consistent with the above studies. Specifically, it shows an average compound growth 6.69% in peak power demand taking into account a decaying growth rate. This projection considered the effect of load management programs being implemented by the Applicant. The Staff is in agreement with the Applicant's forecast and the previously cited studies which projected the peak load growth during this period through 1981 to be approximately a 6.5% annual growth rate, ranging from a low of 5.5 to a high of 7.5%.

CESG's forecasts on peak demand project a rate of increase which is much smaller. It projects essentially zero growth in per-customer consumption after 1980 and supports this conclusion by painting a bleak economic future for Applicant's service area. CESG's witness testified that the peak demand on the Applicant's system would level off at about 11,000 MW. He based this testimony on a method of analysis labeled the "Integral of the Normal Curve of Error" (IONCOE). The method was developed by finding mathematical formulae that would correlate with past demands for electrical energy on Applicant's system. No deductive showing was made that the random data or the mathematical treatment of the data are relevant to the many factors that influence demand on Applicant's system, or that conditions in the future would correspond to conditions in the past which premised the formulae. In developing and applying this formulae, CESG's witness appeared to be influenced by beliefs and desires that there be no increase in real wages or in the standard of living. He assumed that income and the demand for electrical energy would fit a Gaussian curve with society currently being at the apex of that curve. Recent decelerations in the increase in real wages and the demand for electrical energy were seen, not as aberrations caused by the OPEC oil boycott and the recession, but as continuing conditions. Although CESG's model with statistical corrections was made to fit the years and the data on which it was based, it does not appear to be meaningful as a forecast of future demands. Its forecasts for the beginning of 1977 were not valid and were too low by over 10%.

To calculate a peak forecast for a given year by the IONCOE method, CESG's witness multiplied the maximum demand per residential customer by the projection of the number of residential customers and a value representing the ratio of discretionary income in the forecast year to discretionary

income in the preceding year (referred to as DIR). However, the peak customer demand figure generated by dividing the system's peak demand by the number of residential customers is artificial as it ignores the Applicant's total load which is not residential, but also commercial, industrial, and governmental, and which accounts for about 60% of Applicant's retail sales. The commercial, industrial, and governmental load on a utility system cannot be correlated with the residential demand on the system.

Applicant's witness testified that the peak per residential meter is not a meaningful figure since it fails to take into account consumption by wholesale customers or apartment dwellers. For instance, Applicant's acquisition of the facilities of the University of North Carolina at Chapel Hill in 1975 and of the Greenwood County Electric System in 1976, adding roughly 35,000 residential meters to Applicant's system, would reduce CESG's forecast. CESG's calculation of discretionary income was also attacked for excluding housing as an essential cost. CESG's witness concedes that housing is an essential cost. The method includes only one component of Applicant's load, residential meters. Industrial demands for electricity could vary with any number of factors other than discretionary income of individuals, i.e., with demands for industrial products by consumers outside Applicant's service area or an increase in industrial output of goods and services because of North Carolina's efforts to attract new industry. CESG's DIR projections are estimates for the nation and not North Carolina. Residential loads may reflect, in addition to the amount of discretionary income, the consumer's decision to spend more or less of it on electricity, such as his choice whether to purchase space conditioning equipment or new appliances.

The IONCOE method has not been generally exposed for evaluation, except to the North Carolina Utilities Commission, which did not adopt it. Thus, it lacks the benefit of proven experience and what might be called "general acceptance." Further, the low-or no-growth forecasts of CESG are in sharp contrast with the "medium" growth forecasts of Applicant, Staff, and several other agencies.

The Board finds that neither the Applicant nor the Staff neglects the historical trend. There is an erratic movement of peak electrical load from year to year. Economic recessions are an important cyclical factor, and when and how serious they may be is impossible to know. Based upon the historical pattern of growth in electrical power consumption in the Applicant's service area, Applicant and Staff projections, and other forecasts by the FEA, ORNL, and the NCUC, the Board finds that it is reasonable to forecast that the peak power electrical consumption will increase in the area served by the Applicant and that the operation of McGuire Units 1 and 2 will be justified.

Contention 1(b):

Operation of the McGuire plant is not required in order to meet demands for power which can reasonably be anticipated for the remainder of this decade. The Applicant's forecasts alleging the necessity for the McGuire Plant are deficient in that, among other things, they do not significantly consider the following operative factors in the Applicant service area: (b) the significant effect recent sharp increases in the cost of electricity have had, and will continue to have on dampening demands.

CESG argues that the Board should find that Applicant's long-term forecasts (e.g., 1990) have been misleading and harmful to the public and that additional rate increases due to construction costs will further dampen growth in demand.

Presently, a quantitative value for the amount of price elasticity on sales is not available for Applicant's system. A proposed schedule of peak load rates has been filed with the North Carolina Utilities Commission for application on an experimental basis, and it may be possible to determine the amount of price elasticity from this project. However, it will be several years before any definitive value for elasticity can be determined.

The Staff noted some downward shift in trend of demand stimulated by increasing prices of energy sources relative to prices of other goods and services. The sensitivity of electricity demand with respect to alternative future prices was investigated in the FEA, ORNL, and NCUC forecasts. The probable range of forecasts developed by the Staff relied on these forecasts as well as projections of economic activity and population in the Carolina's and the Applicant's service area.

The FEA forecasts electricity demand under three basic cases: the reference case, conservation case, and electrification case. The reference case included a consideration of the effect of high energy prices on the demand of electricity. In this case, the annual growth rate of national electricity consumption was forecast to be 5.4%.

In the ORNL forecasts for the South Atlantic region and North and South Carolina, the different cases were designed to investigate the sensitivity of future electricity demand to changes in both the prices of substitute fuels used by electricity customers and the cost of using electricity, as determined by the cost of production, including fuel, operating and maintenance costs. For the base case, it was assumed that prices of natural gas, refined petroleum, and coal will increase at the annual rates projected by Hudson and Jorgensen in "U.S. Energy Policy and Economic Growth, 1975-2000." In the low price case, it was assumed that the prices of fuels and the costs of electricity generation will increase at the same rates as inflation; thus real prices and costs

remain unchanged. In the high price case, the growth rates of all real prices and real costs were increased at rates double those of the base case. In the high price case, forecast regional and state annual growth rates were 5.4% for the 1974-90 period. The low price case resulted in annual growth rates of 8.0% for North and South Carolina and 7.3% for the South Atlantic region. These values are comparable to the upper and lower range of growth rates used in the Staff tabulations in the previous Contention 1(a).

The NCUC performed price sensitivity analyses to determine the extent to which underlying assumptions affect forecast peak load demand. For example, if real prices of electricity and oil were to increase at 1% per annum instead of remaining constant as was assumed in the base forecasts, the NCUC projected that the Applicant's peak load growth would fall from 6.9% per annum (base forecast) to 6.85% per annum through 1986; with 2% per annum increase in real prices, peak load demand was projected to grow at the lower rate of 6.79%; a 5% per annum increase in real prices causes forecast peak load growth to fall to 6.64% per annum.

The Staff concluded that increasing prices may have an effect on demand. Because the several determinants of electricity demand were undergoing drastic changes during the 1974-75 period, it is nearly impossible to account for the degree to which each determinant was responsible for the lower growth of electricity consumption.

CESG made reference to testimony in the Perkins Certificate of Convenience and Necessity Matter on October 9, 1975, in which it used price elasticity considerations to predict a 1976 peak of 8580 MW load forecast. The method for applying elasticity factors to demand accumulated the incremental contributions of rated changes expressed in constant dollars and applied these cumulatively. Using the unlikely assumption of no further real increases in rate, the forecast results in a higher forecast over the long term, about 11,500 MW by 1986. CESG notes that though highly effective over the short term, the elasticity calculation procedure is less effective over the long term.

In supplemental and rebuttal testimony, CESG provided further evidence of declining peak demand growth, attributing the reduction to the increase in the price of electricity. The average price of electricity in 1970-1973 was 1.30¢/kwh; for 1974-1976 it was 2.19¢/kwh, an increase of 68%. CESG's witness alleged that this supports the general observation in regard to price elasticity and refers to the Edison Electric Institute Statistical Year Book for 1975 to illustrate that similar declines in sales growth in association with increased electric rates occurred nationally. In his view, rate increases will continue and this will continue to dampen demand.

The Board finds that consideration has been given by the Applicant and the Staff to include the effect of price increases in the cost of electricity on

the forecast of future demand for electric power. The treatment of this factor in the electric load forecast remains subjective. Studies and experiments are underway with the objective of providing a more detailed and meaningful determination. It may be several years before this is available. The Board finds, that to the extent possible, adequate consideration was given to the effect of price increases in the cost of electricity for making the forecasts of future demand.

Contention 1(c):

Operation of the McGuire Plant is not required in order to meet demand for power which can reasonably be anticipated for the remainder of the decade. The Applicant's forecast alleging the necessity for the McGuire Plant are deficient in that, among other things, they do not significantly consider the following operative factors in the Applicant service area: (c) the significant effect Government and private energy conservation programs instituted since the so-called 'energy crises' had and will continue to have on dampening demand.

Applicant's witness testified that Applicant has included in its forecast of electrical power requirements a consideration of energy conservation efforts. It also included the impact of the load management program which it has instituted. This program includes the promotion of better residential and commercial building insulation, the promotion of reduced commercial lighting, the shifting of loads from on-peak to off-peak hours, limited application of rate design to on-peak use, and the study of the introduction of interruptible rates for direct load control.

The FEA study, referred to in Staff testimony, predicted a national electrical power demand growth of 4.9% to 6.4% per annum through 1985, using a conservation model. This model represented an aggressive conservation policy, and included, in addition to a load management program for utilities, a consideration of national thermal efficiency standards for new residential and commercial buildings, appliance efficiency improvements, tax incentives for insulation retrofit of commercial and residential buildings, elimination of gas pilot lights, increased dispersed solar energy and solid waste energy combustion. The FEA study concluded that although conservation efforts would tend to reduce electrical consumption from 5.4% to 4.6% annual growth rate, overall demand would continue to increase due to the national program designed to substitute electricity for imported oil and natural gas. That program is expected to increase electrical energy demand from 5.4% to 6.4% per annum. Staff testimony presented the NCUC study which included a consideration of energy conservation factors and predicted

a total sales growth of 6.94% and peak load growth of 6.59% in the Applicant's service area.

CESG contends that electrical demand in the Applicant's service area in the 1980's will decline due to increasing conservation efforts by the Federal Energy Administration, industry, and residential customers. This intervenor asserts that industrial conservation is a reality in Applicant's service area and the insulating of houses is proceeding at a record rate. HUD is providing instructions for better home insulation. The American Society of Heating, Refrigerating, and Air Conditioning Engineers is publishing new standards which will result in heating and cooling energy savings of 60%. The N.C. Senate Bill 420 declared conservation is the policy of the state. The N.C. Utilities Commission has initiated what are to be continuing proceedings aimed at promoting greater efficiency in the use of existing plants and giving consideration to various means of peak suppression.

CESG makes reference to the pleas of the Federal administration to focus more attention on energy conservation measures and grants it will take time for improved insulating practices and energy conserving commercial and industrial practices to reduce materially the present electrical peak demand. However, CESG expects a decline in demand on Applicant's system to begin during the 1980's when the implementation of conservation practices and the effects of continuing rate increases will more than offset growth in the number of customers.

The Board finds that conservation efforts, if effective, would tend to reduce electrical consumption but it is just one of many factors that affect overall demand. Other factors will continue to increase the overall electrical demand on a national and local basis. The Board finds that Applicant's forecast did consider the impact of governmental and private energy conservation programs to the extent possible.

Contention 1(d):

Operation of the McGuire Plant is not required in order to meet demands for power which can reasonably be anticipated for the remainder of this decade. The Applicant's forecast alleging the necessity for the McGuire Plant are deficient in that, among other things, they do not significantly consider the following operative factors in the Applicant's service area: (d) the increasing saturation, especially within the past 2 years, in per capita demand.

Per capita energy consumption was a significant parameter in Applicant's forecast considerations. The following table presented by Applicant's witness lists the annual residential energy sales per residential meter from 1970 through 1976 in the Applicant's service area.

Annual Energy Sales Per Residential Meter (kwh)

1970	1971	1972	1973	1974	1975	1976
9 864	10 299	10 447	11 072	10 927	11 237	11 528

These data do not indicate complete saturation in residential usage. In Applicant's view, the unavailability of natural gas for home heating and the rapidly increasing cost of home heating oils, will increase the per capita consumption of electricity as homes switch to electric heating.

A witness for the Staff testified that with regard to per capita electricity demand, several forecasts of total electricity demand and peak demand have been presented along with the most recent growth projections of population and economic activity in the Carolina's and the Applicant's service area. In all of the forecasts, electricity demand is projected to grow at a more rapid rate than population growth. Therefore, there appears to be a consensus that per capita demand for electricity has not reached a point of saturation and is expected to grow in future years. The Staff forecasts a range of growth of peak demand in Applicant's service area between 5.5% and 7.5% per annum through 1980. On the other hand, population is projected to grow at an annual rate of 1.15% in North Carolina and 0.7% in South Carolina. Thus, the rate of growth of per capita electricity demand is positive and significant within the range of the Staff's forecasts.

With respect to appliance saturation in the residential sector, the data are reported as percentages to indicate the percent of total residences, in a specific geographical area, owning one or more of a particular type of appliance. Refrigerators, for instance, are generally high saturation products throughout the United States; approaching 100% nationally. Appliances with relatively low saturation levels include products such as dishwashers, home freezers, and clothes dryers. National saturation data indicate that there has been a steady increase in the residential acquisition of these appliances over the past decade. In addition, there are many new products being marketed—such as microwave ovens, personal care appliances, trash compactors, compact refrigerators, and calculators—which are currently very low in terms of saturation levels.

The NCUC has recently (1977) made the estimates set forth below of electric appliance saturation levels for a group of appliances in the Applicant's service area:

**Estimated
Electric Appliance Saturation Levels—Percent
(Modified Linear Trend)***

Appliance	1980	1985	1990	1995
Duke Power Company				
Space Heating	27.6	34.5	41.3	48.1
A/C - Window	57.2	75.5	93.8	100.0
A/C - Central	27.9	36.8	45.7	54.7
Range	95.5	100.0	100.0	100.0
Refrigerator	100.0	100.0	100.0	100.0
 Freezer	 49.5	 56.6	 63.7	 70.7
Dishwasher	27.2	33.2	39.2	45.2
Clothes Dryer	56.8	70.0	83.1	96.3
Auto Washer	75.3	76.8	78.3	79.7
Water Heater	84.0	88.2	92.3	96.5
TV	100.0	100.0	100.0	100.0

*Saturation levels exceeding 100% were reduced to 100%.

The Staff believes that these estimates provide a reasonable basis for the general trend of electric appliance saturation levels which can be expected to occur in the Applicant's service area. National appliance saturation data over the last decade exhibit an approximately linear upward trend for many low saturation type appliances. Future saturation levels were estimated from historical data using a modified linear trend approach. For some appliances, such as electric ranges, the linear trend approach may understate the possibility or necessity of residences becoming more electric intensive as a result of new gas hookups being unavailable or substitution occurring in existing residences.

The Staff testified it does not believe that there will be a slowdown in per capita demand for electricity that would eliminate the need for operation of the McGuire plant. Although many residences are saturated with certain types of appliances, such as refrigerators and television, there are low saturation levels in the Applicant's service area for electric products such as dishwashers, freezers, clothes dryers, and air conditioners. New residences are expected to be more electric intensive and there will be some substitution of electric for other types of appliances in existing residences.

The Staff forecasted that electrical peak demand will not become saturated in the Applicant's service area for at least 30 to 40 years from now. In addition, the Staff cited a Federal Power Commission publication which indicated that CESG's alleged saturation would not occur.

CESG presented testimony that the level of saturation of electrical appliances and space heating in homes in the Applicant's service area has reached high levels, and that increases in the demand for electricity in that area would be more a reflection of growth in population than an increase in per customer demand. CESG's witness made reference to TVA Annual Reports 1972-1976 and Edison Electric Institute Year Books. From these data, he concluded that the per capita demand in the TVA system has been essentially constant since 1962 ranging between 8,500 and 9,000 watts. On this basis, he testified that the presently foreseeable limit for the Applicant's service area was 9,000 watts and that this limit has almost been reached in the Applicant's system. Accordingly, CESG urges the Board to find that the per capita need for power is very near to saturation in Applicant's service area. However, the validity of comparing TVA and national data with the Applicant's service area was not clearly established.

The Board finds that the case for a high level of saturation of per capita use of electricity in the Applicant's service area has not been persuasive. Future levels of appliance saturation within the Applicant's service area cannot be predicted with certainty at this time. It would not be a determining factor in the need for the McGuire power plant. Even if the demand on the Applicant's system decreased because of increasing saturation in demand by residential consumers, the McGuire facility should be operated because of significant production cost savings (see discussion below concerning Contention 2).

Contention 1(e):

Operation of the McGuire plant is not required in order to meet demands for power which can reasonably be anticipated for the remainder of this decade. The Applicant's forecast alleging the necessity for the McGuire Plant are deficient in that, among other things, they do not significantly consider the following operative factors in the Applicant's service area: (e) Applicant will have a reserve in capacity in excess of FPC recommendations by 1976. Peak-pricing and other rate revisions are additional means for suppressing subsequent peak demand.

CESG forecasts the probable range of peak growth from 1977 to 1986 to be in the range of 9,600 MW to 11,000 MW and urges the Board to find that Applicant has, and will continue to have, an excessive reserve until the mid-1980's at the earliest.

Applicant argued that Intervenor's allegation concerning the reserve capacity surplus in 1976 is irrelevant since this aspect of the proceeding concerns only whether the McGuire facility should be operated at its expected

operational dates of 1979 and 1980, and therefore does not concern reserve capacity situations in 1976. The Applicant's table referred to earlier in Contention 1(a) shows that operation of the McGuire facility in 1979 will result in an average reserve capacity of 26%. Reserve capacities are anticipated to be between a low of 15.3% in the winter of 1989 and a high of 27.0% in the summer of 1980 for that period following the operational dates of the McGuire facility.

The Staff stated that the Applicant's projected reserve margins with McGuire on line are reasonable and that a reserve margin of up to 30%, in order to allow for unforeseen contingencies, was reasonable for long-range planning purposes on Applicant's system. It is noted that the Federal Power Commission states that reserve capacities for electric utility systems on a national scale of approximately 15% to 20% are reasonable, but indicates that utilities which operate in the South Atlantic region should have a higher reserve margin than is applicable to the national average. The NCUC had adopted a 15% to 20% reserve margin for the summer peaking season and not less than 20% for the winter peaking season.

CESG alleges that inadequate consideration has been given to peak load pricing and similar rate revisions in Applicant's need for power projections. As discussed earlier at Contention 1(c), Applicant testified that it had submitted suggested rates to the North Carolina Utilities Commission's reflecting peak load pricing systems, but that such had not yet been implemented and their impact remained a question. Moreover, Applicant did consider peak reduction efforts in its forecast.

The Staff testified that the effect of these peak-load pricing systems is uncertain. Studies have shown that while there may be a reduction in peak-load demand under such systems, they similarly result in an increase in baseload electrical demand. An increase in baseload demand enhances the cost-benefit effectiveness of a nuclear station since nuclear plants are the most cost-efficient baseload operating plants. Thus, the Staff concluded that implementation of the peak-load policies promoted by CESG would increase the need for the McGuire Station. The Staff also testified that the FEA study which forecasted peak-load growth to be between 3.9% to 6.9% per annum included a consideration of the effects of peak load pricing policies.

It has not been shown that peak-load pricing decreases overall energy demand. Some recent studies in England indicate that peak-load pricing can result in an overall increase in load growth because of relatively more use of electricity during off-peak low-priced hours. The studies indicated that on the average, over a 5-year period, households engaged in the peak-load pricing program consumed 1.7% more annual kilowatt hours per household than did a control group not engaged in the peak-load pricing plan.

CESG, using the modified IONCOE method, calculates that reserve levels will be a minimum of 15% in the mid-1980's; a probable of 20% for a 10,400 MW peak. This takes no credit for conservation growth. No figures are given for the 1980-1981 period of McGuire start up. In the matter of pricing, CESG notes that Applicant is carrying out research on peak pricing as a means of reducing the peak and the consequent possible requirement of additional capacity.

The Board finds the reserve margin which will result from the operation of the McGuire Station is reasonable within the bounds of established FPC guidelines and that the Applicant's forecasts of future electrical demand be adequately considered, to the extent possible, peak-pricing policies and other rate revision policies designed to reduce peak demand.

Summary, Contention 1

For the reasons discussed above, the Board rejects CESG's proposed finding that it is more reasonable to rely on Intervenor's projections of the need for power than on the projections of Applicant or Staff. Intervenor alleged the Applicant's forecast of power demand to be deficient by not significantly considering certain operative factors (a) through (e) identified above and that operation of the McGuire plant is not required. The Board finds that these factors have been adequately considered by the Applicant to the extent possible. The Board notes that the contention did not include an important item, namely, the impact of a business recession or (in the extreme) a business depression and its subsequent economic recovery on the future use of electricity. No one can know when, for what duration, or how intense the next business recession or depression may be. This results in a large uncertainty in forecasting. Experience shows that there is a need for frequent updating of electric power demand forecasts and it is not uncommon that this results in modifications of power plant construction schedules.

Cost-Benefit-Alternative Generation Modes

Contention 2(a):

The Applicant's comparison of alternative generation modes in its cost-benefit analysis is deficient or in error by reason of, among other things: (a) the use of unrealistically optimistic estimates of nuclear plant capacity factors when compared to baseload fossil plants, especially in light of Applicant's recent baseload fossil plant operating experience, and recent nationwide nuclear operating experience.

A station capacity factor of 76% was used in the Environmental Report. This factor was based upon Applicant's operating experience with the

Oconee Nuclear Station and upon the expectation that capacity factors would improve with additional nuclear operating experience. The capacity factor refers to the electric energy actually produced during a period of time expressed as a percentage of the amount that could theoretically have been generated had the unit run constantly at its designated full capacity level for the full period. Capacity factor, in part, reflects availability, but also reflects certain decisions made by the system dispatcher regarding which units he chooses to use and to what degree. An analysis of the availability factors of the Oconee Nuclear Station (three units at 860 MW each) and the coal-fired Belews Creek Station (two units at 1140 MW each) showed that they were comparable. The Oconee Station is Applicant's first nuclear station and its availability can be expected to increase with additional operating experience. The Applicant has operated the Oconee units with availability factors of between 61.5% and 75.5%, excluding partial years. The corresponding capacity factors for those stations range from 52.4% to 69.3%. Applicant's large coal-fired generating Belews Creek units had a range of capacity factors from 56.1% to 83.8%. The Applicant's experience is consistent with nationwide power plant operation experience, both with fossil-fuel-fired and nuclear generating units.

The Staff presented evidence that the probable performance by nuclear plants ranges from 50% to 70% capacity factors, based on historical data. The Staff based its cost-benefit analysis on the operation of the McGuire Station at both 58% and 65% capacity factors, both of which are conservative levels of performance. However, the Staff projects that the McGuire Nuclear Station can operate at a capacity factor of 67%.

CESG presented evidence that nuclear units have operated at capacity factors of approximately 55%; that on an industry-wide basis, pressurized water reactors operate at a 61.6% capacity factor; and that it could be assumed that the McGuire units would operate at capacity factors no lower than 48.6%, with a forecast capacity factor of 69.2% for comparable fossil fuel units. Similar sized coal-fired units (1000 MW) showed comparable capacity factors of 57-63% on a national average basis according to the study cited by CESG. A CESG witness calculated a capacity factor of 57% for the Oconee nuclear units and 69.2% for Applicant's large coal-fired generating Belews Creek units.

The McGuire facility will have significant production cost advantages over the larger baseload coal-fired plants and could operate at lower-than-estimated capacity factors and still be cost effective. Figures provided by the Staff illustrate that in 1979, with a 58% capacity factor, the savings would be \$77 million. In 1980, at a 50% capacity factor, production cost savings from operating the nuclear plants would be between \$71 and \$79 million depending on whether plutonium is recycled. At a 65% capacity factor for

the same year, production cost savings for the facility would be between \$92 and \$103 million depending on plutonium recycle. Even at a much lower capacity factor of 20%, operation of the McGuire units is fully justified on economic grounds over the substitute operation of coal-fired plants. The McGuire units would produce \$18 million to \$21 million in savings depending on whether plutonium is reprocessed.

The Board finds that reasonable capacity factor estimates have been used by Applicant in the consideration of alternative modes of generation in the cost-benefit analysis and that the substitution of nuclear for more expensive fossil-fueled operation provides significant benefits even when operating at relatively low capacity factors.

Contention 2(b):

The Applicant's comparison of alternative generation mode in its cost-benefit analysis is deficient or in error by reason of, among other things: (b) the use of unrealistically low nuclear fuel cost forecasts, especially in light of recent increases in percentage escalation of separate work unit cost, yellowcake costs, and future uranium costs.

The price of nuclear fuel was forecasted by Applicant by (1) taking its present, firm nuclear fuel contract prices plus escalation which is added under an index adjustment clause, and (2) substituting the projected current market prices for those years, if any, in which it does not presently have a firm contract or in which the contract calls for market prices. This forecasting method was used for U_3O_8 conversion, fabrication, and spent fuel costs. The price of enrichment was forecasted by taking the present contract price and escalating it \$4 per separate work unit per annum with a step increase in 1980, which was based upon an assumption of commercial pricing beginning that year. Costs were computed on an annual basis and then levelized. An independent consultant familiar with industry practices concerning forecasting future nuclear fuel prices testified that the Applicant's method of cost projection was consistent with the generally accepted nuclear industry practices.

The Staff testified that fuel cycle components and range of expected prices were analyzed in the "Final Generic Environment Statement on the Use of Recycle Plutonium in Mixed Oxide Fuel in Light Water Cooled Reactors" (GESMO), NUREG-0002. An expected range of prices for each of the fuel cycle components was developed for the period between 1975 and 2000. The range included low, reference, and high prices for each component. Costs for the various components of the fuel cycle were calculated in terms of 1975 dollars as discussed in GESMO, and the total fuel cycle cost then escalated at 5% per year to 1980 to account for the general inflation rate.

Before escalating nuclear fuel costs, upward adjustments were made to current costs. The base price of uranium was adjusted upward from current production costs to reflect the continual depletion of higher grade ores and need to open new mining areas. Enrichment costs were adjusted upward from current charges.

The forecasts of nuclear fuel costs made by the Staff and the Applicant take into account recent and projected increases in percentages of escalation of enrichment costs, uranium depletion, inflation, and future uranium costs. They reflect changes since the Construction Permit licensing stage of the McGuire proceedings since they cover the period where there were changes in the economy, inflation, and changes in other variables such as the OPEC oil embargo. According to Staff testimony, the operation of the McGuire facility retains its advantage over coal even when, conservatively, an 8% escalation rate is applied to nuclear fuel and only a 2% escalation rate is applied to coal fuel costs. The comparison is conservative since the percentage rates used assume coal prices are going to decrease in real terms while nuclear fuel costs are increasing in terms of real dollars.

CESG's witness testified that the rapid escalation of uranium prices experienced since 1971, the decreasing supply of domestic uranium, and projected increase in enrichment services, indicate a much higher rate of nuclear fuel cost escalation than forecasted by Applicant and Staff.

Forecasting fuel cost changes over a 35-year life of the reactor is subject to much uncertainty. No shortages are expected in the supply of any element of the fuel supply system which would adversely affect either the Staff's or the Applicant's forecasts. It is unreasonable to expect that there will exist competitive resources of U_3O_8 throughout the useful life of the McGuire Station and that there will be no problems related to the supply of conversion services. Also, it is reasonable to expect that enrichment will continue to be provided under contract with the Department of Energy based upon standard pricing policies. Fabrication services appear to present no problems.

CESG also argued that if nuclear fuel reprocessing were not to take place in the future, this would adversely affect nuclear fuel prices and influence whether the McGuire Station would be cost-beneficial. But the Staff forecasts 1980 nuclear fuel costs to be 5.4 mills/kWh assuming no fuel recycle as compared to 4.6 mills/kWh with fuel recycle. The Applicant's testimony indicated a similar increase and that such increase had been examined from a cost-benefit effectiveness of the plant. These costs are to be compared with the higher total cost of constructing and operating a comparable coal-fired station at 15.8 mills/kWh.

The Board finds that the nuclear fuel cost projections of Applicant are not unreasonably low, and that, even assuming a large increase in nuclear fuel cost accompanied by a negligible increase in coal prices, the McGuire Station is still cost-beneficial to operate.

Contention 2(c):

The Applicant's comparison of alternative generation modes in its cost-benefit analysis is deficient or in error by reason of, among other things: (c) the use of unrealistically high coal cost forecast, especially in light of the recent downturn in those costs.

CESG asserts that since coal is abundantly available, and since coal prices have decreased recently, the Applicant's fuel cost forecast for a coal-fired station unit is unreasonably high.

Applicant testified that although spot coal prices reached \$40.00 per ton in 1973-1974 and then dropped, coal prices are now again increasing. Applicant and Staff witnesses cited several factors which would increase the price of coal. The present estimated coal price of \$2.22/MBTU used in the cost-benefit comparison for coal by Applicant may well be optimistic. Factors causing increased costs with the use of coal include proposed strip mining legislation, use of lower BTU coal, thinner coal seams, greater transportation distances, increased hourly labor costs, and decreasing labor productivity. The need for low-sulfur coal to meet air quality standards and the conversion of oil and gas facilities to coal also tend to increase the price of coal.

The coal price forecasts upon which the Staff relied in calculating the benefit from operation of the McGuire Station were derived by taking an average of the actual spot and contract coal prices for delivered coal in North Carolina in 1976, and then escalating that average at 5% per annum to 1980. The 5% escalation factor was designed to account for general inflationary pressures. Up to 11% escalation of coal prices is projected if the anticipated inflation is factored into the projection. The Staff concluded that the operation of the McGuire Station is cost-beneficial even if coal prices increase only 2% per annum with nuclear fuel prices increasing at 8% per annum.

The Board finds that the Applicant's forecast of coal prices to be paid in 1980 is reasonable, realistic, and a conservative estimate. Based on cost and capacity factors, bringing the McGuire nuclear units on line will result in a total overall lowering of the production cost per unit of energy generated for the Applicant's service area.

Contention 2(d):

The Applicant's comparison of alternative generation modes in its cost-benefit analysis is deficient or in error by reason of, among other things: (d) the lack of significant consideration of advantages of smaller units, including, among other things, the potential for lower required reserve margins, and their higher capacity factor.

CESG contends that by operating smaller generating units in lieu of the McGuire Station, the Applicant could avoid maintaining an excessive reserve margin. CESG's witness testified that smaller units would have lower operating costs due to their higher capacity factors and to lower economies of scale for smaller stations.

Applicant presented a witness who testified that the operation of several smaller units in lieu of the McGuire Station would not substantially reduce the reserve margin due to its present operation of the 2280 MW Belews Creek Station. The Belews Creek facility is the largest unit in the Applicant's system one criterion for calculating reserve margin. The existence of a station with a capacity of 1140 MWe per unit compared to the 1180 MWe per unit of the McGuire Station precludes substantial reduction of required reserve margins by not operating McGuire. With regard to capacity factors, the Applicant testified that the availability of the Oconee Nuclear Station and Belews Creek Station is comparable to the availability of its smaller generating units in the 265-575 MWe range.

The Staff testified that comparisons of alternative generation modes in the cost-benefit analysis are not deficient for lack of consideration of the advantages of construction and use of smaller units as alternatives to the operation of the McGuire units. Most of McGuire's costs have been expended or obligated. As of April 1, 1976, McGuire Unit No. 1 was 69% complete; McGuire Unit No. 2 was 52% complete. The capital costs of construction of any alternative units, including small units, would have to be added to the operating costs, and then compared with the cost of operating McGuire. The fuel cost of operating smaller units would be 12.3 mills per kwh in 1980, as compared to McGuire's fuel costs of 4.6 to 5.6 mills per kwh. In a operating license proceeding where a substantial portion of the costs of constructing the nuclear facility have been expended, it is appropriate in considering the relative economics of nuclear vs. coal to compare costs of construction and operation of the fossil plant only with the costs of operating the substantially complete nuclear plant.

The Staff also testified that the reserve requirements of a minimum of 20% of peak load would not be affected even if smaller units could be provided in the time frame in which McGuire is scheduled to operate; also, the capacity factors of the larger units are similar to those for the smaller units. The Oconee nuclear facility and Belews Creek coal facility have a comparable performance history. Addition of the McGuire units will not have the effect of increasing the required reserve of the Applicant's system, nor will the addition increase actual reserves to an unreasonable level. In the Southeast Region (SERC), the minimum appropriate reserve margin is 20%. Each unit of McGuire amounts to only 10% of the 1980 peak load forecast. Planning for the loss of the two largest units would require a reserve of 20% which is

not larger than FPC recommended minimum appropriate requirements for the South Atlantic region.

The evidence regarding large generating units does not show that there would be a particular advantage of smaller units over the substantially complete McGuire facility, even if they could be constructed and available in 1980 when the McGuire facility could be in operation. Smaller units yet to be constructed are not a reasonable alternative to an almost completed nuclear facility. The construction of a number of smaller coal units would also have environmental and social costs in addition to those that have already been incurred in building McGuire. It would be difficult to construct these units by the time McGuire is expected to operate.

The Board finds that the construction and operation of several smaller units in lieu of the McGuire Station will not result in a significantly lower required reserve margin for the Applicant, nor permit operation at significantly lower required reserve margin for the Applicant, nor permit operation at significantly higher capacity factors and would not change the conclusion of the cost-benefit analysis.

Contention 2(e):

The Applicant's comparison of alternative generation modes in its cost-benefit analysis is deficient or in error by reason of, among other things: (e) the lack of significant consideration of the past and future escalation of construction costs of McGuire over estimates.

CESG takes issue with the depth of consideration given past and future escalation of the construction costs of McGuire. Cost of construction estimates of the McGuire facility have increased by 113%, from \$440,964,000 in February 1972 to the current estimate of \$939,000,000.

The Applicant has periodically reassessed the practicability of the construction and operation of the nuclear station and determined that it was the most cost-beneficial mode of generating electrical power. Specifically, nuclear power was compared with coal-fired generation, the least expensive fossil-fuel generation mode, on five occasions since 1967. During that period the costs of constructing the McGuire Station were escalating due to changes in regulatory requirements, delays, in scheduled material and equipment deliveries, and the inflationary economy. The Applicant testified that each reassessment confirmed that the construction and operation of this nuclear station were less expensive than for a comparable coal-fired plant.

The Staff presented evidence that the cost increase does not affect the cost-benefit analysis adversely. McGuire facility construction costs have been largely expended or obligated. Assuming McGuire to be in service in 1979,

and assuming normal growth, total production costs on the Applicant's system would be 8.53 mills per kwh. Without McGuire, total production costs would be 10.45 mills per kwh. Even without load growth, production costs in 1979 would be 8.04 mills per kwh and without McGuire they would be 9.58 mills per kwh. The overall production cost advantage of operating McGuire in either the load growth or no-load growth situation is clear. The cost-benefit analysis presented in the Final Environmental Statement does not rely upon an analysis of construction cost and only considers those costs and benefits associated with the operation of the McGuire Station. This analysis is appropriate, from an economic perspective, once a facility has been substantially constructed as is the case with the McGuire Station. As of April 1, 1976, construction of Units 1 and 2 were 69% and 52% complete respectively. Construction has continued from that date to the present time, and the units are now substantially more complete.

The Board finds that increases in construction costs are reasonable in an inflationary economy; they do not change the conclusion of the cost-benefit analysis.

Contention 2(f):

The Applicant's comparison of alternative modes in its cost-benefit analysis is deficient or in error by reason of, among other things: (f) the cost-benefit analysis fails to consider the long period in which rates must increase before the proportion of nuclear generation is sufficient to effect assumed reductions in electrical rates.

CESG alleges that the advantage of nuclear generation, as seen in rate reduction, will require a long period of time to manifest itself, and that the cost-benefit analysis fails to recognize this point. Neither Applicant nor Staff assumed in its cost-benefit analysis that the operation of the McGuire Station would result in a reduction of rates or of the unit cost of Applicant's total electrical power generation. Both testified that there will be a lower production cost associated with the generation of electrical power by the McGuire Nuclear Station as opposed to the generation of an equivalent amount of additional electrical power by an alternative mode.

The Staff testified that operation of the nuclear facility will result in lower economic, environmental, and social costs when compared to a similar sized coal plant. Overall production costs will be lower with McGuire on line than they would be by generation of an equivalent amount of electricity by a coal facility. Electricity rates may well be lower under nuclear development than under any alternative program, whether or not the construction costs of McGuire are included in the rate base. The Staff testified that the cost

savings of generating the electrical power from the McGuire Station, as opposed to the comparable generation from a coal-fired station, would result in savings of between \$92.5 million and \$103.5 million per annum in 1980 and between \$150.1 million and \$167.5 million per annum in 1990. The evidence shows that assuming the cost of nuclear fuel escalates at 8% per year, and coal prices escalate at only 2% per annum, the initial savings from the operation of the McGuire facilities ranges from \$65.7 million in 1980 to \$5.4 million in 1990.

The Board finds that electric rates, as such are not treated in the cost-benefit analysis, but rather that the overall costs of electric production are adequately considered and that there are operating cost savings, both short term and long term, due to generating the electrical power from the McGuire nuclear station instead of an alternative coal plant.

Contention 2(g):

The Applicant's comparison of alternative generation modes in its cost-benefit analysis is deficient or in error by reason of, among other things: (g) the recognized long-term tendency for prices of equivalent energy sources to equalize, thereby depriving nuclear energy generation by Duke Power Company of any long-term economic advantage.

CESG contends that the long-term tendency for prices of equivalent energy sources to equalize will deprive nuclear energy generation of any long-term economic advantage. The Applicant presented evidence that the cost-benefit analysis of long-term costs comparing the cost of generation of nuclear generation and coal-fired generation, in their first cost-benefit submittal to the Commission in November 1971 and in each successive evaluation demonstrates that the suggested equalization of the total cost of generation has not occurred. The capitalized advantage of nuclear power, as compared with coal-fired generation, has increased from 1967 to 1977 by a great margin.

The Staff testified that even assuming there may be a tendency for the cost of non-interchangeable energy resources to equalize, it could only apply to the total economic costs of the electric generation. Fuel costs associated with the nuclear plant are a smaller percentage of total cost (because of the higher capital costs for nuclear facilities) than they are in a coal plant. It would not alter the result of the cost-benefit analysis for the McGuire Station. The McGuire Station's capital costs are already invested and thus not properly considered. Therefore, the fuel and other operating costs of the McGuire plant would remain relatively lower than the fuel and other operating costs of coal-fired plants should total energy costs equalize. Significant production

costs savings are available through McGuire's operation even if the total economic costs of electrical generation tend to equalize.

The Board finds that the evidence shows that the cost of equivalent sources of energy do not tend to equalize based on Applicant's experience. However, assuming there were such a tendency, using the Staff's cost-analysis approach, the costs of nuclear fuel are significantly lower than those associated with coal-fired generation, and McGuire would remain cost-effective.

Contention 2(h):

The Applicant's comparison of alternative generation modes in its cost-benefit analysis is deficient or in error by reason of, among other things: (h) reconsideration of the "no plant" alternative should be made in view of changed economic conditions since the issuance of the McGuire construction permit.

The Applicant testified, with reference to Contentions 1(a) and 1(b) that there is a need for the facility and that this capacity could not be acquired as purchased power because there is no excess capacity in neighboring power companies which would be procured on a reliable cost-effective basis. Specifically, the total reserve capacity of the Virginia-Carolina (VACAR) Sub-region of the Southeastern Electric Reliability Council during the summer of 1979 will be 16.5%, and then only if all scheduled units are on line. The purchase of replacement power from VACAR in lieu of operating the McGuire Station would reduce that reserve margin to 9.6%. This reserve margin is well below the FPC's minimum reserve margins of 15-20% and thus the source of this purchase power could not be considered reliable in the event of extreme weather or unexpected outages.

Assuming that the capacity could be purchased from adjoining electrical generating companies on a reliable basis, the "no plant" alternative requires a comparison of the cost of generation of the McGuire Station with the cost of the purchased replacement power. Purchased power is not an economic alternative for two reasons: (1) Applicant's system has historically been able, and continues, to install generating capacity in its own system at a lower cost than any other system in the Southeast, making the purchase of power from neighboring utilities more expensive than the generation of power in Applicant's system, and (2) costs due to transmission loss and expense would increase the cost of the already more expensive purchased power.

The Staff testified that the "no plant" alternative, i.e., not operating a completed nuclear facility, is not a reasonable alternative to operation of the McGuire facility. The record shows that energy from McGuire is needed.

Adding the McGuire nuclear facility to the generating capability of the Applicant's system will increase system reliability and lower the total production cost of the system. Except for the Oconee nuclear facility, the McGuire units will be the least costly to operate. A new production cost savings will accrue to the Applicant's system. The cost of not operating McGuire in 1980 would be \$103 million with plutonium recycle and \$92 million without recycle. The option of abandoning the plant and attempting to salvage some economic benefit invokes additional cost but no benefit. Changes in economic conditions since the issuance of the McGuire construction permit have increased the need for the addition of generating capacity to meet needs of the early 1980's and beyond.

CESG asserts that since there is no need for the power to be generated by the McGuire Station, a "no plant" alternative is the most reasonable alternative, from a cost-benefit standpoint, to the continued construction of the stations. The CESG witness cites per customer saturation in demand, reduced growth in customers, demand suppression in response to rate increases, efforts by the State of North Carolina to reduce peaks and to conserve, and national efforts to conserve and to utilize renewable energy resources, all to indicate that demand in Applicant's system will top out in the 1980's at a level not higher than 11,000 MW; that present capacity of 12,456 MW can handle anticipated peaks with a reasonable reserve; that possible short-term voltage reductions or rotating blackouts are a small price to pay for the capital investment avoidance which would result. The limited power demand was not supported by persuasive numerical data.

Assuming the total demand for power in Applicant's system would peak in the 1980's at a level not higher than 11,000 MW, the present capacity of 12,456 MW is not sufficient to handle that load. This represents a reserve margin of only 13%. Short-term voltage reductions or rotating blackouts, which are necessary with a low reserve, are not acceptable alternative to having a larger reserve capacity consistent with FPC minimum appropriate reserve margins.

CESG states in its proposed findings that approximately \$100,000,000 in capital costs, operating costs, and related charges would be saved if McGuire were not operated. This was not supported in the record. Further, CESG contends that approximately \$50,000,000 in carrying charges would be saved by not operating McGuire, and approximately \$50,000,000 in carrying charges would be avoided due to the savings in interest on money not borrowed for future construction of power plants. CESG assumes that Applicant would cease licensing and construction efforts of its other nuclear facilities at Catawba, Perkins, and Cherokee, and thereby avoid the interest charges on money not borrowed. This issue is not relevant to this Board's consideration of the McGuire operating license. CESG claims that in the event

of abandonment, the expended cost of McGuire (about one billion dollars) would not be included in the rate base and would result in the above-stated benefit of \$50,000,000. The question of suspending construction of a nearly completed power plant is not properly before this Board in this operating license proceeding.

The Board finds that adequate consideration has been given to changed economic conditions; that the present trend in general economic conditions does not merit reconsideration of the "no plant" alternative in the cost-benefit analysis; and that the issue of abandoning construction of a nearly completed power plant is not a proper issue in this operating license proceeding.

Summary, Contention 2

The Board finds, after reviewing all the testimony concerning the eight contentions 2(a) through 1(h), that the Applicant has given adequate consideration to all the factors itemized in (a) through (h) and used reasonable values for fuel and construction cost estimates in its cost-benefit analysis.

Seismology

Contention 3

Operation of the McGuire plant will threaten health and safety of CESC members in that the plant's design is inadequate to assure protection against earthquakes of such intensity as can be expected to affect the site as indicated by the anomalous changes in land elevation and ground water behavior in eastern North Carolina. This indicates a much greater probability of a major earthquake of much greater intensity in that area of eastern North Carolina which would result in a much greater acceleration at the McGuire site than was considered during the construction permit proceeding.

The earthquake design bases were determined to be 0.15g and 0.08g for the Safe Shutdown Earthquake and the Operating Basis Earthquake as a result of earlier reports and analyses. The geological and seismological aspects of the McGuire nuclear site were presented in the Preliminary Safety Evaluation Report and were reviewed by the NRC Staff and its advisors, the U.S. Geological Survey and the Seismological Investigations Group of the National Oceanographic and Atmospheric Administration, now a part of the U.S. Geological Survey, at the construction permit phase of this proceeding. This issue was considered in detail during the construction permit proceed-

ing. The Staff found no reason to change its conclusions made during the Construction Permit review of the geology and seismology portions of the Final Safety Analysis Report for the McGuire Station.

CESG alleged that anomalous changes in land elevation and ground water behavior in the Wilmington-Southport area of North Carolina indicate the likelihood of a major earthquake in that area of such intensity to produce accelerations at the McGuire site in excess of those established as the earthquake design bases.

The Staff was informed of these conditions on January 29, 1975, when the Nuclear Regulatory Commission received a request for the issuance of an order requiring that Carolina Power and Light Company show cause why its license to operate the Brunswick Steam Electric Plant should not be amended to require a reevaluation of the seismic safety of the plant site. The request was based on a report by Stewart, Dunn, and Heron which identified the Wilmington-Southport area of North Carolina as an area where data suggested a possibility of dilatant phenomenon which could be followed by a major earthquake. Dilatancy is the increase in volume of rock corresponding to the initiation and growth of many small cracks just prior to fracture as stress is applied to the medium. In an effort to confirm the presence or absence of dilatancy precursory to a large earthquake in the Wilmington-Southport area, the Carolina Power and Light Company was required to undertake a program calling for (1) the establishment of a multi-station seismic network to monitor local earthquake activity and detect any seismic velocity changes which might be occurring in the area, and (2) the installation of a tide-gauging station at Southport to identify ongoing changes in elevation and to clarify the meaning of data gathered from tide gauges which existed in this area in the past. Seven permanent stations for the seismic network were located in the Wilmington-Southport area. No local earthquakes have been detected in the area. The monitoring network determined the apparent P-wave velocity for a shallow refracting layer in the crust beneath the area to be 6.2 km/sec. This P-wave velocity is consistent with that observed during a regional refraction survey made somewhat to the north in 1965. Such constancy of the P-wave velocity would not support the existence of velocity changes hypothesized as earthquake precursors.

The seismic monitoring network established an apparent S-wave velocity of 3.6 km/sec. The ratio of the apparent P-wave velocity to the apparent S-wave velocity was 1.72, a value close to the ratio typically found in rock for aseismic areas of the United States, namely 1.73. The ratio does not appear to be anomalous as might be expected for a dilatant zone.

The seismic monitoring network recorded several small earthquakes occurring at regional distances beyond the area of the network. For the magni-

tude 4.3 Summerville, South Carolina, earthquake of March 1977, P-wave and S-wave velocities were determined for a deep refracting layer. The ratio of the apparent P-wave velocity to the S-wave velocity for this refraction arrival is 1.73. This value is not indicative of any anomalous behavior.

None of the observations reported by the seismic monitoring network indicated that dilatancy or other earthquake precursory phenomena have been occurring in the Wilmington-Southport area. On the contrary, the complete absence of even small earthquakes from the area and the apparent constancy of seismic velocity over the region show that dilatancy is not occurring or is progressing at a very slow rate. Such data do not indicate an unusual earthquake risk in the region. The Carolina Power and Light Company has discontinued the operation of the seismic network.

The tide-gauge has been installed and data acquisition is taking place. At the end of two years of monitoring, the Staff will review the data for any evidence of dilatancy.

CESG alleged that anomalous changes in groundwater behavior and land elevation in the Southport-Wilmington area indicated earthquake potential but did not present evidence on this point. The alleged groundwater anomalies included high salinity, higher than normal temperature gradients, and high fluid pressure. Such groundwater anomalies have numerous other possible explanations with no tectonic implications. Staff witness McMullen testified that the data did not support the presence of a temperature gradient anomaly and that the increase in salinity as one progressed coastward was not indicative of anomalous behavior (Tr. 2087-9). The anomalous elevation changes presently remain unexplained. The regional uplift, if it exists, offers no obvious implications with regard to earthquake prediction in view of the absence of even minor earthquake activity in the Wilmington-Southport areas.

Applicant presented the testimony of S. B. Hager which (Tr. 2025) had been adopted by Applicant witnesses Sams and Sowers (Tr. 1956, 1984). Applicant was aware of the concern raised by Stewart, Dunn and Heron in a 1975 report to the NRC relating to alleged anomalous changes in land elevation and groundwater behavior in the eastern North Carolina area. The most severe earthquake known on the east coast of the United States occurred in Charleston, South Carolina (Tr. 1886). Applicant stated that if an earthquake comparable to the Charleston event is postulated to occur in the Wilmington area of eastern North Carolina, about 175 miles from the McGuire site, the effects on the plant site can be calculated using attenuation data developed by Professor Otto W. Nuttli in "State of the Art for Assessing Earthquake Hazard in the United States, Report 1, Design Earthquakes for the Central United States." Using Nuttli's data, Applicant determined that the McGuire Nuclear Station's design rock accelerations exceed the cal-

culated rock accelerations that would be caused by an earthquake similar in intensity to the Charleston event occurring in the assumed location. For an earthquake of intensity IX, MM occurring at the assumed location, the maximum rock accelerations at the McGuire site were calculated by Applicant to be 0.0125g. Since the McGuire design accelerations exceed the calculated maximum acceleration for the postulated earthquake, Applicant maintains that the site seismic design criteria are adequate to assure protection against such an event (Hager, Tr. 2025; Tr. 1968-72, 1987-2031). The Staff testified that acceleration values at the McGuire site would be between .05g and .08g (Tr. 2056-7), if one postulated the occurrence of an earthquake the size of the 1886 Charleston earthquake in the Southport-Wilmington region. This differs from the Applicant's value because the Staff used an intensity X for the 1886 Charleston earthquake, which would have produced an acceleration of 0.05g using the Applicant's method (Tr. 1968-9). The method used by the Staff was more conservative than that used by the Applicant, producing values in the range 0.05 - 0.08g (Tr. 2056-7). This is well below the design basis for the Safe Shutdown Earthquake.

CESG did not present affirmative evidence on the seismic issue regarding anomalous changes in eastern North Carolina. The Board finds that the alleged anomalous changes in eastern North Carolina do not serve as an adequate basis for postulating the occurrence of a major earthquake in that area. The evidence shows that even if such an earthquake were to occur in eastern North Carolina, it would not exceed the seismic design specifications at the McGuire facility.

Financial Qualifications

Contention 5

The Applicant is not financially qualified to operate and decommission the McGuire plant in that, among other things: Rate increases are not likely to be granted because they will be required by the Applicant's financial and business practices, which, in general, violate North Carolina state requirements to provide electricity at the lowest price possible, as exemplified by, among other things, the following violations of specific state requirements:

(a) That a utility not overbuild generating capacity. Applicant, on the contrary, has a massive expansion program unsupported evidence that that future demand will require it; and

(b) A utility is not to be overcharged by a wholly-owned subsidiary, which the Applicant has violated by purchasing over-priced coal from its coal mining operations.

The North Carolina Utilities Commission is not likely to permit the McGuire Plant, and several of Applicant's plants scheduled for completion after McGuire, into the Applicant's rate base, because to do so would violate State requirements prohibiting unneeded or prematurely constructed facilities as part of the rate base; and

In the event that the North Carolina Utilities Commission grants the Applicant rate increases and/or includes McGuire and other plants in the base regardless of the factors outlined above, the rates required by the Applicant will be so high (due to the financial and business practices outlined above, among other things) that demand and sales will be so severely affected that not even additional rate increases will be adequate to maintain the Applicant's solvency.

Applicant provided extensive financial information required by 10 CFR § 50.33(f) and Appendix C to Part 50 in its Exhibit 3, the Operating License Application. Richard C. Ranson, Treasurer of the Company, provided additional data as a witness. Applicant stated that while significant funds must be raised through the sale of securities and from internal cash sources for the construction of a generating station, once that facility becomes a part of electric rate base, further financings related to that station are virtually unnecessary. Operating and maintenance costs, including depreciation and capital costs, are properly recovered through rates charged electric customers. The company will apply for such treatment of both units of the McGuire Nuclear Station in all three of its regulatory jurisdictions. These jurisdictions require that such rates allow a fair rate of return. Information was presented on all rate increases requested or implemented since 1973 (Ranson, Exhibit 1, fol. Tr. 2510). Applicant noted that the responsible agencies, the North Carolina Utilities Commission (NCUC), the Public Service Commission of South Carolina (PSC) and the Federal Energy Regulatory Commission (FERC), have indicated their concurrence with the Company's plans to build and operate a system of base load, nuclear generating stations. Applicant also pointed out that the McGuire Nuclear Station required and received a certificate of convenience and necessity from the NCUC.

The Company has sought to provide reliable service at the lowest possible cost. Applicant's rates have historically been among the lowest in the nation. Today they remain 25% below the rates charged by the average investor-owned utility and 15% below those charged on average by all electric utilities (Ranson, at 5-6, fol. Tr. 2510; Tr. 2640-43).

The Company's financial strength is generally good at present. The Company feels an even stronger financial profile is desirable. Applicant testified that the credit of the Company has improved significantly since 1974. Improvements in the ratings of its securities have been made by both Stan-

dard and Poor's Corporation and Moody's Investors Service. In June 1976, Standard and Poor's raised its rating of the Company's commercial paper from A-2 to A-1, the highest category for such securities, and in October of that year it upgraded the preferred stock to A from BBB and the preference stock to BBB from BB. In August 1977, Moody's uprated the preferred and preference stocks to A and Baa, respectively. Applicant stated that it continues to seek uprating of its first mortgage bonds to Aa/AA from A/A. These rating improvements translate into greater flexibility, lower financing costs and, ultimately, relatively lower rates. Applicant noted that the rating agencies have expressed approval of the financial goals sought by Duke Power Company.

Applicant explained that the reason Duke went from an excellent financial position through 1967-68 to a poor one in 1974-75 was that it, like other utilities and utilities commissions, had difficulty adjusting to a new environment in which the utilities went from a declining cost business which had prevailed for 40-50 years to one of suddenly very large cost increases.

There have been changes to improve the financial capabilities. The Company has built its staff, particularly in the financial area, to deal more adequately with the need for adjusting its prices commensurate with increases in its costs. The rate-setting agencies have increased their forces so as to deal more expeditiously with applications for rate increases. There are fuel cost adjustment clauses which are operative, and which have on several occasions, been affirmed by the FERC, the North Carolina Commission, and the South Carolina Commission. Applicant explained that the Company has also improved its liquidity by increasing its available lines of credit to \$280 million. The Company's policy is generally to maintain short-term debt levels below \$175 million; at least during each of the last 3 years Duke Power has eliminated all of its short-term debt (Ranson, at 6-7, fol. Tr. 2510; Tr. 2598-9).

Rates set by the responsible agencies do not always produce the needed revenues. Over short periods of time, allowed rates may produce either insufficient or overly great revenues. The short-fall of the overage can be measured by the difference between the return on common equity allowed and that achieved. This assumes that the allowed return on common equity is no less than the actual cost of common equity. Both the NCUC and the PSC allowed Duke Power Company a 13 1/2% return on common equity as a fair return in late 1975 and early 1976. Duke Power Company achieved earnings of 12.7% in 1976, 12.2% in 1977, and 11.7% for the 12 months ended June 30, 1978. There is no evidence in this record that Duke Power Company will not receive favorable treatment with respect to fair and reasonable rate relief before the respective state or Federal rate setting agencies (Ranson, p. 4, fol. Tr. 2510).

In its testimony on financial qualifications, the Staff submitted its financial review contained in its SER Supplement 1 (Staff Ex. C at 20.0). For an

established organization, the Commission regulations provide that fulfilling the financial qualifications requirement may be accomplished by showing at the time of filing of the application that the Applicant has available resources sufficient to cover estimated operating costs for each of the first five years of operation plus the estimated costs of permanent shutdown and maintenance of the facility in safe condition. In most cases, an Applicant's annual financial statement contained in its published annual reports are sufficient to enable the Commission to evaluate the Applicant's financial capability to satisfy the financial qualifications requirement (10 CFR 50, Appendix C, § I, B). The question is whether an operating facility will pay its own way with the electricity it sells. It is to be noted that local state agencies or the Federal Energy Regulatory Commission (FERC), not the Nuclear Regulatory Commission, are the primary source of evaluation of rates necessary for a utility to operate in an efficient manner and receive an adequate return on its investment.

Financial data for Duke Power Company for the 5 years ending 1977 shows that Duke Power Company's revenues have increased from 1973 to 1977, and that the earnings per share have increased in 1977 over those in 1973. There was a dip in both 1974 and 1975 in earnings per share. However, this can be attributed to an economic recession. Since 1973, except for 1974 1975, Duke's return on common equity has increased as has the pre-tax interest coverage.

The source of funds to cover Applicant's operating costs for the McGuire facility, including those relating to decommissioning, will be through revenues generated from its system-wide sales of electricity. At the end of 1977, the unit price from system-wide sales of electric power was 25.94 mills per KWh. This price is comparable to the projected operating costs of 25.91 mills per KWh and does not reflect possible rate increases during the first five years of commercial operation. Historically, Duke Power Company has consistently demonstrated the ability to achieve revenues sufficient to cover all operating costs and interest charges.

Over \$300 million in additional revenues have been granted by the authorities regulating Duke over the past five years. Total revenues have risen \$700 million dollars since 1973. The difference in total revenues and the additional rate increases granted by the regulatory authorities over the past five years is attributable to increased customers, increased usage per customer, and the fuel adjustment clause. Electric revenues for 1977 increased 14%, due to a 7% increase in KWh sales and higher revenues from fuel cost adjustment procedures. Electric revenues for 1976 had increased 19%, due to rate increases implemented in mid-1975, an 8% increase in KWh sales, and the continuation of revenue collections under fuel cost adjustment procedures. These increases in KWh sales followed three years of relative flat

sales growth due in part to an economic recession. These results occurred despite a steadily rising price per KWh (Gittleman, fol. Tr. 2096).

In future years, it is likely that the regulatory bodies will continue to grant rate increases to offset legitimately rising operating expenses. There is no basis for a conclusion that additional rate increases to offset legitimate operating expenses will impede demand or sales to affect Applicant's financial qualifications. Although rising electrical rates may encourage conservation efforts and impede demand growth, this does not necessarily lead to a conclusion that rising rates will lead to Duke Power Company's bankruptcy.

The NRC Staff is unaware of any case where Duke Power Company has been found guilty of violating any state requirements. With respect to the allegation of unfavorable rate treatment due to violation of North Carolina law, Intervenor stated that it was unaware of any regulatory body that has found Applicant's financial and business practices to be in violation of North Carolina requirements as to the provision of electricity. There is no evidence in this record to support the allegation that Applicant has violated any North Carolina statute or other requirement with respect to its financial or business practices. The evidence shows that there has been no such violation (Tr. 2251, 2541, Gittleman, fol. Tr. 2096; Ranson, fol. Tr. 2510).

The contention includes an allegation regarding purchase by Applicant of over-priced coal. Mr. Riley, testifying for CESG, stated that the public Service Commission of South Carolina was investigating Applicant's practices with respect to coal purchases. the Commission has recently acted and found Applicant's coal purchase practices not to be unreasonable or detrimental to the public interest. This order was the culmination of a proceeding which served as the basis for Intervenor's allegation of state law (Tr. 2255-6; 2542-44; Ranson fol. Tr. 2510).

The first part of Contention 5 states in part that rate increases are not likely to be granted because of a number of factors. Mr. Riley, witness for Intervenor CESG, did not present persuasive testimony to show that rate increases are not likely to be granted to Duke Power Company in the future. The Board has considered the entire record regarding rate increases and finds it reasonable to expect that Duke Power Company will receive the rate increases needed to operate the McGuire plant.

Paragraph 2 of Contention 5 alleges that the NCUC is not likely to permit the McGuire Plant into Applicant's rate base because it is an unneeded facility. This relates again to the need for power issue which was previously considered in Contention 1. The Staff stated that the Applicant has not overbuilt generating capacity in violation of any North Carolina state requirement that is within this Board's jurisdiction to consider.

In paragraph 3, and the last of Contention 5, Intervenor CESG alleges that rates will rise so high as to reduce demand and sales will fall so low as to

severely affect Applicant's solvency. CESG testimony uses statements such as "The pressures of an angry consuming public," referring to a hypothetical too high rate structure; and "It is probable that the used plant will become a public charge," inferring bankruptcy of Duke Power Company (Riley, fol. Tr. 2238). The expectation of such dire circumstances would appear to be unpredictable and highly speculative. CESG's testimony provides no factual basis to show that the ratemaking bodies will not grant adequate rate increases and that the rates granted would be unacceptable to the public in the economic environment of the time. In response to a Board question, Applicant's witness testified that he knew of no case where a large electric utility company has gone into bankruptcy and could not meet its financial obligation to operate its power plants (Ranson, Tr. 2639-40).

The Applicant testified regarding the impact of decreasing sales and adverse rate treatment on the financial ability to operate McGuire. If sales fall below the anticipated level, there will be lower earnings and several options would be available to Applicant. One would be to apply to the appropriate regulatory agencies for a rate increase; another option could be deferral of construction; or lastly, the company could ride things out for a period of time. Applicant would plan to complete the McGuire plant. It would not be practical either to the Company's customers or its stockholders to cancel McGuire because it is so near completion.

The matter of financing the decommissioning of the McGuire plant is included in contention 5 among the other issues. Duke Power Company has considered accounting methods for paying the estimated costs of permanently shutting down a facility and maintaining it in a safe condition. There are various methods which may apply once the estimated costs of permanently shutting down the facility are specified. Both NCUC and the Federal Energy Regulatory Commission permit Duke Power Company to charge its customers for the cost of disposing of spent nuclear fuel. In any event, the rate-making statutes of the regulatory bodies which regulate Duke as a utility will include decommissioning costs.

Applicant's decommissioning estimates are based on assumed moth-balling-delayed dismantling type of decommissioning. Additional decommissioning studies are being conducted on cost estimates to maintain the shutdown of a facility in a safe condition. These are not yet complete. Applicant points to the cost estimates presented in the Atomic Industrial Forum (AIF) study, dated November 1976 entitled, "An Engineering Evaluation of Nuclear Power Reactor Decommissioning Alternatives," as reasonable for units the size and type of those at the McGuire facility. The AIF study estimates an initial cost of \$2.3 million (in 1975 dollars) for the mothballing alternative plus \$167,000 per year for maintenance and surveillance costs if a 24-hour manned security force is required, and \$88,000 per year if it is not.

The entombing alternative was estimated at \$7.5 million (in 1975 dollars) plus \$58,000 per year for periodic inspections and maintenance. The dismantling alternative was estimated to cost \$26.9 million (in 1975 dollars) with no annual costs. None of these cost estimates seem necessarily prohibitive to the Board.

Considering the record as a whole, the Board finds that the Applicant is financially qualified to decommission the McGuire plant. We derive this conclusion from the following facts: (1) ratemaking statutes applicable to the Applicant allow for the recovery of decommissioning costs, (2) the record shows reasonable and favorable treatment of the Applicant by ratemakers in the past and there is no reason to assume this will change in the future, and (3) there is no convincing evidence that future conditions can be expected to make decommissioning financially impossible for the Applicant.

Accordingly, we find that there is reasonable assurance of the Applicant obtaining the necessary funds to cover the estimated costs of the activities contemplated under the operating licenses.

Solar Power Alternative

Contention 6:

CESG has proposed that the Board find that while reduction in peak quate in that no detailed and specific case was developed for solar power at the time of the construction permit proceeding. Subsequent events have made such consideration essential. The Atomic Energy Commission has been supplanted by the Nuclear Regulatory Commission and the Energy Research and Development Administration. The ERDA is giving active and significant support to the development of solar energy utilization which can be expected to reach fruition before the need for McGuire develops, witness the ERDA sponsored solar energy conference in Washington, D. C., week of May 26, 1975, and its explicit programs for phases of solar energy development.

CESG has proposed that the Board find that while reduction in peak demand attributable to solar equipment at the proposed time of initial operation of McGuire Unit 1 will be negligible, that by 1985 the effect will be measurable and will be of the order of 1-2%. Thereafter, Intervenor states that the use of onsite solar heating and cooling will accelerate rapidly and that the consequences will be a stabilization in peak demand until a lower plateau is reached.

The Board finds that the use of solar energy in Applicant's service area is limited by the natural variability of sunshine and potential use of that energy at various times during the year. Applicant's witness testi-

fied that the daily total solar energy reception in the Applicant's service area on a clear June day would be 2,800 BTUs per square foot on a horizontal surface, and only 550 BTUs per square foot on an average December day. Most of this energy cannot be captured. Although a collector for space-heating would be tilted to favor the winter sun, there would be less than complete compensation for the above difference between summer and winter. The system in a solar house would be designed to provide space-heat and hot water in the winter, when BTU reception is the lowest and for hot water only in the summer, when BTU reception is the greatest. Such a collector system would be oversized for summer use if it were to meet winter requirements. The capital costs associated with oversizing such a system would be prohibitive, given present collector cost. As an alternative, an expensive long-time storage system would be needed. The optimum design for solar space heating in the Applicant's service area is to have the solar power system provide 35-75% of the space-heating energy and provide an auxiliary system to supplement the partial solar system to full capacity in winter.

The Applicant's witness testified that a space-heating solar power system of better than average expected thermal performance must have an installed collector and associated equipment cost of less than \$14 per square foot before its use is competitive with electric resistance heating. With other available methods of heat, the solar system would need to cost markedly less.

Consideration was also given to the central solar station concept as an alternative to the McGuire facility. If the individual steamraising units of a 1,000 megawatt solar plant located in the Southwest "sunbowl" were paraboloidal reflectors 20 feet in diameter, 187,000 of them, spread over 3,500 acres, would be needed. Another idea is to replace the many small reflectors, each irradiating its own steam generator, by the same number of heliostats (mirrors), each beaming solar radiation to a central tower topped by a radiation-intercepting steam boiler. Early designs called for a 1,500-foot tower; in later designs the heliostats were concentrated in smaller fields, with a smaller tower at the south center of each field. Applicant's witness testified that the solar plant may be capable of 1,000 megawatts, but have an average output of only 400 megawatts because it can operate only 10 hours per day in the Southwest. A capital-cost ratio of five (fixed charges on the solar plant vs. fossil plant) must be more than doubled if the solar plant is in competition with a base-load fossil or nuclear plant. Unless a way can be devised to economically store its output, the solar plant cannot be competitive with large nuclear or fossil plants. No large solar plant has ever been tested or even built, small demonstration units are only in the design stage, and many power plant engineers question the merits of the idea.

CESG made reference to the viability of photovoltaic cells. Applicant's

witness testified that such cells are presently available at about \$20 per watt of peak power, with efficiencies of 13-14%. With peak power assumed to occur at an irradiation of one kilowatt per square meter, this cost corresponds to \$250 per square foot. This is a bargain only in a few special places. Costs must be reduced by a factor of 50 before photovoltaic power has a significant impact on national energy facilities. Applicant's witness concludes that schemes for using the sun's energy in the most effective way at some distant date, when there will be no alternative, have for the most part not yet been proposed; the scientific principles on which some of them will be based remain to be discovered; the likelihood of such an occurrence in the present time-frame within which decisions must be made is unlikely.

The Staff testified that the cost of collecting and using solar energy must be substantially reduced before solar technology will offer a potential for supplying future energy needs for domestic sources. The use of solar energy by either central station power generation or in distributed forms cannot be considered as a reasonable alternative to operation of the large McGuire nuclear facility. Solar power will not replace central station generating plants such as McGuire. Solar power using distributed technologies will not decrease the demand for electrical energy on the Applicant's system to any degree that could affect the requirement for operation of the McGuire facility during the early 1980's. Should there be any effect from the use of solar power, the more costly output of older coal units would be reduced instead of the less costly nuclear facilities.

Central-station technologies, such as thermal-electric, photovoltaic, wind and ocean thermal, will not be available for utility use until at least after 1985. They are in the design-development stage. They are not viable alternatives to the McGuire facility in the early 1980's. They are not expected to be significant factors within the operating life of the McGuire facility.

The distributed technologies (i.e., domestic hot water heating, solar heating and cooling of residences and buildings, agricultural and industrial process heat, small wind systems, and small building, or community-sized thermal electric and total energy systems) may begin to reduce the requirement for utility-supplied electricity slightly by about 1985. The maximum reduction likely in the Applicant's service area by 1985 will only be about 2%. This includes consideration of major Federal programs in support of solar heating of buildings.

Solar systems for space heating and hot water supply involve a high initial capital outlay, and require a back-up heating system for cloudy days. Using the most optimistic estimates, the use of solar systems as a substitute for electric resistant heating will be economically competitive only when the installed cost of these solar systems can be reduced from the present installed

costs ranging from \$30 to \$45 per square foot to about \$14 to \$20 per square foot. To be competitive with all fuel types in most of the United States, their installed cost would have to be brought down to about \$10 per square foot by 1980.

The North Carolina Utilities Commission (NCUC) report of February 1977⁵ supports the finding that solar power is not a viable alternative to operation of the McGuire facility. It states that the high cost associated with utilizing this dilute energy source is the principal barrier to the implementation of most suggested solar energy applications. The addition of a solar heating unit to a conventional existing home can cost from \$8,000 to \$15,000, a price which is not competitive with current fuel costs. While solar home heating may represent a means for somewhat reducing energy needs for conventional sources, it does not appear to be a solution to all energy problems. It has been estimated that approximately 30% of homes will be replaced by 1990 and that home heating will continue to require about 10% of the total energy needs as it does at present. If all of these new homes are solar heated to provide 50% of the heating load, the net reduction in national energy consumption would be only 1 1/2%.

CESG cites the continuing development of a solar industry. The solar heating of water on site is most economical. Further increases in electric rates and future cost reductions in solar equipment as a result of increased volume may result in growth by the mid-eighties.

The Staff testified that the extent to which solar heating and cooling of buildings can be expected to reduce the demand for other forms of energy, including utility-supplied electricity, is difficult to estimate with confidence. In the late 1940's about 100,000 solar water heaters were in use in South Florida. The access of natural gas and reduced electric rates almost eliminated this industry. With the recent problems of energy supply and the availability of improved solar water heaters, it has been estimated that about 5,000 new heaters have been installed in the nation. It is estimated that between 1,000 and 1,500 active solar systems are in use in the United States for heating buildings. Few of these are actually economic if evaluated on a commercial basis. It has been estimated that if solar heating systems can be installed at a total systems cost of \$20 per square foot of collector, and if fuel costs continue to rise at 4% per annum over general inflation, the solar systems will compete economically with electric resistance heating in most of the United States. While actual system costs are difficult to determine, it is unlikely that systems can generally be installed for less than about \$30 per square foot today. It is unlikely that costs of installation can be reduced to competitive levels much before 1985, and even at these installation levels, the span of time it will take for adoption of these systems by consumers is

⁵Intervenor's Exhibit 18 (including page III-D-3), p. III-D-6, 7.

not certain. The Federal Energy Administration recently investigated solar systems. This investigation has produced estimates that, without intensive Federal support, solar heating of buildings will by 1985 reduce the demand for other forms of energy used for that purpose by 0.25%. With a major Federal program, including the present demonstration program being conducted by DOE, a program of purchasing solar systems for Federal use in order to stimulate industry growth and a substantial tax credit program, the corresponding reduction by 1985 would be 1.2%.

The Board finds that adequate consideration has been given the development of solar power. The impact of solar power will be negligible in the early 1980's and its use will increase in the latter 1980's but by an uncertain amount. Solar power is not presently a viable alternative to electrical power generation at the McGuire Nuclear Station, nor is there significant chance of it becoming a viable alternative within the useful life of the facility. Accordingly, solar power will not change the need for operating the McGuire Nuclear Station.

B. Uranium Fuel Cycle-Health Effects

The environmental consequences of the uranium fuel cycle associated with the operation of the McGuire Nuclear Station were considered in the Final Environmental Statement by including Table S-3 (10 CFR Part 51) and by factoring those consequences into the cost-benefit balance. These matters were considered in the April 1977 evidentiary hearings on environmental matters. Prior to that session of hearings on environmental matters, the Commission on March 7, 1977, announced the adoption of a final interim fuel cycle rule (43 *Fed. Reg.* 13803; March 14, 1977). The Staff evaluated the added environmental impacts that would be assumed from the use of the values in revised Table S-3 and found that they did not tip the cost-benefit balance against operation of the McGuire facility. We agree. There are insignificant increases in the number of acres of land temporarily committed and in millions of gallons of water used. There are insignificant increases in non-radiological effluents and in radiological releases and dose commitment. The fuel cycle effects presented in the revised Table S-3 cycle are so small as to be insignificant when they are superimposed on the other assessed environmental impacts associated with McGuire, Units 1 and 2. They clearly do not tilt the cost-benefit balance expressed in the FES.

At a later date the Commission amended Table S-3 which summarizes the environmental effects and had served as a basis for the prior testimony of Applicant and Staff [See 43 *Fed. Reg.* 15613 (April 14, 1978)]. Specifically, on April 11, 1978, the Commission deleted the value reported for the release of radon-222. It stated that:

. . . the current Table S-3 value for Radon-222 is incorrect and does not include:

- (1) estimates of radon released from mining operations;
- (2) estimates of releases of radon from interim tailings piles after the mill has shut down and during the ensuing period while the tailings pond is evaporating and before stabilization programs are completed, and
- (3) estimates of releases of radon from stabilized mill tailings piles.

Since the original Table S-3 was promulgated, new estimates of releases have been devised that required upward revision of the value for radon in Table S-3. Therefore, the Commission is amending Table S-3 to eliminate the value for radon releases. This issue may henceforth be litigated in individual licensing proceedings since it is not now covered by the rule. [43 *Fed. Reg.* 15614-15 (April 14, 1978)]

The original reason for this was a September 21, 1977, memorandum by W. H. Jordan to James R. Yore concerning corrections to Table S-3, 10 CFR §51.20. It brought into question the amount of radon emitted from the tailings piles associated with uranium mills and stated that the amount should be increased because radon continues to escape from the tailings piles for a very long time causing deaths in future generations due to cancer and genetic effects. Dr. Jordan also stated that after the corrected increase, it can be shown that the number of deaths to future generations are insignificant compared to those due to the radon contribution normally present in the natural background.

Accordingly, the Board must now make a finding of whether the cost-benefit balance struck by the Staff continues to favor granting the operating license based upon our consideration of the new evidence on radon releases and on health effects resulting from radon releases.

On July 20, 1978, this Board reopened the record on the issue of radon-222 emissions, adopting a procedure⁶ adapted from procedures set by the Atomic Safety and Licensing Appeal Board in seventeen cases pending before it.⁷ Utilizing such procedure, the Board received the entire *Perkins*⁸

⁶"Memorandum and Order Regarding Procedures for Consideration of Radon Emissions (July 20, 1978)."

⁷*Philadelphia Electric Company, et al.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-480, 7 NRC 796, 804-806 (1978); See also *Long Island Lighting Company* (Jamesport Nuclear Power Station, Units 1 and 2), ALAB-481, Memorandum and Order, 7 NRC 807, 809 (1978).

⁸*Duke Power Company* (Perkins Nuclear Station, Units 1, 2, and 3), Docket Nos. 50-488, 50-489, 50-490.

record on radon-222 into evidence together with all pleadings by the parties commenting on that record (Tr. 2195-8). Thus, we provided for use of the record in the *Perkins* construction permit proceeding as the "lead case" to implement consideration of the radon-222 matter. In addition, we provided a full and reasonable opportunity to each of the parties to supplement, contradict, or object to the record in *Perkins*.

The Board denied the Applicant's motion to rely strictly on the *Perkins* record; granted the Staff's motion to supplement the record by the additional testimony of Dr. Gotchy; and granted in part and denied in part Intervenor's motion to supplement, contradict, or object to the record in *Perkins*. Intervenor requested an opportunity to supplement the *Perkins* record in several regards: (1) that it be permitted to provide testimony regarding the ethics associated with increases in incremental radiation (Tr. 1888, 2171); (2) that it be permitted to present witnesses on coal mining safety (Tr. 1889); (3) that Dr. Kepford, who participated in *Perkins*, be permitted to comment on his statement about resource consumption inasmuch as it was allegedly not considered by the *Perkins* Board; and (4) that it be permitted to cross-examine Staff's witness Dr. Gotchy with regard to the nuclear fuel cycle health effects versus coal health effects and the basis for a 1,000 year cutoff for the consideration of radon-222 emission consequences. The Board, after hearing extensive argument, denied Intervenor's request except as to permit it to cross-examine Dr. Gotchy. The Board determined that the Intervenor had failed to state in detail the respect in which the *Perkins* record is deficient. Also, we held that the Commission did not extend the consideration of health effects to a moral and ethical or philosophical discussion of releases in the fuel cycle. In this regard, we determined that we did not require the assistance of an expert to appreciate the meaning of any increased mortality caused by any increase in radon-222 releases. The Intervenor cross-examined Dr. R. L. Gotchy regarding the nuclear health effects versus the coal health effects with respect to the substantial differences between his earlier McGuire testimony and his affidavits on March 28, 1978, and May 10, 1978. The Intervenor was permitted to challenge by way of cross-examination Dr. Gotchy's assumption behind a 1,000 year cutoff date for consideration of radon-222 releases and associated impacts.

We turn now to our findings based on the record compiled in this proceeding, including the *Perkins* record, and as modified and supplemented at the hearing in this proceeding held on August 30, 1978, on the radon-222 matter. The Board believes it has at least the implied authority to decide this issue based in part upon review of *Perkins* and has elected to do so in the interest of consistency.

The Staff presented a revised Table S-3 and an analysis comparing health effects associated with the coal and nuclear fuel cycles. In making this

evaluation, the entire fuel cycle associated with each alternative was considered. The coal fuel cycle consists of mining processing, transportation, power generation, and waste disposal. The nuclear fuel cycle includes mining, milling uranium enrichment, fuel preparation, fuel transportation, power generation, irradiated fuel transport, reprocessing (if permitted) and waste disposal. The Applicant also presented testimony concerning the health effects associated with the coal fuel cycle.

Applicant's testimony was directed to the health impact to the population within 50 miles of the plant and showed that health effects attributable to nuclear generation were at least 360 times less than health effects associated with operation of comparable coal units. With respect to comparisons of health effects associated with the entire fuel cycles, Applicant stated that the health effects of the coal-fuel cycle, including occupational effects and effects among the general public, are at least 30 times, and probably 100 times or more greater than that of the equivalent nuclear fuel cycle. The Staff testified that the coal-fuel cycle alternative may be more harmful to man by factors of 4 to 250, depending upon the health effect being considered for all nuclear economy, or factors of 3 to 22 with the assumption that all of the electricity used by the uranium fuel cycles comes from coal-powered plants.

The Board has reviewed carefully the views of expert witnesses for the Staff, Applicant, and Intervenor in this proceeding and in the earlier *Perkins* proceeding. As one might expect, there are differences as to assumptions made and how the data are treated to arrive at conclusions regarding the health impact of the radon emissions. The Board finds a common denominator in all this, namely, by using conservative values when in doubt and a "worst case" treatment, the amount and rates of radon released due to mining and milling of uranium for reactor fuel is extremely small (*de minimis*) when compared to rates or levels of radon release from natural sources to which every living being is exposed.

The health effect may be viewed in terms of cancer deaths in future generations. There is controversy as to the length of time to consider and whether the effects are linear, or otherwise, at small doses. Staff experts consider 100 to 1000 years as a meaningful period. Intervenor wishes to use intervals of millions and billions of years and longer, with the purpose that multiplying a tiny annual radiation exposure by a very large number of years results in an alarmingly large number of cancer deaths. The playing of such a numbers game lacks credibility. If it is determined in future generations that the health effects due to radon leakage from uranium mining and milling are excessive, there are reasonable remedies available to reduce them.

Based upon the record of this proceeding, we find that the most reasonable mechanism available to characterize the significance of the radon releases associated with the mining and milling of the nuclear fuel for the

McGuire facility is to compare such releases with those associated with natural radon background. On that basis, the Board finds that the evidence demonstrates that the exposures associated with the radon release from the mining and milling of the uranium are insignificant. We conclude from consideration of the available information concerning releases of radon-222 and Carbon-14 associated with the uranium fuel cycle and health effects that can reasonably be deemed associated therewith that such releases and health effects are insignificant in striking the cost-benefit balance for the McGuire Nuclear Station, Units 1 and 2. They clearly do not tilt the cost-benefit balance set forth in the Final Environmental Statement. Therefore, the cost-benefit balance favors granting the operating licenses.

In addition, the Board finds that the matter of health effects associated with coal and nuclear generation alternatives has been adequately considered, and that such consideration confirms that the cost-benefit balance favors the nuclear alternative.

Discussion

In connection with the *Perkins* hearing, the Staff filed a series of five affidavits which included the most recent estimates of radon-222 releases from mining and milling operations and an evaluation of the health effects resulting from such releases. At the *Perkins* hearing, in addition to the evidence of the Staff witnesses, the Applicant (also Duke Power Company in *Perkins*) presented evidence with a panel of witnesses. The *Perkins* intervenors presented Dr. Chauncey Kepford, who had participated in questions concerning radon-222 emissions in the *Three Mile Island* proceeding. Dr. Kepford's evidence was obtained at a deposition held on June 8, 1978, in Bethesda, Maryland. At the deposition, Dr. Kepford's prefiled direct testimony was accepted into evidence. Dr. Kepford also presented a handwritten document entitled, "Resource Consumption" and other documents, or parts of documents. The Resources Consumption document projects uranium availability and consumption. Exhibits H, I, and J are NRC Staff documents relating to amendments of the values in Table S-3. Four documents relate to health as affected by radiation. One concerns earth science problems associated with the disposal of radioactive wastes and another explains how the upper bound, central bound, and lower bound calculations for the effects on populations of exposure to low levels of ionizing radiation, as used in Staff testimony, were derived. No cross-examination of Dr. Kepford's exhibits was made by the other parties. The Applicant in *Perkins* objected to receipt into evidence of "Resources Consumption" and the eleven exhibits, marked for identification as Exhibits A-J, upon the basis of untimely filing, as being beyond the scope of the *Perkins* Board's reopening of the

record which is to establish a radon-222 value for the uranium fuel cycle as it related to the proposed *Perkins* facility. The Staff also opposed admitting these documents as evidence on the ground that the authors of these documents were not available for cross-examination (Staff fol. Perkins Tr. 2369; Lewis, Goldman, and Hamilton, fol. Perkins Tr. 2266; P-Tr. 2713-2728).

This Board accepts Dr. Kepford's prefiled direct testimony, as corrected at the Perkins deposition, as evidence. We also admit all other exhibits proffered by Dr. Kepford as evidence insofar as they relate to the amount of radon-222 emitted into the environment as a consequence of the nuclear fuel cycle.

Radon Source

Radon-222 is a natural product of the decay of uranium-238 which itself has a half-life of 4.5 billion years. Ahead of radon in the radioactive chain are solids with a long half-life, thorium-230 with 80,000 years and radium-226 with 1600 years. Radon is a gas having a half-life of 3.8 days. It diffuses through the soil or ore body to reach the atmosphere. The amount depends on the length of the path and the lapse of time between the origin of the radon from the ore body and the air interface. The process will continue so long as the ore body or mill tailings are exposed. It can be covered with soil or water to decrease the amount of radon leakage.

Radon-222 release to the atmosphere during mining depends on whether the ore is taken from underground mines or from surface or open-pit mines. The Staff estimated the radon emissions resulting from the production by underground mines of ore for one annual fuel requirement for a 1,000 MWe reactor (AFR) would amount to about 4,000 Ci. This value was accepted as reasonable by Applicant's witnesses and was not challenged by Intervenors. The *Perkins* Board was concerned that abandoned mines could continue to be a source of radon release to the atmosphere. It was indicated to be industry practice to seal ventilation and hoisting shafts for mines no longer producing uranium. There was insufficient data to predict with certainty the potential rate of radon emission from open-pit mining. Open-pit mining operations constitute about half of the present uranium mining activity and are expected to decrease in the future. A number of conservative assumptions were made to calculate a value for radon release from open-pit mines of approximately 100 to 200 Ci per year per AFR, or a total of 2,000 to 4,000 Ci/AFR for the surface mine at the end of 20 years of operation. Applicant's witness made similar calculations and reached similar results. A number of the states in which open-pit uranium mining takes place have requirements for reclamation and recontouring. The estimates were not challenged by

Perkins intervenors in this proceeding. It appears to have been adopted by Dr. Kepford for purposes of calculations which he subsequently performed in connection with testimony he gave at his deposition (Wilde P-Tr. 2369; Goldman fol. P-Tr. 2266 and 2281; P-Tr. 2541-3; P-Tr. 2543-58; 2609-13; 2604; 2639).

After the mining operation, uranium ore is delivered to a mill where it undergoes the various chemical processes which result in the separation of uranium from the other materials contained in the ore. At the mill, there are a number of points of radon release. One point is the stockpile where the ore awaits processing. Staff witness testified that this was considered and proven to be only a very minor contribution. During the course of milling, there will be the release of some radon as a result of crushing and grinding and various chemical processing steps. Staff estimated that this release would amount to some 30 curies per AFR. Thereafter, the tailings or residual material remaining after the uranium has been extracted go to a tailings pile. This contains substantial amounts of the thorium and radium. Separate estimates were made for radon release from the tailings piles during different periods during and following active milling. Approximately 750 curies of radon per AFR are released from the tailings during the period of active mill operation, which was assumed to be 26 years of operation. During this time, a portion of the tailings pond is composed of wet pond area, wet sandy beach areas, and some dry beach areas. Radon is released principally from the dry beach areas. During the following period of approximately five years when the tailings piles dry out and are stabilized, approximately 350 curies per AFR would be generated. These releases were accepted as reasonable estimates by Applicant's *Perkins* witness and were not challenged by Intervenor's witness in either *Perkins* or this proceeding (Magno fol. P-Tr. 2369; P-Tr. 2502-06; 2559-2562; Goldman fol. P-Tr. 2266).

The original Table S-3 did not include the total amount of radon that would be emitted from the tailings piles during the years following the cessation of milling operations. Radon will continue to be released from the tailings and diffuse to the surface. The rate of emission will be determined primarily by the diffusion constants and will be essentially constant, being chiefly determined by the half-life of the parent Th-230 of 80,000 years. About 90% of the uranium is recovered in the milling operation and the tailings piles contain about one tenth as much uranium as the ore. After most of the Th-230 has decayed, it will be regenerated from the U-238 and will continue to emit radon at about 10 percent of the original level. The total amount of radon emitted per AFR depends entirely on the assumptions that are made concerning the stabilization of the tailings piles after they dry out. If the piles remain uncovered, or are protected only by a foot or two of soil, as has been the practice in the past, the radon will continue to be emit-

ted at a rate of 100 curies/yr/AFR. If the piles are covered with sufficient overburden, the Staff estimates the releases from stabilized covered tailings piles to be 1 to 10 curies per year per AFR. This is negligibly small compared to the natural emission of radon from the soil of the U.S., some 100 million curies per year. Radon seeps from the soil because it naturally contains uranium.

A number of mills may not be subject to NRC licensing and the *Perkins* Board questioned the assumption that all tailings piles would be subject to stabilization requirements such as those described in the NRC branch position. NRC's Office of State Programs had been in contact with the states in which uranium milling activities are carried out and each of the responsible states has provided the NRC with commitments to impose stabilization requirements equivalent to those described by the Staff (P-Tr. 2477-2480, 2483-2485).

There are some abandoned mills in which there are tailings piles from previous milling activities. These abandoned facilities are no longer under license and may not be subject to stabilization requirements as a part of licensing activities. Since these are abandoned facilities, any radon emission from such tailings piles is not attributed to the operation of the Perkins or McGuire facility (P-Tr. 2453-2455, 2480-2481).

The Intervenor's argue that even if stabilization of tailings piles could be assured for the next few thousand years, it could not be guaranteed for millions of years. Most of the total health impact that they project occurs after the first 1,000 or 10,000 years. Various remedies are being applied to mill tailings to reduce the radon emission. The result is some uncertainty in the values to be used in determining the exact magnitude of this radioactive source. If the health hazard is truly great, it is most likely that corrective actions will be taken by regulation to reduce them.

The Board believes that it is reasonable to assume, for purposes of estimating radon release from uranium milling activities that may be associated with the production of fuel for the McGuire facility, mills will be subject to stabilization requirements and that the estimate of from 1 to 10 curies per year per AFR for radon releases from stabilized tailings piles is reasonable.

Health Effects

After considering the amount of radon released from mining and milling, and the health effects associated with it, the *Perkins* Licensing Board decided: Based on the record available to this Board, we find that the best mechanism available to characterize the significance of the radon releases associated with the mining and milling of the nuclear fuel for the Perkins facility is to compare such releases with those associated with natural background. The increase in background associated with Perkins is so

small compared with background and so small in comparison with the fluctuations in background, as to be completely undetectable. Under such a circumstance, the impact cannot be significant.

That Licensing Board concluded the radon releases and the resulting impacts were insignificant in restriking the cost-benefit balance for the *Perkins* Nuclear Power Station. We note that the numbers used at the *Perkins* hearing have a degree of conservatism when applied to the McGuire Station; the *Perkins* Station consists of three units, each one 1280 MWe, while the McGuire Station has two units, each with an electrical capacity of 1180 MWe. The smaller nuclear facility will require less uranium fuel and have less radon emission and resulting health effects.

Estimates for the radon emission are summarized by the *Perkins* Board as some 4,000 curies per AFR released by either form of mining. The radon release from milling was estimated to be about 30 curies per AFR. The radon emission from an active tailings pile was estimated to be 750 curies per AFR over a period of 26 years. During the 5-year period between the end of active milling to stabilization of the tailings, pile was estimated to be 350 curies per AFR. The emission rate of a dry, unstabilized tailings pile was estimated at about 110 curies per AFR per year, and of a stabilized pile as 1 to 10 curies per AFR per year.

We are faced with essentially a permanent, but small, continuing release of radon to the atmosphere resulting from the milling and mining of uranium for the operation of the *McGuire* plant or any other uranium fueled lightwater power reactor. This low-level release can be the source of an extremely small increase in overall radiation exposure to populations living now and populations living in the future, including those living in the very distant future. The question is how to assess these future potential exposures. The subject can be treated in several different ways.

The Staff witness for his calculation of health effects assumed that the pile remains stable for its first 500-year period releasing 1 curie per year per AFR for the first 100 years. He then assumed loss of some overburden covering the tailings which then released 10 curies per year per AFR for the next 400 years. At the end of that 500-year period, a complete loss of overburden was assumed resulting in a release rate thereafter of 100 curies per year per AFR. Based on these rates of release, the dose to a stable U.S. population of approximately 300 million was calculated for various periods of time after the stabilization of the pile out to 1,000 years. The population doses were also calculated assuming releases as described for the periods up to 10,000 years into the future for purposes of comparing potential doses with background doses for radon. Using identified dose conversion factors, he computed a projected risk of cancer mortality which would be attributable to the additional radiation

exposure. The additional risk of cancer mortality deaths resulting from the increased radon release to the atmosphere for 1,000 years will cumulatively total 1.2 additional deaths per AFR (Gotchy, fol. P-Tr. 2369; 2405).

This additional health risk was added to the previous estimate of health effects associated with the nuclear fuel cycle and compared with the previous estimate of health effects associated with the coal fuel cycle. Considering the impact of radon at the revised higher release rates presently estimated by the Staff for a period of 1,000 years, the overall estimate of excess mortality associated with one AFR for the all-nuclear fuel cycle would range from 0.59 to 1.7 per year. This is far less than the estimate of excess mortalities for one AFR for the coal-fuel cycle ranging from 15 to 120 per year (Gotchy, fol. P-Tr. 2425).

These calculations were based on an average prevailing wind speed for a simple wedge model for calculating the dispersion of the radon plume from a mine or tailings piles as it moves across the U.S. at about two meters per second. The two meters per second assumed was said to be the average wind speed within the mixing depth. The two meters per second average prevailing wind speed corresponds to about 4.5 miles per hour, which is on the order of about 100 miles a day. Staff witness was also asked to assume that the wind velocity at the Charlotte weather bureau at 7:00 a.m. on a day in August was 5 knots at ground level and that at 3,000 feet it was at 15 knots. Estimates of the population dose and health effects have at least an order of magnitude uncertainty in them. The variations in the assumptions of wind speed fall within the envelope of the impacts of the calculations contained in the simple wedge model. The variation of the windspeed from 5 knots to 15 knots at 3,000 feet would not significantly affect the calculations (Gotchy, Tr. 2378-83).

Staff concludes that the increase in health effects due to radon out to 1,000 years into the future do not significantly alter the conclusion that the nuclear fuel cycle has far fewer adverse health effects than a comparable coal fuel cycle. Staff witness discusses at length the reasons that one cannot meaningfully predict specific health effects into the future beyond 1,000 years. He compared radon releases resulting from the mining and milling of uranium with radon naturally occurring on the earth, and provided calculations out to 10,000 years of the comparative population exposure resulting from radon emanation from the nuclear fuel cycle compared to the naturally occurring exposures. These calculations show that exposure due to radon release from mining and milling are insignificant compared to natural background radiation exposures (Gotchy, fol. P-Tr. 2425; P-Tr. 2592-99; fol. P-Tr. 2369).

Dr. Kepford, for the intervenor, used health effects values, and radon release rates basically derived from the Staff's testimony to project numbers

of deaths from future radon emanations from uranium mining and milling far into the future: 10,000 years, 100,000 years, millions of years and billions of years into the future. His calculations are based on a model which freezes the present society as we know it, with its habits and characteristics, and extends this society, for better or worse, off to infinity. Out to 1,000 years, the calculations are somewhat higher than those resulting from the use of Staff estimates. He estimates a total of 489 deaths due to the radon resulting from approximately 110 AFRs required to fuel the three *Perkins* facilities (or the two McGuire facilities) for a 30-year operating lifetime. The Staff estimates to 1,000 years predict approximately 132 deaths for the same number of annual fuel requirements. Dr. Kepford's calculations contain certain radon source estimates greater than those contained in Dr. Gotchy's estimates. These include a source of 100 curies per year per AFR to account for residual releases from open-pit mines; assume no stabilization of mill tailings piles and thus assume a release of approximately 110 curies per year per AFR for the entire period. Dr. Kepford continues his computations of health effects on the same basis for periods of millions and billions of years. The total time is so enormous that the total number of deaths summed over this period of time seems large. For 10,000 years it is 4,800 computed deaths; for a billion years it is 230 million computed deaths. Dr. Kepford urges us to use these values when assessing nuclear power versus an impact associated with coal (Kepford, fol. P-Tr. 2820; P-Tr. 2877-91).

Another point of view was expressed by Applicant's witness, Dr. Hamilton, who felt that calculating health effects based upon such extremely low level exposure was not truly meaningful because repair mechanisms were not taken into account. He considered extrapolations of health effects into the far distant future as being misleading. He expressed the view that the problem should be addressed in terms of increase in Radon-222 that a person is going to get from the nuclear fuel cycle in terms of the fractional increase in natural background radiation from Radon-222 to which every living person is exposed. The concentration of radon in the atmosphere varies from place to place. People live in houses with concrete floors, stone fireplaces or brick walls and work in buildings made of concrete. The radon concentration inside such homes and buildings is much larger than it is out of doors. The dose to an individual from natural radon sources in the U.S. is estimated to vary between 210 and 23,250 millirem per year with an average of about 1,650 millirem per year (Hamilton, fol. P-Tr. 2266; P-Tr. 2322, 2333).

Dr. Hamilton estimated that the average concentration of radon in the air over the continental U.S. is about 0.1 pCi/liter which in itself produces a dose to the bronchial epithelium of about 50 millirem/year. The additional radon from the mining and milling of uranium fuel could result in an an-

nual tissue dose to the bronchial epithelium of 2.5×10^{-4} millirem per year for one plant. This tiny additional dose is a negligible contribution to the annual natural background dose to the bronchial epithelium of 1650 millirem per year and is well below the range of naturally occurring variations of 210 to 23,250 millirem per year to the bronchial epithelium. The additional radon is really an insignificant and probably immeasurable increment in radiation exposure and health effects. No evidence presented in the McGuire hearings changes that conclusion, even if one accepts the somewhat greater doses postulated by CESC (Hamilton, fol. Perkins Tr. 2266; 2274-8).

The additional risk of 1.2 deaths per AFR was added to previous estimates of health effects associated with the nuclear fuel cycle and compared with previous estimates of health effects associated with the coal fuel cycle. Considering the impact of radon at the higher release rates presently estimated by the Staff for a period of 1,000 years, the overall estimate of excess mortality associated with one AFR for the all nuclear fuel cycle would range from 0.59 to 1.7 per year. This is contrasted with the estimate of excess mortalities for one AFR for the coal-fuel cycle ranging from 15 to 120 per year. The increase in health effects due to radon out to 1,000 years into the future does not significantly alter the earlier conclusion that the nuclear fuel cycle has far fewer adverse health effects than a comparable coal fuel cycle (Gotchy, Perkins fol. Tr. 2425).

The added environmental impacts that would occur from the use of increased radon values reported in a revised Table S-3 do not tip the cost-benefit balance against operation of the McGuire facility. There are insignificant increases in the number of acres of land temporarily committed and in millions of gallons of water used. There are insignificant increases in non-radiological effluents and in radiological releases and dose commitment. The fuel cycle effects presented in a revised Table S-3 are insignificant when they are superimposed on the other assessed environmental impacts associated with McGuire, Units 1 and 2, and do not tilt the cost-benefit balance reported in the FES. The cost-benefit balance continues to favor granting the operating license. This finding is based on the new evidence regarding radon releases and resulting health effects.

C. Compliance with Appendix I to 10 CFR Part 50

The Final Environmental Statement (FES) for the McGuire Nuclear Station issued in April 1976 stated that the Staff was in the process of reassessing the parameters and mathematical models with respect to Appendix I of 10 CFR Part 50 and that a detailed assessment to determine conformance with Appendix I would be completed in connection with this environmental hearing.

The Staff has examined the Applicant's compliance with Appendix I in accordance with the provisions of 10 CFR Part 2, Appendix A, Section VIII (a) and (b), and the requirements of 10 CFR Part 51. This initial decision modified to some extent the Final Environmental Statement issued in April of 1976, pursuant to 10 CFR §51.52(b) (3). The Staff presented testimony which detailed the results of evaluation to determine whether the McGuire facility complied with Section II. A, II.B, II.C and II.D, of Appendix I.⁹

The Staff concluded that the radioactive waste management systems proposed for the McGuire Nuclear Station, Units Nos. 1 and 2, are capable of maintaining releases of radioactive materials in liquid and gaseous effluents during normal operation, including anticipated operational occurrences, as low as reasonably achievable. The maximum individual doses will not exceed the numerical design objectives of Section II.A, II.B, and II.C of Appendix I of 10 CFR Part 50. The Applicant's proposed design of the liquid and gaseous waste treatment systems for the McGuire Nuclear Station, Unit Nos. 1 and 2, satisfies the guides on design objectives in the Annex to Appendix I, Docket RM-50-2 (10 CFR Part 50, Appendix I, Annex), specified in the option provided by the Commission's September 4, 1975, amendment to Appendix I. The Applicant's proposed design meets the requirements of Section II.D of Appendix I of 10 CFR Part 50. When the McGuire facility becomes operational, the liquid and gaseous radwaste systems will reduce radioactive materials in effluents to "as low as is reasonably achievable" levels in accordance with 10 CFR Part 50.34a and are acceptable. The proposed liquid and gaseous radwaste management system for McGuire Units 1 and 2 meet the criteria given in Appendix I and are acceptable.

The Staff testified that the newly projected U.S. population doses indicate that there will be a smaller dose to the population than previously estimated and an inconsequential projected individual dose. Projected individual exposures were not presented in the FES but were provided by Table 4 of Boegli, et al., following transcript page 444. These expected individual exposures are inconsequential and considerably less than the allowable design objectives of RM-50-2. Even when the total cumulative occupational dose is added to the total cumulative 50-mile population dose, the dose is inconsequential when compared to the approximately 200,000 man-rem per year cumulative dose to this same population due to natural background radiation. The Staff concludes that there has been no significant change in the environmental assessment in the FES.

The Board finds, based on the Staff's evaluation, that the proposed liquid and gaseous radwaste management system for the McGuire Nuclear Station meets the criteria of Appendix I and are therefore acceptable.

⁹Boegli, Britz, Andrews, and Markee, following Tr. 444; Boegli, following Tr. 444.

D. Unresolved Generic Safety Issues

The NRC Staff's Safety Evaluation Report should contain a summary description of those generic problems under continuing study which have both relevance to facilities of the type under review and potentially significant public safety implications. *Gulf States Utilities Company* (River Bend, Units 1 and 2), ALAB-444, 6 NRC 760 (1977); *Virginia Electric and Power Company* (North Anna Nuclear Power Station, Units 1 and 2), ALAB-491, 8 NRC 245 (1978). Such explanations should provide the Board and the other parties with the Staff's perception of the nature and extent of the relationship between each significant unresolved generic safety question and the eventual operation of the McGuire facility. According to the information provided in Supplement No. 2 to the SER (March 1, 1979), a forthcoming Supplement will include a discussion of Staff activities regarding generic safety issues. Such document should be promptly served on the Board and all parties after it has been issued.

III. CONCLUSIONS OF LAW

In an operating license proceeding, the Board is called upon to decide only the issues in controversy among the parties (10 CFR §2.760a and Appendix A to 10 CFR Part 2, Section VIII). In this case, the contentions and evidence have placed in issue the general subjects of need for power, alternate modes of generation, seismic design, financial qualifications and solar power.

Based upon the foregoing Findings of Fact which are supported by reliable, probative, and substantial evidence as required by the Administrative Procedure Act and the Commission's Rules of Practice, and upon consideration of the entire evidentiary record in this proceeding, the Board makes the following Conclusions of Law:

- (1) The requirements of 10 CFR Part 51 have been met;
- (2) The requirements of Section 102(2) (A), (C) and (E) of the National Policy Act have been met;
- (3) The Board has thoroughly considered the basis of the analysis and evaluation set forth in the Final Environmental Statement, which weighed the environmental, economic, technical, and other benefits against environmental costs and considered available alternatives [pursuant to the direction in 10 CFR Part 2, Appendix A, Sections VIII(b) (7) and VIII(c), respectively], and concludes that the foregoing Findings of Fact concerning the issues in controversy in this operating license proceeding and changes in circumstances since is-

suance of the construction permits which have been addressed in this Initial Decision do not tip the cost-benefit balance against issuance of the operating licenses for McGuire, Units 1 and 2. The evaluation includes our assessment of the FES, of the Applicant's compliance with 10 CFR Part 50, Appendix I, of the evaluation of the health effects of coal generation facilities versus nuclear generation facilities, and of the Commission's final interim uranium fuel cycle rule, 10 CFR Part 51.20(e) (Table S-3) as it applies to the McGuire facility. In reaching its conclusion, the Board considered and decided all matters in controversy among the parties, and independently considered the final balance among conflicting factors contained in the record of this proceeding.

- (4) The possibility that dilatancy or other earthquake precursory phenomena have been occurring in the Wilmington-Southport area of eastern North Carolina does not serve as an adequate basis for postulating the occurrence of a major earthquake in that area. If such an earthquake were to occur, it would not exceed the design specifications of the McGuire facility.
- (5) The Applicant is financially qualified to engage in the activities to be authorized by the operating licenses in accordance with the Commission's regulations.
- (6) Having considered and decided all matters in controversy among the parties related to operation, the Director of Nuclear Reactor Regulation should be authorized to make such additional findings on uncontested issues as may be necessary to determine whether or not to issue full-term operating licenses for McGuire Nuclear Station, Units 1 and 2.
- (7) Prior to making the necessary findings on uncontested issues, the NRC Staff should address the significance of any unresolved generic safety issues in a Supplement to the Staff's Safety Evaluation Report. The analysis of the nature and extent of the relationship between each significant unresolved generic safety question and the eventual operation of the McGuire facility should include consideration of whether (1) the problem has already been resolved for the McGuire facility; (2) there is a reasonable basis for concluding that a satisfactory solution will be obtained before the facility is put in operation; or (3) the problem would have no safety implications until after several years of reactor operation and, should it not be re-

solved by then, alternative means will be available to insure that continued operation (if permitted) would not pose an undue risk to the public.

- (8) The Board should retain jurisdiction over this proceeding pending receipt of the Staff's Safety Evaluation Report Supplement addressing the significance of any unresolved generic safety issues. Therefore, the Board on its own motion will stay this Initial Decision until further order by the Board following issuance of such Supplement.

IV. ORDER

WHEREFORE, IT IS ORDERED that the Director, Office of Nuclear Regulation, is authorized upon making requisite findings with respect to matters not embraced in this Initial Decision in accordance with the Commission's regulations, to issue to Applicant, operating licenses for a term of not more than forty (40) years, authorizing operation of the McGuire Nuclear Station, Units 1 and 2, at steady state power levels not to exceed 3,411 megawatts thermal; such licenses may be in such form and content as is appropriate in light of such findings, provided that such licenses are consistent with the conclusions of the Board herein.

In view of the Commission's Rules of Practice limiting the Board's jurisdiction in a contested operating license proceeding, the Board has made Findings of Fact and Conclusions of Law on matters actually put into controversy by the parties to the proceeding. As required by the Commission's Regulations, the NRC Staff will inspect the McGuire facility prior to issuance of any operating licenses to determine whether it has been construed in accordance with the application, as amended, and the provisions of the construction permits. In addition, the licenses will not be issued until the NRC Staff has made the findings reflecting its review of the application under the Atomic Energy Act, which will be set forth in the proposed licenses, and has concluded that the issuance of the licenses will not be inimical to the common defense and security and to the health and safety of the public. Upon issuance of the licenses, the Applicant will be required to execute an indemnity agreement as required by Section 170 of the Act and 10 CFR 140 of the Commission's Regulations.

IT IS FURTHER ORDERED, in accordance with Section 2.718 of the Commission's Rules of Practice, 10 CFR Part 2, that this Initial Decision with respect to the McGuire Nuclear Station, Units 1 and 2, shall be stayed until further order by the Board following the issuance of a Supplement

to the NRC Staff's Safety Evaluation Report addressing the significance of any unresolved generic safety issues.

**FOR THE ATOMIC SAFETY AND
LICENSING BOARD**

Emmeth A. Luebke, Member

Cadet H. Hand, Jr., Member

Robert M. Lazo, Chairman

**Dated at Bethesda, Maryland,
this 18th day of April, 1979**

APPENDIX A

Decisional Record

The decisional record in this proceeding Duke Power Company (William B. McGuire Nuclear Station, Units 1 and 2, Docket Nos. 50-369 and 50-370) consists of the following:

1. The material pleadings filed herein, including the Commission notices, the petitions, and other pleadings filed by the parties and the orders issued by the Board during the course of this proceeding;
2. The transcript in this proceeding: The transcript of testimony at the evidentiary hearing is in fourteen volumes with pagination from 135 to 2673;
3. The exhibits received into evidence at the evidentiary hearing. These exhibits are identified as follows:

STAFF EXHIBITS

Number	Identified	Received	Description
A	253	261	Final Environment Statement, Related to Operation of William B. McGuire Nuclear Station, Units 1 and 2,

NUREG-0063, Duke Power Company (April 1, 1976), Docket Nos. 50-369, 50-370, U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation.

B	1975	1975	SER, NUREG-0422
C	1975	1975	SER, Supplement 1, NUREG-0422
D			September 25, 1978, Affidavit of Suzanne G. Keblusek commenting on CESG Exhibits 34 and 35. See Transcript 1979-80.

APPLICANT EXHIBITS

1	250	250	Environmental Report, Operating License.
2	250	250	Final Safety Analysis Report (FSAR)
3	250, 1931	250, 1933	Application with 55 amendments. Applicant's Exh. 3, includes the Duke Power Company Annual Report of 1976, identified Tr. 350, received into evidence, Tr. 350.
4			September 14, 1978, Affidavit of D. H. Sterrett commenting on CESG Exhibits 34 and 35. See Transcript 1979-80.

INTERVENOR'S EXHIBITS

1	381	381	Deposition of Thomas Ainscough, pp. 13-47.
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2	514	514	Testimony of Miles Oakley Bidwell, NCUC, Docket No. No. E-100, Sub. 22, 11pp. (The last six pages are unnumbered. They constitute a separate document entitled, "Supplementary Testimony of Miles Oakley Bidwell.") Tr. 513-514.
3	1300	1341	"Before an NRC ASLB, Docket Nos. 50-369, 50-370 at Charlotte, N.C., Testimony of Jesse L. Riley, March 28-April 1, 1977," (comprised of 16 typed pages of questions and answers and approximately 20 attachments, including graphs and other attachments.
3-A	1341	Memorandum and Order, June 14, 1977	"Business Enterprise" p. 489; "ance," p. 456; "Prices", p. 415; "Income, Expenditures, and Wealth," p. 379; "Energy Consumption," p. 531; "Prices", p. 414; "Survey of Current Business," 1 p. (no page number visible); "Domestic Trade, Continued, and Labor Force Employment and Earnings"; "Per Capita Income—Personal Consumption Expenditures," p. 383; "Survey of Current Business, July, 1976" (beginning with Table 2.4); "Personal Consumption Expenditures by Major Type of Product in Constant Dollars."

4	1302	Memorandum and Order, June 14, 1977	"Electricity Demand Growth and the Energy Crisis," Duane Chappman, Timothy Tyrrell, Timothy Mount, <i>Science</i> , November 1972 (consisting of 6 pages numbered 703-708).
5	1302	Memorandum and Order, June 14, 1977	"Generating Capacity and Total Sales of Class A Electric Utility Companies in North Carolina, 1970-1975" (1p.).
6	1303	Memorandum and Order, June 14, 1977	"Position of Jesse L. Riley in Peak Load Pricing" Docket No. E-100, Sub 21 before the North Carolina Utilities Commission (7 pp.) (Fall 1976, Tr. 1303).
7	1303	Memorandum and Order, June 14, 1977	Letter to Mr. Jesse L. Riley from Robert K. Koger, North Carolina Utilities Commission, June 14, 1976, and attachment entitled Duke Power Company (system) Quarterly Industrial Sales (000's kwh) from 1972.
8	1303	Memorandum and Order, June 14, 1977	Reprint from <i>Electrical World</i> , May 15, 1976, p. 147, "Utilities See Growth Loss as Permanent" (1 p.).
9	1304	Memorandum and Order, June 14, 1977	Letter to Mr. Bernard C. Rusche, Director, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, from Mr. E. A. Baum, Executive Manager Licensing and Quality Assurance, VEPCO, February 11, 1977, and attachment consisting of a 2-page press release dated February 11, 1977.

10	1304	Memorandum and Order, June 14, 1977	"Nuclear Moratorium: Study Claims That Effects Would Be Modest, Foresees Low Growth Rate for Total Energy Demand" (describes publication entitled "Economic and Environmental Implications of a U.S. Nuclear Moratorium by the Institute for Energy Analysis, Oak Ridge Associated Universities, Oak Ridge, Tennessee, 1976), <i>Science</i> , Vol. 195, pp. 156-157, January 14, 1977 (2 pp.)
11	1304	Memorandum and Order, June 14, 1977	Letter to parties in NRC Docket Nos. STN 50-488 - 50-490 and Docket Nos. STN 50-491 - 50-293 from Mr. Frederic J. Coufal, Chairman, Atomic Safety and Licensing Board
12	1305	Memorandum and Order, June 14, 1977	Publication by Jesup and Lamont Inc., (Brokerage House), "Problems of Nuclear Power," September 2, 1976 (10 pp. of text, 5 appended pages of tables and explanation).
13	1305	Memorandum and Order, June 14, 1977	Page 15 of AEC Report WASH-1174-73.
14	1305	Memorandum and Order, June 14, 1977	"Intervenor's Comment on 'Operating History U.S. Nuclear Power Reactors' " (Docket Nos. 50-369 and 50-370, dated January 21, 1973).
15	1306	Memorandum and Order, June 14, 1977	Two-page excerpt from article entitled "19th Steam Station Survey," <i>Electrical World</i> , November 15, 1975, pp. 43, 47.

16	1306	Memorandum and Order, June 14, 1977	Single page from <i>Pulp and Paper</i> , May 1975, p. 104 entitled "Ever Increasing Utility Rate and One Way to Counter Them."
17	1306	Memorandum and Order, June 14, 1977	Single page which indicates reference to a book entitled <i>Power Plant Performance, Nuclear and Coal Capacity Factors and Economics</i> , Charles Komanoff Council on Economic Priorities (New York and San Francisco).
18	1307	Memorandum and Order, June 14, 1977 including page III-D3	"Report of Analysis and Plan: Future Requirements for Electricity for Service to North Carolina," North Carolina Utilities Commission, Raleigh, February 1977 (7 pp., pp. III-D1 through III-D3, III-D6 III-D8; III-D19).
19	1307	Memorandum and Order, June 14, 1977	"Solar Industry Index: A Comprehensive Guide to Manufacturers and Service Organizations" (copyright 1977), by SEIA, pp. 9 through 13, 300, 338, to 341, 348 through 350, 366 through 375.
20	1307-1308	Memorandum and Order, June 14, 1977	Excerpt from Intervenor's Findings of Fact and Conclusions of law in the Construction Permit Phase of the McGuire Proceeding entitled "Need for Power, Contention E-II," pp. 62 through 66.
21	1308	Memorandum and Order,	Excerpts from the McGuire Initial Decision, Construction

		June 14, 1977	Permit Proceedings, dated February 21, 1973, entitled "Need for Power."
22	1308	Memorandum and Order, June 14, 1977	Appendix A, Appendix to Initial Decision, "Board's Estimate of Lower Bracket to Future Peak Power Demand on Duke Power Company System." <i>Duke Power Company</i> (Catawba Nuclear Station, Units 1 and 2), 1 NRC 626, 680 (1975).
23	1309	Memorandum and Order, June 14, 1977	"Duke Power Statistical Supplement, 1963-1973" (11 pp.).
24-A	1309	1369	"Intervenor's Supplemental (I) and Rebuttal Testimony (II)."
24-B	1310	1369	Figures Associated with Intervenor's Exh. 24-A (group of 16 figures).
25	1310	1362	"Testimony of Jesse L. Riley on Contentions 1a, b, c, d, e, 2a, b, c, d, e, h, and 6." With the 24 type-written pages are 8 pages of figures and tables.
26	1310	1596	Graph: TVA Capacity Plans (1 p.).
27	1311	Memorandum and Order, June 14, 1977	Table II-19, "Estimated Appliance Consumption-Annual," excerpt from "North Carolina Utilities Commission, Report of Analysis and Plan: Future

			Requirements for Electricity Service to North Carolina, 1977" admitted as Intervenor's Exhibit No. 18. (Written into the table are three additional columns of figures, Tr. 1311).
28	1312	Memorandum and Order, June 14, 1977	"Temperature Responsive Load/Base Load" (In upper corners there is the figure 22, Tr. 1312) (single page graph).
29	1312	Memorandum and Order, June 14, 1977	Reprint of <i>Charlotte Observer</i> newspaper article of April 18, 1977, entitled, "Hot Little Bodies at AT&T are Real Human Furnaces."
30	1313	Memorandum and Order, June 14, 1977	Advertisement for home insulation by the Rapperswill Corporation in Newsweek magazine.
31	1313	Memorandum and Order, June 14, 1977	"View from the Top, Nuclear Energy—A Policy Proposal" (excerpted from Mr. Carter's speech before the United Nations in May, 1976), by James Earl Carter, Jr., President Elect of the United States, <i>CHEMTECH</i> , November 1976 pp. 668, 697 (2 pp.).
32	1314	Memorandum and Order, June 14, 1977	Letter to Fellow Citizen from James R. Schlesinger, Assistant to the President, March 3, 1977 (with 2-page attachment entitled, "Executive Office of the President, Energy Policy and Planning Office, Public Notice, Inviting Public Comment Regarding National Energy Policy").

33	1477	1477	"Testimony of Edward Easton III on Contention 1(c), 2(h)," with attachment entitled "Energy and the Built Environment: A Gap In Current Strategies, the American Institute of Architects" (Task Force Report by Mr. Leo A. Dailey, Chairman of the Institute's Task Force on Energy Conservation, Task Force Report to the President of the American Institute of Architects, May 1974).
34	1979	1979	Letter dated August 7, 1978 (Attachment 1)
35	1979	1979	Graph (Attachment 2)
36	2257	2264	<i>Wall Street Journal</i> article of July 31, 1978, p. 9.
37	2309		Testimony of Carlos G. Bell
37	2443	2491	Dose versus distance graph
38	2443	2491	Dose versus wind speed representation
39	2443	2491	Comparison chart

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Atomic Safety and Licensing Board

Gary L. Milhollin, Chairman
Lester Kornblith, Jr.
Dr. James C. Lamb, III

In the Matter of

Docket No. 50-272

(Spent Fuel Expansion)

PUBLIC SERVICE ELECTRIC
AND GAS COMPANY

(Salem Nuclear Generating
Station, Unit 1)

April 30, 1979

In a spent fuel pool expansion proceeding, the Licensing Board, ruling on the Licensee's motion for summary disposition, with one member dissenting in part, dismisses three contentions and retains three others for the evidentiary hearing.

ORDER

On February 27, 1979, the Public Service Electric and Gas Company, Licensee in the above-entitled proceeding, moved the Board for summary disposition of contentions filed by Alfred and Eleanor Coleman, of Pennsville, New Jersey and by the Township of Lower Alloways Creek, Salem County, New Jersey. In support of its motion, the Licensee submitted a statement of facts as to which it asserts there is no genuine issue to be heard. The Colemans, the Township, and the State of Delaware have filed answers opposing the motion. The Staff of the Nuclear Regulatory Commission has filed an answer in support of the motion. The Board has not considered the Staff's answer, however, because 10 CFR 2.749 provides only for answers "opposing the motion." Under 2.749 a motion for summary disposition shall be granted if "the filings in the proceeding show that there is no genuine issue as to any material fact and the moving party is entitled to a decision as a matter of law."

The Township of Lower Alloways Creek

The Board has admitted two contentions by the Township. Contention 1 reads as follows:

The Licensee has not considered in sufficient detail possible alternatives to the proposed expansion of the spent fuel pool. Specifically, the Licensee has not established that spent fuel cannot be stored at another reactor site. Also, while the GESMO proceedings have been terminated, it is not clear that the spent fuel could not by some arrangement with Allied Chemical Corporation be stored at the AGNS Plant in Barnwell, South Carolina. Furthermore, the Licensee has not explored nor exhausted the possibilities for disposing of the spent fuel outside of the U.S.A.

The Licensee states that it has considered alternatives to the proposed action. The Licensee also states that it is not practicable to store spent fuel from Salem 1 at other reactor sites, that the AGNS Plant in Barnwell, South Carolina will not be used for storage of spent fuel absent reprocessing (which cannot occur under present governmental policies), that other facilities such as the one in Morris, Illinois or West Valley, New York are not available, that independent spent fuel storage installations will not be available in time to receive fuel from Salem, and that the alternative of storage outside the United States "is not a viable one" because of present governmental policies.

In its response, the Township argues that Contention 1 is broad enough to include any alternative, and that the burden is on the Licensee to show that it is unable to obtain an alternate site for spent fuel. More particularly, the Township states that the Licensee may be able to build a small storage facility in a dry, unpopulated area; that this alternative would be safer than onsite storage because it eliminates the possibility that a serious accident in the reactor could affect the pool, and that storage in a dry climate minimizes the danger to the public in the event radioactive elements are released. These assertions by the Township appear to contradict statements by the Staff and Licensee to the effect that alternatives to onsite storage are not available. The proposed testimony filed by the Township asserts that a serious accident at the reactor could make the spent fuel pool impossible to maintain, and thus that the harm caused by such an accident could be greater with more spent fuel present at the site. It is unclear to what extent proposed testimony is appropriate for deciding motions for summary disposition under 2.749. However, the testimony does show the specific intention behind the factual assertions made by the Township in its answer to the Licensee's motion. The answer does challenge the Licensee's statement that offsite storage is not available. The answer also asserts that the Licensee has not considered the

possibility of a small away-from reactor facility constructed by the Licensee itself. The Township may or may not be able to establish these claims at the hearing. However, it does appear to the Board that the Township has asserted enough at this point to raise an issue of fact. The burden of proof on this contention remains on the Licensee, notwithstanding the motion for summary disposition. The Licensee's motion is therefore denied as to Contention 1.

The Township's Contention 3 reads as follow:

While the Licensee has requested increased spent fuel storage capacity at its Salem Unit 1 it has not limited the use of such storage facility to fuel removed from Salem Unit 1. Storage of spent fuel from other units on or off Artificial Island, therefore is a possibility and such storage creates many hazards not analyzed by the Licensee in its application. Included among these hazards are those created by unloading spent fuel casks.

The Board believes that this contention is beyond the scope of the present proceeding. The Licensee, in order to store at Salem spent fuel generated elsewhere, would be required to obtain an additional license amendment in an additional proceeding. The existing license does not give the Licensee the right to receive at Salem spent fuel generated elsewhere. Thus, the present regulation already provides what the Township seeks. Moreover, the Board's jurisdiction in this case is limited to considering the effects of storing spent fuel generated at Salem. Even if the Board were to impose a condition limiting storage at Salem to spent fuel generated there, it is not likely that such a condition would bind another Board in a future proceeding. Contention 3 is dismissed.

The Colemans

The Colemans' Contention 2 reads as follows:

The licensee has given inadequate consideration to the occurrence of accidental criticality due to the increased density or compaction of the spent fuel assemblies. Additional consideration of criticality is required due to the following:

- A. deterioration of the neutron absorption material provided by the Boral plates located between the spent fuel bundles;
- B. deterioration of the rack structure leading to failure of the rack and consequent dislodging of spent fuel bundles.

The Licensee asserts that Zircaloy clad fuel and the type 304 stainless steel used in the rack structure have been stored for up to 18 and 20 years

respectively in pools without evidence of degradation; that the fuel cells have "at least 95% leak tightness"; that experiments show that Boral corrodes to only a small extent if exposed to the pool; and that notwithstanding any possible aluminum corrosion the boron particles remain in place and retain their ability to absorb neutrons.

The Colemans respond that experience with lower density storage at lower temperatures is no assurance that materials will perform safely in the higher density storage and at the higher temperature now proposed; that there is no evidence that the deterioration of the fuel storage racks which occurred at the Monticello and the Connecticut Yankee reactors would not occur at Salem; and that a report relied upon by the Licensee discloses substantial aluminum corrosion in the spent fuel cells of some borated pools. These assertions by the Colemans do not perhaps make a total emphatic assault on all the assertions offered by the Licensee. They do, however, when taken together, amount to a statement that the Licensee's filings and assertions show an inadequate knowledge of how the materials proposed to be used in the pool will behave in the proposed pool environment over the period of time in question. The Colemans' assertion concerning denser storage and higher temperatures in the modified pool raises the question whether the experience with the proposed materials cited by the Licensee is a proper basis for the Licensee's confidence in these materials. The Colemans' assertion concerning the corrosion of fuel cells at other reactors raises the question whether similar corrosion could occur at Salem. The Board believes these assertions are enough—though perhaps just barely enough—to make the adequacy of the Licensee's filings on these matters an issue of fact. The Board is unable to say that the Licensee has shown the absence of any genuine issue as to the adequacy of the Licensee's filings. Therefore, the Board cannot conclude that the Licensee is now entitled to prevail on this contention as a matter of law.

The Colemans' Contention 6 reads as follows:

The Licensee has given inadequate consideration to qualification and testing of Boral material in the environment of protracted association with spent nuclear fuel, in order to validate its continued properties for reactivity control and integrity.

Several of the assertions made with respect to Contention 2 apply as well to Contention 6. The Licensee asserts that the stainless steel shroud enclosing the Boral in the walls of the fuel cell have "at least 95% tightness"; that if a leak occurs in the the shroud and hydrogen gas is generated by corrosion of the Boral, the resulting swelling of the shroud would be reduced by drilling a vent hole in the top of the fuel cell; that after venting, spent fuel elements

then could be withdrawn from the fuel cell; that the Boral corrodes to only a small extent if exposed to the pool; and that notwithstanding this corrosion the boron particles remain in place and retain their ability to absorb neutrons.

The Colemans respond that there is very little experience with the practice of venting fuel cells. The Colemans assert that it is anomalous to take great precaution against leakage of pool water into the Boral if at the same time the Licensee proposes to allow water to reach the Boral deliberately by drilling vent holes. The Colemans assert that the Licensee has not specified what equipment will be used to drill the vent holes, how the drilling will be done, or whether the cells will still be used with vent holes. The Colemans assert generally that the Licensee has not analyzed sufficiently how effective the proposed racks would be in the event the cells require venting. The Colemans also assert that a report relied upon by the Licensee states that few detailed analyses of the proposed rack materials are available, and that considerable aluminum corrosion in crevices has occurred in some borated pools.

It is possible to be skeptical about the importance of the Colemans' concern with the venting. The Licensee mentions venting only as a remedial measure designed to overcome a difficulty which the Licensee shall try to prevent from happening. The fact remains, however, that swelling is asserted to have occurred in the rack structure of another reactor pool, and venting is asserted to have been necessary to overcome this swelling. The Licensee's filings are asserted to be inadequate in their analysis of venting and its possible effects at Salem. If these assertions by the Colemans are taken at face value, which they must be at this time, the Board cannot dismiss them as simply wrong without going into factual matters which are not on the record. Skepticism as to the likelihood of proving an assertion does not make the assertion inadequate as a matter of law, no matter how sound the experience upon which the skepticism is based. Whether the Licensee's analysis of venting is adequate is a question which undoubtedly will be resolved when evidence is adduced. Without evidence, and proceeding simply upon the information now in the Licensee's filings, the Board cannot say the Licensee has shown the absence of any factual issue on venting. The Licensee's motion is denied as to Contention 6.

Contention 9

The Colemans' Contention 9 reads as follows:

The Licensee has given inadequate consideration to alternatives to the proposed action. In particular, the Licensee has not adequately evaluated alternatives associated with the Nuclear Regulatory Commission adopting the "no action" alternative for Licensee's application, which would not implicate the following:

- A. expansion of spent fuel storage capacity at reprocessing plants,
- B. licensing of independent spent fuel storage installations;
- C. storage of spent fuel from Salem No. 1 at the storage pools of other reactors; and
- D. ordering the generation of spent fuel to be stopped or restricted (leading to the slow-down or termination of nuclear power production until ultimate disposition can be effectuated).

This Contention is similar to Contention 1 of Lower Alloways Creek Township. The Board denied the Licensee's motion as to Contention 1 because the Township's answer, in the Board's opinion, made assertions adequate to raise a genuine issue of fact as to that contention.¹ The Licensee's assertions for Colemans' Contention 9 are the same as set out above for the Township's Contention 1.

The Colemans' response to the Licensee's motion asserts that the owner of the facility at Morris, Illinois has applied for a license amendment to increase the spent fuel storage capacity at Morris; that the Licensee has not considered adequately the alternatives mentioned by the NRC Staff's Environmental Impact Appraisal as available in time to take spent fuel from Salem; and that no one can make the categorical statement that an independent spent fuel storage installation will not be available before the pool at Salem is filled.

It is plain that no factual issue exists with respect to the Morris facility. All agree that hearings on the expansion at Morris have been halted. The Colemans say that Morris' owner "could resume hearings at any time." That may be; however, it cannot be a reason for denying the Licensee's right to proceed at Salem. The owner of Morris may never decide to reactivate the hearing; the permission sought by the hearing may never be granted; the owner if successful may never choose to provide space for Salem's spent fuel. The Licensee could not be required to rely upon such contingencies.

The Staff on pages 14, 15, and 16 of its Environmental Impact Appraisal (dated January 15, 1979) considered several alternatives to the proposed action. The Staff found that storage at newly constructed independent spent fuel installations would not be available before the Salem pool is filled. The Staff also found that the existing spent fuel storage installations at Morris, Illinois, West Valley, New York, and Barnwell, South Carolina are not available to receive spent fuel from Salem. Finally, the Staff found that

¹Mr. Lester Kornblith, of course, excepts to this sentence.

whatever interim storage may be provided by the United States Department of Energy could not be expected to exist before 1983 or 1984, by which time the Salem pool would be filled. In light of these statements by the Staff, it is unclear at best what the Colemans mean when they say that NRC (at pages 14, 15, and 16 of the Environmental Impact Appraisal) "mentions several alternatives which could be available in time to take fuel from the Salem site" The Staff mentions these alternatives only in finding that they will *not* be available in time. The Colemans' assertion does not controvert the Staff's findings, as does the Township's assertions in defense of its Contention 1. The Colemans either misstate the Staff's finding or make a general denial that the Licensee has considered the alternatives adequately. Whichever interpretation one makes, the assertion does not raise a genuine issue of fact.

The Colemans' third point is that no one can be sure that an independent spent fuel storage installation will not be available in time. As pointed out above, the Licensee states rather emphatically that all the information now at hand shows that these installations will not be available. To say that "no one can be sure" does not really challenge these statements about what information is known, and does not challenge the reasonableness of the action proposed in light of that information. The Licensee cannot be required to prove that an uncertain future event could never happen. The Licensee is entitled to take steps now which are reasonable in light of what is now known. The statement that, "no one can be sure" is simply a truism; it does not controvert material assertions by the Licensee and it raises no issue of fact which could be addressed at a hearing.

For the reasons stated above, the Licensee's motion is granted as to Contention 9.

Contention 13

The Colemans' Contention 13 reads as follows:

The licensee has failed to give adequate consideration to the cumulative impacts of expanding spent fuel storage at Salem Nuclear Generating Station Unit 1 in association with the recently filed proposed amendment to the application for an operating license at the sister unit, Salem Unit 2. (See Amendment No. 42, Docket No. 50-311, filed April 12, 1978 which proposes modifications of spent fuel storage which the intervenor believes are similar in scope to the Salem Unit 1 application.) For example, the license assumes an increase in releases of Kr-85 by a factor of 4.5 — due to the factor of 4.5 increase in spent fuel (licensee's application, at 10). A similar increase, absent exceptional controls, can be expected at Salem No. 2, resulting in a cumulative increase in Kr-85 emissions by a

factor of 9—almost a full order of magnitude increase. (If similar spent fuel increases are postulated for the companion units, Hope Creek 1 and 2, now under construction, the cumulative increase could rise by a factor of 18, or almost two full orders of magnitude.)

The Licensee asserts that most of the offsite radiation doses are caused by transfer of fuel from the reactor to the pool, by the transfer of fuel from the pool to shipping casks, and the presence of fuel in the pool during the first few months of storage; that the impact of these activities will not be increased by storing more fuel in the pool (i.e., the same amount of newly discharged fuel will have to be handled in the pool and cooled there for a few months even if less fuel is retained onsite); that the maximum increase in the release of Kr-85 caused by the modified pool would be 3.5 curies per/year; that Kr-85 is the isotope of interest; that the total projected release of Kr-85 from the plant was 280 curies per/year; that the maximum percentage increase in total plant release per year of Kr-85 caused by expanding the fuel pool is thus 1.25% or less; that the offsite dose resulting from this increase is 1.6×10^{-6} mrem per/year; that the NRC Staff's even more conservative calculations produced the figure .005 mrem per/year; that both of these doses are insignificant and the same is true for the cumulative impact of doses produced by the concurrent expansion of storage at the pool of Salem, Unit 2; and that compliance with the existing technical specifications at each Salem unit will assure that the total release from the spent fuel pools will be "as low as reasonably achievable."

The Colemans' assert the following: (1) that 10 CFR §20.1 obliges the Licensee to assure that exposures will be maintained at a level "as low as reasonably achievable" (2) that the exposure levels cited by the Licensee do not account for releases caused by accidents in the pool such as a dropped cask (3) that according to a report by Johnson, only one bundle of pressurized reactor fuel has been stored since 1959 (4) that the same report states that "systematic examinations of fuel bundle materials have not been conducted" and recommends additional investigation (5) that the NRC is making a generic review of load handling operations in the vicinity of spent fuel pools and "this should be evaluated for Salem" (6) that by sacrificing the capability of unloading an entire core the "incremental storage in the new racks is one year old fuel, not four years old" (7) that a release of radioactivity occurred in the pool at the Morris facility which caused the radiocesium reading to reach 30 times the occupational limit in water and that the possibility of such a release should be evaluated for Salem (8) that the Licensee has not specified any inspection plans which would verify that the spent fuel is not leaking or degrading and (9) that the Licensee has not indicated any contingency plan for emptying the pool in case of serious leaking or degradation.

The Board does not find that any of the Colemans' assertions raises a genuine issue of fact. The statement about 10 CFR §20.1 is no more than a declaration that the Licensee must comply with that provision; the Licensee asserts that it must and will do so under the technical specifications applicable to its plant. The Colemans have not asserted any fact, which if proven, would show that the Licensee cannot or will not comply with §20.1. With respect to releases caused by accidents in the pool, the Licensee's motion asserts (Liden Affidavit, p. 7) that the Licensee has conducted experiments to determine the effects of dropping a fuel assembly over the pool, and the effect would be limited to local crushing of the upper seven inches of the lead-in section of the fuel cell. This section is stated to be located above the stored fuel assemblies, and the Licensee concludes that the crushing would have no impact on the assemblies and no effect upon safety. A dropped fuel assembly is the principal credible accident in the pool. A dropped cask which is mentioned by the Colemans is not a credible accident under the filings now before the Board. The crane which lifts the cask is not designed to pass over the fuel storage area. The rails are oriented so that the crane can pass only over the transfer pool. Unless the Colemans identify some additional species of accident, or challenge the Licensee's analysis of the accidents which have been discussed, the Colemans do not raise a genuine issue as to the possibility that an accident in the pool could increase release of radiation. It does not appear, moreover, that the consequences of dropping a fuel assembly into the pool would depend upon whether storage in the pool had been increased.

The Board has studied the Johnson Report (BNWL-2256, September 1977) referred to by the Colemans and the Licensee. It is true that the report makes the statements which the Colemans say it makes. It also makes other statements, particularly, in its "summary and conclusions." It says there that "the results of the survey [of fuel pools, upon which the report was based] indicate the pool operators have not seen evidence that the stainless—or zircaloy-clad uranium oxide fuel is degrading during pool storage. . ." (p. 2) and it says "[m]echanical damage to spent fuel during reactor discharge and fuel handling is minimal" (p. 2), and it also says that "[t]here is sufficient evidence of satisfactory integrity of pool stored fuel to warrant extending fuel storage times and expanding fuel storage capacities" (p. 4). It is possible to lift any number of statements out of this report, as one might do with most reports. The Colemans have not tied the statements they quote to any specific assertion about the Licensee's proposal. They have not asserted — indeed they could not assert—that the report as a whole does not support the Licensee's proposal. Absent a specific assertion about Salem to which the quoted statements could be relevant, the Board must find that no issue of fact has been raised.

The Colemans' next point concerns the NRC's generic review of load handling operations in the vicinity of spent fuel pools. It is obvious that no

genuine factual issue is raised by saying that "this should be evaluated for Salem." The purpose of generic review is to perform a single review of a matter common to many facilities so as to avoid doing a separate review for each facility. Pending completion of a generic review, an individual review is done of each case. One has been done here and the Colemans do not challenge it. The question of full core discharge causes the Colemans to assert that the Licensee's analysis should be based on fuel which is one year old rather than four years old. The Licensee is not required, of course, to maintain this capability so the Licensee is fully entitled to sacrifice it and make whatever analysis is appropriate to its absence. The Licensee has asserted, moreover, that substantially all the releases of radioactive material (except those relating to movement of the fuel) occur during the first few months of storage. This statement has not been challenged. Based on this, it hardly seems likely that the Licensee's analysis would significantly change even if one year old fuel were used. There is no relevant issue of fact here.

The Colemans' assertion about the Morris facility comes down to the meaning of the word "significant." The Colemans say that the Staff's statement (Environmental Impact Appraisal, p. 6) that no "significant" leakage of fission products has occurred at Morris is contradicted by a report (Morris Operation Consolidated Safety Analysis Report) showing the occurrence of a reading for water which exceeded the permissible level. In sum the assertion is that Staff's review of that report should have been expressed in different language. The Colemans do not assert that the occurrence at Morris was in fact "significant." They do not assert that it posed any risks. Perhaps Mr. Minor, who supplied the Colemans' supporting affidavit could not make such a statement. In any event, no issue of material fact is raised by simply alleging that two reports can be viewed as contradictory, without in some way contending that a fact underlying the supposed contradiction bears upon the action proposed at Salem. For all that now appears, the occurrence at Morris could have arisen simply from movement of spent fuel through the pool, and be independent of the amount of fuel stored or any proposed modification in rack design.

The Colemans' last assertions on this contention are addressed to specifying in-service inspection requirements of spent fuel, and to contingency plans for emptying the pool in case of degradation or leakage. The short answer to these assertions is that the Commission does not require these matters to be specified. One could imagine any number of items, beyond those required by the Commission, which might be added to this Licensee's application. Unless it is alleged, however, that the failure to include a matter raises some material issue, the Board does not see how it can require the additional matter to be covered. The Colemans have not asserted that the omission of these items raises any safety question or any concern for the environment. In sum, no genuine issue of fact is raised by stating

simply that these matters are not covered in the application. For all that now appears, the possible need to inspect fuel or empty the pool may be independent of the increased storage or the modified racks which are proposed.

For the reasons stated above, the Licensee's motion is granted with respect to Contention 13.

The Board's action in this order is therefore as follows: Contention 1 of Lower Alloways Creek Township is retained for the evidentiary hearing. Contentions 2 and 6 of the Colemans are retained also. Contention 3 of Lower Alloways Creek Township is dismissed, and Contentions 9 and 13 of the Colemans are dismissed.

Mr. Lester Kornblith, Jr. dissents from part of this order. His separate opinion is attached.

IT IS SO ORDERED.

**FOR THE ATOMIC SAFETY AND
LICENSING BOARD**

Gary L. Milhollin, Chairman

Dated at Bethesda, Maryland
30th day of April 1979.

**SEPARATE OPINION OF LESTER KORNBLITH, JR.,
DISSENTING IN PART**

I agree with my colleagues that Contention 3 of Lower Alloways Creek Township and Contentions 9 and 13 of the Colemans do not present any genuine issues of material fact and that the Licensee's motion for summary disposition should be granted with respect to those contentions.¹ I would go farther, however, and also grant the motion with respect to each of the remaining contentions for the reasons set out below.

I consider first Contention 1 of Lower Alloways Creek Township. This reads as follows:

The Licensee has not considered in sufficient detail possible alternatives to the proposed expansion of the spent fuel pool. Specifically, the Licensee has not established that spent fuel cannot be stored at another reactor site. Also, while the GESMO proceedings have been terminated, it is not clear that the spent fuel could not by some arrangement with Allied Chemical Corporation be stored at the AGNS Plant in Barnwell,

¹My reasoning to support such conclusions might in some instances have been different from that of my colleagues, but I see no need to set forth these differences here.

South Carolina. Furthermore, the Licensee has not explored nor exhausted the possibilities for disposing of the spent fuel outside of the U.S.A.

With the dismissal of three contentions by this Board and my determination below that the Colemans' Contentions 2 and 6 should be dismissed, there would appear to no longer be any controversy as to the validity of the Staff's conclusion that

the proposed license amendment will not significantly affect the quality of the human environment and that there will be no significant environmental impact attributable to the proposed action other than that which has already been predicted and described in the Commission's Final Environmental Statement for the facility dated April 1973.

(Environmental Impact Appraisal at 27). In this situation the teaching of the Appeal Board that "there is no obligation to search out possible alternatives to a course which itself will not either harm the environment or bring into serious question the manner in which this country's resources are being expended"² appears to be applicable and the contention could be dismissed solely on that basis.³

The Licensee, in its Memorandum supporting its motion discusses extensively the possibility of storing the Salem Unit 1 spent fuel at Salem Unit 2, either unit of Hope Creek and the spent fuel pools of other utilities. Its conclusion, supported by the affidavit of Liden, is that none of these is an appropriate substitute for expansion of this pool (Memorandum at 15-16). It also determines that the AGNS plant will not be available (*Id.* at 17) and that other existing or proposed pools at reprocessing plants will not be available (*Id.* at 17-18). Finally, it points out that in view of the President's announced statement on nuclear power policy it is unlikely that permission would be granted to export nuclear fuel (*Id.* pp. 18-19).

The Staff states no objection to the motion and the State of New Jersey has not responded. The State of Delaware opposes the motion but does not clearly state the basis for its opposition. The Colemans have not addressed this contention.

Lower Alloways Creek Township (LACT) opposes the motion. The basic argument of LACT is that the Licensee has too narrowly construed the contention and that it is required to demonstrate that it is unable to find a suitable site and construct a spent fuel storage pool (Answer at 1). LACT

²Portland General Electric Company, et al (Trojan Nuclear Plant), ALAB-531, 9 NRC 263, 266 (March 21, 1979).

³This reasoning and conclusion apply equally to Colemans' Contention 9.

proposes that the Licensee “may be able to site and build a small storage pool facility in a dry unpopulated area of the United States, e.g., a desert” (Answer at 2).

The Licensee has apparently not considered the LACT contention to extend beyond the examples cited. In view of LACT’s introductory word “specifically,” this appears to be a reasonable interpretation. If it is a reasonable interpretation, the Licensee cannot be faulted for having failed to discuss a much more specific alternative, an ISFSI located in the desert. Despite this, the gap has been at least partially filled by the response of the Licensee to Coleman’s Contention 9, where it deals categorically with ISFSIs (Memorandum at 18).

Based on these factors, I would have found that no genuine issue of material fact existed and granted the motion.

The Board majority disagrees with this conclusion. Their logic appears to follow this course:

1. The Licensee has not considered the possibility of a small away-from-reactor facility constructed by the Licensee itself.
2. Such a facility could be built in a dry unpopulated area.
3. An away-from-reactor facility would be safer than an onsite facility because a serious reactor accident could affect the pool.
4. In the event radioactive elements were released, the dry climate would minimize the danger to the public.
5. Thus the Licensee’s statement that offsite storage is not available has been challenged and the Licensee has not carried its burden of proof.

Assuming *arguendo* that consideration of alternatives is required and that the intervenor’s assertions accepted by the majority are not an expansion of the contention, we will examine this logic. The first statement appears to be true, although the question of “by itself” or jointly appears to be irrelevant. The second statement is at least arguably true. The third is questionable because there is no reasonable basis for believing that any credible reactor accident would affect the pool.⁴ The fourth statement appears to imply that the accident, if it occurred, would have serious implications for the terrestrial or aquatic environment. Actually, the accident proposed by LACT would appear to have principally airborne effects which would be relatively little affected by the dry environment. Finally, the fifth statement is dependent on the meaning of “available.” The uncontroverted information in the Environmental Impact Appraisal and in the Licensee’s statement of material facts is that an independent fuel storage facility could not be

⁴The proposed testimony submitted by LACT contains a scenario leading to melting of stored fuel. This appears to involve assumptions far beyond credibility—a Class 9 accident in the reactor followed by a Class 9 accident in the pool.

completed on the time scale needed. In this sense, it will not be available. We have accepted this position in our decision on Colemans' Contention 9 and cannot do otherwise here.

The Colemans' Contentions 2A, 2B, and 6 have been considered by the Licensee as a single contention. Contention 6 relates to the qualification and testing of Boral, Contention 2A relates to accidental criticality due to deterioration of the Boral and Contention 2B relates to accidental criticality due to other structural deterioration of the storage racks. Strictly, they are separate contentions, but for convenience I too will treat them in a single section of this opinion. The precise text of the contentions is as follows:

2. The licensee has given inadequate consideration to the occurrence of accidental criticality due to the increased density or compaction of the spent fuel assemblies. Additional consideration of criticality is required due to the following:
 - A. deterioration of the neutron absorption material provided by the Boral plates located between the spent fuel bundles;
 - B. deterioration of the rack structure leading to failure of the rack and consequent dislodging of spent fuel bundles.
6. The licensee has given inadequate consideration to qualification and testing of Boral material in the environment of protracted association with spent nuclear fuel, in order to validate its continued properties for reactivity control and integrity.

Licensee's argument starts out by identifying the materials of construction⁵ and discussing the reasons for their choice. Testing and quality control are discussed. Two experimental programs that have been conducted by Exxon Nuclear Company, Inc., manufacturer of the racks, are described. One was directed toward determining the effect of a hypothetical leak in the stainless steel shroud and the other toward determining the ability of Boral to withstand the pool environment. These programs will be supplemented by a long-term surveillance program to verify in-service performance (Memorandum at 5-9). The memorandum also discusses and rebuts certain material contained in Intervenor's responses to interrogatories (*Id.* at 9-13).

The Staff states no objection to granting the summary disposition motion with respect to this contention. Although the Board has determined that the Staff's statements supporting the motion constitute an unauthorized response and are not to be accorded any weight, I have examined the technical

⁵Licensee's arguments appear to be well supported by the accompanying affidavit of Liden. The citations, which can be found in the Memorandum, will not be repeated here.

information provided by the Staff to determine if there is any that would tend to mitigate against granting of the motion and have found none.

The Colemans' response to the motion consists first, of the arguments presented in their memorandum and, second, the statement of a group of "issues of material fact" in the Minor affidavit. Since the affidavit is a more concise and precise statement, I will deal with it first.

Issues (A) and (G) are introductory and conclusory statements and need not be specifically addressed. Issue (B) reads as follows:

There has been degradation of the Boral/stainless steel racks installed at Monticello and Connecticut Yankee reactors. The Applicant claims these problems have "limited relevance to the issues in the proceeding" (Liden at paragraph 12). However, there is no evidence presented that assures these same or similar problems will not occur in the proposed racks for Salem.

There is no dispute regarding the first sentence. The second sentence also appears to be true although it is misleadingly presented as a quotation from the Liden affidavit. Liden makes no such claim in paragraph 12 (or elsewhere). The claim is made in the argument of counsel and Minor's closing quotation mark should go after the citation rather than before. Liden does point out, however, that the Salem racks are made by a different manufacturer and are subject to the quality assurance program described in his affidavit. This, together with the testing and long-term surveillance programs, provides the basis for the Licensee's claim that the problem is not likely to occur at Salem (Licensee's Memorandum at 11). Minor's last sentence points to lack of evidence that "assures" that the problem will not occur at Salem. Although in the strictest sense of the word "assure" this is true, it is my opinion that the proper standard is one of reasonable assurance that the problem will not occur and that standard has been met here.

Issue C simply asserts that little in-service experience is available with fuel storage racks that have been vented. Since the Licensee does not appear to have stated or implied that such experience is extensive, it is not apparent that this gives rise to a triable issue. On the contrary, the fact that there has been little experience with venting in the two decades or more that Boral has been in use in the reactor industry would appear to attest to its durability.

Issue D reads as follows:

The expedient of venting as a way to deal with the leakage problem is a major cause of much of the concern over the rack material performance questioned in this contention. The basic design and materials evaluation leading up to this specific design intended utilization of leak tight, encapsulated Boral. (Liden at paragraph 6). However, the Applicant has discussed venting at some length. (Applicant's Motion at 7, 8, and Liden at

paragraph 8). There does not appear to be sufficient analysis by the Applicant of the operation and effectiveness of the racks in the event the cells require venting.

Let us analyze this. The first sentence is simply a statement of what is bothering the Colemans or Mr. Minor. One can hardly have a basis for quarreling with it. The second sentence is somewhat unclear. Although I am reluctant to attribute intent to a design or to a materials evaluation, it does appear reasonable to infer that the Licensee intended that the Boral not be exposed to the reactor water and to that extent the sentence bears some relationship to paragraph 6 of Liden's affidavit. The next sentence asserts that the Licensee discusses venting at some length. Whether Minor takes solace or umbrage from this appears immaterial for the sentence is incorrect. Page 7 makes no mention of venting. Page 8 contains one sentence on the subject and paragraph 9 (not 8) of the affidavit contains the identical sentence. Thus the extensive discussion has degenerated to one four-line sentence. The last sentence reverses course and asserts insufficient analysis of operation and effectiveness if the cells require venting. It would appear that the whole question of cell venting is getting out of proportion. Based on the uncontroverted information presented, it appears that few if any cells will require venting during the life of the plant. Uncontroverted information also indicates that if Boral is exposed to water the result is very slow corrosion of the aluminum and no loss of boron carbide. Even if there is orders of magnitude more leakage and more corrosion than anticipated, the inherently slow progress of the deterioration and the evidence of it produced by the surveillance program would provide ample time to take corrective measures. The easiest and most obvious of these is boration of the fuel pool.⁶ The analysis of the Licensee appears ample and there is no genuine issue here.

Issue (E) appears to be a case of, at best, misunderstanding. The physical situation being discussed in the quotation given is quite different from the Salem situation. It did not involve Boral or Boral-like material at all, but rather involved bare aluminum canisters resting on a stainless steel pool liner. Even for the situation discussed, a more complete and less disturbing discussion can be found on pages 72-74 of the same document. There is no genuine issue here.

Issue (F) is a splendid example of the advantages to be gained by taking material out of context and by judicious selection of quoted words. It reads as follows:

The NRC in their SER on Salem make the following observation regarding swelling and venting: Upon exposure of the Boral plates (B₄C/Al

⁶Actually, the easiest measure would be to simply take credit for the boron that will be in the pool anyway, but for which credit is now taken.

Matrix) to the spent fuel pool water, galvanic coupling between the aluminum-Boral liner, aluminum binder and the stainless steel shroud could occur the hydrogen produced by corrosion of the aluminum will be released by venting to minimize bulging. (SER at 2-15).

In this instance, it appears the NRC analysis assumes the cells are already vented which is contradictory to the Applicant's assumption (Liden at paragraph 9).

Let us look at what the Staff really said. The paragraph before that quoted started out by discussing the lack of evidence of likely corrosion and the techniques used to assure leak tightness of the plates. It then points out "although no leakage is likely to occur, tests were conducted which demonstrated that if isolated cases of leakage should occur in service, any swelling of the cans would not represent a safety hazard." Then comes the paragraph quoted above which is directed toward describing the test results. This surely does not indicate that "the NRC analysis assumes the cells are already vented" as charged by Minor. Furthermore, the ellipsis in the middle of the quotation hides three significant sentences. They read as follows:

Deterioration of the Boral would be limited to edge attack by general corrosion and pitting corrosion of the aluminum liner and binder in the general area of the leak path. The B₄C neutron absorption particles are inert to the pool water and would become embedded in corrosion products preventing loss of the B₄C particles. Thus, this small amount of deterioration would have no effect on neutron shielding, attenuation properties or criticality safety

The difference between the impression left from the two actual paragraphs and that left from the issue as stated in the affidavit is fairly obvious and appears to border on deliberate misrepresentation.

One other matter in connection with the affidavit in general and Issue (B) particularly should be noted at this point. Liden in his affidavit has stated that the type of problems that occurred at Monticello and Connecticut Yankee presented no health and safety problem (Liden affidavit at page 7). Minor, in his affidavit, does not controvert this. In fact, nowhere in Minor's affidavit can one find a statement that any of the matters that he discusses are likely to (or even could) lead to health and safety problems or to significant adverse effects on the environment. There are enough opportunities to identify and call attention to such problems or effects in the course of his affidavit so that one could conclude that this does not result from chance or inadvertence. This line of reasoning then leads to the conclusions that Minor must not believe that health and safety problems or significant adverse envi-

ronment impacts would result. In that case, the entire affidavit is directed to matters that are not material and cannot support the need for a hearing.

Having completed my review of the affidavit without finding a genuine issue of material fact, I now return to the memorandum to see if there is anything there that has not been covered.

The first point I note is the comment (Memorandum at 1) that the contention deals directly with increased potential for accidental criticality due to deterioration of the neutron absorption capability of the Boral presumably because, due to the closer spacing of the fuel elements, the Boral will be subject to higher neutron fluxes or higher radiation levels than in previous long term usage. No technical support is provided for this assertion. The reason for this probably is that a qualified expert would have informed the Colemans' counsel that Boral has long been used for control rods under much more adverse conditions, in relation to both flux levels and temperature. The next statement in the Memorandum (*Id.* at 2) asserting that a certain statement of the Licensee is a *non sequitur* appears itself to be *non sequitur*. The next paragraph refers to a footnote asking the Board to "take judicial notice of the fact that heat plus acidic water over time induces corrosion in metals, including stainless steel." It goes on to note a Staff estimate that the maximum incremental heat load resulting from storing 1170 elements instead of 264 elements is 4.5×10^6 Btu per hour. This is indeed a lot of British thermal units. Counting at the rate of one per second, it would take 1250 people to count them as fast as they were released. A more appropriate observation, however, is that this represents an increase from 37.6×10^6 to 45.1×10^6 BTU/hr—about a 12% increase. An even more appropriate standard would be the increase in temperature of the racks. Although this number is not readily available, information in the filings indicates that it is of the order of ten degrees or so. This clearly would not lead to perceptibly increased material corrosion and presents no issue. The final matters dealt with in the Contention 2 section of the Memorandum relate to Monticello and Connecticut Yankee experience and the BNWL-2256 report and have been discussed above in connection with the Minor affidavit.

In the section of the Colemans' memorandum on Contention 6 the first item is an assertion that there is something anomalous in the Licensee's plan to take the greatest care possible to keep pool water from the Boral but then to intentionally vent the shroud if gas pressure builds up inside. We have dealt with the major elements of this question above. We only note here that the plan is no more anomalous than to take every possible precaution to keep a wound sterile but to lance it if it nonetheless becomes infected.

The next paragraph of the Colemans' Contention 6 memorandum is somewhat confusing. First it urges us to inquire into "the uncertainties of so-called normal storage operations." It then states that the Licensee has

stated that the present license permits use of the pool for the life of the plant (a matter that presumably would not be controverted) and that such use beyond that period is "contemplated." For the latter proposition it cites a passage from the prehearing conference transcript in this proceeding. The cited passage is extracted from the argument by a predecessor of present counsel for the Colemans and itself contains a quotation from a proceeding before another body. Being at a loss to describe this passage, I quote it in full:

Third, we have the statement by an official of Public Service, under corrosion, in the still ongoing Public Service rate case, that the utility does consider, and is considering holding on the spent fuel at the Salem site beyond the 1990s contained in the operating license, and that is contained in corrosion item March 21, '78, at page 1305, questioning Mr. Millard, myself. I will read it.

The contingency plan, at present, would be to continue storage on site beyond the time period requested in the NRC application that we have been discussing; is that right?

Answer. If we had to do that, yes. If it weren't possible to do anything else, that is what we would have to do.

That was at lines 7 through 12

Reportorial errors aside, assuming that the time period being discussed is beyond "the life of the plant" and that Mr. Millard presented competent testimony, this sounds more like a statement of a measure to be taken *in extremis* rather than a proposed course of action. We cannot interpret Mr. Mr. Millard's response any more precisely from our twice-removed position, but it is of questionable relevance to the matters at hand.

Finally, the Memorandum, in a manner very similar to that discussed above in connection with the affidavit, mischaracterizes the Staff position by extracting and quoting a single sentence from a rather long paragraph. Candor similar to that which he attributes to the Staff would also be appropriate for the Colemans' counsel and more consistent with the accepted ethics of the bar.

Having found no genuine issues of material fact in the Memorandum of Colemans or in the accompanying affidavit, I would have granted the motion for summary disposition of Contentions 2A, 2B, and 6.

Again, the majority of the Board disagrees with me. It bases its determination on its finding that the Colemans' assertions regarding increased density storage, higher temperature, and aluminum corrosion establish that the Licensee's findings are inadequate. These matters are discussed above and require no more discussion. With respect to Contention 6, the majority

apparently feels that the Colemans' assertions regarding venting require further ventilation. I have previously stated my basis for finding to the contrary.

Lester Kornblith, Jr., Member

Dated at Bethesda, Maryland
this 30th day of April 1979.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

In the Matter of

Docket Nos. 50-280
50-281

VIRGINIA ELECTRIC POWER
COMPANY

(SURREY POWER STATION,
UNITS 1 and 2)

April 4, 1979

The Director of Nuclear Reactor Regulation denies petition filed under 10 CFR 2.206 of the Commission's regulations to require that a show-cause hearing be held and an environmental impact statement be prepared on amendments authorizing the Licensee's steam generator repair program.

OPERATING LICENSE: AMENDMENTS

In accordance with 10 CFR 50.59, of the Commission's regulations, a licensee seeking to make a change in the technical specifications or a change in the facility involving an unreviewed safety question must submit an application for an amendment to the license.

NRC: ENVIRONMENTAL RESPONSIBILITIES

An environmental impact statement is required if the licensing action is a major Federal action significantly affecting the quality of the human environment. If such a finding is not made in the affirmative, the Commission is required under 10 CFR 51.5(c) to prepare a negative declaration and environmental impact appraisal.

DIRECTOR'S DECISION UNDER 10 CFR 2.206

By letter dated February 20, 1979, the Environmental Policy Institute (Institute) requested that the Nuclear Regulatory Commission prepare an environmental impact statement on the Virginia Electric Power Company's (VEPCO) proposed steam generator repair program at the Surrey Power

Station and hold a show-cause hearing on this proposed program. This letter was filed pursuant to 10 CFR 2.206 of the Commission's regulations.

The asserted bases for the request by the Institute are (1) that the notice of proposed issuance of the amendments to the operating licenses for the Surry Nuclear Power Station to allow the steam generator replacement was published only one day prior to actual issuance of the amendments, (2) that the Commission did not adequately address the matter of occupational exposure, (3) that no steam generator replacement activities should be approved until the pending transient worker regulations are promulgated, and (4) that the Commission should review the Commission's treatment of steam generator repair and replacement at pressurized water reactors.

In accordance with 10 CFR 50.59 of the Commission's regulations, a licensee seeking to make a change in the technical specifications or a change in the facility involving an unreviewed safety question must submit an application for an amendment to the license. On August 17, 1977, VEPCO submitted a request for NRC review and approval required in order to repair the steam generators at the Surry Power Station, Units 1 and 2. It was determined in accordance with 10 CFR 50.59 that such a program would involve an unreviewed safety question and, therefore, would require an amendment of VEPCO's Facility Operating License Nos. DPR-32 and DPR-37 for the Surry plant. In accordance with 10 CFR 2.105, a notice of the proposed issuance of amendments to the licenses at issue was published in the FEDERAL REGISTER on October 27, 1977 (42 Fed. Reg. 56652). The notice was also available for public inspection in the Commission's Public Document Room and at the Local Public Document Room at the Swem Library, College of William and Mary, Williamsburg, Virginia. This notice provided an opportunity for interested persons to request a hearing by November 28, 1977. No requests for a hearing were received in response to that FEDERAL REGISTER notice.¹ The Institute's request does not purport to be filed pursuant to the October 27, 1977 notice of opportunity to request a hearing.

The Institute's February 20, 1979 letter requested review of the procedures by which Amendments 46 and 47 to the Surry licenses were issued. It was incorrectly stated that only one day's notice was given for the proposed issuance of the amendments. As previously stated, notice of the proposed issuance of these amendments was made on October 27, 1977, (42 FR 56652), well over a year before the amendments were issued. The

¹The Atomic Safety and Licensing Board constituted to review requests for a hearing under the October 27, 1977, FEDERAL REGISTER notice provided the Commonwealth of Virginia the opportunity to file a request for a hearing up to 10 days after issuance of the Staff's Safety Evaluation Report which was issued on December 15, 1978. On December 20, 1978, the Commonwealth stated it would not request a hearing.

January 19, 1979 notice of issuance to which the Institute refers (44 FR 4057) was for ECCS analysis at a steam generator tube plugging limit of 28% and did not apply to the steam generator repair program.

The Institute requested a review of the negative declaration made in the Environmental Impact Appraisal (EIA) for the steam generator repair program and requested the completion of a full environmental impact statement. The bases for the request were (1) that the EIA rejected analysis of the radiologic impact made by Battelle Northwest Laboratory published as NUREG/CR-0199, "Radiological Assessment of Steam Generator Removal and Replacement," (2) that the Commission compared the occupational exposure for the repair to exposures encountered with repair and maintenance of defective steam generators rather than with normal maintenance exposures and (3) that the Commission must analyze the environmental impact based upon actual release and pathway analysis and not by comparison to normal operation.

The EIA issued by the Commission recognized the radiological analysis published in NUREG/CR-0199. The EIA discusses the exposure ranges in NUREG/CR-0199 and states that the lower end of the generic estimate "... is the appropriate estimate for comparing with VEPCO's estimate" The position taken in the EIA considered the NUREG document qualification that "High exposure rates were chosen to assure a conservative analysis. In some cases, this approach may result in overestimates of the actual exposure" As stated in the EIA, the difference between the VEPCO and the NUREG estimates were reconciled by recognizing VEPCO has used the Surry plant specific measured data applicable to its own repair effort and further reduces the doses by use of temporary shielding which was suggested but not credited in the generic NUREG. The Commission's use of the VEPCO estimate is based on a review of the Surry steam generator repair program and a comparison with the NUREG report. Based on this review it was concluded that the VEPCO dose estimate should be more representative of the actual dose incurred.

The comparison of occupational exposures to be encountered during the repair with exposures encountered with repair and maintenance of defective steam generators is appropriate in this report. The steam generators at Surry have shown significant tube degradation, the repair of which has resulted in high occupational exposures. Continued use of these steam generators would result in continued high exposures. The man-rem savings resulting from the repair can be determined by comparing expected repair and maintenance doses from continued use of the degraded steam generators with expected repair and maintenance doses from operation with new steam generators. It is expected that the man-rem saved from new generator maintenance compared to continued maintenance on the old steam generators

would offset the doses incurred during repair in just a few years. It is this dose comparison which serves to justify the expected occupational exposure resulting from repair.

The EIA contains an estimate of releases (Table 4.2) for the repair both by VEPCO and the NRR (NUREG/CR-0199). These are compared with Surry operating experience and the values predicted in the staff's Final Environmental Statement (FES). As can be seen the expected releases from the repair are much less than those predicted in the FES. Therefore the environmental impacts resulting from the steam generator repair program are bounded by the FES impacts. A copy of the Negative Declaration and the Environmental Impact Appraisal is attached to and made a part of this decision (Appendix A).

Prior to issuing the amendment to allow the repairs to be made to the steam generators, the Office of Nuclear Reactor Regulation prepared the Staff Safety Evaluation Report (SER) which is attached to and made a part of this decision (Appendix B). That evaluation, which expressly addressed the matter of radiation exposure to workers, concluded that there is reasonable assurance that the health and safety of the public (including the workers) will not be endangered by the proposed steam generator repair program and that the changes would be conducted in compliance with the Commission's regulations.

It was requested that no steam generator replacement activities be approved until the pending transient workers exposure regulations are promulgated. The Commission has already approved the repair program for Surry (Amendments 46 and 47) and does not consider it appropriate to restrict the Surry work until the proposed transient worker regulations are promulgated because the work has already been approved and the proposed rule would have little effect on radiation protection. Presently licensees are not required in all cases to obtain historical radiation exposure information for the current calendar quarter. In theory, if a transient worker received occupational radiation exposures from several licensees during the current calendar quarter and did not inform the licensees, he could encounter doses in excess of the 10 CFR Part 20 standards. The proposed rule would require licensees to obtain this information from the transient worker. Based on 1976 employee termination data only 1 out of 32,377 individuals exceeded 3 rems per quarter because of multiple jobs. Consequently the risk from not requiring this information is not significant enough to require special implementation of the proposed rule for the Surry steam generator work. In addition, Surry does request all employees, including transient workers, to report historical occupational radiation exposures. It is expected that the rule will be promulgated prior to the Turkey Point and Palisades work.

Finally, complete review of the Commission's treatment of steam

generator repair and replacement activities at pressurized water reactors was requested. The Commission is currently reviewing steam generator tube integrity under our task action plans for generic activities. These tasks will include occupational exposures.

Based on the foregoing discussion and the provisions of 10 CFR 2.206, I have determined that there exists no adequate basis for holding a show-cause hearing on the steam generator repair program and that an environmental impact statement need not be prepared. The request of the Environmental Policy Institute is hereby denied.

A copy of this determination will be placed in the Commission's Public Document Room at 1717 H Street, N. W., Washington, D. C. 20555 and the Local Public Document Room for the Surry Nuclear Power Station located at the Swem Library, College of William and Mary, Williamsburg, Virginia 23185. A copy of this document will also be filed with the Secretary of the Commission for its review in accordance with 10 CFR 2.206(c) of the Commission's regulations.

In accordance with 10 CFR 2.206(c) of the Commission's Rules of Practice, this decision will constitute the final action of the commission 20 days after the date of issuance, unless the Commission on its own motion institutes the review of this decision within that time.

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

[Appendixes A and B have been omitted from this publication but are available in the NRC Public Document Room, 1717 H Street, N.W., Washington, D.C.]

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Harold R. Denton, Director

In the Matter of

GEORGIA POWER COMPANY

Docket Nos. 50-424
50-425

(Alvin W. Vogtle Nuclear Plant,
Units 1 and 2)

April 13, 1979

The Director of Nuclear Reactor Regulation denies petition filed under 10 CFR 2.206 of the Commission's regulations to require that the construction permit for the licensee be suspended and hearing held to determine whether there is a need for the facilities.

NRC—Responsibilities Under NEPA

NEPA does not require that decisions based on environmental impact statements be reconsidered whenever information developed subsequent to the action becomes available, unless that new information would clearly mandate a change in result.

DIRECTOR'S DENIAL OF 10 CFR 2.206 REQUEST

By letter dated October 31, 1978, Mr. Mike Grossman, on behalf of Georgians Against Nuclear Energy (GANE), requested the Nuclear Regulatory Commission to suspend the construction permits for Units 1 and 2 of the Alvin W. Vogtle Nuclear Plant and to initiate hearings to determine if there is a need for the Plant. This letter is being treated as a request for action pursuant to 10 CFR 2.206 of the Commission's regulations.¹

The asserted bases for the requested actions are: (1) a proposal by

¹Section 2.206 of the Commission's regulations sets forth the procedures by which requests by persons to institute proceedings to modify, suspend, or revoke a license are handled by the Commission.

Georgia Power Company to sell portions of a coal-fired plant (Scherer Plant), presently under construction to Gulf Power Company and Mississippi Power Company, allegedly at below cost, and (2) a statement by Georgia Power Company in a press release that the cost of solar photovoltaic systems will be cheaper than the cost of a nuclear power plant by the time the Vogtle facility is scheduled to begin operation. These two factors, GANE contends, demonstrate slower growth in demand and the availability of cheaper alternatives and raise sufficient questions about the need for the Vogtle Plant that hearings should be held to determine whether there is, in fact, a need for the Vogtle units.

I have reviewed the factors asserted by GANE to support its request action. For the reasons set forth below, I have determined that the construction permits should not be suspended and that no proceedings to reconsider the need for the Vogtle facilities will be instituted.

Basically, the contention by GANE is that if Georgia Power Company is now trying to sell part of its interest in the Scherer coal-fired plants, which are scheduled to begin operation in 1982, then it must have significant excess generating capacity. If this excess capacity indeed exists, then, GANE asserts the need for the generating capacity of the Vogtle Plant does not exist.

The question of the need for the generating capacity of a nuclear facility is relevant to the fulfillment of the Commission's responsibilities under the National Environmental Policy Act of 1969 (NEPA). NEPA requires the balancing of the environmental costs against the expected benefits of major Federal actions significantly affecting the environment, (a category which includes licensing construction of nuclear power plants) before the action is taken. "A nuclear plant's principal 'benefit' is of course the electric power it generates. Hence, absent some 'need for power,' justification for building a facility is problematical." *Duke Power Company* (Catawba Nuclear Station, Units 1 and 2), ALAB 355, 4 NRC 397, 405 (1976).

The issue of the need for the power to be provided by the Alvin Vogtle Plant has been addressed in the proceeding which preceded the issuance of the construction permits, *Initial Decision* (Partial Construction Permit Proceeding—Environmental Matters and Site Suitability Only), LBP 74-39, 7 AEC 895, 71 LBP-74-48, 7 AEC 1166 (1974), and in the proceeding held on remand from the Appeal Board to consider proposed construction permit amendments, *Supplemental Initial Decision*, LBP-77-2, 5 NRC 261 (1977). The Licensing Board determined in its Initial Decision that "The environmental and economic benefits from the construction of the Vogtle facility, particularly the necessity for the Applicant to supply electrical power to meet the demand and expected growth in electrical use within

its service area . . . will be greater than the environmental and economic cost that will necessarily be incurred by construction and operation of the facility." LBP-74-39, 7 AEC 895, 916 (1974). In its *Supplemental Initial Decision*, it found that the environmental determinations made in its 1974 decision were still valid, 5 NRC 261, 299 (1977).²

Thus, the Commission has determined through its adjudicatory process that the need for the power to be supplied by the Vogtle Plant does exist, and this needed power is a benefit which outweighs any environmental costs of the facility.

GANE now seeks to revive the question of the "need for power" to be supplied by Vogtle, outside the context of a construction permit or operating license proceeding,³ alleging, in effect, that the current efforts by the Georgia Power Company to sell part of its interest in the Scherer Plant and the availability of photovoltaic cells at a cost of \$500-1000 per kilowatt in the mid-1980's demonstrate that circumstances have so changed since the Commission issued the construction permits for Vogtle that a new proceeding to consider this issue should be held. They contend that the environmental cost-benefit balance for Vogtle based on reduced demand and comparison with alternative sources of energy would now result in a different decision.

NEPA does not require that decisions based on environmental impact statements be reconsidered whenever information developed subsequent to the action becomes available. See *Warm Springs Dam Task Force v. Gribble*, 431 F. Supp. 320, 323 (N.D. Cal. 1977), stay pending appeal denied 565 F.2d 549 (9th Cir. 1977). *Ogunquit Village Corp. v. Davis*, 553 F.2d 242 (1st Cir. 1977). This does not mean that an agency could not reconsider a previous decision. In this very case, the Staff of the Commission and the Licensing Board in the supplemental proceeding explicitly considered whether by reason of either the request for extension of completion date or the cancellation of Units 3 and 4, there had been a material alteration in the NEPA cost-benefit balance which the Board had struck in the Initial Decision. The Board concluded there had not been. *Supplemental Initial Decision*, supra, at 299, see also discussion in *Memorandum and Order, In the Matter of Georgia Power Company* (Alvin W. Vogtle Nuclear Plant, Units 1 and 2). ALAB-291, 2 NRC 404, at 415-16 (1975). However, it is unnecessary for an agency to reopen the NEPA record unless the new information would clearly mandate

²The Licensing Board's decisions on these matters were affirmed by the Appeal Board in ALAB-375, 5 NRC 423 (1977).

³The Atomic Energy Act, §189, and 10 CFR 2.105 of the Commission's regulations provide for an opportunity for a hearing prior to the issuance of an operating license.

a change in result. *Greene County Planning Board v. FPC*, 559 F.2d 1227 (2nd Cir. 1976), *cert. denied*, 434 U.S. 1086 (1978).

The Appeal Board for the Commission has specifically dealt with efforts to reopen the record on this issue of need for power on the basis of new evidence in proceedings held prior to issuance of a construction permit. In denying a motion to reopen the record on the issue of need for power in *Cleveland Electric Illuminating Company* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-443, 6 NRC 741 at 750-51 (1977) the Board stated:

Litigation has to end sometime. As we stated in denying a motion for reconsideration of the need for power issue on the basis of new evidence in *Duke Power Company* (Catawba Nuclear Station, Units 1 and 2), ALAB-359, 4 NRC 619, 620-21 (1976):

After a decision has been rendered, a dissatisfied litigant who seeks to persuade us—or any tribunal for that matter—to reopen a record and reconsider ‘because some new circumstance has arisen, some new trend has been observed or some new fact discovered,’ has a difficult burden to bear. The reasons for this were cogently given by Mr. Justice Jackson more than 30 years ago in *ICC v. Jersey City*, 332 U.S. 503, 514 (1944):

One of the grounds of resistance to administrative process has been the claims of private litigants to be entitled to rehearings to bring the record up to date and meanwhile to stall the enforcement of the administrative order. Administrative consideration of evidence—particularly where the evidence is taken by an examiner, his report submitted to the parties, and a hearing held on their exceptions to it—always creates a gap between the time the record is closed and the time the administrative decision is promulgated. This is especially true if the issues are difficult, the evidence intricate, and the consideration of the case deliberate and careful. If upon the coming down of the order; litigants might demand rehearings as a matter of law because some new circumstance has arisen, some new trend has been observed, or some new fact discovered, there would be little hope that the administrative process could ever be consummated in an order that would not be subject to reopening.

Accord, United States v. ICC, 396 U.S. 491, 521 (1970); *Northern Indiana Public Service Company* (Bailly Generating Station, Nuclear-1), ALAB-227, 8 AEC 416, 418 fn. 4 (1974).

While an Office Director, in considering a request for action under 10 CFR 2.206, is not bound by the Appeal Board’s standards for reopening

a licensing proceeding on the basis of new information, the concerns expressed by the Appeal Board in the cited decision are clearly relevant here.

In this instance, the NRC Staff has investigated the allegations concerning the decreased need for the Vogtle facility and the possibility of solar energy alternatives. This analysis is set forth in Appendix A which is attached hereto and made a part of this decision.⁴ On the basis of that analysis, I have concluded that the proposed sale of interests in the Scherer plants by Georgia Power Company and the possible availability of less expensive solar cells do not represent changes in circumstances which would significantly alter the cost-benefit balance as originally analyzed in the construction permit proceedings for the Vogtle facilities. Consequently, the request by GANE for the suspension of the construction permits for the Vogtle plant and the institution of a proceeding to determine whether there is a need for the Vogtle units on the basis of this new evidence is denied.⁵

A copy of this determination will be placed in the Commission's Public Document Room at 1717 H Street, N.W., Washington, D.C. 20555, and the Local Public Document Room for the Alvin W. Vogtle Nuclear Plant, Units 1 and 2, located at Burke County Library, 4th Street, Waynesboro, Georgia. A copy of this document will also be filed with the Secretary of the Commission for its review in accordance with 10 CFR 2.206(c) of the Commission regulations.

In accordance with 10 CFR 2.206(c) of the Commission's Rules of Practice, this decision will constitute the final action of the Commission 20 days after the date of issuance, unless the Commission on its own motion institutes the review of this decision within that time.

Office of Nuclear Reactor Regulation
Roger S. Boyd, Acting Director

Dated at Bethesda, Maryland
this 13th day of April 1979.

⁴The licensee, Georgia Power Company, *et. al.* by letter dated January 30, 1979, formally responded to the request by GANE. This response was also reviewed by the Staff and it is attached hereto as Appendix B.

⁵This decision does not preclude GANE or any other person whose interest may be affected from raising this or other issues at the time the Commission proposes to issue the operating license for the Vogtle plant.

[The attachment has been omitted from this publication but is available in the NRC Public Document Room, 1717 H Street, N.W., Washington, D.C.]

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Harold R. Denton, Director

In the Matter of

NORTHERN STATES POWER
COMPANY

Docket No. 50-263

(10 CFR 2.206)

(Monticello Nuclear Generating
Plant, Unit 1)

April 24, 1979

The Director of Nuclear Reactor Regulation denies a petition filed under 10 CFR 2.206 of the Commission's regulations requesting that an immediately effective order be issued to prevent further installation of modified spent fuel storage racks pending a hearing to determine whether a license amendment should be issued to authorize modification of the racks.

OPERATING LICENSE: AMENDMENTS

A change to facility does not require a license amendment if the change does not involve a change in the technical specifications incorporated in the license or an unreviewed safety question as defined in 10 CFR 50.59(a)(2).

DIRECTOR'S DECISION UNDER 10 CFR 2.206 REQUEST

By letter dated December 8, 1978, the Minnesota Pollution Control Agency (MPCA) requested that the Nuclear Regulatory Commission issue an immediately effective order to prohibit further installation of spent fuel storage racks at the Monticello Nuclear Generating Plant Unit No. 1 (Monticello) pending a hearing to determine whether a license amendment should be issued to authorize modification of the racks by venting. The Commission directed the Staff to treat the MPCA's letter as a request for action pursuant to 10 CFR 2.206 of the Commission's regulations. Notice of receipt of this request was published in the

Federal Register on January 24, 1979, 44 Fed. Reg. 5029 (1979).

The asserted basis for the MPCA's request is as follows:

- 1) Modification of the racks through venting to alleviate swelling of the tubular walls involves an unreviewed safety question;
- 2) The modification involves an unreviewed safety question with respect to whether the tubular walls of the racks need to be leak tight and whether venting will effectively preclude future swelling of the racks; and
- 3) Because the modification through venting involves an unreviewed safety question, a license amendment is required by 10 CFR 50.59(c) to permit further installation and use of the vented racks.

For the reasons given in this decision, the MPCA's request is denied.

FACTUAL BACKGROUND

On April 14, 1978, the Commission issued License Amendment No. 34 to Provisional Operating License No. DPR-22 to permit the Northern States Power Company (NSP) to increase the spent fuel storage capacity at Monticello by replacing originally installed non-poison racks with a General Electric (GE) high density fuel storage system (HDFSS) utilizing Boral neutron absorber material.

The GE-HDFSS is constructed of tubular modules, or cells, each of which holds a spent fuel assembly. The tubular modules are fabricated by Brooks and Perkins Company, makers of Boral, who supply the modules to GE for their HDFSS. On May 12, 1978, GE informed the Staff by telephone that swelling of some newly fabricated tubular modules had been observed by Brooks and Perkins. The swelling was due to hydrogen formation within the walls of the tubular modules when water was incompletely excluded during fabrication. In the discussions between GE and NRC Staff on June 5, 1978, it was concluded that the swelling was a fabrication problem which could be prevented by proper quality control during fabrication, and that no immediate safety issue was involved, as no spent fuel had yet been stored in the affected modules.

In July, 1978, four (of the total of 13 ordered) racks were delivered to NSP and, in July and August, 1978, these were installed in the spent fuel pool at Monticello.

On August 18, 1978, NSP reported that swelling had occurred in some of the modules soon after installation in the fuel pool. On August 24, 1978, a meeting was held between NRC Staff, GE, NSP, and the Tennessee Valley Authority (TVA). TVA was proposing to install the GE-HDFSS in the spent fuel pools at the Browns Ferry Station.

At the conclusion of this meeting, it was determined that venting as proposed by GE was a safe and effective measure to relieve or prevent swelling, that no compromise in the ability of the system to perform its intended function was involved, and that all the racks to be used should be vented. The long term acceptability of the vented racks was left open pending our consideration of galvanic corrosion of Boral and its possible effect on the racks over their expected life.

In the swelling that has occurred in newly installed fuel storage modules, hydrogen is produced when the aluminum cladding of the Boral undergoes corrosion from exposure to water. When the fresh metal surface is wetted, there is initially a high rate of corrosion, with a high rate of hydrogen generation, until a protective oxide film is formed on the surface. After a short period of time the surface becomes inert and further reaction between the metal surface and water, and thus further hydrogen generation, is severely reduced. Further reaction can, of course, occur should the protective oxide coating be removed by chemical or mechanical means.¹

In the case of the spent fuel racks under consideration, hydrogen was trapped in the space between the inner and outer stainless steel shrouds when water entered the space because of incomplete seams welds at the bottom end of the racks. When the top seam welds are tight, the trapped hydrogen cannot escape and is forced into a pocket at the top of the void space and swelling of the thin (35 mil) inner wall occurs due to the pressure of the trapped hydrogen. The swelling was essentially completed within 2-3 weeks after putting the racks in the water. Tests indicated that, until the swelling was relieved, it would be difficult or impossible to place a spent fuel bundle in the affected spaces.

At Monticello, the swelling was easily relieved by putting two holes in diagonal corners of the upper ends of the rack (venting). This allowed the trapped gas to escape and the water to fill the void annular spaces. The hydrostatic pressures were thus equalized and the swelling was relieved.

The Staff has determined that venting of spent fuel storage cells by putting holes in diagonal corners of the top end of each cell, as was done with the racks already installed at Monticello and Browns Ferry, is a safe and effective method to relieve swelling and to preclude future swelling.² Recently, however, GE made a change in rack design that pro-

¹No mechanism is present that would remove this protective coating by chemical or mechanical means.

²Memorandum, R. Clark to T. Ippolito, dated September 11, 1978 (referred to by MPCA as the "Clark Memorandum").

Letter, Ippolito of NRC Staff to Hughes, TVA, dated September 21, 1978, Safety Evaluation for Browns Ferry Units 1, 2, and 3. License Amendments Nos. 42, 39, and 16, respectively.

vides a vent space in future racks rather than requiring that holes be put in diagonal corners of each cell. In racks to be delivered in the future, the corners of each cell will be left open at top and bottom to allow flow of water and gas through the rack. Although the Staff has not yet completed its review of the GE Topical Report on the HDFSS, we have concluded, based on our study thus far, that the open corner venting is an acceptable design feature.

CHANGES UNDER 10 CFR 50.59

In its petition, MCPA alleges that modification of the racks (i.e., venting and exposure of the Boral plates to pool water) is a change in the facility that involves an unreviewed safety question. According to MCPA, the unreviewed safety question concerns the need for the racks to be leak-tight and the assumption that future swelling of the racks may be reliably precluded by venting. Contrary to MCPA's assertions, the Staff has determined that these issues do not constitute an unreviewed safety question within the meaning of 10 CFR 50.59, and therefore a license amendment is not required to permit the modification of the racks.

Every change in the facility does not require a license amendment. Under 10 CFR 50.59(a) (1), a licensee may make a change in its facility without prior approval of the Commission unless the proposed change involves a change in the technical specifications incorporated in the license or an unreviewed safety question.³ As stated in 10 CFR 50.59(a) (2), a change involves an unreviewed safety question

(i) if the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report may be increasing; or

(ii) if a possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report may be created; or

(iii) if the margin of safety as defined in the basis for any technical specification is reduced.

Thus, every question concerning a proposed change in a facility is not an unreviewed safety question, and every change in a facility does not necessarily involve unreviewed safety questions. However, the licensee

³The Commission's regulations do not require, as the MPCA suggests, that potential changes be anticipated and described in the safety analysis report in order for the changes to be implemented in the future without a license amendment.

must maintain records of changes in the facility that include a written safety evaluation which provides the bases for the determination that a change in the facility does not involve an unreviewed safety question. 10 CFR 50.59(b). Prior to venting of the racks, NSP performed a safety evaluation and found that the modification did not involve an unreviewed safety question. Because of information available as a result of the August 24, 1978, meeting among the NRC Staff, GE, NSP, and TVA, the Staff has not relied on NSP's evaluation and findings concerning the venting of the racks, but has independently made its own finding that modification of the racks by venting did not involve an unreviewed safety question as defined in 10 CFR 50.59(a) (2).

REVIEW OF THE MODIFICATION

Contrary to the MPCA's assertion, the future behavior of the racks as a consequence of long term exposure of the Boral to water has been of ongoing concern to the Staff and has been the subject of Staff review beyond the point at which the Staff gave approval for venting to alleviate rack swelling due to initial hydrogen evolution when the Boral is wetted. Our review has addressed the concerns expressed in the MPCA's petition but has not been confined entirely to the issues raised by the MPCA.

The long term effect of venting of the fuel storage cells is to continuously expose Boral to spent fuel pool water. Exposure to pool water causes corrosion of the Boral and raises concern for the effect of corrosion upon the future behavior of the racks. The rapid buildup of a protective oxide layer on the aluminum cladding of the Boral, with consequent rapid production of hydrogen, has already been described as the mechanism by which the rack swelling occurred soon after the racks were put into the water. Of more concern and of greater potential long-term consequence of the venting is the galvanic corrosion of the Boral in contact with the stainless steel. Galvanic corrosion occurs when dissimilar metals are in contact or near each other and are connected by an ionic electrical conductor. Significant corrosion can occur when there is a large difference in the electromotive potential between the dissimilar metals. In the case at hand, the aluminum cladding of the Boral plates is more reactive than the stainless steel, so the Boral will experience galvanic corrosion when the stainless steel shroud tubes are vented to the pool water environment.

Carolinas-Virginia Nuclear Power Associates, Inc.,⁴ and Exxon Nu-

⁴L. Marti-Balaquer and W. Smalley, "Evaluation of Control Rod Materials; CVTR Project", CVNA-86. Carolinas-Virginia Nuclear Power Associates, Inc. (1960).

clear⁵ corrosion tests of Boral in stainless steel shrouds have shown corrosion of 1.8×10^{-4} to 3.4×10^{-4} inches/yr for the aluminum cladding of the Boral. The boron carbide particles were found to be inert to pool water environment and galvanic corrosion. The more noble stainless steel showed no attack by the galvanic coupling.

The Staff has evaluated the potential extent of corrosion attack on Boral based on corrosion data submitted by Brooks and Perkins,⁶ on the experience and test results with Boral in the Brookhaven Reactor,⁷ and on experience with Boral in test reactors and in spent fuel pools at several other licensed commercial nuclear power reactors.⁸ We have also reviewed the results of work done at the Vallecitos Nuclear Center to establish the corrosion behavior of Boral, both coupled with stainless steel and uncoupled, in a BWR spent fuel pool environment.⁹ These studies show that the corrosion of Boral exposed to water under BWR spent fuel pool conditions is not a concern for the expected life of the racks. The Staff is continuing its confirmatory studies of the corrosion behavior of Boral under coupled, uncoupled, and crevice conditions for long term exposures under various conditions. In addition NSP and TVA intend to install corrosion test specimens at Monticello and at the Browns Ferry Station that will periodically be removed and examined for long

⁵Exxon Nuclear Co., Inc. Fuel Storage Racks Corrosion, Boral-Stainless Steel, XN-NS-TP-009 (November 9, 1978).

⁶J. Weeks, *Corrosion Considerations in the Use of Boral in Spent Fuel Storage Pool Racks*, BNL-NUREG-25582, (December 1978).

Brooks and Perkins, Inc. *The Suitability of Brooks and Perkins Spent Fuel Storage Module for Use in BWR Storage Pool*, Report No. 577 (July 21, 1978).

L. Mollon & Brooks and Perkins, Inc., *Spent Fuel Storage Module*, Corrosion Report No. 554 (April, 1977).

⁷BNL-NUREG-25582, *supra* note 6; J. Weeks, *Corrosion of Materials in Spent Fuel Storage Pools*, BNL-NUREG-23032, July 1977.

⁸BNL-NUREG-23032, *supra* note 7.

⁹Jacobs, "Boral Corrosion Test: 250-Hour Results," P.M.E. Transmittal No. 77-688-74, August 4, 1977.

Jacobs, "Boral Corrosion Test: 1014-Hour Results," P.M.E. Transmittal No. 77-688-86, September 20, 1977.

Jacobs, "Boral Corrosion Test: 2022-Hour Results," P.M.E. Transmittal No. 77-688, December 15, 1977.

U. Wolff, "SEM Examination of Corroded Boral," EWA EAC80-10, DRFA00-37, Vallecitos Nuclear Center, June 26, 1978.

term corrosion behavior.¹⁰ The Staff has concluded, based upon experiments and studies made on the corrosion effects of Boral exposed to water, and accumulated experience in the long term use of Boral exposed to water, that the racks as modified for use at Monticello are safe for use beyond the expected lifetime of 40 years.

The Staff has also considered the possibility of future swelling of the racks, which the MPCA also alleges is an unreviewed safety question. The MPCA expresses concern that future swelling may occur in the vented racks because the holes bored to allow release of hydrogen gas may somehow become blocked. The MPCA does not identify how future blockage might occur, nor does the Staff find a basis for the MPCA's concern that the vents might become blocked in the future by corrosion. There is no reason to expect that there will be an appreciable production of hydrogen gas beyond the first 2-3 weeks after the vented racks are placed in the water. After the initial period of corrosion, the metallic surface becomes inert and further reaction between the metal surface and the water, and thus further hydrogen generation, is severely reduced. Even if hydrogen gas were produced in quantity, there is no identifiable corrosion product that could block the gas from escaping from the holes. Therefore, future swelling of the racks appears to be very unlikely.

Nonetheless, the Staff has assumed, for purposes of considering the MPCA's concerns, that blockage of the vents might in some manner cause future swelling of the racks and that, as a consequence, spent fuel assemblies might thus become stuck in the racks. In evaluating the MPCA's concern, the Staff considered the experience at the Haddam Neck Nuclear Unit, where three spent fuel assemblies were actually stuck in their storage cells due to swelling.¹¹

In the Haddam Neck case, gas generation had occurred over a period of 7 months due to radiolysis of an organic binder material which was used to hold boron carbide particles in a rigid plate. The swelling mechanism found at Haddam Neck is therefore not directly comparable to the Boral case at Monticello. At Haddam Neck, internal gas pressures up to 50 psig were generated, compared to the approximately 6 psig which could be generated in the Monticello racks due to the production of hydrogen gas.¹² After the Staff had reviewed the proposed venting procedures, the licensee, Connecticut Yankee Atomic Power Company,

¹⁰Memorandum, R. Clark to T. Ippolito, dated September 11, 1978 (referred to by MPCA as the "Clark Memorandum").

¹¹Letter from R. Graves of CY to B. Grier of NRC dated May 12, 1978, and Attachment: Licensee Event Report dated May 12, 1978.

¹²*Id.*

vented the racks with stuck fuel in place.¹³ Following release of the internal pressure, the swelling was reduced, and the fuel assemblies became unstuck and were removed using normal procedures. No damage occurred to the stuck fuel assemblies.

In the Monticello case, should swelling somehow occur by some means not yet identified after the spent fuel has been stored in the racks, venting to release the gas causing the swelling can be done using procedures similar to those used at Haddam Neck to release the stuck assembly.

In summary, the Staff can identify no mechanism, such as gross corrosion of materials in the rack, that would cause swelling and the potential for a stuck fuel assembly.

The MPCA expresses concern that, should a spent fuel assembly become stuck in a cell, the assembly might be ruptured in attempting to remove it and that this rupture would allow the release of such quantities of radioactive material that the health and safety of the public would be endangered. If a fuel assembly should somehow become stuck in a rack, the fuel assembly would not be pulled apart in an attempt to remove it. The crane at Monticello has load cells which automatically prevent the crane from exerting force on the assembly in excess of that required to lift the weight of the assembly.¹⁴

However, assuming that the crane's load-limiting mechanism would fail and that enough force is exerted on the stuck assembly to pull it apart and rupture its fuel rods, the radiological consequences to the public from this hypothetical event would not exceed the consequences of the postulated refueling accident that was reviewed in the Monticello Final Safety Analysis Report (FSAR).¹⁵ The postulated refueling accident was analyzed in the Monticello FSAR as a design basis accident to evaluate accidents that result in radioactive material release directly to the secondary containment (the reactor building) where the spent fuel pool is located.¹⁶ In the postulated refueling accident, there is a rupture of all fuel pins in the equivalent of approximately two fuel assemblies and the subsequent release of the radioactive inventory within the gap of each fuel pin.¹⁷ The accident occurs when the primary containment head and the reactor vessel head are open and a fuel assembly drops into the reactor core

¹³ W. Russell, NRC, "Summary of Meeting Regarding Deformation of High Density Spent Fuel Storage Containers Due to Gas Pressure Buildup," dated May 23, 1978.

¹⁴ Monticello FSAR, Section 10.2 (Oct. 1968).

¹⁵ The Staff has also determined in the experience at Haddam Neck that the bounding design basis accident for a stuck fuel assembly is the postulated refueling accident.

¹⁶ Monticello FSAR, Ch. 14, Sections 4.3 and 6.1 (Oct. 1968).

¹⁷ The postulated accident is described in detail in the Monticello FSAR, Ch. 14, Section 6.4.

lattice. The Staff reviewed the analysis of the postulated refueling accident and concluded that the resulting radiological doses would be well within the guidelines given in 10 CFR Part 100.¹⁸

CONCLUSION

The change in the Monticello facility, i.e., venting the racks and exposing the Boral plates to pool water, does not involve an unreviewed safety question within the meaning of 10 CFR 50.59(a) (2). The change does not increase the probability of occurrence or the consequences of an accident or malfunction that was previously evaluated in the Safety Analysis Report. The modification does not increase the probability of rupturing fuel rods as postulated in the refueling accident. Given the implausibility of future swelling of the racks which might trap a fuel assembly and the fact that the lifting crane has load-limiting cells to prevent forceful extraction of a stuck assembly, the probability of damaging a fuel assembly and rupturing fuel rods is not increased. Because exposure to pool water does not affect the neutron-absorbing function of the Boral plates, the change does not increase the probability of a malfunction of important safety-related equipment. Therefore, the change does not involve an unreviewed safety question under 10 CFR 50.59(a) (2) (i).

As discussed previously, the consequences of an accident involving attempted removal of a stuck fuel assembly are bounded by the postulated refueling accident analyzed in the Monticello FSAR. Because the Consequences are not affected by the change, the change does not involve an unreviewed safety question under 10 CFR 50.59(a) (2) (i).

The change also does not create the possibility for an accident or malfunction of different type than any previously evaluated in the Safety Analysis Report. Although the accident-causing mechanisms differ, both the refueling accident postulated in the Monticello FSAR and the accident resulting from pulling apart a stuck fuel assembly are of the same general type. Both result in failure of the fuel rods and releases of radioactive material directly to the secondary containment. Because the accidents are of the same basic type, the change does not involve an unreviewed safety question under 10 CFR 50.59(a) (2) (ii).

The change also does not reduce the margin of safety as defined in the basis of any technical specification, and therefore does not involve an unreviewed safety question under 10 CFR 50.59(a) (2) (iii).

As the change does not involve an unreviewed safety question within

¹⁸Monticello Safety Evaluation Report, Section 4 (March 18, 1970).

the meaning of 10 CFR 50.59(a) (2), a license amendment is not required to permit the venting of the racks and exposure of the Boral plates to pool water that constitutes the change in the racks.²⁰ Accordingly, the MPCA's request that further installation be halted pending conclusion of a proceeding to amend the license is denied.

A copy of this determination will be placed in the Commission's Public Document Room at 1717 H Street, N.W., Washington, D.C. 20555 and the local public document room for the Monticello Nuclear Generating Station, located at the Environmental Conservation Library, 300 Nicollet Mall, Minneapolis, Minnesota. A copy of this document will also be filed with the Secretary of the Commission for its review in accordance with 10 CFR 2.206(c) of the Commission's regulations.

In accordance with 10 CFR 2.206(c) of the Commission's Rules of Practice, this decision will constitute the final action of the Commission twenty (20) days after the date of issuance, unless the Commission on its own motion institutes review of this decision within that time.

Office of Nuclear Reactor Regulation
Harold R. Denton, Director

Dated at Bethesda, Maryland
this 24 day of April, 1979.

²⁰The modification of the racks also does not involve a change in the technical specifications incorporated in the license, which would require a license amendment, 10 CFR 50.5(a) (1), 50.59(c). The MPCA does not allege that the modification involved a change in the technical specifications.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

EXECUTIVE DIRECTOR FOR OPERATIONS

Lee V. Gossick

In the Matter of

Docket No. PRM-20-9

TECH/OPS

April 13, 1979

The Commission's Executive Director for Operations denies Petition For Rule Making to amend regulations (1) to specify a radiation level limit of 100 millirems per hour at 5 centimeters from the surface of a package containing radioactive material, and (2) to add a new requirement that radiation levels be determined by measurements averaged over a cross-sectional area of 10 square centimeters with no linear dimension greater than 5 centimeters.

**TECHNICAL ISSUES: INCREASING SURFACE RADIATION LEVEL
LIMIT FOR SMALLER PACKAGES**

It does not appear justified to allow levels to be increased for smaller packages where contact exposures are frequent.

**TECHNICAL ISSUES: RESTRICTING SURFACE RADIATION
LEVEL LIMITS FOR LARGER PACKAGES**

It does not appear justified to restrict surface radiation levels of larger packages to lower values where direct exposures under contact or close to contact conditions are unlikely.

TECHNICAL ISSUES: DEMONSTRATING COMPLIANCE

As with any regulation, the (safety) limits must be given as exact, precise values. The methods of demonstrating compliance with these limits are usu-

ally left to the regulated person. Any method which provides a reasonable demonstration of compliance will be accepted. In most cases, exact measured values are not required.

TECHNICAL ISSUES: MEASUREMENTS ON SURFACE

Precise measurements exactly on the surface of the package are not necessary or required under 10 CFR 20.205(c) (2). Measurements at some distance from the surface are acceptable if it can be shown from the measured value that the radiation level on the surface is likely to meet the regulatory limit.

TECHNICAL ISSUES: MONITORING RADIATION LEVELS

The current practice is to place an instrument probe as close as possible to the package and pass the instrument over the entire package surface to assure the levels at all points on the surface are within the limit.

TECHNICAL ISSUES: AVERAGING OF RADIATION LEVELS

The averaging of radiation levels over the cross-sectional area of a probe of reasonable size is acceptable for demonstrating compliance with the requirements specified in 10 CFR 20.205(c) (2).

TECHNICAL ISSUES: PROBE OF REASONABLE SIZE

A probe of reasonable size means (1) the sensitive volume of the probe is small compared to the volume of the package to be measured and (2) the largest linear dimension of the sensitive volume of the probe is no greater than the smallest dimension of the package.

TECHNICAL ISSUES: RADIATION LEVEL OF SMALL PACKAGE

The current surface radiation level limit for a package with a two inch source-to-surface distance restricts the radiation level to about 0.5 millirem per hour at 3 feet from the surface of the package.

TECHNICAL ISSUES: AVERAGING OF RADIATION LEVELS

Averaging is not acceptable for demonstrating that there are no cracks, pinholes, uncontrolled voids, or other defects prior to the first use of any packaging for the shipment of licensed materials as required by 10 CFR 71.53.

TECHNICAL ISSUES: AVERAGING OF RADIATION LEVELS

A more rigid requirement on averaging surface radiation levels to demonstrate compliance with 10 CFR 20.205(c)(2) is not warranted.

TECHNICAL ISSUES: INSTRUMENTS FOR MEASURING RADIATION LEVELS

Geiger-Mueller tubes may be used for both small and large packages but ionization chambers should be used only for large packages.

TECHNICAL ISSUES: CHANGE OF CURRENT PRACTICE

The elimination of ionization chamber type of instruments and a change of current practice of measuring surface radiation levels are unwarranted because no health and safety benefit would accrue from such change.

DENIAL OF PETITION FOR RULE MAKING

Notice is hereby given that the Nuclear Regulatory Commission (NRC) has denied a Petition For Rulemaking, submitted by letter dated April 15, 1977 by Tech/Ops, Radiation Products Division, 40 South Avenue, Burlington, Massachusetts, which requested the NRC to amend its regulations in 10 CFR Part 20, "Standards for Protection Against Radiation." This petition is being denied by the Executive Director for Operations in accordance with 10 CFR 1.40(o). The petitioner requested the NRC to revise 10 CFR 20.205(c) (2) to read as follows:

"If radiation levels are found at 5 centimeters from the external surface of the package in excess of 100 millirem per hour, or at 3 feet from the external surface of the package in excess of 10 millirem per hour, the licensee shall immediately notify by telephone and telegraph, mailgram or facsimile, the Director of the appropriate NRC Regional Office listed in Appendix D, and the final delivering carrier. Radiation levels shall be determined by measurements averaged over a cross-sectional area of 10 square centimeters with no linear dimension greater than 5 centimeters.

The petitioner stated that specification of radiation level limits at a distance of 5 centimeters from the surface of the package allows the level to be actually measured at the axis of a detector. The petitioner further stated that specification of the area over which the intensity may be averaged minimizes the inconsistencies in the radiation levels recorded for the same

package by different persons. Such inconsistencies may occur because of the use of radiation detectors with different sensitive volumes in non-uniform radiation fields.

A notice of filing of petition, Docket No. PRM-20-9, was published in the FEDERAL REGISTER on May 19, 1977 (42 FR 25787). The comment period expired July 18, 1977.

Five persons submitted comments. Four recommended that the petition be denied. The main bases for this recommendation were (1) the present regulation is adequate and presents no difficulty to the commenter; (2) the practical difficulties involved in assuring and documenting compliance with the detailed requirement specified in the proposed change, when applied to thousands of measurements under all conditions, would outweigh any potential good from the increased measurement precision that might result from the use of such techniques; and (3) a lower reporting level would reduce the number of curies allowed in one package for waste shipments and substantially increase the cost of waste disposal by increasing the number of containers required without a corresponding beneficial effect of reducing the total "man-rem" exposure. The fifth commenter also opposed the petition but suggested the radiation level limit proposed by the petitioner be reduced to 75 millirems per hour or preferably, to 50 millirems per hour at 5 centimeters from the surface.

The regulation, 10 CFR 20.205(c) (2), requires a licensee who receives a package of radioactive material in excess of Type A quantity to monitor the external radiation levels both at the surface and at 3 feet from the surface of the package. If the radiation levels exceed the limits prescribed by the regulation of the Department of Transportation (DOT), 200 millirems per hour at the surface or 10 millirems per hour at 3 feet from the surface, the licensee is required to immediately report that fact to the NRC and to the final delivering carrier.

If the proposed change were adopted, a licensee would be required to report when the radiation level exceeded 100 millirems per hour at a distance of 5 centimeters from the surface of a package. Such a limit would correspond to different surface radiation levels depending on the package size: less than 200 millirems per hour for large packages (i.e., packages with all three dimensions greater than 10 inches) and greater than 200 millirems per hour for small packages (i.e., packages with at least one dimension equal to or less than 10 inches). Hence, licensees who received large packages would be required to report radiation levels to NRC and the carrier even when the surface radiation levels were below the DOT regulatory limit, but licensees who received small packages would not have to report although the surface radiation levels exceeded the DOT regulatory limit. This inconsistency in reporting requirement, which would depend on package size, appears unjustified.

The petitioner also suggested that the radiation levels be determined by measurements averaged over a cross-sectional area of 10 square centimeters with no linear dimension greater than 5 centimeters. The staff believes that the averaging of radiation levels over the cross-sectional area of a probe of reasonable size is acceptable for demonstrating compliance with the requirements specified in 10 CFR 20.205(c) (2). By "a probe of reasonable size," we mean (1) the sensitive volume of the probe is small compared to the volume of the package to be measured and (2) the largest linear dimension of the sensitive volume of the probe is no greater than the smallest dimension of the package. For example, Geiger-Mueller tubes may be used for both small and large packages but ionization chambers should be used only for large packages. Hence, a more rigid requirement on averaging surface radiation levels to demonstrate compliance with 10 CFR 20.205(c) (2) is not warranted. However, it should be noted that such averaging is not acceptable for demonstrating that there are no cracks, pinholes, uncontrolled voids, or other defects prior to the first use of any packaging for the shipment of licensed materials as required by 10 CFR 71.53.

The staff has also considered the advantages and disadvantages in changing the radiation level limit from 200 millirems per hour at surface to 100 millirems per hour at a distance of 5 centimeters from the surface of a package. It concluded that such change would not be in the public interest based on the following considerations:

(1) Although the proposed change would reduce the surface radiation level that would be permitted for larger packages, it would significantly increase the surface radiation level limit, up to 400 millirems per hour, permitted for smaller packages. Since by far the greatest number of packages shipped are the smaller packages and the smaller packages are handled by hand more frequently than larger ones, the proposed change would be expected to result in higher collective hand doses to handlers. Furthermore, it does not appear justified to restrict surface radiation levels of larger packages to lower values where direct exposures under contact or close to contact conditions are unlikely, or to allow levels to be increased for smaller packages where contact exposures are frequent.

(2) The petitioner stated, "A package with a 2 inch source to surface distance would provide an exposure rate of only 1.1 millirem per hour at 3 feet from the surface under the proposed change whereas, under the current regulation, packages can have exposure rates of 10 millirem per hour at this distance." This statement is misleading. Under the current regulation, a package must meet both radiation level limits, 200 millirems per hour on the surface and 10 millirems per hour at 3 feet from the surface of the package. In fact, the current surface radiation level limit for a package with a 2-inch

source to surface distance would restrict the exposure rate to about 0.5 millirem per hour at 3 feet from the surface of the package.

(3) The staff believes the adoption of the proposed change would impose an unnecessary and increased burden on licensees without commensurate benefit to the public. The proposed change would require licensees to use specific types of radiation detection instrument with small diameters and limited sensitive volumes; e.g., it would eliminate the use of ionization-chamber instruments for surface radiation level measurements. In addition, it would require monitoring personnel to keep the center of the sensitive volume of the detector at 5 centimeters from the surface. The current practice is to place an instrument probe as close as possible to the package and pass the instrument over the entire package surface to assure the level at all points on the surface are within the limit. The elimination of ionization chamber type of instruments and the change of current practice of measuring surface radiation levels are unwarranted because no health and safety benefit would accrue from such change.

One commenter suggested that the radiation level limit be reduced to 75 or 50 millirems per hour at 5 centimeters from the surface of a package. Although this suggestion would reduce the surface radiation level limit of most packages (large and small) to less than the current surface radiation level limit, it again appears unjustified to restrict to lower values the surface radiation level of large packages whose direct exposures under contact are unlikely, or to allow higher surface radiation levels for smaller packages, whose contact exposures are frequent.

However, the staff recognizes the potential difficulty certain licensees may have in interpreting the regulation in 10 CFR 20.205(c) (2) as to whether a precise determination of surface radiation level is required.

In a letter to the petitioner dated December 5, 1977, the staff stated, "As with any regulation, the (safety) limits must be given as exact, precise values. The methods of demonstrating compliance with these limits are usually left to the regulated person. Any method which provides a reasonable demonstration of compliance will be accepted. In most cases exact measured values are not required."

The staff indicated that precise measurements exactly on the surface of the packages are not necessary nor required under 10 CFR 20.205(c) (2). Measurements at some distance from the surface are acceptable if it can be shown from the measured value that the radiation level on the surface is likely to meet the regulatory limit.

In the same letter, the staff stated it might be appropriate to issue a regulatory guide to explain the regulation in 10 CFR 20.205(c) (2) and to propose a method of surface radiation level measurement that is acceptable to NRC. The staff is now developing such a regulatory guide.

After careful consideration of the petition and the public comments thereon, the staff concluded that the proposed change would lead to cost increase without corresponding benefit of improving public health and safety. In fact, such a change would result in higher collective hand dose of package handlers. However, the staff believes a regulatory guide should be issued promptly to clarify the meaning of the relevant regulation.

In view of the foregoing, the NRC hereby denies the petition for rule-making filed by Tech/Ops on April 15, 1977. Copies of the petition for rule-making, the comments thereon, and the NRC's letter of denial are available for public inspection in the NRC's Public Document Room at 1717 H Street NW., Washington, D.C.

For the Nuclear
Regulatory Commission.

Lee V. Gossick
Executive Director for Operations

Dated at Bethesda, Maryland
this 23rd day of March 1979

[NOTICE PUBLISHED IN THE FEDERAL REGISTER ON APRIL 13,
1979, 44 FR 22232]

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Joseph M. Hendrie, Chairman
Victor Gilinsky
Richard T. Kennedy
Peter A. Bradford
John F. Ahearne

In the Matter of

**CAROLINA POWER AND
LIGHT COMPANY**

**Docket Nos. 50-400
50-401
50-402
50-403**

**(Shearon Harris Nuclear Power
Plant, Units 1,2,3, and 4)**

May 2, 1979

The Commission denies intervenors' motion, based on a prediction of a downward turn in the growth rate for electricity in the State as reported by the North Carolina Utilities Commission, for a remand and reopened hearings on the question of need for the Shearon Harris facility. The Commission finds the intervenors have failed to show that the Utilities Commission report is information of the type or substance likely to have an effect on the need-for-power issue such that relitigation is warranted.

RULES OF PRACTICE: REOPENING OF PROCEEDINGS

A possible one-year slip in need-for-power forecasts is legally insufficient to order relitigation of the issue of need-for-power.

NEED FOR POWER: FORECASTING FUTURE DEMAND

The general rule applicable to cases involving differences or changes in demand forecasts is stated in *Niagara Mohawk Power Corporation* (Nine Mile Point Nuclear Station, Unit 2), ALAB-264, 1 NRC 347, 352-69 (1975).

NEED FOR POWER: FORECASTING FUTURE DEMAND

Long range forecasts of future electric power demands are especially uncertain as they are affected by trends in usage, increasing rates, demographic changes, industrial growth or decline, the general state of economy, etc. These factors exist even beyond the uncertainty that inheres to demand forecasts: assumptions on continued use from historical data, range of years considered, the area considered, extrapolations from usage in residential, commercial, and industrial sectors, etc.

NEED FOR POWER: FORECASTING FUTURE DEMAND

A possible one-year slip in construction schedule is clearly within the margin of uncertainty.

MEMORANDUM AND ORDER

Intervenors, Conservation Council of North Carolina and Wake Environment, Inc., have filed with us a motion for a remand and reopened hearings on the issue whether the Shearon Harris facility is needed. This motion is based solely on a prediction of a downward turn in the growth rate for electricity in North Carolina as reported by the North Carolina Utilities Commission (NCUC) in a report entitled *Future Electricity Needs for North Carolina: Local Forecast and Capacity Plan-1978*.¹

We have reviewed the filings of the intervenors, the applicant, and the staff and the NCUC Report and the applicable NRC practice. We deny the motion.²

The NCUC Report found a probable growth rate of demand for electricity of 5.2%, down from the 6.7% predicted by its staff. This conclusion was drawn from the Public Staff Report, and was based on presumptions about the effectiveness of energy conservation measures and utilities' load management programs. These programs are encouraged as part of the public policy

¹The NCUC Report, filed in accordance with North Carolina law, is based on an independent report of its Public Staff. The Public Staff report was incorporated into the record before the Licensing Board and given "great weight" by the Appeal Board. Matter of *Carolina Power & Light Company* (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), LBP-78-2, 7 NRC 83, 86-87 (Order Correcting Record), LBP-78-4, 7 NRC 92, 137-138 (Initial Decision), *aff'd* ALAB-490, 8 NRC 234, 240-241 (1978). The Licensing Board declined intervenors' request to relitigate the need-for-power issue based on the NCUC Public Staff Report. LBP-78-2, *supra*.

²The Commission has received a letter of February 27, 1979 from the NCUC. Our order was drafted prior to its receipt. No reliance at all has been placed on it in this decision.

of North Carolina. The potential impact of the NCUC Report is that the applicant may be directed to defer its schedule for facilities about one year. The NCUC, however, ordered hearings for 1979 in which it expects testimony on current schedules and reasons why they should not be deferred along the lines suggested in the NCUC Report.

It is important to note that the NCUC never concluded that the power from the applicant's Harris facilities is not needed, nor did it find any immediate delay is warranted. Based on its own assumptions and absent conclusive evidence on the effects of energy conservation, the NCUC only projected a downward forecast in growth rates and ordered further hearings to test those findings. At that time, the applicant can present its case in support of its construction schedule. For the *purposes of the motion now before us*, there is no question from the NCUC Report that the Harris facility is needed; the only question is when.

Intervenors have failed to show that the NCUC Report is information of the type or substance likely to have an effect on the need-for-power issue such that relitigation is warranted. See *ICC v. Jersey City*, 322 U.S. 503, 514 (1944). On the contrary, the possible one-year slip in need-for-power forecasts found by the NCUC Report is legally insufficient to order relitigation of this issue.

The general rule applicable to cases involving differences or changes in demand forecasts was stated in *Niagara Mohawk Power Corporation* (Nine Mile Point Nuclear Station, Unit 2), ALAB-264, 1 NRC 347, 352-69 (1975). In that case the Appeal Board found the question was “not *whether* Niagara Mohawk will need additional generating capacity but *when*.” *Id.* at 357. The intervenors in that case urged that the power would not be needed until 1981, the applicant urged 1979 as the date. The Board responded (*id.* at 365):

[W]e do not consider the difference in predicted year of need—1979 vs. 1981—a statistically meaningful distinction. If there was one thing agreed upon in the proceeding below, it is that inherent in any forecast of future electric power demands is a substantial margin of uncertainty. As with most methods of predicting the future, load forecasting involves at least as much art as science. The margin of error implicit in such predictions is at least of sufficient magnitude to encompass the two year difference between the applicant's and the intervenors' forecasts.

This rule has been consistently followed.³

The Nine Mile Point rule recognizes that every prediction has associated uncertainty and that long-range forecasts of this type are especially uncertain

³See, e.g., *Duke Power Company* (Catawba Nuclear Station, Units 1 and 2), ALAB-355, 4 NRC 397, 405-411, *reconsideration denied*, ALAB-359, 4 NRC 619 (1976); *Tennessee Valley*

Continued on next page.

in that they are affected by trends in usage, increasing rates, demographic changes, industrial growth or decline, the general state of the economy, etc. These factors exist even beyond the uncertainty that inheres to demand forecasts: assumptions on continued use from historical data, range of years considered, the area considered, extrapolations from usage in residential, commercial, and industrial sectors, etc.

Applying that rule to the instant case, a *possible* one-year slip in construction schedule is clearly within the margin of uncertainty. The NCUC recognizes that there exists uncertainty in its own findings such that it ordered a further hearing on them. NCUC Report at 27. Most importantly, the NCUC did not conclude there was no need for the facility.

The Commission has decided the Shearon Harris proceeding is now concluded except for the radon question pending before the Appeal Board and the management qualification issue which we remanded to the Licensing Board. In the future, the appropriate remedy for those seeking to modify, amend, suspend, or revoke the construction permits is by means of a request for enforcement action under our regulations. See 10 CFR 2.206.

It is so ORDERED.

For the Commission
Samuel J. Chilk
Secretary of the Commission

Dated at Washington, DC,
this 2nd day of May, 1979.

Continued from previous page.

Authority (Hartsville Nuclear Plant, Units 1A, 1B, 2A, and 2B), ALAB-367, 5 NRC 92, 94-101 (1977); *Public Service Company of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-422, 6 NRC 33, 91-92 (1977), *aff'd on other grounds*, CLI-78-1, 7 NRC 1, *aff'd sub nom. New England Coalition on Nuclear Pollution v. NRC*, 582 F. 2d 87 (1st Cir. 1978); *Kansas Gas and Electric Company* (Wolf Creek Generating Station Unit 1), ALAB-477, 7 NRC 766, 770 (1978).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

**ATLANTIC RESEARCH
CORPORATION**

Alexandria, Virginia

**Byproduct Material
License**

No. 45-02808-04

May 2, 1979

The Appeal Board, reversing in part the decision of the Administrative Law Judge, sets aside in its entirety the civil penalty imposed by the Director of the Office of Inspection and Enforcement.

AEA: CIVIL PENALTIES

The propriety of a civil penalty hinges upon whether it serves a discernible remedial purpose, *i. e.*, whether it might have the effect of deferring future violations of regulatory requirements by the licensee in question or other licensees (or their employees).

AEA: CIVIL PENALTIES

Civil penalties are outside the bounds of the authorization of Section 234 of the Atomic Energy Act if their purpose or effect is solely punitive.

Dr. Coleman Raphael, Alexandria, Virginia, for the appellant, Atlantic Research Corporation.

Mr. James Lieberman (with whom Messrs. James P. Murray and Stephen G. Burns were on the brief) for the Nuclear Regulatory Commission staff.

DECISION

Before us is an appeal by the Atlantic Research Corporation (licensee) from two decisions of the Commission's Administrative Law Judge. In the first, rendered on October 28, 1977, the Administrative Law Judge affirmed the imposition by the Director of the Office of Inspection and Enforcement (I & E) of civil penalties against the licensee in the total amount of \$8,600. ALJ-77-2, 6 NRC 702. The second decision, issued on April 6, 1978, denied the licensee's request for mitigation of the penalties. ALJ-78-2, 7 NRC 701.¹

The basic underlying facts are stipulated and, for the most part being adequately detailed in the October 1977 decision below, need not be rehearsed at length here. Suffice it to say that the penalties were imposed by the Director of I & E in the first instance, and then upheld by the Administrative Law Judge, because of misconduct on the part of a radiographer in the licensee's employ. This misconduct—essentially deliberate in character—occurred on a Sunday morning in December 1976 during the course of the radiographer's performance, in the scope of his employment, of certain radiographic activities. As a consequence of it, the radiographer himself, as well as another employee who accompanied him, received excessive radiation doses.²

There is no present dispute that the actions of the radiographer constituted serious violations of the outstanding byproduct material license under which the radiographic activities were being conducted. The licensee has explicitly conceded as much and, at oral argument before us, indicated that it likely would not have challenged the issuance by I & E of a notice of violation (App. Tr. 52-53). The focal point of the disagreement between the parties is, instead, the propriety of the assessment of civil penalties against the licensee by reason of the radiographer's conduct.

On this score, the licensee stresses that management derelictions related to that conduct were neither charged by I & E nor found by the Administrative Law Judge. More specifically, there has been no claim by I & E that either (1) the radiographer (who apparently possessed 13 years of prior experience in that line of work) had been improperly selected, trained, or supervised by the licensee; or (2) the licensee's management should have ap-

¹The licensee took a timely appeal following the rendition of the second decision. We deferred the briefing of the appeal, however, to await the outcome below of another civil penalty proceeding involving closely related issues. That proceeding was concluded by the Administrative Law Judge in late November 1978. Although an appeal was noted from his decision, it was subsequently abandoned. Thus, the appeal in the instant case has since moved forward on its own.

²In the case of the radiographer, a dose of approximately 1250 rems to portions of one hand and approximately 9.2 rems to the whole body; in the case of the other employee, a whole body dose of approximately 4.4 rems.

preciated that he might engage in deliberate misconduct and therefore taken steps in advance to prevent it. The licensee also calls attention to the fact that, after the occurrence of the incident, it had immediately and permanently removed the radiographer from his position³—*i.e.*, took with dispatch what, in its view, were the appropriate measures to avoid a repetition of the occurrence.

In support of its claim of a total absence of culpability on its part, the licensee refers us to a colloquy between the Administrative Law Judge and the Director of I & E which took place at the mitigation hearing on January 31, 1978. In response to a question, the Director expressly acknowledged that, insofar as his office's investigation had disclosed, "management had done reasonably what could be expected for them to carry out their obligations" (Tr. 87). That official gave a like affirmative answer when then asked whether, in his view, "the licensee here had promptly reported the situation to the Commission, and had kind of stepped right in to do all they could, to adopt all the corrective action that should be taken" (*ibid.*).

The staff's rejoinder is that, although all this may be so, it does not serve to insulate the licensee from the imposition of civil penalties. We are told that a licensee cannot avoid responsibility for a violation of the radiological safety requirements of its license by placing the blame for the violation on its employee. Moreover, according to the testimony of the I & E Director at the mitigation hearing, as a general matter the taking of prompt corrective action does not warrant a mitigation of the civil penalty; rather, if such action is *not* forthcoming, the licensee involved will face "more emphatic enforcement action" on the part of I & E (Tr. 88). Still further, in his testimony the Director evinced the belief that, in this instance, the licensee's "good attitude towards compliance" with its obligations and its prompt response to the incident in question were counterbalanced by the "3 very major violations" which had brought about a "very, very, high" exposure—"[o]ne of the highest we have ever had"—to the radiographer's hand (Tr. 88-89).

As is thus seen, the issue is a narrow one: did the Administrative Law Judge err in declining to mitigate the assessed civil penalty⁴ given the absence of any assertion by I & E (let alone an adjudicatory finding) either (1) that

³The employee was demoted and assigned to other work not under the NRC license.

⁴As will be seen, *infra*, I & E has published the criteria which it utilizes in determining whether, and if so what, enforcement action is warranted in the event of a particular violation of a regulatory requirement. These criteria do not have the force of regulations; rather, as noted in the Staff's brief (at p. 31), they are intended simply "to explain to licensees and the public the implementation of the Commission's enforcement program." Thus, at the oral argument, staff counsel acknowledged that the Administrative Law Judge was not bound by I & E's determination (in the application of the criteria) that the established violations warranted an \$8,600 civil penalty (App. Tr. 50).

management malfeasance, misfeasance, or nonfeasance contributed in any way to the license violations; or (2) that the licensee failed to take prompt and corrective action to obviate a repetition of the occurrence.⁵ For the reasons that follow, we resolve that issue in the licensee's favor and set aside the imposition of civil penalties against it (*i.e.*, mitigate the assessed penalties in their full amount).

A. The authority to impose civil penalties for violations of NRC regulations or the terms of NRC licenses rests upon Section 234 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2282. Section 234 was added to the Act in 1969 by Section 4 of Public Law 91-161, 83 Stat. 444. Prior to its enactment, the Commission's⁶ enforcement powers were limited to the issuance of notices of violation, cease and desist orders and orders calling for the suspension, modification, and revocation of licenses.⁷

As its legislative history reflects, Section 234 was modeled after similar provisions contained in the statutes governing the regulatory activities of the Federal Communications Commission, the Federal Aviation Agency (now Administration) and the Federal Trade Commission. S. Rept. No. 553 (Joint Committee on Atomic Energy) to accompany S. 3169, 91st Cong. 1st Sess. (1969), at p. 9. In the view of the Joint Committee, there was a need to provide our Commission with the greater enforcement flexibility which those other agencies enjoyed. In the words of the Committee, application of the enforcement remedies then available to the Commission

may not always be in the public interest. In some instances, for example, the revocation of a license or suspension thereof may be too harsh a penalty under the circumstances. Moreover, in certain cases suspension may penalize the licensee's employees through loss of income without having any significant impact on the licensee itself. At the present time, the AEC in such cases essentially must choose between issuing a revocation or suspension order, on the one hand, or, on the other, issuing a cease and desist order. The latter normally directs a licensee to refrain from specified objectionable conduct under threat of imposition of an authorized penalty, but does not itself impose any penalty. As noted,

⁵It bears emphasis that, given the record that was made, we need not and do not decide whether, in truth, there were steps which the licensee might have taken to prevent the violations. See fn. 14, *infra*; see also App. Tr. 13, 18. For the purposes of the appeal, the fact that none was alleged or found is dispositive.

⁶As employed herein, the term "Commission" refers either to the Atomic Energy Commission or to the Nuclear Regulatory Commission, depending upon whether the reference is to a period prior to January 19, 1975 (the date upon which the NRC assumed the regulatory functions previously performed by the AEC).

⁷In addition, the Commission (through the Attorney General of the United States) was empowered to seek judicial enforcement of its orders and any other appropriate injunctive relief. See Section 232 of the Act, 42 U.S.C. 2280.

injunctions may also be sought in appropriate cases, but here again the enforcement action may be out of proportion to the infraction.

For these reasons the committee is of the view that the authority to impose civil penalties would materially assist the Commission in carrying out its program to protect public health and safety and assure the common defense and security. Conferring on the AEC the authority to impose civil monetary penalties, in addition to the Commission's existing authority to impose more severe sanctions either in lieu of or in addition to such monetary penalties, should afford the Commission ample flexibility to deal with infractions of varying severity. Thus, for example, the Commission could, among other things, levy a civil monetary penalty where suspension or revocation of a license is not required, without depriving a licensee of his means of livelihood or without requiring the cessation of an authorized activity which might be of material benefit to the public.

Id. at pp. 9-10⁸

In the course of the hearing which preceded issuance of its report, the Joint Committee posed a number of questions to the Commission which, together with the answers to them, illumined the purpose that civil penalties would serve. For example, when asked about the type of violation which it sought to reach with the requested civil penalty authority, the Commission responded that "[a]s previously stated, we believe civil penalties *would be an effective deterrent*, where more than a reprimand or cease and desist order is needed, in cases in which a sanction is needed without depriving a licensee or his employees of their means of livelihood and without requiring the cessation of an activity which might be of material benefit to the public." *Hearings before the Joint Committee on Atomic Energy on AEC Omnibus Legislation - 1969*, 91st Cong., 1st Sess. (1969), at p. 39 (emphasis supplied). Picking up on that theme, the Committee then inquired whether the proposed legislation "provide[d] for penalties in sufficiently large amounts to be effective deterrents to licensees which are large corporations . . . ; the Commission's answer was that it believed that the penalties provided would be *"effective deterrents to our licensee."* *Ibid.* (Emphasis supplied). And, when subsequently asked how the amounts of civil penalties would be

⁸The Committee went on to stress that it was not suggesting that "serious violations of the Atomic Energy Act or of rules, regulations, orders, or licenses issued thereunder are to be penalized by a mere civil penalty," particularly if "the violation is one that seriously threatens the health or safety of an employee or a member of the public." Rather, the civil penalty provision "is primarily intended for application in circumstances where utilization of the other and generally stronger regulatory tools available . . . would be tantamount to swatting a fly with a sledge hammer." *Id.* at p. 10.

determined, the Commission commenced its response by repeating a prior observation that "the purpose of imposing civil penalties *is remedial to deter persons from violating licensing provisions of the Act and terms and conditions of licenses.*" *Id.* at p. 40 (emphasis supplied).

Although the Joint Committee's report made no similar specific reference to the deterrent purpose and effect of the civil penalty provision, it did take pains to note (at p. 16) that "[t]he penalties authorized are civil only and are remedial in nature as opposed to punitive." In a broader context, the Administrative Conference of the United States has more recently emphasized the same point. A Conference recommendation in 1972 that Federal agencies consider the increased use of civil penalties as a means of enforcing regulatory requirements was accompanied by a report prepared by Professor Harvey J. Goldschmid of the Columbia University Law School. Taking note of the tenuous line between civil and criminal sanctions, Professor Goldschmid observed that a monetary penalty designated as "civil" by Congress should be beyond serious challenge if it is rationally related to a regulatory scheme; does not deal with offenses which are *mala in se*; and may be expected to have a prophylactic or remedial effect.⁹ He added: "This last item is important. It emphasizes that money penalty provisions may permissibly be aimed at preventing disapproved conduct—in this sense, at having a deterrent effect. Exclusive use of the 'remedial' label creates needless confusion. Deterrence is not solely a value of the criminal law, but has long played a role in civil law too (e.g., treble damages in antitrust and punitive damages in tort law)."¹⁰

⁹Goldschmid, *Report in Support of Recommendation 72-6, An Evaluation of the Present and Potential Use of Civil Money Penalties as a Sanction by Federal Administrative Agencies, Recommendations and Reports of the Administrative Conference of the United States*, July 1, 1970 - December 31, 1972, Vol. 2, 896, 914.

¹⁰*Id.* at 914-15. In this connection, Professor Goldschmid took note of the criticism leveled by Professor Walter Gellhorn against some of the reasoning in *Helvering v. Mitchell*, 303 U.S. 391 (1938). In that case, a taxpayer had been assessed a large civil penalty under a provision of the internal revenue laws to the effect that "[i]f any part of any deficiency is due to fraud with intent to evade tax, then 50 per centum of the total amount of the deficiency (in addition to such deficiency) shall be so assessed, collected, and paid" The taxpayer challenged the assessment on double jeopardy grounds, pointing to his prior acquittal on a criminal charge of having willfully attempted to evade the taxes in question. Rejecting the challenge, the Supreme Court held that the civil fraud penalty was not intended to be punishment for allegedly fraudulent acts but rather was a "remedial" sanction designed, *inter alia*, to reimburse the Government for investigative expenses and losses caused by the taxpayer's fraud. According to Professor Gellhorn, this explanation was dubious in that there was no relationship between the amount of the penalty and the amount of the Government's costs. As he saw it, "[m]ore realistically, heavy penalties are imposed so that the fear of loss will deter would-be defrauders of the Public." Gellhorn, *Administrative Prescription and Imposition of Penalties*, 1970 Wash. U.L.Q. 265, 273-74 fn. 21.

B. The Commission's regulations implementing Section 234 are sparse and do not directly address the matter of what need be established in order to justify the imposition of a civil penalty for a violation of a regulatory requirement. Our attention is called by the staff, however, to the Statement of Consideration which accompanied the promulgation of 10 CFR 2.205, the provision in the Rules of Practice which sets forth the procedure to be followed in assessing civil penalties. The Commission there stated that, "in determining the amount of a suitable penalty," it will consider

all relevant factors including, among others, the nature and number of the violations (*i.e.*, the significance from the standpoint of health and safety of the public or of the common defense and security such as safeguarding of special nuclear material), the steps taken by the person to correct violations, the licensee's history of previous violations and his demonstrated good faith in correcting them promptly, and the appropriateness of the penalty to the size of the licensee's business conducted under license.

36 *Fed. Reg.* 16894 (August 26, 1971).

The staff also points to the fact that, as authorized by Section 161n. of the Atomic Energy Act, 40 U.S.C. 471(n), the Commission has delegated its authority to institute enforcement actions to, *inter alia*, the Director of I & E. 10 CFR 1.64, 2.201, 2.205. For his part, the Director has issued a manual in which are detailed the criteria employed for determining whether a civil penalty should be imposed. Inspection and Enforcement Manual, Section 0815.02 (May 5, 1976).¹¹ Most of those criteria involve licensee derelictions of one kind or another; *e.g.*, the failure "to carry out in a timely manner the corrective action the licensee stated would be taken in response to a previous written notice"; chronic noncompliance with regulatory requirements which makes it "apparent that management . . . is not conducting its licensed activities in conformance with [those] requirements"; "breakdown in management or procedural controls as evidenced by significant items of noncompliance . . .; and intentional utilization by the licensee of unauthorized materials or of authorized materials for unauthorized purposes. And another of the criteria explicitly embraces the notion of deterrence—it calls for a civil penalty in cases "where . . . punitive action is deemed necessary to assure future compliance." At the same time, however, at least one criterion conveys the impression that I & E believes there to be room for the imposition of a penalty simply because "an item of noncompliance resulted in or

¹¹In Section 0855, the manual also addresses the matter of the determination of the amount of the penalty.

contributed to the cause or the seriousness of an accident or an incident"; *i.e.*, without regard to management shortcomings or to whether the assessed penalty might serve to lessen the chances of future instances of noncompliance.

II.

A. In light of the foregoing, it seems manifest to us that the propriety of the civil penalties in issue hinges upon whether they would serve a discernible remedial purpose—more particularly, whether they might have the effect of deterring future violations of regulatory requirements by this or other licensees (or their employees). To the extent, if any, that the I & E criteria might be taken to suggest otherwise, those criteria must give way to the legislative contemplation underlying the enactment of Section 234 of the Atomic Energy Act.¹²

In circumstances where the violation of statute, regulation, or license is both asserted and found to have been at least influenced by licensee action (or inaction), there will normally be little room for doubt as to the potential deterrent value of a civil penalty. Moreover, even if the violation cannot itself be traced to licensee fault, a civil penalty very well may fulfill a remedial function should it appear that the licensee either failed promptly to institute appropriate measures to avoid a repetition or, in some other fashion, demonstrated a lack of awareness of the imperative necessity that it take all reasonable measures to insure scrupulous compliance by its employees and agents with all regulatory requirements.¹³ As we have seen, however, neither of these situations has been alleged or found to exist here. To the contrary, we have the express acknowledgement by the Director of I & E that, insofar as his investigation disclosed, *before* the event the licensee had done everything that might have been reasonably expected of it to insure that its employees would comply fully with the terms of its license. It is equally plain that, once the radiographer's misconduct came to its attention (immediately after it took place), the licensee both manifested its awareness of the gravity of that misconduct and took suitable action to avoid a repetition of it: the

¹²As previously noted, fn. 4, *supra*, the criteria are not claimed by the staff to have the force of law. Additionally, no Commission regulation either explicitly or by necessary implication sanctions the assessment of a civil penalty in the absence of a remedial purpose. Thus, we can give effect to our understanding of the statutory bounds surrounding the Section 234 authorization without casting doubt upon the validity of any regulation promulgated under it.

¹³In the case of a licensee which lacks the ability (as opposed to desire or incentive) to carry out its obligations, one would suppose that the appropriate remedy would be a lifting of its license. No civil penalty, irrespective of its amount, can induce a licensee to do what it is not capable of doing.

demotion of the employee and his permanent debarment from the performance of any activities covered by the byproduct material license.

In sum, what the record depicts is an isolated instance of an employee of the licensee engaging over a short time span in a series of unauthorized acts—acts neither claimed nor found to have been anticipatable or preventable by the licensee. To be sure, as both the staff and the Administrative Law Judge stress (and the licensee does not deny), these transgressions were major ones and had serious consequences in the form of excessive radiation exposure (principally to the errant employee himself). Although that factor might be enough to sustain the imposition of a sanction purely punitive in character, it scarcely is sufficient of itself to support a sanction which must have a remedial foundation as well. Put another way, there is no *inevitable* relationship between, on the one hand, the level of significance—from a radiation exposure standpoint or otherwise—of a particular violation and, on the other, the enforcement measures which might be necessary or appropriate to deter its repetition.

From all that appears in his decision declining to mitigate the assessed penalties, the Administrative Law Judge did not focus upon these considerations. No more satisfactory is the analysis offered in the staff's brief in support of the result below:

Civil penalties here are remedial in the sense that they bring forcefully to the attention of the Licensee, its employees, and other licensees the seriousness of the cited violations and the need to prevent their future occurrences. A civil penalty gives notice to the Licensee that similar violations in the future may lead to more drastic enforcement action such as suspension or revocation of the license. *Imposition of the penalty provides incentive to the Licensee to take steps to avoid future overexposures.* This deterrent effect against future misconduct is precisely the valid remedial function that civil penalties perform in any administrative regulatory program.

[Brief, p. 37; emphasis supplied; footnote omitted.] The principal difficulty with this line of reasoning is that it involves a repudiation of the concessions made by I & E below; *i.e.*, it necessarily assumes (contrary to those concessions) that there were steps which this licensee might have taken either (1) before the event to avoid its occurrence or (2) after the event to avoid its repetition. Of course, due process problems might arise were we to countenance such a drastic change in position on the appellate level. Quite apart from that, even now we have been left to speculate as to what are the steps which, according to the staff's present thinking, this licensee (or others similarly situated) might pursue—and thus could be given an “incentive” to pursue—in the interest of “avoid[ing] future overexposures.” The short of

the matter is that, although (as we have earlier recognized, p.618 , *supra*) I & E's thesis regarding remedial effect might well carry the day in the instance of many (if not most) established license violations, it has no meaning whatever in the setting of the undisputed facts of this case. And, as hardly requires extended discussion, civil no less than criminal sanctions are to be tailored to the particular situation at bar, rather than fashioned by resort to abstract propositions of no apparent applicability to that situation.

At oral argument, we further explored the staff's analysis with its counsel. We were told that the "concept of emphasis" was at the heart of the imposition of penalties (App. Tr. 34). According to counsel, "strong enforcement action in the form of civil penalties" is necessary to get the message across that "when you have an over-exposure you need to reexamine your operation, that what might have been good might not have been good enough" (App. Tr. 34-35). When pressed, however, respecting what value that message might have in circumstances where there has been no identification of anything which the licensee might have done which had not been done,¹⁴counsel's response was:

Under the license, the management has certain responsibilities, the radiographers have certain responsibilities. In this case we're not saying that management didn't meet their responsibilities, we're saying the radiographer did not meet his responsibilities. It's the radiographer that does this work. Management doesn't make the surveys. Management doesn't conduct the radiography. It's the radiographer who conducts the radiography. And this radiographer did not do what he was supposed to do.

And that's why we're holding the licensee in violation, and that's why we're imposing a civil penalty, to give the message that you have to do the job properly, you have to make the surveys, you're supposed to wear film badges, you're supposed to fill out logs, and the various other items of non-compliance that occurred here.

(App. Tr. 40-41).

It would appear from that statement that what in actuality may have been at the root of the penalty assessment was not (as the staff's brief suggested) an intent to send a message to this and other licensees, but rather a desire to impress upon *radiographers* generally that they are supposed to perform

¹⁴Early in the argument, we asked staff counsel what evidence there was in the record concerning measures the licensee could have taken to avoid this incident (App. Tr. 9-10). The answer was that "[t]he record does not have any evidence or testimony as to what could have been done" (*id.* at 10).

their tasks in conformity with all regulations. It has not been explained to our satisfaction, however, how the penalties might fulfill that purpose here. To the extent that radiographers might be thought to require a reminder of their obligations "to do the job properly"—more precisely to refrain from the kind of gross and deliberate misconduct engaged in by this radiographer—one might reasonably suppose that the personnel action taken by the licensee would have provided that reinforcement. Put another way, it is not immediately obvious to us why the miscreant's prompt demotion and transfer did not furnish a sufficient object lesson. At least this much seems clear: if the severe sanction which the licensee imposed upon its radiographer has not had the effect of impressing other persons engaged in activities under a Commission license with the need to comply faithfully with NRC regulatory requirements, it is scarcely likely that a monetary penalty assessed against the licensee (*not* the radiographer) might have the effect.¹⁵

We thus remain entirely unconvinced that, *on the facts of this case*, any remedial effect might possibly be achieved by the assessed penalties. Although some measure of respect may be owed to the contrary judgment of the Commission office specifically vested with enforcement responsibilities, we would be derelict in the execution of our own duties were we simply to rubber-stamp that judgment notwithstanding the absence of any assigned (or apparent) rational foundation for it. Those duties include the ascertainment that any enforcement action challenged by a licensee comports with existing statutory limitations. Because, as earlier noted, civil penalties are outside the bounds of the Section 234 authorization if their purpose or effect is solely punitive,¹⁶ it follows that we could not justifiably affirm the result below without there being at least some cause to believe that something more than punishment is produced by that result.

It need be added only that none of the judicial or Commission decisions cited by the staff cuts against these conclusions. Particularly heavy reliance is placed on *Virginia Electric and Power Company* (North Anna Power Station, Units 1 and 2), CLI-76-22, 4 NRC 480 (1976), in which civil penalties were assessed against an electric utility under Section 186 of the Atomic Energy Act¹⁷ for making material false statements in connection with its application for permits to construct a nuclear power facility. Although, as the staff emphasizes, it was there conceded that the statements had not been made with knowledge of their falsity, there was certainly neither agree-

¹⁵For these reasons, we may pass here the question of the legality (and equity) of imposing a penalty against one not at fault in order to deter improper conduct on the part of another. That question manifestly is not free from doubt.

¹⁶Although of no help to it here, the staff is, of course, quite right in its insistence (Br. pp. 35-39) that all civil penalties inherently have some punitive aspects.

¹⁷42 U.S.C.2236.

ment among the parties nor a finding that the utility had done everything that could have been reasonably expected of it to insure that the representations it made to the Commission were accurate and complete.¹⁸ With respect to the other decisions to which the staff points,¹⁹ our examination of them has not disclosed anything which intimates, let alone holds, that civil penalties are an appropriate sanction for a license violation even if their effect will be punishment alone. Rather, they stand only for the proposition that a violation of a regulatory requirement becomes no less a violation because it was unintentional;²⁰ a proposition which is not in dispute here but quite beside the point.²¹

B. Lest the reach of our decision in this case be misunderstood, some additional observations are warranted.

We have taken pains throughout this opinion to stress that the result is founded entirely upon the specific—and in some respects perhaps unique—

¹⁸In our own opinion in *North Anna*, we stressed that the case did not involve an attempt to hold the utility accountable "for a statement which, although no basis existed upon which its falsity could have been perceived upon reasonable investigation at the time made, is nevertheless revealed by subsequent developments to be untrue." We went on to observe that, "[a]lthough Congress was understandably concerned that facts which are either known or ascertainable upon reasonable inquiry not be misrepresented, it seems most unlikely that the legislature intended Section 186 to make an applicant a guarantor that every scientific judgment fairly made and fairly reported would not later be proven wrong." ALAB-324, 3 NRC 347, 357-58 (1976). The Commission did not take issue with these conclusions in CLI-76-22.

¹⁹*United States v. Johnson*, 541 F. 2d 710 (8th Cir. 1976), *certiorari denied*, 429 U.S. 1093 (1977); *United States v. H.M. Prince Textiles, Inc.*, 262 F. Supp. 383 (S.D.N.Y. 1966); *United States v. Vitasafe Corporation*, 212 F. Supp. 397 (S.D. N.Y. 1962). These decisions were also cited by the Administrative Law Judge in his first (October 1977) decision. 6 NRC at 711-12.

²⁰E.g., "the good faith effort . . . to assure compliance . . . is generally not a defense to an action for civil penalties for violation" (*United States v. Johnson*, *supra*, 541 F.2d at 712); "liability for civil penalties arises without a need for any showing that the practices were intentional or malicious" (*ibid.*); "lack of wilfulness or intention is not a valid defense to an action . . . to recover civil penalties" (*United States v. H. M. Prince Textiles, Inc.*, *supra*, 262 F. Supp. at 388); "the way in which defendant carried on its operations, and claimed good faith, have no bearing on the question of whether it has violated the order" (*United States v. Vitasafe Corporation*, *supra*, 212 F. Supp. at 398).

In none of the three cases was there a claim that the violation in question was not merely *unintentional*, but also *unavoidable* in the exercise of reasonable care by the corporate management. Moreover, in both *H. M. Prince* and *Vitasafe*, the court pointed out that, although not a defense to liability, "good faith" (i.e., a "lack of intent to violate the order") could be urged in mitigation of the penalty. 262 F. Supp. at 388; 212 F. Supp. at 398. In its brief (at fn. 34), the staff notes its agreement with that view.

²¹Once again, this licensee does not challenge that a violation of the terms of its license occurred. Nor does it seek to escape the imposition of a sanction for that violation on the ground simply that it had acted "in good faith" (although, as just seen, that is a recognized basis for the mitigation of civil penalties).

facts before us. Care must be taken, therefore, to avoid reading too much into that result.

To begin with, we do not decide that I & E had the burden of persuasion on the issue of licensee culpability. Beyond doubt, the Commission staff office instituting the enforcement action must show (unless conceded by the licensee) that there has been, in fact, a violation of a regulatory requirement. But this does not perforce mean that, in order to justify an assessment of a civil penalty for an established or acknowledged violation, the staff office must shoulder the additional burden of proving (1) that the violation might have been avoided in the exercise of reasonable care by the licensee; or (2) that the licensee's conduct after the event was such as to bring into legitimate doubt its appreciation of the gravity of the violation and the possible necessity to take further measures to obviate future transgressions.

Indeed, there may well be very good reasons why a licensee should be taken to have the affirmative obligation of demonstrating the converse; *i.e.*, that the civil penalties should be mitigated in whole or in part because it neither can be held fairly accountable for what transpired nor can be charged with indifference to its responsibilities under the license. Among other things, such a conclusion would appear to draw support from considerations akin to those underlying the *res ipsa loquitur* doctrine which has long been firmly rooted in tort law. The licensee, after all, possesses control over the licensed activities and the performance of its employees in the carrying on of those activities. In the event of a violation of a regulatory requirement, there is thus ample room for an at least rebuttable presumption that management shortcomings were a contributing factor. Be there an explanation for the violation which counters the presumption, the licensee can best supply it—*i.e.*, can best assume the burden of going forward (if not the ultimate burden of proof).²²

The basis upon which the staff chose to proceed against this licensee relieved us, however, of any necessity now to rule definitively on the burden-of-persuasion question. Greeted with the licensee's assertions both that the radiographer's misconduct could not be attributed to fault on its part and that it has done all that might have been expected of it to prevent a repetition, the staff might have opted to put the licensee to its proof.

²²Once the licensee had put forth an explanation of the violation which, *prima facie*, demonstrated the absence of fault on its part, the burden of going forward would, of course, shift to the staff. In the discharge of that burden, the staff could be expected to identify with particularity those preventive measures which the licensee might have, but had not, taken (and then to justify their reasonableness). If the staff's claim were that, after the event, the licensee did not take the proper steps to avoid a repetition, a like identification and showing on its part would be in order. A licensee cannot be fairly called upon to establish that it was not remiss in failing to take actions which no one has suggested should have been taken.

It might have, for example, sought to compel the licensee to show affirmatively not only that the radiographer had been carefully selected, trained, and supervised but, as well, that all other reasonable measures had been taken to guard against the possibility that he might bring about a radiation over-exposure to himself and a co-employee through a willful disregard of settled procedures. Similarly, it might have insisted that the licensee demonstrate the sufficiency of its post-event remedial actions. But, as we have seen, the staff explicitly converted the matter of possible licensee shortcomings into a non-issue—perhaps because of a conscious election to use this case to test its theory that the radiographer's malfeasance (coupled with the consequences thereof) was a legally adequate foundation for the imposition of civil penalties. While, now that that theory has been rejected, it is too late for the staff to change directions in this civil penalty proceeding, there of course will be nothing to preclude it from taking a different tack when confronting future violations of regulatory requirements by licensees.

Secondly, nothing we have said should be taken as intimating a view that the smaller the role assumed by a licensee and its high-level management in the superintendence of the day-to-day execution of the licensed activities, the smaller the risk of its being saddled with civil penalties in the event that a rank-and-file employee is derelict. "Hear no evil, see no evil, speak no evil" does not have a place in our regulatory scheme; no official of a licensee, from its chief operating officer on down, enjoys the freedom to insulate himself from what is being done (or not done) by subordinates. Whether in a specific case there has been enough direct management involvement or surveillance will, of course, hinge upon the nature of the activity in question; assuredly, considerably more can be demanded along that line in the instance of the operation of a nuclear power reactor than in the performance of routine industrial radiography work. This is at least implicitly recognized by the staff. Once again, we have not been asked to find that the licensee at bar fell short in the discharge of its own responsibilities by not monitoring more closely what its experienced radiographer was doing on the day in question. Rather, in the words of staff counsel, it was "the radiographer [who] did not meet *his* responsibilities." See p. 620 *supra* (emphasis supplied).

The April 6, 1978 decision of the Administrative Law Judge is *reversed* insofar as it denied the licensee's request for the mitigation of the civil penalties imposed by order of the Director of the Office of Inspection and Enforcement. That request should have been, and hereby now is, *granted* in its entirety.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Michael C. Farrar, Chairman
Richard S. Salzman
Dr. W. Reed Johnson

In the Matter of

FLORIDA POWER AND
LIGHT COMPANY

Docket No. 50-389

(St. Lucie Nuclear Power Plant,
Unit No. 2)

May 3, 1979

The Appeal denies applicant's motion for reconsideration of the Board's decision to hold a hearing on the stability of the applicant's electrical grid. The Board also denies the intervenors' motion requesting broad discovery against the applicant.

Messrs. Harold F. Reis, Washington, D. C., and Norman A. Coll, Miami, Florida for the applicant Florida Power and Light Company.

Mr. Martin Harold Hodder, Miami Florida, *pro se and* as counsel for intervenors Rowena E. Roberts et al.

Messrs. James R. Tourtellotte and William D. Paton for the Nuclear Regulatory Commission staff.

MEMORANDUM AND ORDER

Last month we called for a hearing in this construction permit proceeding on an issue that had been troubling us for some time, *i.e.*, the stability of the applicant's electrical grid and, ultimately, the general adequacy of this facility's emergency power systems. ALAB-537, 9 NRC 407 (April 5, 1979). Our order has triggered disparate action by the parties.

The applicant was heard from first. It moved that we reconsider our decision and call off the hearing; in support, it asserts that the inquiry we wish to conduct is forbidden by Commission regulations. Alternatively, it wants us at least to convene a prehearing conference—in substance an oral argument—to consider its motion further.

At nearly the same time, the intervenors submitted their own motion. Obviously wanting the hearing to go forward, they have asked us to enter an order allowing them to conduct certain broad classes of discovery against the applicant. The applicant opposes the motion on a variety of grounds.

For its part, the staff has taken no position on the discovery request, pointing out that (as is now the case) the intervenors are seeking material only from the applicant. For a different reason, the staff has not responded to the substance of the applicant's motion. Rather than brief the merits, the staff has simply supported the suggestion that we all gather together to discuss the point orally.¹

We deny both motions.

1. The applicant's motion rests almost entirely on its understanding of the so-called "single failure" standard. See 10 CFR Part 50, Appendix A, "General Design Criteria." The application of that standard, however, requires careful judgment. What is involved here is the likelihood that diesel generators will not start on command. Generally speaking, the staff will permit this circumstance to occur as often as once in a hundred times during tests. It is far from certain that the single failure standard extends to, or was ever intended to extend to, a situation arising that frequently. In other words, it is not clear to us that a diesel engine's refusal to start is at all analogous (within the contemplation of the "single failure" standard) to, for example, the refusal of an electrically operated valve, pump, switch, or relay to function on command.

In any event, the single failure standard appears in Commission criteria which, according to their own introductory terms, (1) are incompletely developed, (2) establish only minimum requirements, and (3) reflect the expectation that "additional or different criteria" will have to be "identified and satisfied in the interest of public safety" in "unusual" situations.² In addition to what we said above, the peninsular configuration of the South Florida electrical grid—and the attendant system power failures which have therefore been encountered—seem to us to present an "unusual" situation precisely within the explicit contemplation of the regulation itself.³

¹In doing so, the staff did not inform us of the position it was likely to take on the merits of the applicant's motion.

²See 10 CFR (1978 rev.) at 349.

³Similarly, if the applicable regulations did clearly bar our inquiry, the facts we have noted

Continued on next page.

The short of it is that the matter cannot be resolved as a question of law. At most from the applicant's point of view, it may prove to be a mixed question of law and fact. As such, it is best resolved after a hearing, not on the papers before us or on lawyers' arguments at a prehearing conference.

2. The intervenors' discovery motion is somewhat ambiguous. It is not clear whether they are seeking the requested order because they think that (1) no discovery would otherwise be permitted in *any* proceeding before us (as opposed to one before a licensing board); (2) no discovery at all can take place in this particular proceeding without our first opening the door; or (3) in all proceedings each discovery measure employed must receive advance approval.⁴ We need not pause, however, to divine their intentions. In all the circumstances, including the timing and extent of the intervenors' participation on this matter thus far, and our own role in fashioning the way that the issue has been developed, we believe that the following course is appropriate.⁵ The applicant and staff should continue to prepare their written direct testimony. Possibly, much of the material sought by the intervenors will be reflected in that testimony. Or, to the extent that the applicant and staff begin now to make such material available informally—as has been done in other similar situations⁶—any need for formal discovery may be obviated. In any event, after the testimony of those two parties is filed the intervenors will be in a better position to make any *specific* formal requests to the parties then thought warranted. And, by the same token, if it then becomes necessary for us to referee any disputes, we will be in a better position to do so. In the interim, cooperation among the parties will do much to reduce the scope of the discovery matters that may eventually have to be brought before us for resolution.

Continued from previous page.

would provide the "special circumstances" necessary to justify us in asking the Commission itself to waive the bar and let us proceed. See 10 CFR 2.758. In view of the exception already built into the regulations, however, there is no need to invoke the "special circumstances" procedure here. Thus we do not set out the full reasoning which we would furnish the Commission if that procedure were involved. To some extent, however, that reasoning already appears in ALAB-537

⁴The first and last of these theories do not comport with Commission practice.

⁵Whenever we conduct a hearing as part of our appellate review function, we must fashion time periods and procedures for discovery different from those contemplated by the Rules of Practice, which are structured in terms of licensing board hearings.

⁶See *Public Service Company of New Hampshire* (Seabrook Units 1 and 2), ALAB-488, 8 NRC 187, 193 (1978); and our unpublished order of April 9, 1979 in *Virginia Electric and Power Company* (North Anna Units 1 and 2), Docket Nos. 50-338 and 50-339 (copies are being sent to counsel; the comments we made there might well guide the parties here).

Motions *denied*.
It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

HOUSTON LIGHTING AND
POWER COMPANY

Docket No. 50-466

(Allens Creek Nuclear Generating
Station, Unit 1)

May 3, 1979

The Appeal Board denies intervenor's motion for reconsideration or clarification of ALAB-535.

RULES OF PRACTICE: APPELLATE PROCEDURE

The practice followed by the Appeal Board, that it is unnecessary for a party to respond to a motion for reconsideration unless specifically requested to do so by the Board, is also applicable to requests for clarification of a prior decision.

Mr. James Morgan Scott, Jr., Houston, Texas, for the
Texas Public Interest Research Group

MEMORANDUM AND ORDER

In ALAB-539, 9 NRC 422 (April 23, 1979), we denied motions filed by the applicant and the NRC staff which sought, respectively, reconsideration and clarification of portions of ALAB-535, 9 NRC 377 (April 4, 1979). In acting on those motions without waiting for possible responses by other parties to the proceeding, we followed the practice first announced in *Maine Yankee Atomic Power Company* (Maine Yankee Atomic Power Station), ALAB-166, 6 AEC 1148, 1150 fn. 7 (1973):

For the future guidance of the Bar, we note that it will never be necessary

for a party to respond to a petition for reconsideration filed with an Appeal Board unless that Board has specifically requested it to do so. Absent the most extraordinary circumstances, such a petition will not be granted without a request for responses having first been made. This procedure basically conforms to that followed in the Federal courts of appeals. See Rule 40 (a) of the Federal Rules of Appellate Procedure.

Although the staff's motion ostensibly sought only clarification, as noted in ALAB-539 (9 NRC at 426) in reality its principal objective was to have us reconsider certain holdings in ALAB-535. In any event, no good reason exists why the *Maine Yankee* practice should be thought any less applicable to requests for clarification of a prior decision than it is to motions for reconsideration of that decision.

One of the matters addressed in ALAB-539 was whether ALAB-535 contained an implicit direction that there be a republication of the "Notice of Intervention Procedures" first issued in May 1978 and then reissued in amended form the following September. Although not urging that we should direct that this step be taken, the staff suggested that it might be required by reason of our holding in ALAB-535 that the September 1978 amended notice (as its May predecessor) was too restrictive in scope. Our response was:

Had our thought been that [republication] was necessary or desirable, we would have said so. We thus obviously came to a contrary conclusion. That conclusion was founded on these considerations: First, the limitation contained in the May 1978 notice and September 1978 amended notice was ignored by a substantial number of the petitioners who sought intervention in response to the invitation contained in those notices. It is thus at least doubtful that the limitation served to discourage potential petitions (although, as recognized in ALAB-535, it may have had an effect upon the choice and development of the contentions which were set forth in the petitions filed). Second, the publication of a new notice at this juncture could occasion very serious prejudice to the successful appellants because, depending upon the terms of the new notice, they might well be deprived of the benefits to which we have determined they were entitled under the amended notice. Given the time and resources which were expended by them in establishing their rights under that amended notice, such a result would be inequitable.

ALAB-539, 9 NRC at 426 (footnote omitted).

Five days after ALAB-539 was rendered, but apparently before its receipt of the copy served upon it, the Texas Public Interest Research Group (TEX-PIRG) filed a document with us. Labelled as both (1) a motion for recon-

sideration and clarification of ALAB-535 and (2) a response to the motions previously filed by the applicant and the staff seeking that relief, the TEX-PIRG submission flatly insists that a new "Notice of Intervention Procedures" must now be published by the Licensing Board. In this connection, TEX-PIRG opines that there are individuals or organizations who had been discouraged from seeking intervention by the restriction contained in the September 1978 amended notice.

Apart from the belatedness of the request for reconsideration and clarification, it is at best doubtful that TEX-PIRG may be heard to complain. As is seen from ALAB-535, it both sought and was granted leave to intervene in this proceeding. And, although the Licensing Board initially put unwarranted limitations upon the scope of the intervention, that error was apparently cured in its April 11, 1979 order entered in the wake of ALAB-535. Thus, without the issuance of a new notice, TEX-PIRG's interests (and those of its members) have been fully protected. It does not profess to have been clothed with the authority to represent the interests of others.

For this reason, we are constrained to deny, without reaching its merits TEX-PIRG's application for relief on the notice republication question. In doing so, however, it bears emphasis that all that was previously before us was whether we were *directing* republication. Because of the considerations outlined in ALAB-539 (see p.423, *supra*), we have not done so. But the factual underpinning of one of those considerations—that it seemed unlikely that the improper limitation in the 1978 notices discouraged potential intervention petitions—has now been put in dispute by TEX-PIRG. We do not know where the truth lies on that matter; nor are we prepared now to speculate on how, should there be a challenge at a later date to the failure to have issued a new notice, the Commission or a court might look at the issue.

All this being so, it would not be appropriate for us to *forbid* republication. Rather, it is best left to the Board below and to the applicant and staff to determine for themselves whether, in the totality of circumstances, it is worthwhile for them to assume any risks which may inhere in continuing to proceed under the September 1978 notice (with the erroneous limitation removed). Although offering no opinion on that question, we must emphasize that, should a new notice be issued voluntarily out of an abundance of caution, it may not be used to constrict those rights which in ALAB-535 we held the successful appellants to possess under the September 1978 notice; *i.e.*, it may not serve to defeat the second consideration which prompted us not to compel republication (see p. 423, *supra*).

The motion of TEX-PIRG for reconsideration or clarification of ALAB-535 is *denied*.

It is so ORDERED.

FOR THE APPEAL BOARD
Margaret E. Du Flo
Secretary to the Appeal Board

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Richard S. Salzman, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

HOUSTON LIGHTING AND
POWER COMPANY, et al.

Docket Nos. 50-498 OL
50-499 OL

(South Texas Project,
Units 1 and 2)

May 7, 1979

Intervenor's motion to strike applicant's appeal from the Licensing Board's order granting intervention is denied.

RULES OF PRACTICE: INTERLOCUTORY APPEALS

Appeals from interlocutory board orders granting or denying intervention are governed by Section 2.714(a) of the Commission's Rules of Practice.

Mr. Steven A. Sinkin, San Antonio, Texas, for *intervenor* Citizens Concerned About Nuclear Power.

ORDER

Citizens Concerned About Nuclear Power, Inc., moves to strike the appeal from the Licensing Board's order granting it leave to intervene. The relief is sought on the ground that applicant's notice-of appeal and brief fail to comport with 10 CFR 2.762 and Appendix A to 10 CFR Part 2, Section IX(d) (2), provisions of the Commission's Rules of Practice. CCANP asserts that

These are the only sections of the Rules of Practice that establish standards for exceptions and briefs and would be controlling on the appeal before this Board.

The provisions cited apply to initial decisions of the licensing boards. Appeals from interlocutory board orders granting or denying intervention, however, are covered elsewhere. See 10 CFR 2.714a. Applicants' papers comport with that rule; accordingly, the motion to strike their appeal must be *denied*.¹

It is so ORDERED.

FOR THE APPEAL BOARD

Romayne M. Skrutski
Secretary to the Appeal Board

¹Intervenor's motion papers include a request for attorney's fees. Apart from the fact that such an award would be inappropriate here (where their motion has been denied), we caution them that the Commission does not award such fees in any event. See, *Financial Assistance to Participants in Commission Proceedings*, CLI-76-23, 4 NRC 494 (1976).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARDS*

Dr. John H. Buck
Michael C. Farrar
Richard S. Salzman
Dr. W. Reed Johnson
Jerome E. Sharfman

In the Matters of

PHILADELPHIA ELECTRIC
COMPANY, et al.

Docket Nos. 50-277
50-278

(Peach Bottom Atomic Power Station,
Units 2 and 3)

PUBLIC SERVICE ELECTRIC
AND GAS COMPANY

Docket Nos. 50-354
50-355

(Hope Creek Generating Station,
Units 1 and 2)

May 8, 1979

The Appeal Board denies applicants' motion for reconsideration of ALAB-540, which consolidated their cases with others for consideration of the radon issue.

Mr. Troy B. Conner, Jr., Washington, D. C., for the
applicants.

MEMORANDUM AND ORDER

Applicants in these proceedings jointly ask us to reconsider ALAB-540 to the extent that it consolidates their cases with others for purposes of considering the "radon" issue.¹ In these proceedings no intervenor has chal-

*The Appeal Panel members listed are on one or both of these proceedings; their collective designation is simply a convenience in issuing this joint order.

¹See ALAB-480, 7 NRC 796 (1978), and ALAB-509, 8 NRC 679 (1978).

lenged the radon emission levels set in the *Perkins* proceeding.² Applicants therefore argue that nothing remains to be considered in their cases but purely legal questions. As they see it, these involve only the validity of the “*de minimis*” approach to the environmental consequences of those emissions followed by the *Perkins* board. To make them participate in further evidentiary proceedings, applicants say, unfairly requires them to face issues not present in their cases.

Applicants fail to appreciate the ramifications of the radon problem. The environmental consequences of radon releases during the mining and milling of uranium fuel are necessarily attributable in equal measure to all nuclear power facilities. As we have previously stressed, to insure that the question receives consistent treatment pending issuance of a “generic” rule on the subject by the Commission, significant developments will have to be taken into account in every pending case.³ In other words, where matters are not expressly raised by intervenors, the respective Appeal Boards will have to consider them *sua sponte*. Applicants’ belief that the issue of radon releases and concentration is not one they face is therefore simply mistaken. That we have chosen to move forward with the issue in a few selected cases first, including ones involving these applicants, is neither unreasonable nor unfair in the circumstances.

The joint petition for reconsideration is *denied*.

It is so ORDERED.

FOR THE APPEAL BOARDS

Margaret E. Du Flo
Secretary to the Appeal Board

²*Duke Power Company* (Perkins Station, Units 1, 2 and 3), LBP-78-25, 8 NRC 87 (1978) (appeal pending). (We ordered the Perkins record incorporated into all the cases for reasons we explained in ALAB’s 489 and 509.)

³*e.g.*, ALAB-509, *supra*, 8 NRC at 683 fns. 8 and 9.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

HOUSTON LIGHTING AND
POWER COMPANY

Docket No. 50-466

(Allens Creek Nuclear Generating
Station, Unit 1)

May 8, 1979

Treating it as an appeal under 10 CFR 2.714a, the Appeal Board denies on ground of untimeliness a request by a petitioner that the denial of his intervention petition by the Licensing Board be overturned.

Mr. Emanuel Baskir, Houston, Texas, appellant *pro se*.

MEMORANDUM AND ORDER

In an order entered on February 9, 1979, the Licensing Board acted upon twenty-four petitions for leave to intervene in this construction permit proceeding. A few were granted; the majority denied. At the conclusion of the order, the Licensing Board explicitly advised the unsuccessful petitioners of their right under 10 CFR 2.714a to appeal the order to this Board within 10 days after service of it upon them.¹

Several of those petitioners exercised that right on a timely basis and, in ALAB-535,² we passed on their appeals. On May 1, 1979—almost 3 months after the issuance of the Licensing Boards order—yet another of the petitioners denied intervention below (Emanuel Baskir) came to us with the request that the denial be overturned.

¹10 CFR 2.714a was amended, effective May 26, 1978, to increase the appeal period from 5 to 10 days. 43 Fed. Reg. 17798, 17802 (April 26, 1978).

²ALAB-535, 9 NRC 377 (April 4, 1979), petitions for reconsideration and clarification denied, ALAB-539, 9 NRC 422 (April 23, 1979) and ALAB-544, 9 NRC 630 (May 3, 1979).

Treating Mr. Baskir's filing as an appeal under 10 CFR 2.714a, we are constrained to deny it on the ground of untimeliness.³ It may well be that the appeal period provided in Section 2.714a is not jurisdictional in the sense that we lack the power to entertain an appeal which is not filed within 10 days after service of the order in question. But manifestly we would not be justified in accepting a belated appeal in the absence of a showing of good cause for the failure to have filed it on time. And, the greater the tardiness, the more compelling need be that showing. In this instance, Mr. Baskir is very late with no explanation at all. The fact that he is a layman and thus possibly may be unfamiliar with our Rules of Practice could not, of course, have served as a sufficient excuse. For, as earlier noted, the order which he seeks to challenge advised him both of his appellate rights and of the time within which those rights had to be exercised.

Appeal dismissed.

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

³This is so despite the fact that it appears that Mr. Baskir was denied intervention by the Licensing Board on grounds rejected by us (in the case of some of those who took timely appeals) in ALAB-535.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

PUBLIC SERVICE COMPANY OF
NEW HAMPSHIRE, et al.

Docket Nos. 50-443
50-444

(Seabrook Station, Units 1 and 2)

May 14, 1979

The Appeal Board decides tentatively to suspend further consideration of the single remaining issue in this proceeding (that of an alternate site for the Seabrook facility, to await the possibility of Supreme Court Review of the First Circuit's May 2, 1979, decision in *Seacoast Anti-Pollution League v. Costle* upholding the EPA Administrator's decision that cooling towers were not required for the Seabrook facility).

MEMORANDUM AND ORDER

In January of this year, we held a three-day evidentiary hearing which was devoted to the exploration of a single issue in this construction permit proceeding: whether there is an alternate site for a nuclear facility anywhere in New England which would be "obviously superior" to the Seabrook site where cooling towers to be needed in conjunction with a nuclear facility at Seabrook. What prompted the hearing is amply illumined in prior decisions of the Commission and this Board;¹ that ground need not be replowed here. Suffice it for present purposes to note that, for the reasons detailed in those decisions, the determination as to whether a nuclear facility at Seabrook must have cooling towers is for the Environmental Protection Agency and not this Commission to make. Although the EPA administrator had ruled in August 1978 that cooling towers need not be employed (*i.e.*, he had approved the applicants' proposed once-through cooling system for Sea-

¹See ALAB-471, 7 NRC 477 (1978); CLI-78-14, 7 NRC 952 (1978); ALAB-488, 8 NRC 187 (1978).

brook),² as of the time of our January hearing that ruling had not become final. This was because a petition for review of it remained pending before the Court of Appeals for the First Circuit.

All of the witnesses who testified at the hearing were members of the NRC staff. Their testimony was directed to staff exhibit 79-1, a voluminous report of the analysis made by the staff on the alternate site issue.³ That analysis, of perhaps unprecedented depth, had produced the conclusion that none of the twenty-two New England sites considered as possible alternatives (eight of which received intensive study after a preliminary "coarse" screening process) was "obviously superior" to the Seabrook site with cooling towers.⁴ Each of the witnesses had played a significant role in one or another facet of the overall analysis. In addition to direct examination by staff counsel, they were subjected to extensive cross-examination by counsel for the other parties (the applicants and the intervenor Seacoast Anti-Pollution League (SAPL)) and were also questioned at some length by members of this Board.

On a schedule established by us, the parties thereafter tendered their post-hearing submissions. That of the staff, which was received first, took the form of a proposed decision which essentially tracked the staff's analysis as presented in its direct evidence. In their responsive filing, the applicants urged us to adopt virtually all of that proposed decision, quarreling only with two of the specific findings contained therein and offering but a few additional findings of their own. For its part, SAPL took the position that the staff's alternate site inquiry had been "wholly irrational" and that, "on the basis of the record and analysis to date," there was "no hope of answering" the ultimate question before us. Having said that, SAPL did go on to suggest that, if tested against any reasonable objective siting standards which might exist, both the Pilgrim site (on the Massachusetts coast) and the Phillips Cove site (see fn. 4, *supra*) "could be found to be obviously superior" to Seabrook with towers.

Upon being advised in mid-March that the staff did not propose to reply to the applicants and SAPL, but rather would stand upon its prior submis-

²The Administrator had previously given such approval in a decision rendered in June 1977; on judicial review of that decision, however, the matter had been remanded to him for further consideration.

³In advance of the hearing, that report (bearing the designation NUREG-0501) had been furnished to the Board and the other parties to the proceeding as the staff's prepared testimony.

⁴The staff did conclude that one of the alternate sites (Phillips Cove on the Maine coast) is "marginally superior" to Seabrook. Under the rule established by the Commission in this very proceeding, that would not be enough to warrant rejection of the Seabrook site. See CLI-77-8, 5 NRC 503, 526 (1977), *affirmed, sub nom. New England Coalition on Nuclear Pollution v. NRC*, 582 F. 2d 87, 95 (1978). In any event, the applicants maintain that provisions of a Maine statute would preclude resort by them to the Phillips Cove site.

sion, we set about the task of independently reviewing with care the full record as a precursor to the preparation of our own decision. Before that task was completed, however, the Court of Appeals for the First Circuit announced the result of its review of the EPA Administrator's approval of once-through cooling for the Seabrook site. Finding no error had been committed by the Administrator, the court upheld his decision that cooling towers were not required. *Seacoast Anti-Pollution League v. Costle*, ____F.2d. ____ (No. 78-1339, decided May 2, 1979).

In view of the First Circuit's decision, we are confronted with the question whether we should continue to move forward at this time to resolve the pending alternate site inquiry. Our tentative answer is that we need not, and because of the other demands upon us should not, pursue that course. Plainly, absent Supreme Court intervention, that alternate site issue has now become wholly academic: that issue assumed that cooling towers would be required at Seabrook and, with only the possibility of Supreme Court review now remaining, the EPA Administrator's judicially-approved ruling is that they will not.

We do not know, of course, whether certiorari will be sought by SAPL (or the other unsuccessful challenger of the EPA ruling). Nor do we presume to speculate on what would be the outcome of a certiorari petition. But it seems to us that we can stay our hand to await further developments on that front without substantial risk of adversely affecting the interests of any of the parties. Should a certiorari petition be both filed and granted, there will be enough time (while the Supreme Court has the merits under advisement) for us to complete consideration of the alternate site issue and to render our decision.

In short, our present intention is to suspend forthwith any further consideration of the alternate site issue. In the event that Supreme Court review of the First Circuit's decision in the EPA proceeding either is not sought or is denied, we would then issue an order terminating the exploration of that issue on the ground of mootness. On the other hand, should there be a grant of certiorari, we would resume our deliberations and hand down a decision as expeditiously as possible.

Although this course commends itself to us as being fully warranted in the circumstances, we cannot exclude the possibility that it may not meet with the approval of all of the parties. For this reason, any party which objects to our proposal in whole or in part may file a memorandum to that effect within 30 days of that date of this order.⁵ The memorandum shall de-

⁵ Any party believing the matter to be quite urgent is free, of course, to file its memorandum well before the 30 days expire.

tail the nature of and the basis for the objection. Responses are due within 20 days after service of the memorandum.

One final matter merits brief mention. Even if his current approval of a once-through cooling system for Seabrook is allowed to stand, the EPA Administrator may at some later date have to determine anew whether the facility should be required to employ cooling towers. See Sections 402(a) (3) and 402(b) (1) (B) of the Federal Water Pollution Control Act (as amended in 1972), 33 USC 1342(a) (3) and 1342(b) (1) (B); see also Section 316(c) of that Act, 33 USC 1326(c). Were the Administrator on such reexamination to conclude that cooling towers must be installed, this Commission might be called upon to reinstate the alternate site inquiry. That inquiry would, of course, take place in a quite different setting. More particularly, the balancing of the Seabrook site with towers against alternate sites would have to take into account, *inter alia*, the status then of both the Seabrook facility (which likely would be substantially completed if not already in operation) and the alternate sites (which might well have become dedicated to other uses). To the extent, however, that they had not been overtaken by changed circumstances, the disclosures in the present record—together with the parties' commentaries on those disclosures—could still be put to useful purpose. For even though consideration of the alternate site issue may go no further at this juncture, the record which has been developed will be preserved for such future use as might be appropriate.⁶

It is so ORDERED.

FOR THE APPEAL BOARD

Margaret E. Du Flo
Secretary to the Appeal Board

⁶As of this writing, the Court of Appeals for the First Circuit still has under submission a petition for review of CLI-78-14. *Seacoast Anti-Pollution League v. NRC* (No 78-1172, argued October 3, 1978). Among other things, that petition challenges the Commission's conclusion (7 NRC at 954-56) that it should terminate (as no longer productive) its previously directed inquiry into whether there is a southern New England site which would be "obviously superior" to the Seabrook site *without* cooling towers (*i.e.*, with a once-through cooling system). The First Circuit may or may not agree with that conclusion. Should the court affirm it, the entire alternate site inquiry will be at an end (again, absent Supreme Court review). On the other hand, should the court overturn the Commission's conclusion, we will then have to consider whether the record developed at the January hearing (insofar as it deals with the southern New England sites) is itself sufficient to permit an informed comparison of those sites and the Seabrook site without cooling towers. Before making a final judgment in that regard, we would have to solicit the views of the parties—obviously, they would be entitled to be heard on whether there is justification for using the record for a purpose quite distinct from that which had prompted its compilation.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Richard S. Salzman, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

HOUSTON LIGHTING AND
POWER COMPANY, et al.

Docket Nos. 50-498 OL
50-499 OL

(South Texas Project, Units 1 and 2)

May 18, 1979

The Appeal Board affirms the Licensing Board decision allowing two organizations to intervene as parties in the operating license proceeding.

RULES OF PRACTICE: STANDING TO INTERVENE

An organization may have standing solely as the representative of one or more of its members if it meets the standard set forth in *Warth v. Seldin*, 422 U.S. 490 at 511 (1975).

RULES OF PRACTICE: NON-TIMELY INTERVENTION PETITIONS

The key policy consideration for barring late intervenors is one of fairness, viz., "the public interest in the timely and orderly conduct of our proceedings." *Nuclear Fuel Services, Inc.*, (West Valley Reprocessing Plant), CLI-75-4, 1 NRC 273, 275 (1975).

Messrs. Jack R. Newman, Harold F. Reis and Robert H. Culp, Washington, D. C., and **Melbert D. Schwartz and Charles G. Thrash, Jr.**, Houston, Texas, for Houston Lighting and Power Company; The City of San Antonio, Texas; Central Power and Light Company; and The City of Austin, *applicants*.

Mr. Steven A. Sinkin, San Antonio, Texas, for Citizens Concerned About Nuclear Power, Inc. *intervenor*.

Mrs. Peggy Buchorn, Brazoria, Texas, for Citizens for Equitable Utilities, Inc., **intervenor**.

Mr. Henry J. McGurren and **Ms. Marjorie B. Ulman**
for the Nuclear Regulatory Commission staff.

DECISION

This proceeding involves applications to license operation of the twin-unit South Texas nuclear power facility. Six intervention petitions were filed in response to the Commission's Notice of Opportunity for a Hearing on the proposal. 43 Fed. Reg. 33968 (August 2, 1978). The Licensing Board dealt with all six petitions in one decision: it denied three of them, granted Texas' unopposed request to participate as an "interested State" under 10 CFR 2.715(c), and allowed Citizens Concerned About Nuclear Power, Inc. (CCANP) and Citizens for Equitable Utilities, Inc. (CEU) to intervene as parties opposed to licensing the plant. LBP-79-10, 9 NRC 439 (April 3, 1979).

Only the applicants appeal.¹ They contend that the organizations allowed to intervene should have been rejected because their petitions were late and for lack of "standing" to participate.² The staff supports the Licensing Board's decision.

I.

1. CCANP filed its initial intervention petition before the deadline given in the Commission's Federal Register notice.³ Both the applicants and the staff challenged it, however, as defective under the Commission's rules. The Licensing Board rejected the petition as submitted but, in line with the staff's suggestion, it allowed CCANP opportunity to cure the defects by amendment.⁴

CCANP filed an amended petition on December 26, 1978.⁵ According to it, the organization sought to intervene "on its own behalf and on behalf of its members." The document recited the names and addresses of four

¹Our jurisdiction is invoked under 10 CFR 2.714a.

²The Licensing Board also "conditionally denied" the intervention petition of Austin Citizens for Economical Energy unless that organization supplied certain additional information. Applicants appeal from this aspect of the Board's order as well, but as ACEE never attempted to fulfill the Board's condition, that appeal is moot.

³That notice announced September 1, 1978 as the deadline for intervention petitions. 43 Fed. Reg. at 33969. CCANP's initial petition was submitted on August 31st.

⁴Order of October 23, 1978, p. 9. The rules contemplate such amendments. See 10 CFR 2.714(a) (3) and 2.714(b).

⁵This was within the time allowed it by the Board below.

individuals represented to be CCANP members who “reside within 25 miles of the South Texas Nuclear Project.” Their interests were characterized as the possible subsection “to unnecessary risk of life and/or property from accident or ordinary operation of the South Texas” facility. The petition also recited a series of proposed contentions bearing on health and safety matters related to the nuclear plant’s operation.

At its January 11, 1979 prehearing conference to consider the petitions to intervene, the Licensing Board suggested that CCANP further substantiate its claims to speak for individuals residing near the plant.⁶ In response, on January 14th, CCANP supplied an affidavit from one of the members named in its petition, George J. Bunk, attesting to his residence within 7 miles of the South Texas facility, his wish to have CCANP represent his interests, and his adoption of the organization’s December 26th petition. The Board thereafter allowed CCANP to intervene.

2. “Standing” is legal shorthand for the right to take part in a given case. In determining whether a party may participate in Commission proceedings as a matter of right, the test applied is the one used by the Federal courts: a prospective intervenor must show that the outcome of the proceeding threatens one (or more) of its interests arguably protected by the statute being administered.⁷

Applicants do not challenge Mr. Bunk’s personal standing.⁸ Rather, they object to CCANP’s right to intervene as his representative, asserting that there is insufficient “nexus” between the organization’s interests and his own. The crux of their complaint is that most of CCANP’s membership is in San Antonio, some 120 miles from the plant. Applicants reiterate that “we are concerned [here] with the relationship between an organization which will itself sustain *no* injury, and one isolated individual in a position to allege injury in fact.”⁹

The object is not well taken; concerns of that nature have been allayed at the highest level. Writing for the Court in *Warth v. Seldin*, Mr. Justice Powell explained that

⁶See Prehearing Conference of January 11, 1979, Tr. 88-89.

⁷*Portland General Electric Company* (Pebble Springs Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613-14 (1976); *Edlow International Company*, CLI-76-6, 3 NRC 563, 569-70 (1976).

⁸As indeed they could not successfully do. His allegations of residence within 7 miles of the South Texas facility, coupled with his expressed concern about injury to his person and property should the plant malfunction were sufficient to demonstrate his “real stake” in the outcome of the proceeding. *Virginia Electric And Power Company* (North Anna Station Units 1 and 2), ALAB-522, 9 NRC 55, 56 (January 26, 1979) and cases there cited.

⁹*Applicant’s Brief*, p. 22 fn. 21 (emphasis in original).

Even in the absence of injury to itself, an association may have standing solely as the representative of its members . . . The association must allege that its members, *or any one of them*, are suffering immediate or threatened injury as a result of the challenged action of the sort that would make out a justifiable case had the members themselves brought suit . . . So long as this can be established, and so long as the nature of the claim and of the relief sought does not make the individual participation of each injured party indispensable to proper resolution of the cause, the association may be an appropriate representative of its members, entitled to invoke the court's jurisdiction.¹⁰

The application of those judicial standards to CCANP's petition constrains our agreement with the Board below that, in the circumstances described, the organization has demonstrated standing to intervene derived from the interests of at least one member.¹¹

No doubt there are instances where the concerns of an organization and those of its members are so disparate that the former may not be an appropriate representative of the latter's interests.¹² But such considerations are not present in this case. We agree with the Licensing Board that the stated purposes of "Citizens Concerned About Nuclear Power" are sufficiently germane to warrant its representation of Mr. Bunk's essentially similar concerns in a proceeding looking toward licensing operation of a nuclear power plant. See 9 NRC at 447.

Finally, we cannot draw applicants' proposed distinction between the right of San Antonio-headquartered CCANP to represent the interests of a few members elsewhere in Texas and a national organization's standing to represent some members' local interests. The latter was said to be sufficient in *Sierra Club v. Morton*, 405 U.S. 727, 740 (1972). The connections binding the group's and members' interests in both cases appear comparably strong (or tenuous) to us.¹³

¹⁰422 U.S. 490, 511 (1975), as quoted with approval by the Court in *Hunt v. Washington Apple Advertising Comm'n*, 432 U.S. 333, 342-43 (1977) (emphasis supplied).

¹¹Applicants' reliance on *Health Research Group v. Kennedy* No: 77-0734 (D.D.C., filed March 13, 1979), is misplaced. The decision rejected the claim of an organization *without members* to have standing solely as the representative of its contributors and supporters. That is not the case here. See fn. 8, *supra*.

¹²See, *Hunt v. Washington Apple Advertising Comm'n*, *supra*, 432 U.S. at 343-44.

¹³It does not follow, as applicants suggest, that a California-based group would necessarily have standing to represent the parochial interests of its single member in New York. That question can only be answered in the context in which the right is asserted; obviously we need not decide it here. The idea that rights and remedies may turn upon differences in degree however, is hardly a novel legal concept. See, e.g., *Nash v. United States*, 229 U.S. 373 (1913); *LeRoy Fibre Co. v. Chicago M. & St. P. R. Co.*, 232 U.S. 340, 354 (1914) (Holmes, J., concurring).

3. As we mentioned, CCANP's initial petition was timely filed. Applicants nevertheless contend that its intervention should have been denied as unjustifiably late. Their argument rests on a technical point of law.

A Licensing Board in another case recently required a group seeking to intervene on a representative basis—*i.e.*, to protect its members' rather than its own interests—to demonstrate that it was authorized to act for persons with the requisite standing *at the time its petition was filed*. If it only afterwards acquired those members, its petition must be treated as though filed when they joined. The Board reasoned that the organization lacked standing to intervene until that later time. *Washington Public Power Supply System* (WPPSS Nuclear Project No. 2), LBP-79-7, 9 NRC 330 (March 6, 1979).

Applicants pointed out to the Board below that CCANP's standing is similarly derivative. They therefore sought leave to discover from CCANP when Mr. Bunk became a member in order to apply the ruling in *WPPSS No. 2* to this case. The Licensing Board, however, declined to allow that discovery.¹⁴ Applicants consequently tell us that, in the absence of other evidence, it must be assumed Mr. Bunk joined CCANP contemporaneously with his January 14th affidavit. They therefore argue that, under *WPPSS No. 2*, CCANP's petition to intervene must be deemed to have been filed at that time, some four months late as a matter of law. Applicants reason that CCANP is thus not entitled to intervene as a matter of right but that its participation turns on the application of the four factors governing late interventions, set out in 10 CFR 2714 (a).

Accepting *arguendo* applicants' view of the law, we note that the Board below did purport to consider the relevant factors using essentially the applicants' assumptions about lateness. It concluded, however, that on balance the factors weighed in favor of admitting CCANP.¹⁵ Thus, the question reaches us boiled down to whether the Licensing Board abused its discretion in allowing the intervention.¹⁶

The issue does not long detain us. As the Commission stressed in *West Valley*, the key policy consideration for barring late intervenors is one of fairness, *viz.*, "the public interest in the timely and orderly conduct of our

¹⁴The Board accepted the staff's argument that such discovery was not authorized by the Rules of Practice See LBP-79-10, *supra*, 9 NRC at 448 fn. 3), and 10 CFR 2.740 (b). Our disposition of the point renders it unnecessary to reach that issue.

¹⁵9 NRC at 448. The Board treated CCANP's petition as filed in December 1978, when Mr. Bunk was first identified as a CCANP member in the petition to intervene, rather than in January 1979 when his affidavit was filed. Assuming the correctness of the rule in *WPPSS No. 2*, we agree.

¹⁶*Nuclear Fuel Services, Inc.* (West Valley Reprocessing Plant), CLI-75-4, 1 NRC 273, 275 (1975); *Florida Power And Light Company* (St. Lucie Plant, Unit No. 2), ALAB-420 6 NRC 8, 13 (1977), *affirmed*, CLI-78-12, 7 NRC 939, 946 (1978).

proceedings.”¹⁷ But if CCANP was “late”, it was only in a legalistic sense; its initial petition was actually filed a day early. And, while they saw other defects in it, applicants did not see fit to challenge its timeliness for more than 6 months. They did so only on March 14, 1979, undoubtedly inspired by the *WPPSS No. 2* decision rendered a week earlier.

Applicants are thus in no position to complain that they were surprised by CCANP's appearance on the scene, or that commencement of the hearing would be unreasonably delayed by allowing that organization to intervene. Moreover, this proceeding was noticed early. The South Texas facility is not on the verge of completion; no suggestion is put forward that the conduct of a public hearing would delay licensing the plant for operation (assuming this is found to be warranted).¹⁸

An overwhelming showing on the “four factors” was not required to support a conclusion that CCANP should be permitted to intervene in these circumstances. The Licensing Board's judgment was that the intervention was appropriate. We think it sufficient to state that the applicants have not persuaded us that the Board's basis for reaching that conclusion was unreasonable and therefore an abuse of its discretion.

We arrive at this result in full awareness that—unlike an application for a construction permit—no hearing on an operating license application is required in the absence of a *bona fide* intervenor.¹⁹ And we agree that boards should be cautious about triggering such hearings at the behest of those without a statutory right to intervene.²⁰ But we stress again that CCANP's standing is firmly grounded. The interests of those it represents “may be affected by the proceeding” within the meaning of Section 189a of the Atomic Energy Act, which enjoins the Commission to “admit any such person as a party to [the] proceeding.”²¹ It is neither Congressional nor Commission policy to exclude parties because the niceties of pleading were imperfectly observed. Sounder practice is to decide issues on their merits, not to avoid them on technicalities.

Nor is a board at liberty to reject a party's intervention petition—as applicants' papers seemingly imply—because of doubts about the party's

¹⁷CLI-75-4, *supra*, 1 NRC at 275.

¹⁸According to the Notice of Opportunity for Hearing, “Construction of Unit 1 is anticipated to be completed by May 31, 1980, and Unit 2 by October 31, 1981,” and the staff had not completed its draft environmental impact statement. See 43 Fed. Reg. at 33969. See, also, 10 CFR 51.51 and 51.52.

¹⁹*Gulf States Utilities Company* (River Bend Station, Units 1 and 2), ALAB-183, 7 AEC 222, 226 fn. 10 (1974).

²⁰See *Tennessee Valley Authority* (Watts Bar Plant, Units 1 and 2), ALAB-413, 5 NRC 1418, 1422 (1977).

²¹42 U.S.C. Section 2239 (a).

ability to prove its case.²² The Rules of Practice designate avenues for avoiding an evidentiary hearing where it is not needed; one must follow the paths prescribed, however, to reach that result. 10 CFR 2.749.²³

II.

The intervention petition of Citizens for Equitable Utilities, Inc. was filed on February 23, 1979. It described CEU as representing nearly four thousand persons living within 30 miles of the plant. One of them, Mrs. Kenneth C. (Peggy) Buchorn, specifically authorized that organization to represent her interests and adopted its contentions; the organization's board of directors is represented as sanctioning the petition. Among CEU's proposed contentions are assertions that hurricanes in the area are likely to be stronger than those the plant was designed to withstand, and that, in operation, the plant may exceed Commission guideline levels for the release of radiation.

The staff supported CEU's admission despite the lateness of its petition and the Board below allowed the group to intervene. In their appeal, applicants question CEU's standing and argue that, contrary to the Licensing Board's findings, the "four factors" in Section 2.714(a) for evaluating late petitions weigh against this intervenor.

We have reviewed the papers with some care. Essentially for the reasons we rejected applicants' similar arguments applied to CCANP in Part I, *supra*, we are satisfied, as was the Board below, that CEU has demonstrated standing to intervene to represent Mrs. Buchorn's interests.²⁴ (Unlike CCANP, a substantial portion of CEU's membership resides near the plant.)

CEU's intervention petition was 5 months late without good cause. But, as we noted, the "early notice" procedure is being followed here and another

²²*Long Island Lighting Company* (Jamesport Station, Units 1 and 2), 2 NRC 631, 654 (1974) (concurring opinion), *Cf.*, *Myers v. Bethlehem Shipbuilding Corp.*, 303 U.S. 41, 51-52 (1938) (Brandeis, J.); *Petroleum Exploration, Inc. v. PSC*, 304 U.S. 209, 222 (1938) (test accompanying fn. 20).

²³CCANP's appellate brief was accompanied by a motion to reconsider our refusal to strike applicants' appeal ALAB-545, 9 NRC 634, May 7, 1979. That motion is now moot; in any event, it was not well-taken. CCANP had no basis for saying that it was difficult, after the filing of the applicants' notice of appeal, "to ascertain exactly what is being urged on appeal." That assertion ignored that, as the rule governing intervention appeals requires (10 CFR 2.714a), the applicants had filed contemporaneously with their notice a brief containing their full appellate argument. Detailed exceptions would therefore have been redundant and, for precisely that reason, a simple notice of appeal suffices under Section 2.714a. Compare Rules 3 (c) and 15 (a) and Forms 1 and 3 of the Federal Rules of Appellate Procedure.

²⁴The applicants imply that CEU may be Mrs. Buchorn's *alter ego*. Be that as it may, if she has standing to intervene as a matter of right, that she chooses to do so in corporate garb seems a distinction without a difference. The contentions remain unchanged and the burden of carrying forward the proceeding will be no heavier with Mrs. Buchorn in either role.

party has properly been allowed to intervene. An operating license hearing is thus necessary in any event; applicants are not prejudiced by one additional intervenor in the proceeding. In the circumstances, we defer to the Licensing Board's judgment (supported by the staff) that the relevant considerations favor CEU's admission notwithstanding its tardiness. See LBP-79-10, *supra*, 9 NRC 461-469.

Affirmed.

It is so ORDERED.

FOR THE APPEAL BOARD

Romayne M. Skrutski
Secretary to the Appeal Board

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Sheldon J. Wolfe, Chairman
Dr. David R. Schink
Lester Kornblith, Jr.

In the Matter of

Docket No. STN 50-437 CP

OFFSHORE POWER SYSTEMS

(Manufacturing License)

(Floating Nuclear Power Plants)

May 25, 1979

The Licensing Board holds that Section 102 (2) (C) of NEPA does not require the preparation of a comprehensive programmatic environmental impact statement covering substantially more than the eight FNPs which are the subject of the pending manufacturing license application before the application can be approved. The Board denies intervenor's motion for summary disposition; it grants the applicant's and staff's cross-motions for summary disposition.

NEPA: PROGRAM EIS

Where an applicant has submitted a specific proposal to manufacture eight FNPs, the statutory language of NEPA's Section 102(2) (C) only requires that an environmental impact statement be prepared in conjunction with that specific proposal.

NEPA: PROGRAM EIS

A single approval of a plan does not commit the agency to subsequent approvals; should contemplated actions later reach the stage of actual proposals, the environmental effects of the existing project can be considered when preparing the comprehensive statement on the cumulative impact of the proposals.

MEMORANDUM AND ORDER

Our Order of April 15, 1974, admitted as an issue in controversy the following contention advanced by the Natural Resources Defense Council:

The sole contention advanced by NRDC is that the environmental impact statement being prepared by the Staff will not be a 'programmatic' impact statement and therefore will not meet the requirements of the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4321 *et. seq.*

On February 16, 1979, the Natural Resources Defense Council filed a Motion for Summary Disposition of the following issue:

The FES for the manufacture of floating nuclear plants is legally deficient because it fails to consider the environmental impact of and alternatives to the entire proposed floating nuclear plant program and is not a programmatic impact statement.

Applicant filed its Answer and Cross-Motion for Summary Disposition on March 8, 1979, and the Staff filed its Response to NRDC's Motion on March 13, 1979. On April 6, 1979, NRDC filed its Reply to Applicant's and Staff's Oppositions to its Motion for Summary Disposition and its Opposition to Applicant's Motion for Summary Disposition.

MEMORANDUM

Certain facts undisputed by any of the parties are as follows: In January 1973, pursuant to 10 CFR Part 50, Appendix M¹ of the Commission's regulations, Offshore Power Systems filed an application for a license to manufacture eight floating nuclear plants. The scope of the Final Environmental Statement is limited to a consideration of that specific proposal and the hypothetical sites relevant thereto.

NRDC states that the following material facts are not in dispute:

¹Appendix M provides in pertinent part:

3. An applicant for a manufacturing license pursuant to this Appendix M shall submit with his application an environmental report as required of applicants for construction permits in accordance with Part 51, provided, however, that such report shall be directed at the manufacture of the reactor(s) at the manufacturing site; and, in general terms, at the construction and operation of the reactor(s) at an hypothetical site or sites having characteristics that fall within the postulated site parameters. The related draft and final detailed statements of environmental considerations prepared by the Commission's regulatory staff will be similarly directed.

1. OPS intends to produce substantially more than eight floating nuclear power plants.

- a. The facility being built at Blount Island is designed to produce as many as four FNP's per year (OPS Editorial Fact Book 1974-75, p. 3).
- b. OPS considers that it has a potential market for at least 80 FNP's between now and the year 1985 in the East Coast and Gulf Coast utilities (OPS Press Release, December 4, 1972, by George F. Gilliland, p. 1).

2. The FES prepared for the OPS application is limited to consideration of a proposal to build, site, and operate only eight FNP's.

- a. The need for power (including energy alternatives and conservation) is limited to consideration of the period during which the eight FNP's would be available for delivery (NUREG-0056, Vol. 1, p. 2-1).
 - b. The combined impacts of preparation of the site for an FNP and the operation of an FNP at the site do not include an analysis of the total environmental consequences of the siting of a substantial number of these facilities as planned by OPS (e.g., NUREG-0056, *supra*, pp. 11-4 *et. seq.*).
 - c. The loss of the use of portions of the outer continental shelf is dismissed as essentially *de minimis* because only eight FNP's are being proposed to be built and operated (NUREG-0056, *supra*, p. 9-5).
 - d. The analysis of alternative energy systems to FNP's essentially dismisses all solar options on the theory that the only period of interest is the period during which the eight FNP's will be available for delivery (NUREG-0056, *supra*, pp. 10-22 to 10-23).
 - e. The Staff has explicitly refused to consider the environmental impact of more than eight FNP's (NUREG-0056, Vol. 2, pp. 12-2 to 12-3).
3. The FNP involves substantial new and unique concepts.
- a. The total risk associated with use of an FNP requires it to take special design protections not applicable to land-based nuclear plants (NUREG-0502, pp. XV-XVI).
 - b. The unique problems associated with estuarine, riverine, and barrier island siting require establishment, in advance of any specific siting proposal, of special conditions relating to the ability to demonstrate environmental protection measures that will be taken (NUREG-0502, p. XVI).

While urging that NRDC's statement of material facts is neither material nor relevant to summary disposition of the legal issue, Applicant submitted a counter-statement of material facts in the event we might find certain of NRDC's factual assertions to be material.² The Staff basically does not challenge NRDC's statement of undisputed material facts, but argues that, as a matter of law, NRDC's motion should be denied, and, in effect, cross-moves for summary disposition.

We agree with the Applicant and the Staff that there is no genuine issue as to any material fact and that, as a matter of law, NRDC's motion for summary disposition must be denied and Applicant's and Staff's cross-motions must be granted. *Kleppe v. Sierra Club*, 427 U.S. 390 (1976) is dispositive of the legal issue of whether Section 102(2) (C) of the National Environmental Policy Act of 1969, 42 U.S.C. Section 4332(2) (C),³ requires the

²For its counter-statement of material facts, Applicant relies upon an affidavit of two of its employees who attested that (a) Applicant has no current plans to seek authority to manufacture more than the eight FNP's but that, should market conditions improve and should the eight FNP's be licensed and sold, application may be made for authority to manufacture additional FNP's; (b) the proposed FNP's, even with some novel features, do not represent a basic new technology; (c) the risk addressed by the Staff's proposed design provision for the replacement of the concrete pad beneath the reactor vessel is solely that associated with releases to the liquid pathway and not the airborne pathway which must be included in assessing total risk; (d) any special consideration of riverine, estuarine, or barrier island siting of FNP's with respect to environmental review will await the filing of a construction permit application by a utility/owner of a FNP; (e) no siting of a FNP is authorized under Appendix M until a utility/owner has filed an application for a construction permit which under Commission regulations must include an environmental assessment of the siting of the FNP; (f) the eight proposed FNP's could be deployed along the Eastern Seaboard and Gulf Coast; since typically siting of FNP's will be in pairs, the eight FNP's could be sited along only 4 statute miles of more than 2,000 such miles of shoreline available; and that any conflicts in the use of a zone would be addressed at the time of the environmental review for the siting of FNP's by a utility/owner in its application for a construction permit, and (g) none of the programs for the commercial utilization of solar power will demonstrate economic practicality or be available for wide-scale application by the 1990's.

³Section 102(2) (C) requires that all Federal agencies shall include in every recommendation or report on proposals for legislation or other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on -

"(i) the environmental impact of the *proposed action*,

"(ii) any adverse environmental effects which cannot be avoided should the *proposal* be implemented,

"(iii) alternatives to the *proposed action*,

"(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

"(v) any irreversible and irretrievable commitments of resources which would be involved in the *proposed action* should it be implemented." (Emphasis added.)

preparation of a comprehensive programmatic environmental statement covering substantially more than eight FNP's before proceeding to approve the specific pending application to manufacture eight FNP's. In the *Kleppe* case respondents (several environmental organizations) had secured an injunction from the Court of Appeals against petitioners' (officials in the Department of Interior) approval of four coal mining plans in one small section of a region identified as the "Northern Great Plains Region" (NGPR), despite the fact that petitioners had prepared four environmental impact statements on these proposed private, localized actions. Respondents contended that the Department of Interior could not issue coal leases, approve mining plans, grant rights-of-way, or take the other actions necessary to enable private companies and public utilities to develop coal reserves in this Federally owned and controlled region without first preparing a comprehensive environmental impact statement under Section 102(2) (C) of NEPA. In reversing the judgment of the Court of Appeals, at pages 401-402 of the *Kleppe* opinion, the Supreme Court stated:

Quite apart from the fact that the statutory language requires an impact statement only in the event of a proposed action, respondents' desire for a regional environmental impact statement cannot be met for practical reasons. In the absence of a proposal for a regional plan of development, there is nothing that could be the subject of the analysis envisioned by the statute for an impact statement. Section 102(2) (C) requires that an impact statement contain, in essence, a detailed statement of the expected adverse environmental consequences of an action, the resource commitments involved in it, and the alternatives to it. Absent an overall plan for regional development, it is impossible to predict the level of coal-related activity that will occur in the region identified by respondents, and thus impossible to analyze the environmental consequence and the resource commitments involved in, and the alternatives to, such activity. A regional plan would define fairly precisely the scope and limits of the proposed development of the region. Where no such plan exists any attempt to produce an impact statement would be little more than a study along the lines of the NGPRP, containing estimates of potential development and attendant environmental consequences. There would be no factual predicate for the production of an environmental impact statement of the type envisioned by NEPA. (footnotes omitted).

At pages 409-410 of its opinion, the Supreme Court explained that Section 102(2) (C) of NEPA may require a comprehensive impact statement in certain situations where several proposed actions are pending at the same time—i.e. " . . . when several proposals for coal-related actions that will have cumulative or synergistic environmental impact upon a region are pending

concurrently before an agency, then environmental consequences must be considered together.” Further, at page 410 n. 20 of its opinion, after observing that respondents appeared to seek a comprehensive impact statement covering contemplated projects in the region as well as those that already have been proposed, the Supreme Court noted that:

. . . The statute, however, speaks solely in terms of *proposed* actions; it does not require an agency to consider the possible environmental impacts of less imminent actions when preparing the impact statement on proposed actions. Should contemplated actions later reach the stage of actual proposals, impact statements on them will take into account the effect of their approval upon the existing environment; and the condition of that environment presumably will reflect earlier proposed actions and their effects. Cf. n. 26, *infra*.

Finally, at pages 414-415 n. 26 of its opinion, the Supreme Court stated:

Nor is it necessary that petitioners always complete a comprehensive impact statement on all proposed actions in an appropriate region before approving any of the projects. As petitioners have emphasized, and respondents have not disputed, approval of one lease or mining plan does not commit the Secretary to approval of any others; nor, apparently, do single approvals by the other petitioners commit them to subsequent approvals. Thus, an agency could approve one pending project that is fully covered by an impact statement, then take into consideration the environmental effects of that existing project when preparing the comprehensive statement on the cumulative impact of the remaining proposals. Cf. n. 20, *supra*.

In the instant case, Applicant has submitted a specific proposal to manufacture eight FNPs, and it is undisputed that the scope of the Final Environmental Statement is limited to a consideration of that specific proposal. The statutory language of NEPA’s Section 102(2) (C), however, only requires that an environmental impact statement be prepared in conjunction with that specific proposal and thus the Staff’s Final Environmental Statement cannot be faulted for not being the comprehensive programmatic statement desired by NRDC. Further, even assuming for the sake of argument, that Applicant (as alleged by NRDC) plans or intends to manufacture a substantial number (in the hundreds) of FNPs over the next several decades, there is no “specific action of known dimensions” for the Staff to evaluate and thus there is no factual predicate for the preparation of a comprehensive programmatic environmental statement. See *Kleppe* at page 402 n. 14. We note that NRDC argues that, where the first steps of a wide-scale com-

mercialization of a new technology are involved,⁴ the Commission has never interpreted its NEPA duties to preclude its investigation of environmental implications of a far larger number of applications than were currently pending before it. (NRDC Reply Brief of April 6, 1979, pp. 2-3). However, as of March 31, 1977, in *Public Service Company of New Hampshire, et al.* (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503, 542 (1977), the Commission concluded that "*Kleppe* confirms that NEPA distinguishes between direct Federal action and Federal approval of private action and that NEPA requires an analysis appropriate for the proposal and not the maximum possible environmental analysis for every proposal." Certainly in the instant case, the Commission has neither directed the Staff to prepare a programmatic impact statement nor this Board to consider the maximum possible environmental impact of a substantial number of FNP's in excess of eight FNP's.

While NRDC raises the spectre that approval of construction of eight FNP's will preordain the subsequent approval of the construction of more FNP's (NRDC's Reply Brief of April 6, 1979, pp. 4-7) its arguments are speculative⁵ and barrenly denigrate the Staff's, the Commission's and the Department of Energy's dedication to fulfill their statutory and regulatory duties. As recognized by the Supreme Court in *Kleppe*, a single approval of a plan does not commit the agency to subsequent approvals and, should contemplated actions later reach the stage of actual proposals, the environmental effects of the existing project can be considered when preparing

⁴If we assume arguendo that substantial new and unique concepts are involved, we would note that, except for claiming that the FES is deficient in not addressing the environmental impact of a larger number of FNP's, NRDC does not contend that the FES is deficient in not adequately assessing the environmental impact of the proposed eight FNP's. Further, in passing, we note that NRDC discusses the purported "unique risks" associated with FNP's (NRDC Mot. for S. Disposition at p. 7). Such a discussion is irrelevant to the basic legal issue before us. Finally, we note that NRDC speaks of the high unlikelyhood that any shoreline sites for FNP's will be found which are acceptable. (Ibid at p. 7). Once again such a discussion is irrelevant to the basic legal issue herein. Moreover, such a discussion is irrelevant in light of our Order of September 11, 1978 which denied NRDC's Motion To Amend Contentions. Therein NRDC had sought to assert that the Staff must locate and evaluate specific estuarine and riverine sites at the manufacturing license stage. We denied the Motion because said motion constituted a challenge to Appendix M and thus violated 10 CFR 2.758.

⁵NRDC argues that (a) approval of the construction of the eight FNP's will forestall development and implementation of alternative energy systems, such as solar energy, and of conservation, (b) the possible loss of jobs by workers hired to build the eight proposed FNP's, if further FNP's are not approved, will be used to justify building more FNP's, and (c) the adverse environmental impacts inevitably associated with the siting of eight FNP's will be used to demonstrate that the ocean and coastal environment is already so degraded that further FNP sitings will not significantly degrade the environment.

the comprehensive statement on the cumulative impact of the remaining proposals.⁶

Accordingly, we conclude that Section 102(2) (C) of NEPA does not require the preparation of a comprehensive programmatic environmental statement covering substantially more than eight FNP's before proceeding to approve the specific pending application to manufacture eight FNP's. The FES complies with Section 102(2) (C) in addressing the proposed action herein - viz. the manufacture of eight FNP's.

ORDER

NRDC's Motion for Summary Disposition is denied, and the Applicant's and Staff's Cross-Motions for Summary Disposition are granted.

IT IS SO ORDERED.

**FOR THE ATOMIC SAFETY AND
LICENSING BOARD**

**SHELDON J. WOLFE,
Esquire Chairman**

**Dated at Bethesda, Maryland
this 25th day of May, 1979.**

⁶See the Final Environmental Statement, Part II at page 12-3 (NUREG-0056, September 1976) wherein the Staff stated:

. . . , in the event that the applicant (OPS) should at some future date file an application for a license to manufacture additional floating nuclear plants beyond the eight units cited in the present application, an additional environmental impact statement will need to be prepared. At that time, the NRC staff will consult with interested Federal agencies, including EPA and CEQ, to define the scope and extent of that statement. Any future statement (sic) prepared in conjunction with a license to manufacture (or extension of an existing license) would address the cumulative effects of previously sited plants with a view to design improvements or other environmental impact mitigating measures.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Harold R. Denton, Director

In the Matter of

Docket Nos. 50-269

50-270

DUKE POWER COMPANY

50-287

(Oconee Nuclear Station,
Units 1, 2, and 3)

May 24, 1979

The Director of Nuclear Reactor Regulation denies petition filed under 10 CFR 2.206 of the Commission's regulations requesting an immediate shutdown of the Oconee Nuclear Station, Units 1, 2, and 3, and institution of a proceeding to show cause why the licenses for the three units should not be revoked.

RULES OF PRACTICE: SHOW CAUSE PROCEEDING

A petition under 10 CFR 2.206 to institute a proceeding to show-cause must set forth facts that establish a basis for taking the proposed action in addition to specifying the relief requested.

DIRECTOR'S DECISION UNDER 10 CFR 2.206

By telegram dated April 27, 1979, Bernice Holt on behalf of the Palmetto Alliance, Columbia, South Carolina, petitioned the Commission to issue an order to immediately shutdown the Duke Power Company's Oconee Nuclear Station, Units 1, 2, and 3, and institute a proceeding to show-cause why the licenses for the three units should not be revoked. The Alliance did not provide reasons why the licenses should be revoked or why the facilities should be immediately shutdown. For the following reasons, the Alliance's petition is *denied*.

In addition to specifying the action requested, a petitioner under 10 CFR 2.206 is required to "set forth the facts that constitute the basis for the request." 10 CFR 2.206(a) The Alliance's petition stated no facts to support its request that the Oconee facilities be shutdown and their licenses revoked.

Facts are necessary to establish a basis for taking proposed action, not only in a petition under 10 CFR 2.206, but also to justify proposed action of the Director of Nuclear Reactor Regulation in his own discretion. *See* 10 CFR 2.202. Because the Alliance's petition states no facts that establish a basis for the proposed action, the petition is denied.

Notwithstanding this denial of the Alliance's petition, the Commission is currently taking necessary action to assure public health and safety with respect to the Oconee Nuclear Station. *See* the Order of May 7, 1979, issued to Duke Power Company requiring either that certain action be taken at the Oconee units by certain dates or that the units be shutdown until such action is completed. I subsequently made the finding, in a letter of May 18, 1979, that Duke Power Company had satisfactorily completed the requirements of Section (1) of Paragraph IV of the Order. This portion of the Order authorized resumption or continuation of operation of the three Oconee reactors.

A copy of this determination will be placed in the Commission's Public Document Room at 1717 H Street, N.W., Washington, D.C. 20555 and in the Local Public Document room for the Oconee Nuclear Station, at the Oconee County Library, 201 S. Spring Street, Walhalla, South Carolina 29691. A copy of this decision will also be filed with the Secretary of the Commission for review in accordance with 10 CFR 2.206(c) of the Commission's regulations.

Pursuant to 10 CFR 2.206(c) of the Commission's regulations, this decision will constitute the final action of the Commission twenty (20) days after the date of issuance, unless the Commission on its own motion institutes review of this decision within that time.

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland,
this 24th day of May 1979.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

EXECUTIVE DIRECTOR FOR OPERATIONS
Lee V. Gossick

In the Matter of

Docket No. PRM-50-22

PUBLIC INTEREST RESEARCH
GROUP, et al.

May 17, 1979

The Commission denies petition to initiate rule making now to implement a specific decommissioning funding plan, that is, that nuclear power plant operators post surety bonds to cover decommissioning costs. To the extent that petitioners' request asks the Commission to reconsider the adequacy of its regulations on decommissioning, their request is granted but a decision as to the specific method or methods for funding decommissioning is deferred.

FINANCIAL ISSUE: AVAILABILITY

Surety bonds of the nature proposed by petitioners appear to be unavailable based on information obtained by the Commission from leading U.S. surety companies.

FINANCIAL ISSUE: FUNDING FUTURE COSTS

Surety bonds, like guarantees of other types do not provide for current funding of future costs as implied by petitioners.

FINANCIAL ISSUE: IMMEDIATE NEED

The Commission has announced that it is presently engaged in a comprehensive reevaluation of its practices relating to decommissioning nuclear facilities, including financial requirements. It is intended during this ex-

amination to assess the relative merits of several different financial assurance techniques, such as escrow accounts, sinking fund accounts, etc., and to weigh and judge the financial assurance needed in regard to decommissioning the various classes of nuclear facilities.

The commission believes its present requirements are adequate and satisfactory in the interim period during which present NRC regulations are being reevaluated. Present NRC regulations require a determination that an applicant is financially qualified to operate, shut down, and maintain a nuclear power plant in a safe condition. The regulations also require operating licenses to file annual financial reports or certified financial statements. These requirements provide the NRC staff with current information about a licensee's financial status during the operating life and decommissioning of a nuclear power plant.

DENIAL OF PETITION FOR RULE MAKING

Notice is hereby given that the U.S. Nuclear Regulatory Commission (hereinafter "NRC" or "Commission") has decided to deny in part and defer in part the petition dated July 5, 1977, as supplemented October 7, 1977, and January 3, 1978, filed by the Public Interest Research Group (PIRG), Arizonians for Safe Energy, Citizens United Against Radioactive Environment (CURE), Community Action Research Group (CARG), Critical Mass Energy Project, Environmental Action Foundation, Environmental Action, Inc., New Mexico Public Interest Research Group (NMPIRG), New York Public Interest Research Group (NYPIRG), North Anna Environmental Coalition, Texas Public Interest Research Group (TexPIRG), and National Consumer Law Center Energy Project (hereinafter the "petitioners"). However, as was announced in a Federal Register notice on March 13, 1978 (43 FR 10370), the Commission is presently reevaluating its overall policy with regard to decommissioning nuclear facilities *and to that extent the petition is granted*. On May 25, 1978, the NRC announced a rule making proceeding to reexamine existing regulatory requirements for demonstrating financial qualifications necessary to obtain Part 50 licenses for production and utilization facilities. Any requirements which bear on funding decommissioning costs that are developed in this rule making proceeding will be incorporated into NRC's financial qualifications regulations as appropriate. It is estimated that this rule making proceeding will be completed by late 1980.

Description of the Petition

In a petition dated July 5, 1977, as supplemented October 7, 1977, and January 3, 1978, the petitioners requested the Commission to initiate rule

making to promulgate regulations for nuclear power plant decommissioning which would require Part 50 licenses to post bonds, to be held in escrow, prior to each plant's operation, to ensure that funds will be available for proper and adequate isolation of radioactive material upon each plant's decommissioning. The petitioners also stated that the regulations should require that licensees for nuclear power plants already in operation should establish plans and immediately post bonds, to be held in escrow, to ensure proper decommissioning. In their January 3, 1978, supplement to the petition, petitioners advanced two other options in addition to surety bonding, to finance the costs of decommissioning:

1. Funds would be set aside in an escrow account before commencing reactor operations, sufficient to finance the projected decommissioning, i.e., the present discounted estimate of the decommissioning cost increased by inflation to the time when the plant ceases operation.
2. Funds would be accumulated in a sinking fund during the life of the plant, in an amount sufficient to cover projected decommissioning costs at the end of plant operations. However, since all of the necessary money would not actually be set aside during the plant's operating life, a surety arrangement would be necessary to allow for the risk that the licensed utility went bankrupt before the sinking fund had sufficient funds. The licensee would be required to purchase a surety bond guaranteeing the availability of the above specified amount of money when decommissioning is needed. The bond would be purchased at the outset as a capital cost to run until the sinking fund reached the specific amount.

The petitioners stated that a formula should be established for setting aside adequate funds to cover the costs of guarding and/or disposing of decommissioned nuclear power reactors, both for reactors which have been licensed and for those which will be licensed in the future, and that the Commission should establish general procedures to be followed in isolating radioactive components from decommissioned reactors.

The petitioners' arguments to the NRC can be summarized as follows. At the end of its useful life, a nuclear power reactor and associated structures are contaminated with radioactive isotopes that take thousands of years to decay and which will require several millions of dollars to isolate. In their view, their proposed regulations would ensure that the power companies which operate reactors, and not future generations, bear the cost of decommissioning. Since decommissioning will not occur until after the 40-year operating license has expired, and may require substantial capital ex-

penses for hundreds of years thereafter, companies which are now financially stable may not have the capacity to pay decommissioning and guardianship costs when necessary.

Present NRC Requirements Relating to Financial Qualifications of Nuclear Power Plant Operators

The present NRC regulations relating to the financial qualifications of an applicant for a permit or license are contained in Sections 50.33(f) and 50.71(b), and Appendix "C" of Title 10, Code of Federal Regulations, Part 50, entitled, "Licensing of Production and Utilization Facilities." Section 50.33(f) requires, in part, a determination of an applicant's financial qualifications to operate, shut down, and maintain a nuclear power plant in a safe condition. Section 50.33(f) states in part, "If the application is for an operating license, such information shall show that the applicant possesses or has reasonable assurance of obtaining the funds necessary to cover the estimated costs of operation for the period of the license or for 5 years, whichever is greater, plus the estimated costs of permanently shutting the facility down and maintaining it in a safe condition."

Under the provisions of Section 50.71(b) of Part 50, ". . . each licensee and each holder of a construction permit shall, upon each issuance of its annual financial report, including the certified financial statements, file a copy thereof with the Commission." This requirement provides the NRC staff with current information about a licensee's financial status during the operating life of a nuclear power plant. Appendix C of Part 50 is intended to apprise applicants of the general kinds of financial data and other related information that will demonstrate the financial qualifications of the applicant to carry out the activities for which the license is sought. The foregoing requirements do not provide procedures or methods for funding the decommissioning of nuclear power plants. Neither do they specify particular decommissioning methods *or implementing mechanisms for accumulation of funds*. They do, however, provide for determination (prior to plant operation) that a nuclear power plant licensee possesses or has reasonable assurance of obtaining sufficient funds for shutting down and maintaining his nuclear power plant in a safe condition.

NRC Evaluations and Findings

Following receipt of the subject petition, the Commission published a notice in the Federal Register on August 8, 1977 (42 FR 40063), and requested public comments and suggestions on the issues raised in the petition. Public comments were originally requested by October 7, 1977. How-

ever, the comment period was subsequently extended until January 3, 1978, for reasons stated in Federal Register notices on October 17, 1977 (42 FR 40063), and November 18, 1977 (42 FR 59574). The NRC staff also invited comments on the subject petition from all fifty State Public Utility Commissions and the Puerto Rico Public Service Commission in a letter dated November 7, 1977. Comments on the petition were requested from the U.S. Federal Energy Regulatory Commission (FERC) in a letter dated November 15, 1977. Comments relating to the availability, terms and conditions, and costs of performance bonds were invited from leading surety companies in the United States in a letter dated May 1, 1978.

Fifty replies, representing 26 individuals, 16 conservation and public interest groups, 37 utilities, 4 state agencies, and 4 industrial groups, were received to the Commission's Federal Register notice of August 8, 1977. Most of the individual respondents asked the NRC to: (1) accelerate research on decommissioning, (2) update its regulations in line with the conclusions of the Atomic Industrial Forum's study on nuclear power plant decommissioning, and (3) require utilities to establish a \$13 million escrow account to cover decommissioning. The remaining individuals and groups essentially supported the request of the petitioners. One reply from a State Health Department stated that the request was "reasonable" and "should require a responsible response."

All of the remaining respondents (i.e., utilities, State agencies, and industrial groups) were essentially opposed to the specific rule making proposed by petitioners. Their views were basically as follows: (1) present requirements are adequate to protect the public health and safety in that they provide reasonable assurance that nuclear power plant licensees will have sufficient funding to defray decommissioning costs, (2) placing a bond in escrow is both uneconomical and inflexible when compared to other available methods for achieving essentially the same results, (3) any new or different requirements, if needed, should be based on an orderly, systematic evaluation of the less expensive alternatives to bonding, (4) neither the Atomic Energy Act nor the National Environmental Policy Act provides the NRC with authority over matters of economic regulation and utility financing, and (5) FERC and State Public Utility Commissions are the appropriate agencies for determining legitimate expenses of utilities, and the NRC should not adopt regulations which would infringe upon the authority of these agencies.

Nineteen replies from State Public Utility Commissions were received by the NRC staff to its letter of November 7, 1977. Comments on the letter were also received from the Tennessee Valley Authority, Washington Public Power Supply System, and Arkansas Department of Health. The views expressed in the replies from the State Public Utility Commissions ranged

from "no opinion" to strong opposition, "... because the expected benefits would be minimal and the costs considerable compared to alternatives currently used." Most State Public Utility Commissions which have considered the funding issue of nuclear power plant decommissioning endorsed the concept of financial responsibility of the licensees to decommission their plants at the expense of current beneficiaries and not by future generations. However, none endorsed the bonding concept proposed by the petitioners. Most of the State Public Utility Commissions which suggested alternatives favored net negative salvage depreciation methods or other funding arrangements. Many also expressed the view that the most helpful Federal action would be to identify decommissioning costs and to develop general decommissioning standards and criteria. However, particular funding arrangements, such as funded reserves, escrow accounts, depreciation allowances, etc., should be left to the State Commissions in view of their legal responsibilities under State laws and the specific needs of individual States. For example, one Commission urged that, "whatever regulations are adopted on this matter do not infringe upon the individual State Commission's authority to determine the reasonableness of such expense." Another stated, "... while I am generally opposed to Federal intervention in State regulatory matters, I believe that the decommissioning issue should be faced squarely with Federal intervention only as a last resort and only to the extent necessary." The Arkansas Department of Health endorsed the concept of licensee financial responsibility. It further stated that, "While the proposed outlined in the petition for rule making may not be the optimum solution, the consideration of decommissioning procedures, costs and methods of financing under the assumption of license default or inability to satisfactorily decommission a facility should be pursued by the Commission." Finally, the Tennessee Valley Authority and the Washington Public Power Supply System both expressed the view that the bonding requirement proposed by the petitioners was unneeded and should be denied.

During a meeting with FERC on December 13, 1977, the NRC staff was advised that FERC regulates the interstate sale of wholesale electricity and establishes uniform utility accounting requirements. The FERC staff expressed the view that they favored the net negative salvage depreciation method for funding the decommissioning of nuclear power plants. The FERC staff also expressed the view that other, less expensive, methods than bonding could be developed to reasonably ensure that decommissioning funds are available when needed.

Eight replies from surety companies were received by the NRC to its letter of May 1, 1978, concerning the availability, terms and conditions, and costs of bonding arrangements as proposed by the petitioners. In its letter to each surety company, the NRC staff requested information on the following items:

1. Would your company be interested and able to write a long term (40-year or more) surety bond in the amount of \$50 million? If interested, could your company independently write such a bond or would it be necessary to enter into a joint venture with one or more companies?
2. If such a bond could be written, what underwriting criteria, such as collateral requirements, would be utilized in determining whether a utility could qualify for a bond?
3. What would be the annual cost for a \$50 million bond over the long term?

The NRC staff recognizes that the 40-year operating period and the \$50 million may not be exact for a specific power plant. The 40-year period was chosen to conform to the present NRC license term and the \$50 million was based on recent studies for dismantling a current-generation pressurized water reactor.

All eight respondents to the NRC staff inquiry stated that such long term bonds in the amount stated are not available at the present time. Seven of the respondents stated their company would not be interested in such obligations stretching over such lengthy periods of time and/or the time and amounts involved would make such an approach totally impractical. One company indicated that such a bond might be arranged under certain conditions; i.e., that the payment (at 2% of the bond amount annually) of the premium for the full term of the bond be made in advance and that the bond be structured in such a manner whereby the surety could not be called upon for payment until the end of the 40-year licensed period. Others indicated that costs for such bonds were not available at this time but depending on circumstances, would probably range from 0.25 to 2% per year of the bond value.

Bases for Partial Denial of the PIRG Petition

The bases for partial denial of the PIRG petition and deferral of July 5, 1977 petitions are:

1. Surety bonds of the nature proposed by petitioners appear to be unavailable based on information obtained by the Commission from leading U.S. surety companies;
2. Surety bonds, like guarantees of other types, do not provide for current funding of future costs as implied by petitioner. In fact, the surety bond would only provide funds for decommissioning costs in

the event that the utility is unable to pay for decommissioning (one example would be bankruptcy). In that case, the current beneficiaries of the electricity in the utility service areas have—in a sense—paid the decommissioning costs in that surety costs were included in the current utility rates. On the other hand, it is substantially more likely that the utility will remain solvent and would then raise the funds for decommissioning at the end of plant operations. If the funds were raised at that time, electricity users not then receiving the benefits of the plant would nonetheless be paying decommissioning costs.

3. With respect to the immediate need for surety bonds the Commission believes its present requirements are adequate and satisfactory in the interim period during which present NRC regulations are being reevaluated. Present NRC regulations require a determination that an applicant is financially qualified to operate, shut down, and maintain a nuclear power plant in a safe condition. The regulations also require operating licensees to file annual financial reports or certified financial statements. These requirements provide the NRC staff with current information about a licensee's financial status during the operating life and decommissioning of a nuclear power plant.

The foregoing partial denial does not mean that the Commission has reached a decision on the need for amendments to its regulations to provide more specific guidance on decommissioning criteria for nuclear power plants. Nor does the partial denial of the petition to require surety bonds now preclude the use of surety bonds, if they become available as one of several decommissioning financial alternatives in the future. It does mean that, based on current information the Commission has determined that it *should not* amend its regulations to require bonding at this time as specifically suggested by petitioners. In this manner the Commission provides a more timely response to petitioners' request than delaying action until other potential alternatives can be assessed. As was announced in a Federal Register notice on March 13, 1978, (43 FR 10370), the Commission is presently engaged in a comprehensive reevaluation of its practices relating to decommissioning nuclear facilities. The detailed plan and schedule for reevaluation is described in an NRC staff report entitled, "Plan for Reevaluation of NRC Policy on Decommissioning of Nuclear Facilities" (NUREG-0436), dated March 1978, and Revision 1 of that document, dated December, 1978. One major component of this overall reevaluation is an extensive examination of the financial assurance needed to cover decommissioning costs of nuclear power plants. It is intended during this examination to assess the

relative merits of several different financial assurance techniques, such as escrow accounts, sinking fund accounts, etc., and to weigh and judge the financial assurance needed in regard to decommissioning the various classes of nuclear facilities. The commission notes that the petitioners may seek to become a participant in any subsequent NRC rule making action on financing the costs of decommissioning and present the arguments made in their petition regarding the need for and benefits of surety bonds or other alternatives such as use for escrow accounts or sinking funds.

Copies of the petition for rule making, the associated public comments, and the Commission's letter to the petitioner are available for inspection or copying in the Commission's Public Document Room at 1717 H Street, NW., Washington, D.C. 20555.

Dated at Washington, D.C. this 17th day of May.

FOR THE NUCLEAR
REGULATORY COMMISSION

Samuel J. Chilk
Secretary of the Commission

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Joseph M. Hendrie, Chairman
Victor Gilinsky
Richard T. Kennedy
Peter A. Bradford
John F. Ahearne

In the Matter of

**NUCLEAR ENGINEERING
COMPANY, INC.**

Docket No. 27-39

**(Sheffield, Illinois Low-Level
Radioactive Waste Disposal Site)**

June 6, 1979

The Commission finds that the Director, NMSS, acted well within his discretion in issuing an immediately effective show-cause order and that the order should remain in effect until the issues leading to the order have been resolved by a Licensing Board. The Commission also issues a separate Notice of Hearing directing the Licensing Board to consider whether the licensee may unilaterally terminate its license.

NRC: ADJUDICATORY RESPONSIBILITIES

The fundamental principle guiding all Commission licensing actions is the paramount consideration of public safety. This principle pervades the regulatory scheme established by the Atomic Energy Act and requires all persons to act with respect to nuclear materials in a manner which does not threaten the public health and safety.

RULES OF PRACTICE: SHOW-CAUSE PROCEEDING

The Director, NMSS, may issue an immediately effective order if the public health, safety or interest requires or if the Licensee's violations are willful. 10 CFR 2.202 (f).

RULES OF PRACTICE: SHOW-CAUSE PROCEEDING

Latent conditions which may cause harm in the future are a sufficient basis for issuing an immediately effective show-cause order when the consequences might not be correctible in the future. *Consumers Power Company* (Midland Plants Units 1 and 2), CLI-74-3, 7 AEC 10-12 (1974).

RULES OF PRACTICE: SHOW-CAUSE PROCEEDING

Courts have found that purported violations of agency regulations support an immediately effective order even where no adverse public health consequences are threatened. *Ewing v Mytinger and Casselberry, Inc.*, 339 U.S. 594 (1950). Where the Director, NMSS, was concerned with possible violations of health and safety regulations which could reasonably be expected to have adverse public consequences, the Director, NMSS, could issue an immediately effective order.

RULES OF PRACTICE: SHOW-CAUSE PROCEEDING

In civil proceedings, action taken by a licensee in the belief that it was legal does not preclude a finding of willfulness. *Cargill, Inc. v Hardin*, 452 F. 2d 1154 (8th Cir. 1971).

MEMORANDUM AND ORDER

The Nuclear Engineering Company, Inc. (NECO), a materials licensee under License No. 13-10042-01, operates the low-level radioactive waste disposal site near Sheffield, Illinois. NECO filed a timely application for license renewal in August, 1968, and its license has been continued in effect pending final Commission action. 10 CFR 2.109. A Licensing Board was established to consider NECO's application. 43 Fed. Reg. 9892 (March 10, 1978). On December 27, 1978, NECO moved the Licensing Board to suspend further proceedings concerning its application. After hearing from the parties, the Licensing Board, in its order of March 7, 1979, scheduled oral argument for March 27, 1979, to consider NECO's motion. On March 8, 1979, NECO filed a "Notice to Atomic Safety and Licensing Board of Withdrawal of Application and Termination of License for Activities at Sheffield." In response the Licensing Board on March 13, 1979, issued an Amended Order Setting Oral Argument in which it treated NECO's notice as a motion pursuant to 10 CFR 2.730, and expanded the scope of hearing to include NECO's motion and any answers thereto.

On March 8, 1979, NECO also notified the Director, Nuclear Materials

Safety and Safeguards (NMSS), that as of that date it was (1) withdrawing its pending application to renew its license and expand the Sheffield site, and (2) was unilaterally terminating its license for all activities at the Sheffield site. The Director, NMSS, informed NECO on March 9, 1979, that it could unilaterally terminate its Sheffield license, and directed NECO to take all necessary action to assure public health and safety at the site. NECO responded on March 14, 1979, stating that, in its view, NRC lacked authority to hold NECO to its materials license because NECO had discharged its license responsibilities and that the Sheffield site presented no danger to public health and safety.

On March 20, 1979, the Director, NMSS, ordered NECO to show cause why it should not resume its responsibilities under its license for the Sheffield site, and required NECO to resume its responsibilities immediately. The Director based his order on NECO's obligation to act in a safe and responsible manner with respect to its license for receipt and possession of nuclear materials at the Sheffield site. These obligations include maintenance of site security and trenches in which the low-level radioactive material is buried. The Director explained that under the Commission's regulatory scheme no licensee can terminate its obligations and responsibilities under an NRC license except under terms and conditions established by the Commission, and that such termination must be preceded by appropriate Commission review to assure protection of public health and safety. Furthermore, he pointed out that licensees could not transfer materials to a third party, such as the State of Illinois which owns the site, without prior Commission approval.

NECO's general failure to hold in force terms and conditions of its license were confirmed by two on-site visits on March 9, and 16 by inspectors from the Commission's Office of Inspection and Enforcement (Region III). The show-cause order also gave NECO 20 days to request a hearing to consider the issues involved.

On March 22, 1979, NECO moved for emergency action by the Commission to stay the immediate effectiveness of the Director's show-cause order, and to delegate the Commission's review functions in this matter to the Licensing Board now considering NECO's withdrawal of its application to renew and expand its Sheffield license. NECO sought prompt action on its motion because it wanted its objections to the show-cause order to be considered by the Licensing Board at the oral argument scheduled for March 27, 1979.

Under the Commission's rules, unless the Secretary prescribed other time periods, the response times to NECO's motion were 20 days for the NRC staff and 15 days for the State of Illinois. Both participants informed

us they could not reply by March 27, 1979. In view of this circumstance, and the unique nature of the issues raised by NECO's motion, we did not shorten the participants' response times.

On March 23, 1979, NECO filed Answer of Nuclear Engineering Company, Inc. to Order to Show-Cause and Demand for Hearing pursuant to 10 CFR 2.202(b). All participants agree that resolution of the issues raised by the show-cause order would be most expeditiously and efficiently handled by the Licensing Board now in existence. Pursuant to 10 CFR 202(c) we are today issuing a separate Notice of Hearing directing the Licensing Board to consider the issue of NECO's unilateral termination of its license.

NECO contends that the immediate effectiveness of the Director's order does not satisfy the Commission criteria¹ for determining that the Director acted within his discretion because the order did not allege that NECO's withdrawal created an immediate threat to public health and safety. The NRC staff and the State of Illinois oppose NECO's request that we vacate the immediate effectiveness of the show-cause order because it was based on the need to preserve public health and safety.

The reasons stated by the Director in his order provide the requisite basis for understanding his decision. As he noted, the fundamental principle guiding all Commission licensing actions is the paramount consideration of public safety. This principle pervades the regulatory scheme established by the Atomic Energy Act and requires all persons to act with respect to nuclear materials in a manner which does not constitute a threat to public health

¹*Consolidated Edison Company of New York*, (Indian Point, Units 1, 2, and 3), CLI 75-8, 2 NRC 173, 175 (1975).

That decision sets out five points of inquiry relevant to determining whether the Director has abused his discretion in the issuance of an order to show-cause:

- (1) whether the statement of reasons given permits rational understanding of the basis for his decision;
- (2) whether the Director has correctly understood governing law, regulations, and policy;
- (3) whether all necessary factors have been considered, and extraneous factors excluded, from the decision;
- (4) whether inquiry appropriate to the facts asserted has been made; and
- (5) whether the Director's decision is demonstrably untenable on the basis of all information available to him.

In this case, we have also applied these criteria to the issue of the immediate effectiveness of the Directors order because that issue is inextricably intertwined with the Director's decision to issue the order.

and safety. For Sheffield, NECO developed a set of procedures for protecting public health and safety. These were incorporated by reference into the Sheffield license. These procedures included provision of a perimeter fence and guard patrol, maintenance of burial trenches, and ongoing environmental monitoring. The public health and safety reasons for these procedures are explained in several of NECO's filings with the NRC in support of its license application. NECO recognized that unauthorized access could lead to exposure to radioactivity or unauthorized removal of radioactive material; that defects in trench caps would allow surface water to enter the burial trenches, become contaminated with radioactive materials, and migrate off-site exposing the public; and that soil contaminated with radioactive materials from leaking packages could be blown about and inhaled by NECO personnel on its adjacent site. In spite of these well-known possible consequences, NECO unilaterally terminated all Sheffield activities on March 8, 1979. NRC inspectors visited the site on March 9, and 16, and confirmed NECO's general failure to hold in force its license terms and conditions. In our view, the Director's reasons and NECO's understanding of their implications provided it with a sufficient basis for understanding the order.

The Director's authority to issue an immediately effective order is contained in 10 CFR 2.202(f). That regulation provides that an order may be immediately effective if:

- The public health, safety or interest so requires, or
- the Licensee's violations are willful.

We believe that all of the prerequisites for an immediately effective order are present.

As we have discussed above, NECO's refusal to maintain and monitor the Sheffield site could reasonably be expected to lead to off-site migration of radioactive materials which could expose the public. The Commission has previously found that latent conditions which may cause harm in the future are a sufficient basis for issuing an immediately effective show-cause order where the consequences might not be subject to correction in the future. *Consumer Power Company* (Midland Plants, Units 1 and 2), CLI-74-3, 7 AEC 10-12 (1974). Consequently, the possibility of off-site migration, its potential for adverse impact on the public, and the impossibility of recalling such material once it escapes off-site support the Director's finding that public health and safety required an immediately effective order.

Public interest in an orderly licensing process also supported the Director's decision. Courts have found that purported violations of agency regulations support an immediately effective order even where no adverse public health consequences are threatened. *Ewing v. Mytinger and Cassel-*

berry, Inc., 339 U.S. 594 (1950). Here, the Director was concerned with possible violations of health and safety regulations which could reasonably be expected to have adverse public consequences. Under these circumstances, the Director reasonably concluded that NECO's unilateral action required an immediate response to ensure that license termination would be preceded by appropriate Commission review. Consequently, we believe that the public interest justified an immediately effective order which simply required NECO to resume safety-related on-site activities.

There is also no question that the licensee acted willfully by its unilateral action. On March 9, the Director informed NECO that in his opinion the license could not be unilaterally terminated. In spite of this opinion, NECO on March 14 reiterated its determination to unilaterally terminate all license obligations. Such proposeful action by NECO supports the Director's finding of willfulness. *Air Transport Associates v. Civil Aeronautics Board* 199 F.2d 181, 186 (D.C. Cir. 1952), *cert. denied*, 344 U.S. 922 (1953), *Cf. United States v. Illinois Central R. Co.*, 303 U.S. 239, 242-243 (1938). In civil proceedings, action taken by a licensee in the belief that it was legal does not preclude a finding of willfulness. *Cargill, Inc. v. Hardin*, 452 F.2d 1154 (8th Cir. 1971). Thus, NECO's belief that it had no further obligation under the license does not invalidate the Director's finding of willfulness.

NECO's mere assertion that it could unilaterally terminate its license presents significant questions of law and policy beyond the scope of the Director to decide in the context of the need for action to protect public health and safety. NECO's novel legal theories have not been subject to scrutiny by any independent tribunal. Thus, even though at this time we offer no opinions on NECO's legal theories, we find that the Director was justified in believing that NECO's license was still in force, and that NECO's unilateral termination of its obligations under that license constituted willful violation supporting an immediately effective order.

The Director's decision to issue an immediately effective order was made after two NRC inspection visits to the Sheffield facility. These visits confirmed NECO's general failure to hold in force the terms and conditions of its license. The inspectors found that the security fence was in need of repair, that the licensee was not providing security, that the burial trench area contained sinkholes at several locations, that NECO had not been monitoring sumps in burial trenches and surface water runoff, and that buried waste had been exposed in some sinkholes. Consequently, we find that all necessary factors have been considered and inquiry appropriate to the facts asserted had been made.

In view of the foregoing discussion, we find that the Director's decision was not demonstrably untenable on the basis of all the information available to him. Consequently, we find that the Director acted well within his discre-

tion in issuing an immediately effective show-cause order. Furthermore, we also find that these same reasons require that the order remain in effect at least until the issues have been resolved by a Licensing Board. Of course, at this time we make no determination on the merits of the issues in the show-cause proceeding. If the decision on any of those issues should come before us for review, we will at that time reach our conclusions on the basis of the record then before us.

We note in passing that we are not alone in finding that conditions at the Sheffield site are such as to render reasonable a requirement that NECO immediately resume responsibility for that site. An Illinois Circuit Court found that preliminary injunctive relief requiring NECO to resume site maintenance activities was clearly justified, necessary, and appropriate.² Even though that Court's criteria for enjoining NECO were somewhat different, it is clear that the basic factor motivating that Court was the same concern with public health and safety which motivated the Director to issue an immediately effective show cause order.

It is so ORDERED.

For the Commission
Samuel J. Chilk
Secretary of the Commission

Dated at Washington, D.C.,
this 6th day of June, 1979

²*People of the State of Illinois v. Teledyne Ind, et al.*, No. 78-MR-25 (Ill. Cir. Ct. for the 13th Cir., filed March 27, 1979).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Joseph M. Hendrie, Chairman
Victor Gilinsky
Richard T. Kennedy
Peter A. Bradford
John F. Ahearne

In the Matter of

**SACRAMENTO MUNICIPAL
UTILITY DISTRICT**

Docket No. 50-312

**Rancho Seco Nuclear Generating
Station**

June 21, 1979

Upon receipt of certain petitions for a hearing, the Commission directs the Chairman of the Atomic Safety and Licensing Board Panel to designate a Board to determine whether or not petitioners have standing to request a hearing and to conduct a hearing, if necessary, on specifically enumerated issues. Resumed operation of the Rancho Seco facility is not stayed by the pendency of these proceedings.

ORDER

By a confirmatory Order dated May 7, 1979, the Commission directed that the Rancho Seco facility, then in a shutdown condition, should remain shut down until certain actions specified in the Order were satisfactorily completed, as confirmed by the Director, Office of Nuclear Reactor Regulation. The Order also directed the licensee to accomplish as promptly as practicable the long-term modifications set forth in Section II of the Order. The Order stated further:

Within twenty (20) days of the date of this Order, the licensee or any person whose interest may be affected by this Order may request a hearing with respect to this Order. Any such request shall not stay the immediate effectiveness of this Order.

Requests for a hearing have been received from Friends of the Earth and from members of the Board of Directors of the Sacramento Municipal Utility District.

The Commission hereby directs that the Chairman of the Atomic Safety and Licensing Board Panel shall, pursuant to 10 CFR 2.105(e), select a board to determine whether the requesters meet the requisite personal interest test and to conduct any hearing which may be required.

The subjects to be considered at the hearing shall include:

1. Whether the actions required by subparagraphs (a) through (e) of Section IV of the Order are necessary and sufficient to provide reasonable assurance that the facility will respond safely to feedwater transients, pending completion of the long-term modifications set forth in Section II. A contention challenging the correctness of the NRC staff's conclusion that the actions described in subparagraphs (a) through (e) have been completed satisfactorily will be considered to be within the scope of the hearing. However, the filing of such a contention shall not of itself stay operation of the plant.

2. Whether the licensee should be required to accomplish, as promptly as practicable, the long-term modifications set forth in Section II of the Order.

3. Whether these long-term modifications are sufficient to provide continued reasonable assurance that the facility will respond safely to feedwater transients.

Resumed operation of the Rancho Seco facility on terms consistent with the Order of May 7, 1979 is not stayed by the pendency of these proceedings. Contrary to the contention of the Friends of the Earth in their filing of June 8, 1979, the transcripts of the Commission proceedings of April 25 and 27 reflect no Commission intent that hearings necessarily precede restart of the facility. Nor is such a requirement compelled by law or by the factual circumstances before us. Mere speculation that the hearing might develop facts indicating the need for further enforcement action does not suffice to warrant a prohibition on restart of the facility. In the event that a need for further enforcement action becomes apparent, either in the course of the hearing or at any other time, appropriate action can be taken at that time.

NRC staff has now determined that the actions set forth in subparagraphs (a) through (e) have been completed satisfactorily, and it shall provide the Commission with an informational briefing as to the basis for its conclusions prior to permitting restart of the facility. That briefing will be open to the public. In receiving this briefing, the Commission will in no manner prejudge the merits of the adjudicatory hearing authorized by this Order. Any adjudicatory determination by the Commission that may arise

from that hearing will be based solely on the record developed in that proceeding.¹

It is so ORDERED.

FOR THE COMMISSION

Samuel J. Chilk
Secretary of the Commission

Dated at Washington, D.C.,
this 21st day of June, 1979.

¹The decision of the Licensing Board will be made on the basis of the record developed before it. Accordingly, pursuant to our rules, statements made by any person in the course of the staff's informational briefing for the Commission may not be "pleaded, cited, or relied upon" in the adjudicatory proceedings before the Licensing Board, or in subsequent appellate proceedings before the Appeal Board. 10 CFR 9.103. If and when Commission review of that adjudication takes place, any party wishing to plead, cite, or rely on the transcript of the informational briefing will be at liberty to do so. To that extent, owing to the unusual factual circumstances present here, we waive the prohibition contained in 10 CFR 9.103, in accordance with the provision of that rule authorizing such waiver by the Commission.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Michael C. Farrar
Richard S. Salzman

In the Matter of

**PACIFIC GAS AND ELECTRIC
COMPANY**

Docket No. P-564A

**(Stanislaus Nuclear Project,
Unit 1)**

June 15, 1979

The Appeal Board affirms (with modification to reflect a late development) the Licensing Board's issuance of a subpoena *duces tecum* for discovery purposes to a non-party in this antitrust proceeding.

RULES OF PRACTICE: DISCOVERY

A party to an NRC adjudicatory proceeding may seek discovery of another party without the necessity of licensing board intervention. Where, however, discovery of a non-party is sought, the party seeking it must request the issuance of a subpoena under Section 2.720 of the Commission's Rules of Practice.

RULES OF PRACTICE: DISCOVERY

Section 2.720 of the Commission's Rules of Practice authorizes the issuance of subpoenas directed to non-parties for discovery purposes. Section 2.720, as thus construed, does not overstep the bounds of Section 161c. of the Atomic Energy Act which empowers the Commission to issue subpoenas returnable "at any designated place."

RULES OF PRACTICE: DISCOVERY

The information sought by an administrative subpoena need only be “reasonably relevant” to the inquiry at hand. *United States v. Morton Salt Company*, 338 U.S. 632, 652 (1950).

RULES OF PRACTICE: DISCOVERY

The burden of showing that the subpoena request is unreasonable is on the subpoenaed party.

RULES OF PRACTICE: DISCOVERY

One who opposes an agency’s subpoena necessarily must bear a heavy burden. That burden is essentially the same even if the subpoena is directed to a third party not involved in the adjudication or other proceedings out of which the subpoena arose.

RULES OF PRACTICE: DISCOVERY

10 CFR 2.720(a) of the Commission’s Rules of Practice contemplates *ex parte* applications for the issuance of subpoenas. Although a chairman of a licensing board may require a showing of general relevance of the testimony or evidence sought before issuing a subpoena, he is not obligated to do so. Rather, the matter of relevance can be entirely deferred until such time as a motion to quash or modify the subpoena is filed.

RULES OF PRACTICE: DISCOVERY

The provision in Section 2.720(f) of the Rules of Practice which provides that a licensing board may condition the denial of a motion to quash or modify a subpoena *duces tecum* “on just and reasonable terms,” is sufficiently broad to allow the imposition of a condition that the subpoenaed person or company be reimbursed for document production costs.

RULES OF PRACTICE: DISCOVERY

Generally, reimbursement of the costs of compliance with a subpoena directed to a non-party company will be ordered only where those costs are not reasonably incident to the conduct of the business of the company.

Mr. Arthur L. Sherwood, Los Angeles, California (with whom **Messrs. David N. Barry, III, Thomas E. Taber** and **Eugene Wagner**, Rosemead, California, and **Irwin F. Woodland** and **Robert A. Rizzi**, Los Angeles, California, were on the brief), for the appellant, Southern California Edison Company.

Mr. Michael J. Strumwasser, Deputy Attorney General of California, Sacramento, California (with whom **Messrs. George Deukmejian**, Attorney General of California, **Sanford N. Gruskin** and **Robert H. Connett**, Assistant Attorneys General, and **H. Chester Horn, Jr.**, Deputy Attorney General, were on the brief), for the appellee, State of California Department of Water Resources.

Mr. Jack R. Goldberg (with whom **Mr. Benjamin H. Vogler** was on the brief) for the Nuclear Regulatory Commission staff.

DECISION

Opinion of the Board by Mr. Rosenthal, in which Messrs. Farrar and Salzman join:

This is an antitrust proceeding instituted to determine whether the construction and operation of Unit 1 of the Stanislaus Nuclear Project by the Pacific Gas and Electric Company (PG&E) would "create or maintain a situation inconsistent with the antitrust laws" within the meaning of Section 105c. (5) of the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2135(c) (5). The proceeding was initiated by the granting of petitions for intervention and requests for hearing which had been filed by, *inter alia*, the State of California Department of Water Resources (DWR). The DWR petition asserted generally that PG&E possessed monopoly power over generation, transmission, and distribution in the bulk electric power market in northern and central California and had used it in a manner inconsistent with Sections 1 and 2 of the Sherman Act. In this connection, according to the petition, PG&E had enhanced its monopoly power through its membership in the California Power Pool, one of the other members of which is the Southern California Edison Company (Edison). The petition charged, *inter alia*, that the pool participants had acted in concert to divide the relevant market for wholesale electric power (the "bulk power" market) and to restrict competition therein.

In the course of prehearing discovery, DWR sought and obtained from the Licensing Board a subpoena *duces tecum* directed to Edison. The subpoena required the production of ten categories of documents. These documents were said to be relevant to DWR's claim that PG&E had combined with the other members of the California Power Pool in anticompetitive activities.

Appearing specially, Edison moved to quash the subpoena on a number of grounds. The Licensing Board was told that (1) it lacked the authority to issue a subpoena *duces tecum* for discovery purposes; (2) an insufficient foundation had been laid for the issuance of the subpoena in question; and (3) the subpoena was seeking the production of documents not relevant to the issues raised in the proceeding, was impermissibly vague and was so broad in reach as to impose an unconstitutional burden upon Edison. Edison further urged that, were the subpoena not to be quashed, the Licensing Board should direct DWR to compensate Edison for all costs incurred in complying with it.

Following a full day of argument on the motion to quash, the Licensing Board entered an order on January 25, 1979 in which it denied the motion subject to certain conditions. One of the ten categories of documents was deleted in its entirety from the subpoena. Each of the other nine categories was reduced in scope. And DWR was ordered to compensate Edison for the expense of reproducing one copy of each document supplied to DWR (albeit not for search costs).

Dissatisfied with this outcome, Edison has appealed to us.¹ It essentially renews the assertions advanced below. DWR and the NRC staff urge affirmance.² On a full consideration of the arguments of each party, we conclude that the Board correctly disposed of the matter. Because of a post-argument development, however, its order is being modified in one limited respect.

I.

We begin with an examination of Edison's threshold assertion that issuance of the subpoena *duces tecum* was unauthorized.³ As we understand it, this assertion has two prongs. First, Edison maintains that this Commission's Rules of Practice do not allow resort to subpoena in aid of discovery.

¹A discovery order entered against a non-party has all the attributes of finality. It therefore is subject to appeal notwithstanding the proscription against appeals from interlocutory orders contained in 10 CFR 2.730(f). See *Consumers Power Company* (Midland Plant, Units 1 and 2), ALAB-122, 6 AEC 322 (1973).

²None of the other parties to the proceeding participated on the appeal.

³The staff correctly notes that in *Midland*, ALAB-122, *supra* fn. 1, we upheld the issuance of a subpoena *duces tecum* which had been issued for discovery purposes to non-parties to that

Continued on next page.

Second, it contends that, even if the Rules might be read as permitting the use of subpoenas for discovery purposes, they nonetheless should not be so interpreted. This is because, according to Edison, the requisite statutory authority for such use is wanting.⁴

A. In issuing the subpoena, the Licensing Board made explicit reference to 10 CFR 2.720, which deals specifically with subpoenas. Subsection (a) of that Section provides:

On application by any party, the designated presiding officer, or if he is not available, the Chairman of the Atomic Safety and Licensing Board Panel, the Chief Administrative Law Judge or other designated officer will issue subpoenas requiring the attendance and testimony of witnesses or the production of evidence. The officer to whom application is made may require a showing of general relevance of the testimony or evidence sought, and may withhold the subpoena if such a showing is not made, but he shall not attempt to determine the admissibility of evidence.

Edison zeros in on the phrase "requiring the attendance and testimony of witnesses or the production of evidence." It urges that this language reflects an intention to sanction the use of subpoenas *duces tecum* only in connection with a hearing. In Edison's apparent view, the term "evidence" is universally understood to relate to what is admitted as such at trial; *i.e.*, it does not encompass "just discovery materials" (Br. pp. 6-8).

1. A virtually identical claim, put forth in an analogous context, was squarely rejected in *NLRB v. Wyman-Gordon Company*, 394 U.S. 759 (1969). That case involved a subpoena *duces tecum* which had been issued to Wyman-Gordon by the NLRB to compel the production of personnel and payroll records for use in connection with a union representation election. One of the questions was whether the subpoena was authorized by a

Continued from previous page.

antitrust proceeding. Assuming no relevant distinction exists between that subpoena and the one at bar, we nonetheless cannot accept the staff's argument that we therefore should treat the *Midland* decision as dispositive on the authority question (Br. p. 6). Although the non-parties in *Midland* had insisted before the Licensing Board that our Rules of Practice did not permit "full-blown" discovery of documents in their possession (6 AEC at 323), that claim was not renewed on appeal (*id.* at 324). For that reason, we did not there address or decide the point which Edison presses on this appeal.

⁴In light of the context in which Edison has advanced its statutory argument, there is dubious merit to the staff's insistence that that argument amounts to an impermissible attack upon the validity of Commission regulations. See 10 CFR 2.758. Even if, however, Edison had employed the statutory argument to mount a direct challenge to the validity of a Commission rule, it does not necessarily follow that we must close our eyes to it. Certainly, Section 2.758 does not bar us from requesting the Commission to reexamine a rule which appears to us to lack the requisite congressional authorization. See 10 CFR 2.718(i): And, in at least some circumstances, it may be our duty to do so.

provision of the National Labor Relations Act empowering the NLRB to issue subpoenas "requiring the attendance and testimony of witnesses or the production of any evidence" in Board proceedings and investigations. Wyman-Gordon took the position that the documents being sought were not "evidence" within the meaning of that provision. The Supreme Court disagreed, upholding the view of the District Court that, as used in the Labor Act, " 'evidence' means not only proof at a hearing but also books and records and other papers which will be of assistance to the Board in conducting a particular investigation." 394 U.S. at 768.⁵

Wyman-Gordon thus forecloses any claim that the term "evidence" always must be taken to refer exclusively to what is presented at a hearing and thus perforce to exclude from its ambit "discovery materials." It follows that Edison cannot prevail simply by pointing to the Commission's use of that term. Rather, it is necessary to go beyond the four corners of Section 2.720(a) in order to ascertain whether the Commission intended "evidence" to have a more restrictive meaning than has been given it by the Supreme Court for the purposes of the Labor Act.

2. Neither in its brief nor at oral argument did Edison allude to any extrinsic indication of such an intent.⁶ And our independent search has proved similarly unavailing. To the contrary, close examination of the history of the Commission's subpoena and discovery rules leads us to the quite opposite conclusion that Section 2.720(a) was intended to provide a mechanism for obtaining "discovery materials."

Insofar as we are aware, Rules of Practice to govern Commission adjudicatory proceedings were first promulgated in 1956. 21 Fed. Reg. 804 (February 4, 1956). Among those early rules was one which authorized, "[u]pon application by any party to a hearing," the issuance of subpoenas "requiring the attendance and testimony of witnesses or the production of evidence *in the hearing*." Section 2.744, 21 Fed. Reg. at 807 (emphasis

⁵Although Mr. Justice Fortas' opinion was joined in by only three other justices, this conclusion was explicitly subscribed to by a total of seven members of the Court. See concurring opinion of Mr. Justice Black (joined in by Mr. Justice Brennan and Mr. Justice Marshall), 394 U.S. at 769. It might be noted that the same conclusion had previously been reached by five courts of appeals. See *id.* at 768-69.

We consider later in this opinion whether production of the documents covered by the subpoena at bar might assist the Commission in the discharge of its responsibilities. See pp. 691-693, *infra*.

⁶More specifically, our attention has not been directed by Edison to any statement by the Commission which might suggest that the promulgators of Section 2.720(a) equated "evidence" with introduction at a hearing. Rather, Edison has confined itself to the claim that the Commission must have had this limitation in mind because it lacked the statutory authority to issue subpoenas for discovery (*i.e.*, non-hearing) purposes. But as will be later seen (pp. 690-694, *infra*), Edison is mistaken on the authority point.

supplied). Although, because of its reference to a hearing, this rule may not have authorized the use of a subpoena for discovery purposes, another rule expressly did. In Section 2.745, the Commission empowered the "presiding officer" to order the taking of the deposition of "any person, including a party." The attendance of those sought to be deposed could be "compelled by the use of a subpoena." *Ibid*.

Six years later, the Rules of Practice underwent their first substantial revision. 27 Fed. Reg. 377 (January 13, 1962). The subpoena rule became Section 2.720 and assumed (insofar as here relevant) its present form; that is, both of the references to a "hearing" were deleted. At the same time although retaining the substance of the earlier deposition rule (including the provision for enforcement by subpoena),⁸ the Commission added a specific provision allowing a party to obtain, on "motion . . . showing good cause," an order calling for discovery of another party other than by deposition.⁹

These alterations taken in combination strongly suggest to us that the Commission intended that inter-party discovery be initiated by motion and that subpoenas be utilized to obtain discovery of non-parties (who could not be reached other than by subpoena). Indeed, this seems the only conclusion which might reasonably be drawn from the Commission's deliberate choice to remove the "hearing" limitation from the subpoena rule.

The second, and most recent, major revision of the Rules of Practice occurred in 1972. This was some two years after sweeping changes had been made in the discovery provisions of the Federal Rules of Civil Procedure. Among other things, FRCP 34 had been amended to allow discovery among the parties to a proceeding with minimum judicial intervention. At the same time, in subsection (c) it was provided that "[t]his rule does not preclude an independent action against a person *not a party* for production of documents and things . . ." (emphasis supplied).¹⁰

The Statement of Consideration which accompanied the 1972 revision explicitly declared the Commission's objective to follow the lead of these amendments to the Federal Rules. 37 Fed. Reg. 15127, 15128 (July 28, 1972). To this end, in Sections 2.740, 2.740a, 2.740b, and 2.741 the Commission provided for (1) inter-party discovery in the form of requests for docu-

⁷In 1956, that officer was invariably a hearing examiner. The employment of Licensing Boards was not authorized until the 1962 enactment of Section 191 of the Atomic Energy Act, 42 U.S.C. 2241.

⁸Section 2.740, 27 Fed. Reg. 385.

⁹Section 2.741, 27 Fed. Reg. 385.

¹⁰This subsection was designed to counter the prior holdings of some courts that such an independent action was foreclosed by Rule 34. See Notes of Advisory Committee on 1970 Amendment to the Rules, 28 U.S.C. fol. FRCP 34.

ment production and the service of interrogatories and (2) the taking of the deposition “of any party or other person”—all without the need to obtain an order from the Licensing Board. And Section 2.740(f)—which permits a motion to compel discovery in the event of a refusal to respond or comply—contains the counterpart of FRCP 34(c):

This Section does not preclude an independent request for issuance of a subpoena directed to a person *not a party* for production of documents or things.

[Section 2.740(f) (3); emphasis supplied.]

Edison has not explained to our satisfaction how this proviso can be squared with its insistence that a subpoena is never available for discovery purposes. And in our view, any such reconciliation is simply not possible. Rather, Section 2.740(f) (3) has meaning only if taken as an integral part of the overall discovery scheme established by the 1970 amendments to the Federal Rules and then carried over by the Commission into its Rules of Practice. To repeat, a party may seek discovery of another party without the necessity of licensing board intervention. Where, however, discovery of a non-party is sought (other than by deposition), the party must request the issuance of a subpoena under Section 2.720—which, at least from the time of its amendment in 1962, has contained no language tying subpoenas to hearings.

B. Having thus concluded that Section 2.720 of the Rules of Practice authorized the issuance of the subpoena in question, we turn to Edison’s assertion that, so construed, the Section steps over the bounds of the Commission’s statutory powers. This claim brings immediately to the fore Section 161c. of the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2201(c). With no material change, Section 161c. reenacted Section 12(a) (3) of the Atomic Energy Act of 1946.¹¹ It provides that, “[i]n the performance of its functions, the Commission is authorized to”—

make such studies and investigations, obtain such information, and hold such meetings or hearings as the Commission may deem necessary or proper to assist it in exercising any authority provided in this Act, or in the administration or enforcement of this Act, or any regulations or orders issued thereunder. For such purposes the Commission is authorized to administer oaths and affirmations, and by subpoena to require any person to appear and testify, or to appear and produce documents, or both, at any designated place.

¹¹60 Stat. 755.

The question is whether that authorization is broad enough to enable the Commission to exercise its subpoena power in aid of prehearing discovery.¹²

The fact of Edison's non-party status is plainly irrelevant to this inquiry; if nothing else, the use of the phrase "any person" in Section 161c. forecloses any possible distinction between parties and non-parties. Rather, what must be addressed is Edison's insistence that, no matter who might be the recipient, Section 161c. "clearly limits the Commission to issuing subpoenas for its *own* purposes and for testimony or production at a *hearing*" (Br. p. 6; emphasis in original).

We can readily agree that Section 161c. does appear to contemplate that any subpoena issued under its auspices will serve the purpose of, as Edison puts it (*ibid.*), "assisting the Commission in its duties." But that acknowledgment scarcely assists Edison here. Edison apparently assumes that any information which might be obtained by DWR as a result of the document production called for by the subpoena necessarily would assist that party alone. That assumption is unwarranted. This becomes manifest upon even cursory analysis.

By the enactment of the present Section 105c. of our Act in 1970, Congress imposed specific duties upon this Commission in the antitrust sphere. Among other things, in certain circumstances the Commission must conduct adjudicatory hearings on the basis of which a finding must then be made respecting whether the licensing of the nuclear facility in question "would create or maintain a situation inconsistent with the antitrust laws" specified in the Section. See Section 105c.(5), 42 U.S.C. 2135(c) (5). Those circumstances were outlined in our decision in *Kansas Gas and Electric Company* (Wolf Creek Generating Station, Unit No. 1), ALAB-279, 1 NRC 559, 565-66 (1975):

Two situations call for licensing board hearings under Section 105c on antitrust issues. The first is tied to the Commission's statutory obligation to seek the Attorney General's advice on the antitrust ramifications of each license application. Where that official advises that granting an application may involve adverse antitrust consequences and recommends that a hearing be held, the Commission is bound to follow his recommendation. Section 105c(1)-(5) of the Atomic Energy Act of 1954, as amended, 42 U.S.C. Section 2135(c) (1)-(5); *Duke Power Company* (Catawba Nuclear Station, Units 1 and 2), CLI-74-14, 7 AEC 307 (1974). . . .

¹²The subpoena and discovery provisions of the Commission's Rules are expressly predicated upon the authority of Section 161. See 100 CFR Part 2, "Rules of Practice for Domestic Licensing Proceedings," statement preceding Section 2.1 (at p. 41 of 10 CFR, 1979 Rev.). In the case of the subpoena rule, the intended reference was obviously to Section 161c.—which, as just seen, is directly concerned with the issuance of subpoenas.

The second situation which may necessitate a formal antitrust proceeding . . . is described in the Joint Committee Report which accompanied the enactment of Section 105c in 1970. In the case where the Attorney General does not recommend a hearing "but antitrust issues are raised by another in a manner according with the Commission's rules or regulations, the Commission would [then] be obliged to give such consideration thereto as may be required by the Administrative Procedure Act and the Commission's rules or regulations."¹³

In this instance, the Antitrust Division of the Department of Justice obtained PG&E's agreement to the inclusion in the Stanislaus license of a number of conditions derived from a statement of commitments made by the utility. The Assistant Attorney General in charge of that Division thereupon notified the NRC staff of his conclusion that an antitrust hearing would not be necessary were the Commission to issue a license so conditioned. But this conclusion obviously was not shared by DWR and the other competitors of PG&E which filed petitions for intervention and requests for a hearing. And once those petitions and requests were granted on a licensing board determination that petitioners were entitled to a formal adjudication of the issues raised by them, the Commission's obligation became plain: it must conduct a hearing and, on the record there developed, make not merely the ultimate statutory finding but, as well, innumerable subsidiary determinations of fact.

Those who have had exposure to antitrust litigation appreciate the central role that prehearing discovery plays in the refinement of the issues and the development of a comprehensive and coherent record. Indeed, were that tool not both routinely available and commonly employed, the almost inevitable result would be not merely hearings of unacceptable duration but also the compilation of records which were diffuse in focus and, very likely, incomplete in significant respects. This in turn perforce would adversely affect the ability of the Commission (acting initially through its boards) to discharge properly its Legislative mandate to make an informed judgment on the issues before it.

In short, it would blink reality to decide, as Edison apparently would have us do, that the Issuance of the subpoena *duces tecum* sought here by a party could not prove ultimately to be of assistance to the Licensing Board

¹³Accord, *Houston Lighting and Power Company* (South Texas Project, Unit Nos. 1 and 2), CLI-77-13, 5 NRC 1303, 1310 (1977): "Thus, the Act provides for in-depth antitrust review, with the assistance and advice of the Attorney General and the possibility of a full scale adjudicatory hearing at his request or the request of a private party, . . ." (Emphasis supplied).

in the execution of its decisionmaking responsibilities. We expressly hold that precisely the opposite is the case.¹⁴

That leaves for consideration Edison's further insistence that, in any event, Section 161c. allows only subpoenas directing testimony or document production at the hearing itself. The short answer is that, to accept that line of argument, we would be compelled to engraft additional terms upon the Section. As written, it authorizes the issuance of subpoenas returnable "*at any designated place*" (emphasis supplied). On its face, that language carries no implication that Congress intended to limit the use of the subpoena power in the manner suggested by Edison. Nor have we been referred to (or found on our own) any Legislative history which might lend support to the thesis that authority to issue a subpoena for discovery purposes was being withheld.

In these circumstances, Edison's reliance on *Federal Maritime Commission v. Anglo-Canadian Shipping Company*, 335 F.2d 255 (9th Cir. 1964), is entirely misplaced. In fact, if anything, that decision cuts against Edison's position.

At issue in *Anglo-Canadian* was an order of the Federal Maritime Commission entered in a pending complaint proceeding. The order directed the production of certain documents for inspection and copying by one of the parties. It was issued under the aegis of an FMC rule of practice which related to the discovery and production of documents. The single question before the Ninth Circuit was whether the FMC had the authority to promulgate that rule. 335 F.2d at 256.

For that authority, the FMC pointed to a provision of the Merchant Marine Act of 1936 which empowered it "to adopt all necessary rules and regulations to carry out the powers, duties, and functions vested in it" by the Act. *Id.* at 258. As the court of appeals observed, however, all other Federal regulatory agencies had been vested with comparable general rule-making power and yet none had endeavored to predicate a discovery rule thereon. *Id.* at 259. As support for its conclusion that such general authority could not be so employed, the Ninth Circuit noted that, even though the Federal courts were thought to have broad inherent powers insofar as procedure is concerned, they had not attempted to utilize pretrial procedures in ordinary civil cases until the Federal Rules of Civil Procedure were promulgated in 1937 pursuant to express congressional authority. *Ibid.* In this connection, the court cited *Miner v. Atlass*, 363 U.S. 641 (1960), in which the

¹⁴Although it is not necessary to rule definitively on the question in this case, we note in passing our belief that the same result would likely obtain in a proceeding convened to consider the safety and environmental aspects of reactor construction and operation. The proper discharge of the Commission's adjudicatory functions in such a proceeding likewise might well be furthered by the information acquired through discovery mechanisms invoked in advance of hearing.

Supreme Court had struck down a local discovery rule which had been promulgated by a district court sitting in admiralty under the general authority of such courts to regulate their practice "in such manner as they deem most expedient for the due administration of justice, provided the same are not inconsistent with these rules." *Ibid.*

As we have seen, Section 2.720 of our Rules of Practice, under which the subpoena hereinvolved was issued, is not similarly founded upon this Commission's general rule-making powers; rather, it rests upon the specific authority to issue subpoenas *duces tecum* contained in Section 161c. of the Atomic Energy Act.¹⁵ To be sure, the FMC also had been empowered by Congress to require the production of documents by means of such subpoenas. Section 27 of the Shipping Act of 1916, 39 Stat. 737, 46 U.S.C. 826 (1958 ed.). But that Section—unlike Section 161c.—in terms precluded resort to subpoenas for prehearing discovery purposes. For it specifically provided that subpoenas issued thereunder were to be returnable "at any designated place of *hearing*" (emphasis supplied). See 335 F.2d at 260¹⁶

Given the fact that pretrial discovery was at best a novelty in 1916, it is not surprising that the subpoena power conferred by Section 27 of the 1916 Shipping Act was made exercisable only in connection with hearings themselves. It is just as understandable why Section 161c. of the Atomic Energy Act is devoid of a like limitation. By the time of the enactment of the Atomic Energy Act of 1946 (see p. 690, *supra*), discovery had become well-rooted in at least judicial practice, having been authorized by the Federal Rules of Civil Procedures almost a decade earlier.

In sum, the teaching of *Anglo-Canadian*—that agency discovery rules cannot be founded on general rule-making powers¹⁷—does not come into play where, as here, there is Legislatively-granted authority to issue subpoenas returnable at "any designated place." Finding that authority wide enough to support the validity of Section 2.720 of the Rules of Practice, as interpreted by us, we must and do hold that the Licensing Board correctly concluded that it was empowered to issue a subpoena *duces tecum* to Edison for discovery purposes.

¹⁵See fn. 12, *supra*.

¹⁶Because of this consideration, the FMC acknowledged that its rule of practice went beyond Section 27 of the Shipping Act to the extent that the rule permitted document production at a time and place other than that set for hearing. See 335 F.2d at 260.

¹⁷Although not crucial to the result here, it is worthy of passing note that in 1967, three years after *Anglo-Canadian* was decided, Congress amended Section 27 of the 1916 Shipping Act to authorize the Federal Maritime Commission to adopt discovery rules. P.L. 90-177, 81 Stat. 544, 46 U.S.C. 827 (1970). Thus, irrespective of how it may have viewed the precise holding of *Anglo-Canadian*, Congress manifestly did not wish to leave standing the consequence of that holding; viz., that the FMC was powerless to invoke discovery procedures.

II.

Our determination on the authority question brings us to Edison's second major point: that, even if authorized, the subpoena should have been quashed on grounds of both relevancy and burdensomeness.

A. We need not prolong this opinion with an extended canvass of the jurisprudence in this area; fortunately, this has been done for us in Chief Judge Bazelon's decision in *Federal Trade Commission v. Texaco, Inc.*, 555 F.2d 862 (D.C. Cir. (*en banc*)), *certiorari denied*, 431 U.S. 974 (1977). As there noted, the information sought by an administrative subpoena need only be "reasonably relevant" to the inquiry at hand. *United States v. Morton Salt Company* 338 U.S. 632, 652 (1950).¹⁸ And, on the matter of burden,

[t]he question is whether the demand is *unduly* burdensome or *unreasonably* broad. Some burden on subpoenaed parties is to be expected and is necessary in furtherance of the agency's legitimate inquiry and the public interest. The burden of showing that the request is unreasonable is on the subpoenaed party. Further, that burden is not easily met where, as here, the agency inquiry is pursuant to a lawful purpose and the requested documents are relevant to that purpose. Broadness alone is not sufficient justification to refuse enforcement of a subpoena. Thus courts have refused to modify investigative subpoenas unless compliance threatens to unduly disrupt or seriously hinder normal operations of a business.

Texaco, 555 F.2d at 882 (emphasis in original; footnotes omitted).

Texaco, in common with most (if not all) of the decisions cited therein, was concerned with a subpoena issued in the furtherance of an agency investigation. The same standards are applicable, however, to subpoenas issued in connection with adjudicatory proceedings. This is illustrated by, e.g., *Federal Trade Commission ex rel. Kaiser Aluminum v. Dresser Industries Inc.*, 41 Ad.L. 2d 517 (D. D.C. 1977).

In *Dresser*, an FTC administrative law judge had issued a subpoena *duces tecum* in aid of discovery on the application of a party to the adjudicatory proceeding pending before him. As here, the subpoena was

¹⁸In an earlier case, the Supreme Court had characterized the sought material as not being "plainly incompetent or irrelevant." *Endicott Johnson Corporation v. Perkins*, 317 U.S. 501, 509 (1943). Another Supreme Court decision preceding *Morton Salt* had spoken of information "relevant" to the inquiry. *Oklahoma Press Publishing Company v. Walling*, 327 U.S. 186, 209 (1946). The *Texaco* decision indicates that most courts of appeals have employed the "reasonably relevant" standard in administrative subpoena enforcement proceedings. 555 F.2d at 873-74, fn. 23.

addressed to a corporation not a party to the proceeding (Dresser), which moved to quash it. The Administrative Law Judge denied the motion but (as the Board below did here) modified the subpoena in some respects to lessen the burden of compliance. On appeal from that denial, the FTC ruled that the Administrative Law Judge had not abused his discretion in upholding the subpoena. Upon Dresser's continued refusal to comply with it, the FTC filed a petition for enforcement of the subpoena in the district court.

At the outset of its opinion granting enforcement, the court ruled, quoting *Federal Trade Commission v. Texaco*, *supra*, that its role was "a strictly limited one" and that "the scope of issues which may be litigated in [a subpoena] enforcement proceeding must be narrow, because of the important governmental interest in the expeditious investigation of possible unlawful activity." 41 Ad.L. 2d at 519. The court went on to hold that, in view of that consideration and the "reasonably relevant" standard laid down in *Morton Salt*, *supra*, "one who opposes an agency's subpoena necessarily must bear a heavy burden." *Id.* at 521. It added that "[t]hat burden is essentially the same even if the subpoena is directed to a third party not involved in the adjudicative or other proceedings out of which the subpoena arose." *Ibid.*¹⁹

Proceeding further, the court concluded that, "in opposing the subpoena on the ground that it imposes too great a burden, Dresser again faces a very difficult task." *Id.* at 522. Support for this conclusion likewise was derived from *Texaco*, the court quoting the same passages from that decision as we have set forth above. *Ibid.* And, notwithstanding Dresser's uncontroverted averment that the cost of compliance with the subpoena would be \$400,000, that burden was found not to have been satisfied. Among other things, Dresser had failed to establish, in the words of *Texaco*,²⁰ that compliance would threaten "to unduly disrupt or seriously threaten normal operations" of its business. *Id.* at 523. Moreover, the court found, "though the subpoena is admittedly a sweeping one, it is not illegal or overbroad, for the breadth of the request is dictated by the scope of the adjudicative proceeding." *Ibid.* *Accord: Adams v. Federal Trade Commission*, 296 F.2d 861, 867 (8th Cir. 1961), *certiorari denied*, 369 U.S. 864 (1962).

Finally, in announcing its ultimate determination "that the subpoena, as modified by order of the Administrative Law Judge, should be enforced," the court had this to say:

¹⁹For this proposition, the court cited *Federal Trade Commission v. Tuttle*, 244 F.2d 605 (2nd Cir.), *certiorari denied*, 354 U.S. 925 (1957); *Federal Trade Commission v. United States Pipe and Foundry Company*, 304 F. Supp. 1254 (D. D.C. 1969).

²⁰See p. 695, *supra*.

The court is not unmindful of the tremendous impact which compliance with such subpoenas can have upon companies which appear to be innocent bystanders. The cost of effective economic regulation, however, is one which must be shared by all industry, indeed by the entire society. The expeditious enforcement of such subpoenas, usually without the civil discovery and the protective order which were requested of the court in this case, is an integral part of the regulatory scheme, and only in the most egregious of circumstances should a court intervene to delay or hinder the enforcement process.

Id. at 523-24.

B. With the foregoing principles in mind, we have closely examined Edison's objections to the subpoena in the light of the record before us. That examination persuades us that the Licensing Board did not abuse its discretion in denying the motion to quash the subpoena (as it had been modified by the Board). To the contrary, the transcript of the all-day prehearing conference on January 24 (which was devoted exclusively to the subpoena) reflects that the Board arrived at its result on the various categories of documents after a careful and thoughtful analysis fully consistent with governing doctrine. In this connection, it is worthy of note that, for many years, the Board Chairman (who had assumed a leading role in that analysis) was an active antitrust litigator at the private bar.

The short of the matter is that we perceive no pertinent distinction between this case and *Dresser* which might enure to Edison's benefit. As the *Dresser* subpoena, the one at bar is quite broad in scope; but not unreasonably so given the wide reach of the antitrust issues which are being litigated in this proceeding. (We note in passing that Edison is—allegedly—involved in the monopolization charges being explored.) So too, although the cost of compliance by Edison with the subpoena (as modified) is not precisely revealed by the record, it does not affirmatively appear that it would likely exceed the \$400,000 figure presented to the *Dresser* court. In any event, just as the subpoenaed non-party in *Dresser*, Edison has not established that compliance would “unduly disrupt or seriously hinder [its] normal operations.” No doubt, as claimed in the affidavit of one of its attorneys which was submitted to the Licensing Board, Edison employees might have to expend a significant amount of time and effort in making the requisite document search.²¹ But that is a possible consequence whenever a company is called upon to respond to a subpoena *duces tecum* in proceedings of this stripe and, of itself, does not justify quashing the subpoena as unduly burdensome. See, e.g., *United States v. International Business Machines Corporation*, 71 F.R.D. 88, 92 (S.D.N.Y. 1976).

²¹As will be seen, *infra*, pp. 702-703, by reason of a recent development Edison's burden in this regard may not be as great as initially thought.

For these reasons, we are confident that, in the exercise of the role assigned to them in passing upon objections to administrative subpoenas, the courts would enforce this one. There is no apparent cause why we should be any more prone to substitute our judgment for that of the Licensing Board on relevancy and burdensomeness questions arising during the course of discovery.²²

III.

The final question is whether the Licensing Board erred in not directing DWR to reimburse Edison for all of the expense which might be incurred by the latter in complying with the subpoena. The January 25 order does contain (at page 3) a condition requiring DWR to "compensate Edison for its actual costs of duplicating one copy of each document copied for production to DWR." Edison insists, however, that it also should be compensated for the labor and other costs involved in searching its files to locate the documents covered by the subpoena.

Both DWR and the NRC staff urge that the Licensing Board lacked the requisite authority to grant that relief and that, in any event, Edison had not established an entitlement to it on the merits. We examine these assertions *seriatim*.

A. Section 2.720(f) of the Rules of Practice specifically provides that a licensing board may condition the denial of a motion to quash or modify a subpoena *duces tecum* "on just and reasonable terms." The staff contrasts this provision with Rule 45(b) of the Federal Rules of Civil Procedure, which authorizes a court to condition the denial of such a motion "upon the advancement by the person in whose behalf the subpoena is issued of the reasonable cost of producing the books, papers, documents, or tangible things." We are told that the difference in language is significant. More particularly, according to the staff, the Commission did not follow the lead of Rule 45(b) and explicitly empower its boards to order reimbursement of

²²We need not pause long over Edison's further assertion that the subpoena should have been quashed because it was originally issued without a proper foundation first having been laid by DWR. It is a sufficient response that 10 CFR 2.720(a) contemplates *ex parte* applications for the issuance of subpoenas. Although the Chairman of the Licensing Board "may require a showing of general relevance of the testimony or evidence sought," he is not obligated to do so. Rather, the matter of relevance can be entirely deferred until such time as a motion to quash or modify the subpoena is filed; one of the grounds for such a motion being that the subpoena "requires evidence not relevant to any matter in issue." Section 2.720(f). This practice accords with that widely employed by administrative agencies. Administrative Conference of the United States, *Manual for Administrative Law Judges* (1974), p. 12. It also is in line with judicial practice. Upon request of a party, the clerk of the district court will issue a subpoena *duces tecum* "as a matter of course." The court thereafter can be asked to modify or quash it. See FRCP 45; *Moore's Federal Practice* (2nd ed. 1977), Vol. 5A, PP 45-50.

document production costs because it recognized that it lacked the requisite statutory authority to do so.

We cannot accept this line of reasoning. To begin with, if the staff is right, the choice of the *unqualified* phrase "on just and reasonable terms" was most infelicitous. On its face, that phrase is certainly expansive enough in reach to allow the imposition of a condition that the subpoenaed person or company be reimbursed for document production costs (assuming such imposition were deemed "just and reasonable" in the circumstances of the particular case). In the final analysis, we are being asked to give a more limited reach to Section 2.720(f) than that which must be given to Rule 45(b) even though the former appears to be cast in broader terms. We should be very hesitant to accept that invitation in the absence of compelling evidence that the Commission intended that inverse result.

As the staff implicitly acknowledges, there is no evidence of that sort. Consequently, it must fall back upon its premise that the Commission promulgated Section 2.720(f) with full awareness that it lacked the statutory authority to condition the grant of a subpoena *duces tecum* upon the requesting party's bearing the production costs. That premise rests, however, upon a faulty subsidiary assumption; *viz.*, that a Federal administrative agency must have an express Legislative authorization in hand before it can take that step.

We have uncovered no judicial decision which furnishes support for that thesis. The staff points to *Turner v. Federal Communications Commission*, 514 F.2d 1354 (D.C. Cir. 1975).²³ But that case is quite beside the point here. In *Turner*, a party to an FCC license renewal proceeding sought an award of attorney's fees against another party to the proceeding. The FCC denied the request on the ground that, although its powers under the Communications Act were broad, the authority to order reimbursement of legal expenses should not be implied "absent specific statutory authority." The District of Columbia Circuit agreed with this conclusion:

Congress, and not the Commission, can authorize an exception to the "American Rule" that litigants bear the expense of their litigation. The reasoning of the Supreme Court in *Alyeska Pipeline Company v. Wilderness Society* [421 U.S. 240 (1975)] is fully applicable to litigation before the Federal Communications Commission. Congress has no more extended a "roving commission" to the FCC than it has to the Judiciary "to allow counsel fees as costs or otherwise whenever the [Commission] might deem them warranted." [421 U.S. at 260.] The

²³Apart from *Turner*, the staff has referred us only to a recent decision of the Supreme Court of Maine applying Maine law. *Central Maine Power Company v. Maine Public Utilities Commission*, 395 A. 2d 414 (1978). We do not find that decision persuasive in the context of a Federal agency subpoena which is governed by Federal law.

Commission in its opinion noted that "Congress has not hesitated in other circumstances to authorize fee awards explicitly when it has determined such authorizations to be warranted." In fact, two provisions of the Communications Act specifically provide for the award of attorney's fees in court litigation.

514 F.2d at 1356 (footnotes omitted).

Insofar as agency authority is concerned, a manifest difference exists between (1) awarding attorney's fees in favor of one litigant against another and (2) requiring a party who requests the issuance of a subpoena *duces tecum* to assume the cost of compliance with it. Beyond that, there is no existing general principle, akin to the " 'American Rule' that litigants bear the expense of their litigation," that reimbursement of document production costs may not be required where an administrative subpoena is involved. It is quite true that, as DWR points out, FRCP 45(b) does not apply directly to administrative subpoenas. *United States v. Friedman*, 532 F.2d 928, 936 (3rd Cir. 1976). Nonetheless, in an action brought to obtain enforcement of such a subpoena, the district court has the authority to condition the grant of that relief upon reimbursement of production costs. *Id.* at 937; *Securities & Exchange Commission v. Arthur Young & Company*, 584 F.2d 1018, 1033 (D.C. Cir. 1978), *certiorari denied*, - U.S. -, 59 L.Ed. 2d 37 (1979).

The position of DWR and the staff thus lacks foundation in the case law. And there is nothing else to commend it. In light of the fact that judicial enforcement of an administrative subpoena may be conditioned upon production cost reimbursement, it would make little sense to conclude that the agency itself is powerless to impose a like condition in connection with its action on a motion to quash or modify the subpoena. To the contrary, it would seem highly appropriate for the agency to make at least the initial determination respecting whether it is just and reasonable to require reimbursement of production costs. For, after all, it likely will be especially familiar with each of the circumstances in the particular case which need be taken into account in making an informed judgment on that score.

There is yet another consideration. If, no matter how meritorious may be its claim of entitlement to reimbursement, the subpoenaed person cannot press that claim before the agency but instead can be heard only by opposing the agency's attempt to enforce the subpoena in court, the virtually certain consequence will be that many administrative subpoenas will be resisted, not on their merits, but to take advantage of the remedy available in court. The result will be more enforcement actions, adding to the existing judicial burden as well as inevitably postponing the day when the information sought by the subpoena is acquired. Thus, both court and agency will

suffer. There is every reason to avoid construing a Commission regulation in a manner which virtually (and unnecessarily) invites delay.

We need add only that the Federal Trade Commission—which likewise has antitrust responsibilities—sees the matter no differently. Although the subpoena provisions of Section 9 of the FTC Act²⁴ similarly do not expressly authorize the imposition of a condition requiring reimbursement of production costs, that Commission held almost nine years ago that

not as a general rule but in a particular instance where justice and fairness so demands, the examiner's powers are sufficiently broad to require the payment by a respondent of appropriate and determinable expenses connected with compliance by a third person with a subpoena issued at the instance of respondent. Additionally, if fairness so demands, it is further within the examiner's authority to require that such payment be made in advance.

Ash Grove Cement Co., 77 FTC 1660, 27 Ad.L. 2d 1038, 1040 (1970) (footnote omitted). It is our understanding that *Ash Grove* is still followed by the FTC today.

B. Our reading of the January 24 prehearing conference transcript suggests that the Board's refusal to condition the denial of the motion to quash the subpoena on DWR's assumption of Edison's search costs may have rested upon the Board's belief that it lacked the authority to impose the condition. Be that as it may, we think that Edison has not established its entitlement, in the circumstances of this case, to reimbursement of those costs.

The governing test was discussed and applied in a very recent decision of the Second Circuit. *Federal Trade Commission v. Rockefeller*, 591 F.2d 182 (January 18, 1979).²⁵ In that case, the FTC sought enforcement of subpoenas *duces tecum* directed to seven bank holding companies and a principal officer of each. The subpoenas were issued in the course of a congressionally-authorized study of the energy industry and sought information regarding the connections between energy companies and the financial institutions and their affiliates. The district court ordered enforcement and the banks appealed. After rejecting a number of their arguments, including the claim that compliance with the subpoenas would be unduly burdensome, the court of appeals turned to the appellants' assertion that, "if they must comply with the subpoenas, they are entitled to reimbursement of their costs of compliance from the government." 591 F.2d at 191. The court's response was:

²⁴15 U.S.C. 49.

²⁵The standard employed by the courts in enforcement actions involving administrative subpoenas may be properly invoked in the application of the "just and reasonable" standard contained in Section 2.720(f) of our Rules of Practice.

While the district court has the power to require the government ultimately to pay the costs of compliance, *United States v. Friedman*, 532 F.2d 928, 936-38 (3d Cir. 1976); *United States v. Davey*, 426 F.2d 842, 845 (2d Cir. 1970), it is a matter of discretion, cf. Fed.R. Civ.P. 45(b), 81(a) (3); *United States v. Friedman*, *supra*, 532 F.2d at 937. Generally, such costs will not be awarded unless they are found to be "not . . . reasonably incident to the conduct of [a respondent's] business." *United States v. Davey*, 543 F.2d 996, 1001 (2d Cir. 1976); *United States v. Friedman*, *supra*, 532 F.2d at 938. Cf. *United States v. Farmers & Merchants Bank*, 397 F.Supp. 418, 420-21 (C.D. Cal. 1975). Here, it is obvious that the subpoenas are directly related to the conduct of appellants' businesses. They are not mere repositories of information performing a service for the government in complying with the subpoenas. . . . Thus, Judge Lasker committed no abuse of discretion in refusing to order reimbursement of the costs of compliance.

Ibid.

Precisely the same may be said with regard to the subpoena before us: it too is "directly related to the conduct of the business" of the company [Edison] to whom it is addressed. There might nonetheless be cause to impose a reimbursement condition if it appeared "that the cost involved in complying with the [subpoena] exceeds that which [Edison] may reasonably be expected to bear as a cost of doing business." *United States v. Friedman*, *supra*, 532 F.2d at 938. *Accord: Securities & Exchange Commission v. Arthur Young and Company* *supra*, 584 F.2d at 1033. But it does not so appear. Although the record is devoid of detail respecting the gross annual revenues of Edison, its counsel acknowledged that those revenues are "large" (App. Tr. 39). It well may be (as counsel further maintained) that "[t]he annual revenues of DWR are extremely large also" (*id.* at 40). *Rockefeller* teaches, however, that that factor is insufficient justification for shifting the burden of compliance from Edison to DWR. (The United States obviously was just as able to assume the cost of compliance with the FTC subpoenas as were the bank holding companies.) In a nutshell, it is enough for present purposes that we are not dealing with an enterprise so small that it would be either unjust or unreasonable to require it to bear the expense of ferreting out the information related to its business activities sought by the subpoena at bar.²⁶

²⁶We are not unmindful that, as Edison stresses, one district court ordered the United States to reimburse a bank for the approximately \$2,500 which it had expended in complying with an Internal Revenue Service summons calling for the production of the records of transactions by several of its customers over a five year period. *United States v. Farmers & Merchants Bank*, 397 F. Supp. 418 (C.D. Cal. 1975). The essential basis of the order was the court's belief that the cost of such compliance "is not predictably part of the banking business" and

Continued on next page.

IV.

At oral argument, we asked DWR counsel to explore the possibility that certain of the documents sought by the subpoena might be readily obtainable from one of the other parties to the proceeding (App. Tr. 128-29). By letter of June 7, 1979, counsel advised us that the Pacific Gas and Electric Company had agreed to make available to DWR for photocopying those documents which Edison had supplied to PG&E in the course of proceedings before the Federal Energy Regulatory Commission.²⁷ In light of this development, DWR "is prepared to obtain the documents in question from PG&E and to have them excluded from Edison's response to the subpoena."

It appears from a statement of Edison's counsel at the oral argument that these documents encompass in excess of 100,000 pages (App. Tr. 125-27). Consequently, the arrangement between DWR and PG&E should materially lessen Edison's burden in complying with the subpoena.

The January 25, 1979 order of the Licensing Board is *modified* to reflect the content of the June 7, 1979 letter of DWR counsel discussed in Part IV, *supra*; as thus modified, the order is *affirmed*.

It is so ORDERED.

FOR THE APPEAL BOARD

Romayne M. Skrutski
Secretary to the Appeal Board

Continued from previous page.

that it would be "unreasonable to expect a party such as [the bank] to bear anything other than nominal costs in complying with a government summons." *Id.* at 420, 421. That belief has been rejected by other courts which have been called upon to enforce similar IRS summonses. *E.g., United States v. Covington Trust and Banking Company*, 431 F.Supp. 352, 356 (E.D. Ky. 1977) and cases there cited. However that divergence of opinion might be ultimately resolved, we are persuaded that the cost of compliance with the subpoena now in question is "predictably part of [Edison's] business." Indeed, we are unaware of any judicial holding suggesting otherwise in an analogous context.

²⁷Attached to the DWR letter was a May 30, 1979 letter from PG&E counsel which memorializes that agreement.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar

In the Matter of

**VIRGINIA ELECTRIC AND
POWER COMPANY**

**Docket Nos. 50-338 OL
50-339 OL**

**(North Anna Nuclear Power
Station, Units 1 and 2)**

June 26, 1979

The Appeal Board defers action on the April 2, 1979, "Board Notification" by the NRC staff calling attention to the existence of a safety question. The question will be carried with the case and considered, if then necessary, in conjunction with the Board's decision on a safety issue now pending before it.

APPEAL BOARD: JURISDICTION

The jurisdiction of an appeal board to consider new matters arising during the course of its review of a licensing board decision does not hinge upon the nature of the proceeding. Rather, irrespective of whether a construction permit or an operating license is involved, the pivotal factor is the posture of the case and the degree of finality which has attached to the agency action which is in question.

APPEAL BOARD: JURISDICTION

Where finality has attached to some, but not all of the issues before it in an operating license proceeding, the jurisdiction of the Appeal Board to entertain an entirely new matter depends upon the existence of a reasonable nexus between that matter and the issues remaining before the Board.

APPEAL BOARD: JURISDICTION

Once an appeal board has wholly terminated its review of an initial decision—whether it be a construction permit or an operating license proceeding—its jurisdiction over the proceeding comes to an end. That jurisdiction may be resurrected by a remand order of either the Commission or a court, issued during the course of its own review of the appeal board's decision. What might be considered by the Board on the remand would, however, be shaped by that order.

RULES OF PRACTICE: SHOW-CAUSE PROCEEDING

The absence or loss of appeal board jurisdiction over a particular issue because of finality considerations does not mean that, even if clothed with serious safety or environmental implications for the facility in question, the issue must be ignored. It can be reviewed by NRC staff on an informal basis; beyond that, the Director of Nuclear Reactor Regulation is empowered to institute a show-cause proceeding looking to the modification, suspension, or revocation of a particular permit or license.

Messrs. Michael W. Maupin, James N. Christman and James M. Rinaca, Richmond, Virginia, for the applicant, Virginia Electric and Power Company.

Mr. Stuart A. Treby for the Nuclear Regulatory Commission staff.

MEMORANDUM AND ORDER

This is an operating license proceeding involving the first two units of the North Anna nuclear facility. The Licensing Board resolved all matters in controversy in the applicant's favor. LBP-77-68, 6 NRC 1127 (1977); LBP-78-10, 7 NRC 295 (1978). No appeal was taken to us from either of those decisions. Accordingly, as is customary in such circumstances, we reviewed them on our own initiative.

The results of that review were announced last August in ALAB-491, 8 NRC 245. We there concluded that further action on our part was required only with respect to three issues. Two of them concerned the North Anna facility itself; more specifically, (1) the safety implications of the settlement of the land underneath the facility's service water pumphouse and (2) the possibility that damage to safety-related structures would be occasioned by turbine missiles. (As to those issues, we subsequently ordered an evidentiary

hearing,¹ which was conducted last week.) The third was the generic radon-release issue which is also being considered in a number of other proceedings.²

On April 2, 1979, the NRC staff transmitted a "Board Notification" to the presiding licensing or appeal boards in a number of then pending proceedings—including this one. That notification, together with the documents which accompanied it, called attention to the existence of a safety question concerning the "current practice of relying on nonsafety grade equipment to mitigate the severity of anticipated operational occurrences" (hereinafter the "nonsafety grade equipment" issue).

The notification prompted our issuance in this proceeding of ALAB-538, 9 NRC 419 (April 12, 1979), in which we asked the parties to brief us on two questions: (1) our jurisdiction to consider the nonsafety grade equipment issue; and (2) the precise significance of that issue in the context of the North Anna facility. In compliance with that request, the staff submitted a brief to which the applicant (but not the other parties) has responded.

A. As observed in ALAB-538,³ the staff has long been under an obligation to keep licensing and appeal boards apprised of significant new developments in pending cases. *Duke Power Company* (William B. McGuire Nuclear Station, Units 1 and 2), ALAB-143, 6 AEC 623, 625 (1973). Last summer, the staff adopted detailed procedures for fulfilling this obligation; this followed on the heels of a Commission policy pronouncement on the subject.

The April 2 notification herein involved presumably was thought required by those procedures. Nonetheless, we entertained doubt respecting whether the notification could serve any useful purpose insofar as this proceeding was concerned. The basis for this doubt was explained in ALAB-538:

In short, we have only three issues now before us; all other issues have been resolved. Of course, all parties must keep us informed of new developments pertaining to those issues. But the obvious question is whether in these circumstances we still have jurisdiction to consider unrelated issues—such as the one covered by the staff document now before us. If not, then such issues are exclusively within the staff's bailiwick, and no purpose is served by bringing them to our attention. We have previously decided a closely related question in the context of construction permit cases. See, *e.g.*, *Public Service Company of New Hampshire* (Seabrook Units 1 and 2), ALAB-513, 8 NRC 694 (Decem-

¹See ALAB-529, 9 NRC 153 (1979).

²See ALAB-491, *supra*, 8 NRC at 250, fn. 12.

³9 NRC at 419, ALAB-538, fn. 1.

ber 21, 1978); *Public Service Company of Indiana* (Marble Hill Units 1 and 2), ALAB-530, 9 NRC 261 (March 19, 1979). Whether the same principles govern at this stage in operating license cases has not been passed upon.

9 NRC at 420 (footnotes omitted).⁴

Reduced to its essentials, the staff's response is that the jurisdiction of an appeal board to consider new matters arising during the course of its review of a licensing board decision does not hinge upon the nature of the proceeding. Rather, irrespective of whether a construction permit or an operating license is involved, the pivotal factor is "the posture of the case and the degree of finality which has attached to the agency action which is in question." Where, as here, finality has attached to some but not all issues, appeal board jurisdiction to entertain new matters is dependent upon the existence of a "reasonable nexus" between those matters and the issues remaining before the board. Thus, "[f]or this Appeal Board to have jurisdiction with regard to the new matters raised in the April 2, Board Notification, a nexus between such matters and at least one of the [pump-house settlement, turbine missile, and radon] issues must be shown." Staff Br. pp. 3, 6, 13.

The applicant is in agreement with that analysis. So, too, are we.

It is beyond dispute that, in the course of its review of an initial decision in a construction permit proceeding, an appeal board is free to raise *sua sponte* issues which were neither presented to nor considered by the licensing board. See, e.g., *Florida Power and Light Company* (St. Lucie Nuclear Power Plant, Unit No. 2), ALAB-435, 6 NRC 541, 544-46 (1977). It is equally plain that like power exists in an operating license proceeding. As a general rule, the inquiry in such proceedings is confined to "the matters put into controversy by the parties to the proceeding." But the Commission has expressly decreed that that limitation shall not apply "in extraordinary circumstances" where the board determines that there exists "a serious safety, environmental, or common defense and security matter" beyond the ambit of the issues in controversy.⁵ 10 CFR 2.760a and 2.785(b) (2), codifying *Consolidated Edison Company of New York* (Indian Point Nuclear Generating Station, Unit 3), CLI-74-28, 8 AEC 7 (1974). Section 2.785(b)

⁴We did, of course, acknowledge that any person might petition the appropriate staff official to take action pursuant to 10 CFR 2.206, as well as the right of the Commission to review the staff decision on such a petition. 9 NRC at 420, fn. 6. See discussion, pp. 709-710, *infra*.

⁵Needless to say, the board notification procedures are designed, *inter alia*, to alert boards to the existence of such matters. See, generally, *Duquesne Light Company* (Beaver Valley Power Station, Unit 1), ALAB-408, 5 NRC 1383, 1386 (1977).

(2) was, of course, the foundation of our decision in the proceeding at bar to raise the turbine missile issue on our own initiative. ALAB-491, *supra*, 8 NRC at 247-50.

The authority vested in the adjudicatory boards to raise or to consider new issues must be understood, however, to be qualified by settled principles relating to the finality of adjudicatory action; principles which govern our proceedings to no less an extent than those of the courts or other administrative agencies. Thus, once an appeal board has wholly terminated its review of an initial decision—whether it be a construction permit or an operating license proceeding—its jurisdiction over the proceeding comes to an end. To be sure, that jurisdiction may be resurrected by a remand order of either the Commission or a court, issued during the course of its own review of our decision. What might be considered by us on the remand would, however, be shaped by that order; *i.e.*, if (as would customarily be the case) the remand related to only one or more specific issues, the finality doctrine would foreclose a broadening of its scope to embrace discrete matters.

As has been seen, in its current posture the proceeding at bar falls in between the two extremes of (1) no appeal board decision having yet been rendered on *any* issue and (2) an appeal board decision having been rendered on *all* issues. By virtue of ALAB-491 (and the lack of any further review of it by Commission or court), the finality curtain has dropped on most of the issues which were raised in the proceeding. On the other hand, three issues remain before us.

Last December, we confronted a parallel situation arising in the setting of a construction permit proceeding. *Public Service Company of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-513, 8 NRC 694. There, an intervenor moved to reopen, on the basis of new developments, the issue of the applicants' financial qualifications to construct and operate the Seabrook facility. Observing that that issue had been determined by us in 1977 and that our decision on it had been affirmed in turn by both the Commission and the court of appeals, we held that we lacked jurisdiction to reopen it. We added that this conclusion was

not altered by the fact that we still have before us an entirely discrete issue raised in the proceeding; *viz.*, whether there is an alternative site in New England which would be "obviously superior" to the Seabrook site were use of a closed-cycle cooling system to be required at the latter site. Neither our decision last April calling for a further exploration of that issue nor the Commission's directive in June that we (rather than the Licensing Board) conduct the exploration purported to preserve our jurisdiction over other, unrelated questions.

8 NRC at 695-96 (Footnote omitted) See also, to the same effect, *Public Service Company of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-530, 9 NRC 261 (March 19, 1979).

No good reason appears why any different result might obtain where, as here, an operating license proceeding is involved and the question is one of jurisdiction to entertain an entirely new issue (rather than to reopen a previously resolved one). For the purposes of the application of the finality doctrine, the precise nature of the Commission license sought should be of little moment. And, irrespective of whether a reopening of a determined issue, or instead the raising of an issue not earlier considered, is involved, the concept underlying the finality doctrine—that litigation must come to an end at some point—comes into play. In both instances, the decisive factor is whether, except for those limited issues as to which jurisdiction has been expressly retained, the case has been decided.

We hasten to add that, as stressed in both *Seabrook* and *Marble Hill*, the absence or loss of appeal board jurisdiction over a particular issue because of finality considerations does not mean that, even if clothed with serious safety or environmental implications for the facility in question, the issue must be ignored. To the contrary, it just falls within the staff's bailiwick, not ours. It can be there reviewed on an informal basis; beyond that, either on his own initiative or upon the request of any individual (whether or not a party to the licensing proceeding), the Director of Nuclear Reactor Regulation is empowered to institute a show-cause proceeding looking to the modification, suspension, or revocation of a particular permit or license. 10 CFR 2.202, 2.206.⁶ In the show-cause proceeding, the new matter would be subject to full ventilation and the grant of such relief as might be warranted by the disclosures of record.⁷

B. Although in agreement that our authority to consider the nonsafety grade equipment issue here turns upon the existence of a "reasonable nexus" between that issue and one of the issues over which we have retained jurisdiction, the staff and the applicant are of two minds on whether there is such a nexus. The staff sees a "potential relationship" between the nonsafety grade equipment issue and the turbine missile issue; in any event, we are

⁶The denial by the Director of a request for a show-cause order is reviewable by the Commission *sua sponte*. 10 CFR 2.206(c) (1).

⁷To this point, we have confined our discussion to construction permit and operating license proceedings. In other types of proceedings (e.g., those involving applications for license amendments), the licensing and appeal boards are limited *ab initio* to the issues identified in the notice of hearing which triggered the proceeding. Thus, considerations of finality to one side, neither board would be empowered to consider any issue beyond those so identified. *Portland General Electric Company* (Trojan Nuclear Plant), ALAB-534, 9 NRC 287, 289, fn. 6 (March 27, 1979). With respect to the issues embraced by the notice of hearing, the above-explained principles would be fully applicable.

told, it is unable to state that "beyond all doubt . . . no relationship whatsoever exists" (Staff Br. pp. 13-14). For its part, the applicant maintains that a reasonable nexus does not exist.

We do not endeavor to resolve this disagreement now. Rather, we intend to carry the question with the case and to consider it, if then seemingly necessary, in conjunction with our decision on the turbine missile issue. For the present, it should suffice to set forth a few guidelines which should be observed in the instance of future "board notifications."

As we noted in ALAB-538, 9 NRC at 420, the notification with respect to the nonsafety grade equipment issue, and the documents which accompanied it, were too cryptic to permit an intelligent evaluation of the significance of the issue in the context of this proceeding.⁸ As scarcely should require extended discussion, a notification which suffers from that infirmity is virtually useless. Although there may be no warrant for treating the subject at encyclopedic length, if the notification is to serve its intended purpose a board must be supplied with an exposition adequate to allow a ready appreciation of (1) the precise nature of the addressed issue and (2) the extent to which the issue might have a bearing upon the particular facility before the board. In this connection, the bald assertion that the issue has "no immediate safety significance" (see ALAB-538, 9 NRC at 420) is insufficient. Without the reasoning underlying the assertion, it is obviously impossible for a board to pass an informed judgment on its validity. Of course, where (as here) the board has limited remaining jurisdiction, the notification must additionally spell out (unless readily apparent) the possible relationship between the subject matter of the notification and one or more of the open issues.

Action on the April 2, 1979 "Board Notification" is *deferred*.
It is so ORDERED.

FOR THE APPEAL BOARD

C. Jean Bishop
Secretary to the Appeal Board

⁸The staff's brief in response to ALAB-538 provided (at pp. 15-18) considerably more information in that regard.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Valentine B. Deale, Chairman
Dr. Frank F. Hooper
Gustave A. Linenberger

In the Matter of

Docket Nos. 50-522
50-523

PUGET SOUND POWER AND
LIGHT COMPANY, et al.

(Skagit Nuclear Power Project,
Unit 1 and 2)

June 1, 1979

The Licensing Board denies the non-timely petition to intervene in this proceeding filed by the Upper Skagit Indian Tribe, the Sauk-Suiattle Indian Tribe and the Swinomish Tribal Community after balancing the factors to be considered under 10 CFR 2.714 of the Commission's regulations.

ORDER
NOT TO ENTERTAIN NONTIMELY PETITION TO INTERVENE

BACKGROUND

The Upper Skagit Indian Tribe, the Sauk-Suiattle Indian Tribe and the Swinomish Tribal Community, on June 13, 1978, filed jointly a petition to intervene in this proceeding.

The Commission's notice of hearing in this proceeding was published in the Federal Register on December 20, 1974 (39 Fed. Reg. 46065). This notice fixed January 20, 1975 as the deadline date for filing petitions to intervene. Petitioners' actual filing of their petition to intervene some three years and five months less one week after the deadline date set by the Commission brings into play the Commission's regulation for determining whether a nontimely filing should be entertained.

Previously, the Licensing Board allowed the intervention of the petitioners by its decision and order dated November 24, 1978. Thereafter, however, the Appeal Board, first by its Memorandum and Order dated January 12, 1979 and then by its Decision dated January 29, 1979 (ALAB-523), vacated the Licensing Board's grant of intervention to the In-

dians and remanded the issue of intervention to the Licensing Board for further consideration. The Appeal Board concluded that the Licensing Board had focused too much on the special relationship existing between the Indians and the United States Government at the expense of giving proper weight to the Commission's regulatory factors in dealing with nontimely petitions to intervene.

At a conference among the parties in Seattle on April 24, 1979, at which the petitioning Indians were represented by counsel, the Licensing Board announced its decision to deny the Indians' petition to intervene. The Chairman of the Licensing Board promised that a written order in behalf of the Board would be prepared explaining the Board's decision and he indicated that the time for appealing the Licensing Board's denial of the Indians' nontimely petition to intervene would run from the issuance of the written order. This is such order.

APPLICABLE REGULATORY PROVISION

At the outset, the pertinent parts of the Commission's regulation on intervention namely, 10 CFR 2.714,¹ are set forth. The first reference is at subparagraph (a) (1) thereof and it effectively defines what is a nontimely petition for leave to intervene:

. . . The petition . . . shall be filed not later than the time specified in the notice of hearing. . .

A petition filed later is a nontimely filing.

The second reference at subparagraph (a) (1) is most important, as it relates to the handling of nontimely filings:

Nontimely filings [of petitions for leave to intervene] will not be entertained absent a determination by the Commission, the presiding officer or the Atomic Safety and Licensing Board designated to rule on the petition . . . that the petition . . . should be granted based upon a balancing of the following factors in addition to those set out in paragraph (d) of this section:

(i) Good cause, if any, for failure to file on time.

¹With due deference to applicants' position in their brief (July 17, 1978) that the rules for late petitions for leave to intervene in effect at the time of the original notice of hearing, on December 20, 1974, are controlling, the Licensing Board believes it is more appropriate to enforce such rules in this proceeding which were in effect at the time the pertinent petition to intervene was filed. In any event, the Licensing Board would not be disposed to cut down petitioners on the basis that their motion to intervene did not meet the formal requirements of the former regulation.

(ii) The availability of other means whereby the petitioner's interest will be protected.

(iii) The extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record.

(iv) The extent to which the petitioner's interest will be represented by existing parties.

(v) The extent to which the petitioner's participation will broaden the issues or delay the proceeding."

The third reference, relating to the handling of nontimely petitions for leave to intervene, identifies the factors set out in paragraph (d) of 10 CFR 2.714. These factors are as follows:

(1) The nature of the petitioner's right under the Act to be made a party to the proceeding.

(2) The nature and extent of the petitioner's property, financial or other interest in the proceeding.

(3) The possible effect of any order which may be entered in the proceeding on the petitioner's interest.

The above eight factors at 10 CFR 2.714 have an obvious bearing upon the question at hand, that is, whether the subject petition to intervene should be granted. Each of the referenced factors set forth in the Commission's regulation for balancing will be dealt with in association with the subject nontimely petition to intervene. The Licensing Board does not dwell here on the "interest" and "contention" requirements for a petition for leave to intervene, as it is conceded that the petitioners have met those requirements and would have been allowed to intervene if their petition to intervene had been properly drafted and submitted on time.

BALANCING OF FACTORS

Factor One: Good Cause, If Any, for Failure To File On Time

The principal points made by the Indians in their extended briefing are considered to be as follows:

a. Nonrecognition of fishing rights and status. According to the peti-

tioners, none had Federally adjudicated treaty fishing rights before *United States v. Washington*, 384 F.Supp. 312 (W.D. Wash., 1974), 520 F.2d 676 (9th Cir. 1975), cert. denied 423 U.S. 1086 (1976), and two of the petitioners, namely, Upper Skagit and Sauk-Suiattle Tribes were not Federally recognized until after that case. Briefly, in the Board's view, the *United States v. Washington*, *supra*, did not confer upon the petitioners any rights which were prerequisite to their right of intervention in this proceeding. The Indians' victory in the latter case might have energized the Indians to try another legal battleground, but such encouragement does not constitute good cause for failing to file on time a motion for leave to intervene in this proceeding. Admittedly, the Indians had difficult problems during the period for a timely motion to intervene; it was for them to decide what problems to ignore and what problems to address. It is noteworthy that a timely motion intervene would not have been a drain on their limited resources. Similarly, Federal recognition of the petitioning tribes was no prerequisite for their motion to intervene.

b. Preoccupation with other matters. Basically, preoccupation with other matters does not afford the petitioners a basis for excusing their non-timely motion to intervene. When it evidently was clear from the beginning that the proposed nuclear power plant along the Skagit River at least touched upon or involved the interests of the petitioners, it appears that the petitioners accepted the risk of not seeking to intervene when they should not have taken such risk. When at one time they felt their interests were not being impaired, the petitioners did not seek to intervene, and then as time passed and they became persuaded that their interests were being jeopardized, they changed their mind about intervention and moved to intervene—within a week of three years and five months late. Poor judgment or imprudence in the first place is not good cause for late filing.

c. Unawareness of impact. Citing difficulties in obtaining information and late revelations of possible adverse effects, the petitioners seek to justify their late petition to intervene. The petitioners' argument, in part, is contradicted by extensive publicity in the Skagit area given to the proposed nuclear power plant and the public availability of the plans of the applicant. In fact, the record shows that the Swinomish Tribal Community had been aware of this proceeding from its outset. On February 19, 1975—the final date specified for limited appearance request in the initial notice of hearing published in the Federal Register on December 20, 1974—these Indians mailgrammed the following advice to the Commission:

Since the proposed nuclear power plant could have an important effect on time [sic] economic resources of the Swinomish Tribal Communities, namely, fishing, the Tribal Community does wish to testify at the hearing in its own behalf.

Further, the ordinary development of facts and positions in this complex case—such as new geological information and the Rammeý Collector proposal—does not afford a basis, in this Board's opinion, for extending the time to petition for leave to intervene. The magnitude of the project was evident from the beginning, and it is not an unreasonable expectation that specific details unforeseen at first would later surface.

d. Reliance on the Government. Though denying that they have a right to late intervention simply because of a special relationship which exists between the Federal Government and themselves, petitioners make much of an underlying proposition that they do have a right to rely on the Government to look after their interests and that the Government has an obligation to do so and that when the Government does not do so to their satisfaction—and it has not done so in the nuclear power plant project on the Skagit River—they, the petitioners, are entitled to intervene under the Commission's regulation so that presumably they can look after their own interests to their own satisfaction.

Fundamentally, there is no right extending the time limit for moving to intervene either to Indians generally or to Indians who are parties to a treaty with the United States Government—in this case, the Treaty of Point Elliott, 12 Stat. 927. Section 189 of the Atomic Energy Act of 1954, as amended, which provides for hearings and notices thereof, and 10 CFR 2.714, which provides for time limitations in such notices of hearings, apply to "any person." It is fair to conclude that such time limitations apply to Indians as well as non-Indians. See *FPC v. Tuscarora Indian Nation*, 362 U.S. 99 at 116 (1960).

On the assumption that a special fiduciary relationship exists between the Indians and the Federal Government as a result of the Treaty of Point Elliott, there exists an obligation of the Government to protect the treaty interests of the petitioners. Such interests relate to the petitioners' fishing interests under the Treaty. Such interests do not extend to late intervention in this proceeding. The Treaty does not entitle petitioners to intervene late, particularly after they passed by the chance to intervene in a timely manner when there was good reason for them so to intervene. The Indians' disappointment with the Federal Government now is no basis for waiving their delinquency in filing their motion to intervene.

Weighing of Factor One. The Licensing Board is convinced that the weight of the evidence does not justify the petitioners' failure to file their motion to intervene until just a week short of three years and five months after the due date for filing petitions for leave to intervene.

Factor Two: The Availability of Other Means Whereby Petitioners' Interests Will Be Protected

The rights which the petitioners have against the United States by virtue of the Treaty of Point Elliott, *supra*, cannot be taken away from them by action of the Nuclear Regulatory Commission. The pertinent part of that Treaty affecting the fishing rights of the petitioning Indians is as follows:

The right of taking fish at usual and accustomed grounds and stations is further secured to said Indians in common with all citizens of the territory. . .

The above Treaty right can be enforced by petitioners in a court of law should such right not be honored.

Further, the petitioning Indians might have spelled out their interest for protection before other cognizant forums than the Licensing Board, but they chose not to do so. In the Skagit County zoning proceeding, which ran from March 1973 to March 1974, only one of the Petitioners, namely, the Swinomish Tribal Community, did appear, and it supported the nuclear project. The proceeding resulted in an agreement between Skagit County and the applicants in which the County imposed conditions upon the applicants' use of the proposed site, including conditions to protect the Skagit River fishery.

Next came the well publicized state site certification proceeding and the companion proceeding of the National Pollutant Discharge Elimination System (NPDES). On March 28, 1974, applicants filed their application for site certification with the Washington State Thermal Power Plant Site Evaluation Council (since renamed Energy Facilities Site Evaluation Council, which is representing the State of Washington in this proceeding pursuant to 10 CFR 2.715(c)). The site certification agreement was reached between the state and the applicants on January 5, 1977. The NPDES permit proceeding resulted in an adoption by the Council on January 26, 1976 of an NPDES permit and a Section 401 permit for the Skagit project. Both proceedings were sharply contested and the NPDES proceeding dealt in much detail with the potential effect of plant discharges in the Skagit River. Though their interests were involved—that is, the Skagit River itself and the fish therein—the petitioners did not appear in the proceeding.

The significance here is that the petitioners who persistently proclaim in their briefs their substantial interest in Skagit River fishing chose not to assert such interest in important proceedings at the local level when they had a chance to do so. Their explanation of bypassing these proceedings is not persuasive.

Inasmuch as the petitioners did not identify their members or their members' location in their extensive briefs in support of their nontimely motion to intervene, the Licensing Board takes official notice of the following information which is available at the Bureau of Indian Affairs (BIA),

Department of Interior, Washington, D.C. According to a BIA local estimate in 1977 the known members of the Upper Skagit Indian Tribe, the Sauk-Suiattle Indian Tribe, and the Swinomish Tribal Community live on and adjacent to reservation and trust lands in Skagit County, Washington, and the numbers of members of these tribes living there are as follows: Upper Skagit - 173; Sauk-Suiattle - 379; and Swinomish - 563; according to a July 1975 reservation population estimate, 434 Swinomish lived then on reservation land.

Weighing of Factor Two: The Indians suggest the possibility that the Commission's radiation standards might not be applicable to themselves. The Indians assert a treaty right in fishing in the Skagit River. The Indians also assert an interest in the socio-economic impact of building and operating the proposed nuclear power plant on the Skagit River.

The Indians' interest in radiation standards, which involve rulemaking by the Commission, may be brought to the Commission's attention without regard to the Indians' formal participation in this proceeding. The Indians' fishing right under the Treaty of Point Elliott is a legally enforceable right in a court of law independent of the Indians' participation in this proceeding. The Indians' interest in the socio-economic impact of building and operating the proposed nuclear power plant on the Skagit River is now most suitably represented in the proceeding before the Licensing Board.²

In the Licensing Board's opinion, the Indians' past way of dealing with their interest in the nuclear project of bypassing opportunities to assert their interest weighs against granting the Indians a special chance to assert the same or similar interest at this late date in the Licensing Board proceeding.

Factor Three: The Extent to Which the Petitioners' Participation May Reasonably Be Expected To Assist in Developing a Sound Record

In their briefs supporting their nontimely petition to intervene, petitioners have maintained in effect that they could make a useful contribution to the record. Petitioners' contribution would come in what is viewed in summary as three primary areas of their interest, namely, the impact upon the Skagit River fisheries of building and operating the proposed nuclear power plant, the socio-economic effects upon the Indians of building and operating such plant, and the long term genetic effect upon the Indians of low level radiation, that is, whether the Indians are able to withstand the radiation levels which, according to Commission standards, the general population is capable of withstanding.

²The subject of socio-economic impact upon the general populace in the vicinity of the proposed plant site is included in the Licensing Board's overall NEPA cost benefit analysis.

In the Licensing Board's estimate of the situation, the generality of the petitioners' assurance that they would provide useful evidence is much more pronounced than any specific evidence which the petitioners indicated that they intend to offer. For example, the petitioners spoke of themselves as being "in an advantageous position to evaluate long term genetic effects of 'normal' radiation releases on an isolated population residing and partially subsisting on natural resources in the immediate area of a nuclear plant, when that population has a higher-than average degree of intermarriage." Petition to Intervene, p. 16. Yet one is left in the dark by the follow-up closing sentence as to what to expect from the evidence to be adduced on the applicability or inapplicability of the Commission's radiation standards: "The Upper Skagit Tribe is presently engaged in an active study of these effects in cooperation with faculty and staff from Huxley College at Western Washington University." *Id.*

The Licensing Board is not moved to permit intervention on the basis of this sort of unrevealing information when the reasonable outlook of permitting intervention would be simply to allow someone to speculate tentatively about possibilities or to provide limited factual observations leading nowhere about a subject on which the Commission has already set standards based on concluded studies.

Among petitioners' filings associated with this Factor Three is their filing Petitioner Tribes' Preliminary Designation of Witnesses. This filing was a part of Petitioner Tribes' Response to the Board's Request of September 26, 1978—a filing dated October 27, 1978. The petitioners' designation of witnesses filing was in response to a particular Licensing Board request, as the petitioners describe it, "to Designate the Witnesses Who Would Present Data in Their [petitioners'] Behalf if Intervention were to be Granted, as well as Outline the Contents of the Evidence Each of the Designated Proposed Witnesses Would Submit if Permitted by Intervention." Petitioner Tribes' Response to Board's Request of September 26, 1978, p. 3.

Here again the petitioners' generality outstripped their specificity. From the Licensing Board's standpoint, the petitioners did not adequately identify their witnesses' qualifications nor did the petitioners adequately describe the contents of the proposed testimony of their witnesses. The mere names of witnesses, their tribal membership, and titles, if any, and the general topics of their testimony, without however, meaningful disclosure of their credentials and with no significant revelation of the thrust of their testimony, afford no realistic basis for allowing the petitioners to be a late intervenor in hopes that the record might thereby be improved.

Welghing of Factor Three. In the judgment of the Licensing Board, the extent to which the record would be improved if the petitioners were allowed to intervene is problematical. Limited resources and lack of expertise

of the petitioners are understandably regarded as depressing factors in placing hopes high for developing a much better record if petitioners' motion to intervene were allowed. Petitioners' story, in short, has not convinced the Licensing Board.

Factor Four: The Extent to Which Petitioners' Interest Will Be Represented by Existing Parties

There is an obvious community of interest between the petitioners and the intervenor Skagitonians Concerned About Nuclear Plants (SCANP) in the Skagit River and its fisheries and the socio-economic impact of building and operating a nuclear power plant along the Skagit River. From the beginning of this proceeding, SCANP has an interest in these subjects of common interest. In particular, SCANP's initial contentions—appearing following page 67 of the transcript of April 15, 1975—reflect interests in which SCANP has pursued. The following are pertinent "J" contentions of SCANP, which all relate to the Draft Environmental Impact Statement (DEIS):

3. The DEIS completely ignores the economic significance of the fishery based in the Skagit River. There is no dollar value placed on the fishery, and no attempt is made to reflect the potential economic and social harm of any damage to the fishery which might be caused by normal or abnormal plant operations.

9. There is no discussion of the statistical probability of genetic, or somatic or other forms of injury to life forms which result from normal, and accidental, chemical and radiological releases, and of the nature of such injury.

10. The DEIS ignores the following social and economic costs associated with the generation of electricity to meet regional needs: economic and personal hardships associated with price increase for consumers and businesses; induced industrial growth with attendant costs in terms of resource commitments and public services; destruction and modification of natural resources.

SCANP has demonstrated its interests in these concerns which it shares with the petitioners both by introducing evidence and by extensive cross-examination of both applicants' and NRC Staff's witnesses.

The Licensing Board concludes that the fisheries in the Skagit River will be a subject well developed without the benefit of the petitioners as a party to the proceeding. The subject of socio-economic impact of the building

and operation of a nuclear power plant will also be well developed on a general population basis; the absence of petitioners in the proceeding will doubtlessly cause less attention to be paid to the impact of socio-economic effects upon the Indians in Skagit County. Yet, even here, the petitioners may be able to induce either SCANP or the NRC Staff to pursue points of particular interest to the Indians, whether in terms of socio-economic impact of the building and operation of the nuclear power plant or in terms of the well-being of the Skagit fisheries.

It is probably correct to assume that the petitioners' interest in ascertaining the applicability of the Commission's radiation standards to the Indians would not rise as a major point of concern in the proceeding if the Indians did not become a party. Nor is it certain what would be the status of the issue if the Indians did become a party.

Weighing of Factor Four. The Licensing Board assumes that if the Indians represented their own interests more questions would probably be posed for the applicants or the NRC Staff to answer but on the basis of the material at hand with respect to the petitioners' motion to intervene, the Licensing Board is unable to say that the overall results would be significantly different.

Factor Five: The Extent to Which the Petitioners' Participation Will Broaden the Issues or Delay the Proceeding

There is no doubt in the Licensing Board's thinking that allowance of the petitioners' intervention would bring about an attempt to broaden the issues and a re-look at issues already being considered. Delay in the proceeding, in the Licensing Board's judgment, would be inevitable.

If their intervention were allowed, the petitioners would presumably raise the new issue of whether the Commission's radiation standards for the general population were applicable to the Indians in Skagit County. Though the issue is not a subject for the Licensing Board's resolution, it conceivably could take up time in the proceeding. The issues involving the Skagit River fisheries and the socio-economic impact of building and operating a nuclear power plant on the Skagit River would doubtlessly be the subject of attempted redefinition and relitigation so as to insure that the point of view of the Skagit County Indians had been properly considered.

During such relitigation, the applicants, the NRC Staff, and the two existing intervenors would be expected to seek their opportunity to submit additional testimony.

Weighing of Factor Five. By the very nature of this factor, a substantial extra burden would be placed on the proceeding, which has already been drawn out, if petitioners' motion to intervene were granted.

Paragraph (d) Factors

The three factors enumerated at paragraph (d) of 10 CFR 2.714 are applicable both with respect to timely petitions for leave to intervene and nontimely petitions for leave to intervene. The point is that before nontimely petitions are accepted, they must pass the same tests as timely petitions.

The Licensing Board, as noted earlier, concedes that if the petitioners had properly drafted their petition to intervene and submitted it on time, their petition would have been granted. The three factors noted in paragraph (d) of the Commission's regulation on intervention are considered here simply because they are referenced as considerations in deciding upon how to handle a nontimely petition to intervene:

Factor Six: The Nature of the Petitioners' Right Under the Act to be made a Party to the Proceeding - No. 1 in Paragraph (b)

The petitioners' interest in the Skagit fisheries, including their Treaty right, would have been enough to warrant the allowance of a timely motion for leave to intervene. Similarly, their living in the vicinity of the proposed nuclear plant gives them an added stake in what would be going on.

Factor Seven: The Nature and Extent of the Petitioners' Property, Financial, or Other Interest in the Proceeding - No. 2 in Paragraph (b)

Again, the focus of the petitioners' interest appears to be the Skagit River fisheries. The socio-economic interest in building and operating a nuclear power plant in the same county where they live is real, though more speculative than their interest in the Skagit River and its fisheries. The petitioners' interest in whether the Commission's radiation standards apply to them is speculative.

Factor Eight: The Possible Effect of Any Order Which may be Entered in the Proceeding on the Petitioners' Interest - No. 3 in Paragraph (b)

An order of the Licensing Board authorizing a construction permit, for example, would have some impact upon fishing in the Skagit River and

would bring along some socio-economic impact upon the area of Skagit County.

CONCLUSION

After balancing the foregoing regulatory factors for determining whether the petitioners' nontimely petition to intervene should be granted, the Licensing Board reached the conclusion not to entertain their petition.

FINAL COMMENT

This order may be appealed, in accordance with the provisions of 10 CFR 2.714a, to the Atomic Safety and Licensing Appeal Board within ten (10) days after service of the order. The appeal shall be asserted by the filing of a notice of appeal and accompanying supporting brief. Any other party may file a brief in support of or in opposition to the appeal within ten (10) days after service of the appeal.

The technical members of the Licensing Board agree with the foregoing order and they contributed to its preparation.

Done on this 1st day of June, 1979 at Washington, D.C.

**ATOMIC SAFETY AND
LICENSING BOARD**

Valentine B. Deale, Chairman

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Charles Bechhoefer, Chairman
Glenn O. Bright
Frank F. Hooper

In the Matter of

Docket No. 50-358 OL

**CINCINNATI GAS AND ELECTRIC
COMPANY, et al.**

(William H. Zimmer Nuclear
Station)

June 13, 1979

The Licensing Board grants in part and denies in part intervenors' motions requesting the Board to permit non-attorney representation.

RULES OF PRACTICE: REPRESENTATION

Section 2.713(a) of the Commission's regulations limits representation of organizations to either an attorney or a member; but that provision does not bar representation of an organization by a member throughout a proceeding, if at some earlier time during that proceeding, an attorney has made an appearance for the organization.

**MEMORANDUM AND ORDER CONCERNING INTERVENORS'
REQUESTS TO UTILIZE LAY REPRESENTATIVES**

By motion dated May 16, 1979, the Miami Valley Power Project (MVPP), an intervenor in this operating license proceeding, requested that certain of its non-attorney members be permitted to appear and represent it during the licensing proceedings. Seven members were designated. MVPP claimed that its attorneys were each working on a volunteer basis and that it would be impossible for them to be present throughout the hearings. It also asserted that the designated members were familiar with MVPP's contentions.

At the prehearing conference on May 21, 1979, we heard oral argument on this matter (Tr. 177-193). During the argument, Dr. Fankhauser made

a similar request (Tr. 181), to permit him to represent himself when his attorney is not available. Both the Applicants and NRC Staff opposed the motions. At that time, we granted the request of the Applicants to file a written response supplementing their oral presentation. They did so, adhering to the same position that they had advanced at the conference: that MVPP's and Dr. Fankhauser's proposals should be rejected since they are not authorized by the Commission's rules and also are objectionable as a matter of policy.¹ For reasons hereafter stated, we find the requests not foreclosed by NRC rules and, further, that they should be granted in part but denied in part.

The Commission's rules governing the representation of parties provide, in relevant part, that "[a] person may appear in an adjudication on his own behalf *or* by an attorney-at-law in good standing" 10 CFR2.713(a) (emphasis supplied). "Person" is defined as including, *inter alia*, a "corporation, partnership," or "group." 10 CFR2.4(o). Commission practice has traditionally permitted an organization (such as MVPP) to appear on its own behalf through one of its members, who need not be an attorney. MVPP relies on this rule (as so construed) as the basis for its motion. On the other hand, the Applicants and Staff construe the alternative "*or*" as mandating that, when an organization is represented by an attorney in a proceeding, it may not also be represented during that proceeding by one of its members.

In our view, both the Applicants and Staff on the one hand, and MVPP on the other, read too much into this provision. Insofar as organizations are concerned, it clearly limits representation to either an attorney or a member, and it can logically be read as precluding representation by an attorney and a member at the same time. But it does not appear to bar representation by a member throughout a proceeding if, at some earlier time during the proceeding, an attorney has made an appearance for the organization. We, at least, are loath to read it that way, given the necessary consequences. Particularly, where (as here) an attorney is appearing on a volunteer basis for an organization, he or she might be most reluctant to offer his or her services if it were known that, through such representation, a further condition on the organization's participation would be the continued participation of the attorney.

In our view, the rules permit the course of action proposed by MVPP and Dr. Fankhauser, but they do not require it. We have broad discretion in matters such as this (see 10 CFR2.718(e)). We are called upon to

¹MVPP subsequently filed a memorandum in support of its motion. Although such a filing is not expressly authorized by NRC rules, we have taken account of its contents in this opinion.

exercise it in such a fashion as to assure that the hearing process is conducted "as expeditiously as possible, consistent with the development of an adequate decisional record." 10 CFR Part 2, Appendix A, Part V. To that end, we find that the record will be best served if MVPP is normally not permitted to use non-attorney members in the presentation of its own case, or in the cross-examination of other parties' witnesses on issues raised by MVPP (except as permitted by 10 CFR 2.733). The same ruling will apply to Dr. Fankhauser with respect to his issues. But, although we encourage MVPP and Dr. Fankhauser to have an attorney present at all times, we will permit one of the designated non-attorney members of MVPP, and Dr. Fankhauser, to represent their respective interests in issues raised by other parties or by the Board itself.

In so ruling, we agree with the Applicants and Staff that a party is likely to be better represented, and the record is likely to be better developed, where the party is represented by an attorney. The purpose of the hearing is to assure the development of a record adequate for decision, and this purpose is furthered by having each party represented as expertly and as fully as possible. Where a party raises an issue, it has an obligation to make known to the Board all the important facets of the issue. Moreover, when a party presents a witness, its representative has a duty not only to assure that the relevant information possessed by the witness is entered into the record but also to protect that witness from any improper questions advanced by other parties. Resolving issues through adjudication demands no less. And legal training presumably provides at least a modicum of skill in this regard. For that reason, given the circumstance that MVPP and Dr. Fankhauser have been and are being represented by attorneys, we will not, as a general rule, permit MVPP or Dr. Fankhauser to be represented by one not an attorney during the consideration of any issue raised by that party.

We realize that this adjudicatory process often makes costly demands upon its participants. We also recognize that the Commission is studying methods for making participation by intervenors less costly. See *Nuclear Regulatory Commission* (Financial Assistance to Participants in Commission Proceedings), CLI-76-23, 4 NRC 494, 514-16 (1976). For that reason, we will permit the intervenors to be represented by non-attorneys (if they so elect) with respect to issues raised by other parties or the Board. Participation by an intervenor with respect to those issues is of primary benefit to the Board and the public interest, rather than the party itself. See *Northern States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-75-1, 1 NRC 1 (1975). We believe it would be unfair to condition an intervenor's participation with respect to those issues upon its utilization of an attorney. We welcome an intervenor's

assistance with regard to such issues, and requiring employment of an attorney in those circumstances might well deprive us of such assistance. We stress, however, our belief that participation through an attorney would be desirable. Any party which utilizes a non-attorney representative in accordance with this order will, of course, be bound by that representative's actions.

The result we are reaching is not inconsistent with any of the cases cited to us by the Applicants or Staff. *Metropolitan Edison Company* (Three Mile Island Nuclear Station, Unit No. 2), ALAB-474, 7 NRC 746, 748 (1978) involved the standards of conduct governing non-attorney representatives. In explaining why the standards appearing in 10 CFR 2.713(b) are applicable only to attorneys, the Appeal Board noted that "the likely reason is that the rules do not appear to contemplate the appearance in a representative capacity of other than lawyers." *Ibid*. That Board did not discuss the ramifications of *pro se* representation, which is explicitly covered by the rules. Thus, its comments must be construed as applying to representatives appearing in other than a *pro se* capacity. In any event, we so construe them. *Northern States Power Company* (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-288, 2 NRC 390, 393 (1975) and *Public Service Company of Indiana, Inc.* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-493, 8 NRC 253, 269 (1978) both involved the question whether a party can drop in and out of the consideration of a particular issue at will. That situation is not comparable to the one here, which can be viewed as analogous to a party's changing attorneys midstream, or using a particular attorney for a particular issue. In the latter circumstances, the practices in question are routinely followed in NRC proceedings.

The Applicants also compare MVPP's request to that of an attorney in *Duke Power Company* (William B. McGuire Nuclear Station, Units 1 and 2), who apparently was not permitted to withdraw from participation in the case. That withdrawal would have resulted in the continuation of the litigation of issues raised by an intervenor by a layman—a result which this order does not sanction.

Finally, the Applicants point to the obligation of all parties to assist in "making the system work" and to aid the agency in discharging its statutory functions. We have no reason to believe that the procedures we are here approving will in any way be inconsistent with that result.

For the foregoing reasons, and to the extent outlined in this Order, MVPP's and Dr. Fankhauser's motions for us to permit non-attorney representation are *granted in part and denied in part*.

IT IS SO ORDERED.

**THE ATOMIC SAFETY AND
LICENSING BOARD**

Charles Bechhoefer, Chairman

**Dated at Bethesda, Maryland,
this 13th day of June, 1979.**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Elizabeth S. Bowers, Chairman
Lester Kornblith
Richard F. Cole

In the Matter of

Docket Nos. 50-445
50-446

**TEXAS UTILITIES GENERATING
COMPANY, et al.**

**(Comanche Peak Steam Electric
Station, Units 1 and 2)**

June 27, 1979

The Licensing Board grants three petitions to intervene under 10 CFR 2.714. The Board also grants the petition of the State of Texas to intervene as an interested state under 10 CFR 2.715(c).

**ORDER RELATIVE TO STANDING
OF PETITIONERS TO INTERVENE**

On February 5, 1979, the Nuclear Regulatory Commission (NRC) issued a notice in the *Federal Register* of the "Availability of Applicants' Environmental Report, Consideration of Issuance of Facility Operating Licenses, and Opportunity for Hearing" for Comanche Peak. (44 *Fed. Reg.* 6995). The notice stated that a petition for leave to intervene must be filed by March 5, 1979. Timely petitions were received from the State of Texas for participation as an interested State, Citizens Association for Sound Energy (CASE), Citizens for Fair Utility Regulation (CFUR) and the Texas Association of Community Organizations for Reform now/West Texas Legal Services (ACORN/WTLS).

On May 22, 1979, the Licensing Board for the review of petitions held a prehearing conference in Glen Rose, Texas. All petitioners were present as well as the Applicants and NRC Staff. In a conference call several weeks prior to the prehearing conference, the Petitioners informed the Board, Applicants, and the Staff that they would be filing numerous contentions fifteen (15) days prior to the prehearing conference. The Board

determined that the Applicants and Staff could limit their response to the question of "interest" and whether the Petitioners have at least one contention meeting the requirement of 10 CFR 2.714 since these are the minimal requirements for "standing" as an Intervenor.¹ The Petitioners, Applicants, and the Staff were also told that they would have the opportunity to further explain their positions at the prehearing conference and to respond to the Board's questions.

INTEREST

10 CFR 2.714(a) (2) requires a petitioner to set forth his or her interest in the proceeding and how such interest may be affected by the result. The Board has a responsibility to consider the nature of the petitioner's right to be made a party, the nature and extent of the petitioner's property, financial, or other interest in the proceeding and the possible effect on such interest of any order entered in the proceeding. 10 CFR 2.714(d) (1) (2) (3). The petition should also identify the specific aspect or aspects of the subject matter of the proceeding as to which petitioner wishes to intervene. 10 CFR 2.714(a) (2) (3) and (b). The Board will consider these "contentions" separately.

The Atomic Safety and Licensing Appeal Board has applied the judicial concepts of standing in determining whether a petitioner has satisfied the above requirements. *Portland General Electric Company* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613-614 (1976); *Public Service Company of Oklahoma, et al.* (Black Fox Station, Units 1 and 2), ALAB-397, 5 NRC 1143, 1144-1145.

A petitioner must show "injury in fact" and further demonstrate that such interest is " 'arguably within the zone of interest' protected by the statute." *Portland General Electric Company, supra*. Particular attention is to be given to the above elements in connection with operating license proceedings to assure that petitioners have the required interest to warrant a hearing. *Cincinnati Gas and Electric Co., et al.* (William H. Zimmer Nuclear Power Station), ALAB-305, 3 NRC 8, 12 (1976).

An organization can establish standing through its members whose interests may be affected. *Public Service of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-322, 3 NRC 328, 330 (1976). The specific members must be identified, how their interests may be affected must be shown, and the members' authorization to the organization must be stated. *Edlow International Company* (Agent for the Government of India on Application to Export Special Nuclear Material), CLI-76-6, 3

¹Confirmed by the Board's Order of May 9, 1979.

NRC 563, 574 (1976). *Allied General Nuclear Services, et al.* (Barnwell Fuel Receiving and Storage Station), ALAB-328, 3 NRC 420, 422 (1976). The requirements of 10 CFR 2.714 may be met by showing that one of its members lives "within the geographical zone that might be affected by the accidental release of fission products." *Louisiana Power and Light Company* (Waterford Steam Electric Station, Unit 3), ALAB-125, 6 AEC 371, 372 n. 6 (1973). On January 26, 1979, the Appeal Board held that geographic proximity of a member's residence to a nuclear plant is enough, standing alone, to establish the interest requirements of 10 CFR 2.714 *Virginia Electric and Power Company* (North Anna Nuclear Power Station, Units 1 and 2), ALAB-522, 9 NRC 54 (1979). Although no specific distance from a nuclear power plant has evolved from Commission decisions to define the outer boundary of the "geographic zone of interest," distances up to approximately 50 miles have been found not to be so great as to preclude a finding of standing based on residence. *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Units 1 and 2), ALAB-413, 5 NRC 1418, 1421 n. 4 (1977).

Recently, the Appeal Board considered organizational petitioners and noted that the utility did not and could not successfully challenge the personal standing of a member of an organization who alleged close proximity of residence coupled with an allegation of possible injury resulting from the operation of the plant. *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-549, 9 NRC 645 (May 18, 1979). We read ALAB-549 as consistent with prior Appeal Board decisions cited herein.

The Applicants have strongly urged that none of the Petitioners under 10 CFR 2.714 have established "interest" whereas the Staff supports the recognition of "interest" for CASE, CFUR, and ACORN.

CONTENTIONS

10 CFR 2.714(b) provides as follows:

Not later than fifteen (15) days prior to the holding of the special prehearing conference pursuant to 2.751a, or where no special prehearing conference is held, fifteen (15) days prior to the holding of the first prehearing conference, the petitioner shall file a supplement to his petition to intervene which must include a list of the contentions which petitioner seeks to have litigated in the matter, and the bases for each contention set forth with reasonable specificity. A petitioner who fails to file such a supplement which satisfies the requirements of this paragraph with respect to at least one contention will not be permitted to participate as a party. Additional time for filing the supplement

may be granted based upon a balancing of the factors in paragraph (a) (1) of this section.

The Board recognizes that Petitioners who have not had prior experience in this type of proceeding and in some cases are proceeding without counsel may not state contentions with absolute clarity. Our criterion is whether there is at least one proposed contention which meets the requirements of 10 CFR 2.714(b). The Applicants have taken the position that none of the Petitioners have submitted an acceptable contention whereas the Staff has taken the position that CASE, CFUR, and ACORN have at least one acceptable contention. (CASE Contention 19, CFUR Contention IV, and ACORN Contentions 16, 17; 18, and 19). The Staff suggested new language to encompass all the concerns expressed by the Petitioners in its response of May 17, 1979.

PETITIONS

Applying the rationale stated above for the consideration of "interest" and contentions, the Board has made the following determinations relative to each Petitioner:

CASE

The petition of February 28, 1979, stated that majority of its membership live in the Dallas/Fort Worth "metropolitan" area (35 to 60 miles from the plant). The affidavit of members Edward and Marilyn Stinson was attached. The Stinsons live five (5) miles from the plant. They support the contentions and authorize CASE to represent them. The petition stated that the health and safety of its members will be affected by the routine operation or an accident at the plant. The Board has determined that CASE has satisfied the "interest" requirement for its membership but not for the "general public" as alleged.

The Board agrees with the Staff that Contention 19 (May 7, 1979, filing on page 57) meets the requirements of 10 CFR 2.714(b) as supported by other statements in the petition.

CASE is admitted as an Intervenor in this proceeding.

CFUR

The petition of March 3, 1979, states that its members reside and either work or attend school in Tarrant County, Texas, approximately 35 miles from the Comanche Peak plant. An affidavit of a founding member

(1976) Nancy Holdam Jacobson of Fort Worth was attached. The affidavit of a second founding member, Richard L. Fouke (also of Fort Worth) was attached to the Supplement of May 7, 1979.² The petition states that the health, safety, and value of property of its members may be affected by the routine operation or any accident involving releases of radioactive elements at Comanche Peak.

The Board has determined that CFUR has satisfied the "interest" requirement for its membership.

CFUR is proceeding *pro se*. When it received the Staff response of May 17, 1979, to contentions filed on May 7, 1979, it determined that the language suggested by the Staff relative to its quality assurance/quality control contentions was unacceptable. At the prehearing on May 22, 1979, CFUR handed to the Board and parties "First Corrections to Supplement" After considerable discussion, CFUR requested a few days to further consider its new document. On May 29, 1979, it filed a motion for leave to amend.³ The Applicants protested on June 13, 1979, that the motion was out of time and that none of the contentions meet 10 CFR 2.714(b). On June 18, 1979, the Staff supported the motion, particularly for a *pro se* petitioner, even though it is out of time. The Staff recognized Contentions IVA-IVH2 as meeting the requirements of 10 CFR 2.714(b).

The Board has determined that it has discretion to grant the motion and that Contentions IVA-IVH2 meet the requirements of 10 CFR 2.714(b) and CFUR is admitted as an Intervenor in this proceeding.

ACORN/WTLS

The petition of March 3, 1979, stated that the operation of Comanche Peak would subject Petitioners to significant health, safety, and environmental risks. It identified ACORN as an organization with members in the Dallas/Fort Worth area and attached an affidavit from a Fort Worth member, Terry Thompson. WTLS does not have "members" but has authorization to represent certain clients within its jurisdiction as a public interest legal corporation. (The amended petition of March 29, 1979, stated if ACORN is granted Intervenor status, WTLS will be attorney of record for ACORN.) The Supplemental Petition of May 7, 1979, attached an affidavit from Ruth Martin, a Board member of Fort Worth and Texas Acorn. The affiant states that she supports the contentions and has authorized ACORN to represent her interests.

²Both members recite that they are authorized to represent CFUR members. The May 7, 1979, Supplement was cosigned by these members.

³It was stated this motion supersedes CFUR's motion served at the prehearing on May 22, 1979.

The Board has determined that ACORN has established "interest."

The Board has determined the ACORN Contentions 16, 17, 18, and 19 meet the requirements of 10 CFR 2.714(b) and that ACORN is admitted as an Intervenor in this proceeding.

WTLS stated in the amended petition served March 29, 1979, that if ACORN was not granted Intervenor status it would proceed on its own behalf. Not knowing the outcome for ACORN, WTLS brought in the names of Mary and Clyde Bishop and Ora and William Wood, two couples who became clients of WTLS when they were permitted to represent clients in the immediate vicinity of Comanche Peak.⁴ This occurred after the intervention period. The Board has determined that the requirements of 10 CFR 2.714 have not been established for the late filing of the Bishops and the Woods (Tr. 121-124). The Board has determined that "interest" has not been established for WTLS and Intervenor status is not granted for WTLS, the Bishops, or the Woods. The Board acknowledges the importance of WTLS's role as counsel for ACORN.

Language of the Quality Assurance/Quality Control Contention

The Board recognizes that supporting language appears in the petitions of CASE, CFUR, and ACORN concerning the various quality assurance/quality control contentions. The Board has determined the following language encompasses all those contentions:

The Applicants have failed to establish and execute a quality assurance/quality control program which adheres to the criteria in 10 CFR 50, Appendix B.

STATE OF TEXAS

On February 13, 1979, the State of Texas petitioned for participation as an interested state under 10 CFR 2.715(c) if for other reasons there is a hearing. The State of Texas is admitted to this proceeding under Section 715(c).

⁴The attached affidavits from the Bishops and Woods state that they live within five miles of Comanche Peak. The affiants state that ACORN and WTLS are authorized to represent them but do not state they are members of ACORN.

IT IS SO ORDERED.

**ATOMIC SAFETY AND
LICENSING BOARD FOR THE
REVIEW OF PETITIONS**

Richard F. Cole, Member

Lester Kornblith, Member

Elizabeth S. Bowers, Chairman

**Dated at Bethesda, Maryland
This 27th day of June, 1979.**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF INSPECTION AND ENFORCEMENT

Victor Stello, Jr., Director

In the Matter of

Docket Nos. 50-338
50-339

VIRGINIA ELECTRIC AND POWER
COMPANY

(North Anna Power Station,
Units 1 and 2)

June 25, 1979

The Director denies the request of the North Anna Environmental Coalition to revoke the operating licenses for the North Anna Power Station, Units 1 and 2, as an enforcement sanction for material false statements stemming from the Virginia Electric and Power Company's alleged failure to timely report information concerning settlement of foundations at the North Anna site. As the licensee was in compliance with the technical specifications and 10 CFR 50.55(e), no enforcement action is appropriate and it is therefore unnecessary in this context to reach the question of a material false statement.

**DIRECTOR'S DECISION UNDER 10 CFR 2.206
REQUEST FOR ENFORCEMENT ACTION**

By letter dated November 1, 1978, June Allen on behalf of the North Anna Environmental Coalition (NAEC) requested that the Nuclear Regulatory Commission revoke the operating licenses issued to the Virginia Electric and Power Company (VEPCO) for the North Anna Power Station, Units 1 and 2, as an enforcement sanction for material false statements stemming from VEPCO's alleged failure to timely report information concerning settlement of foundations at the North Anna site. This letter is being treated as a request for action pursuant to 10 CFR 2.206 of the Commission's regulations. Notice of receipt of this request was published in the *Federal Register* on December 20, 1978. 43 Fed. Reg. 59451 (1978). For the reasons set forth below, the request is denied.

The asserted basis for the NAEC's request is as follows:

- (1) By August 1977, the average settlement beneath the North Anna pumphouse for Units 1 and 2 had reached 75% of its allowable limit according to measurements made by Stone & Webster Company;
- (2) VEPCO did not report this condition until April 28, 1978, more than 60 days after the report was required under the technical specifications; and
- (3) License revocation is an appropriate sanction in this instance because previous civil penalties for false or omitted reporting have been ineffective enforcement actions and failure to report constitutes a material false statement for which a license may be revoked.

Under Technical Specification 3.7.12.1 VEPCO is required to submit a special report to the Commission within 60 days when either the total settlement of any structure or the differential settlement of any structures exceeds 75% of the allowable settlement value for Class I structures.¹ The Service Water Pump House is a Class I structure. Technical Specification 4.7.12.1 further required that settlement "shall be determined to the nearest 0.01 foot by measurement and calculation at least once per 6 months." VEPCO was bound to comply with the technical specifications upon issuance of the operating licenses for the North Anna Units on November 26, 1977.

Since the technical specifications became effective, VEPCO has retained Moore, Hardee & Carrouth Associates (MH&C) to perform the settlement survey in order to comply with the survey and reporting requirements of the specifications. MH&C had been surveying settlement for VEPCO since November 1975. Surveys performed by MH&C on various dates showed the following measurements of settlement at the pump house:²

¹The NAEC also alleges that the settlement measured by Stone & Webster in August 1977 should have been reported in accordance with 10 CFR 50.55(e), which requires reporting of certain deficiencies found in design and construction. However, VEPCO reported the problem of continuous settlement of the Service Water Pump House in 1975. The Staff was aware of the continuous settlement problem, and noted it in its Safety Evaluation Report. Stone & Webster's August, 1977 data revealed no new design or construction deficiency caused by settlement. Moreover, the figure of 75% of allowable settlement has relevance only to the reporting requirements of the technical specification, which did not become effective until November 26, 1977. Thus, VEPCO was not required under 10 CFR 50.55(e) to make an additional report of the Stone & Webster data.

²Measurements taken between November 1975 and July 1977, prior to the effectiveness of the technical specifications, do not show settlement in excess of 75% of allowable value under the currently applicable standard.

Date	Average Settlement (Feet)	Percent of Allowable Settlement (0.15 Feet)
12/01/75	0.000	0
07/11/77	0.063	42
12/12/77	0.103	69
03/15/78	0.121	81
03/30/78	0.119	79
04/25/78	0.106	71
05/10/78	0.110	73
08/03/78	0.117	78
11/06/78	0.126	84
11/20/78	0.124	83
01/03/79	0.128	85
02/06/79	0.127	84
03/07/79	0.126	84

The data indicate that 75% of the maximum allowable average pumphouse settlement was exceeded on March 15 and March 30, 1978. Based on this information, VEPCO reported to the NRC on April 28, 1978, that settlement of the pumphouse exceeded 75% of the allowable value.

Although the NAEC does not dispute that VEPCO reported settlement conditions to the NRC on April 28, 1978, the NAEC contends that VEPCO should have made a report to the NRC within 60 days after the measurements of settlement made by Stone & Webster on approximately August 3, 1977. As earlier noted, however, the technical specifications did not come into effect until November 26, 1977 when the operating licenses were issued. Thus, VEPCO had no obligation under the technical specification to report data measured prior to its effective date. Even if the technical specifications were in effect in August 1977, Stone & Webster's measurements were not calculated with the precision required by Technical Specification 4.7.12.1. The technical specifications, in establishing a requirement for a settlement survey program, required measurements of a certain frequency and accuracy, i.e., measured at least every six months by precise leveling, with second order Class 2 accuracy as defined by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Survey, and calculated to the nearest 0.01 foot. This specified accuracy exceeded that which Stone & Webster could assure with its equipment and techniques. On the other hand, the surveys by MH&C, the firm retained by VEPCO to perform the surveys required by the technical specifications, did meet the specified accuracy required by Technical Specification 4.7.12.1. The surveys performed by MH&C exceeded the required frequency.

As part of our review of the NAEC request, the NRC conducted an inspection on December 6-8, 1978, and an inspection/inquiry on March 5-15, 1979 of data collected on settlement of the pumphouse.³ (See Inspection Report No. 50-338/78-44 and 50-338/79-13 which are made part of this decision and attached as Appendix A and B.) The inspection findings confirm the accuracy of the MH&C data for purposes of compliance with the requirements of the technical specifications. The inspectors found that the Stone & Webster data generally indicated approximately 0.01 foot more settlement than the MH&C data. Moreover, the inspectors concluded that the accuracy of the Stone & Webster surveys was questionable and that some average settlements computed by Stone & Webster were based on incomplete data. In cases of conflict between the MH&C data and the Stone & Webster data, the inspectors determined that the MH&C measurements should be accepted as correct because the MH&C survey was more carefully controlled and more accurate than the Stone & Webster survey.

It should be emphasized that the two surveys served different purposes. The Stone & Webster survey was not performed to meet specific requirements of the PSAR, FSAR, or the technical specifications, but was performed in accordance with standard engineering practice to confirm design assumptions and monitor settlement during construction. By comparison, the MH&C survey assures compliance with Technical Specification 3.7.12.1 within the accuracy required by Technical Specification 4.7.12.1. Accordingly, MH&C made the required surveys for VEPCO within the specified frequency and VEPCO reported within 60 days the measurements exceeding 75% of allowable settlement when indicated by the MH&C survey.

Although the Stone & Webster data may have indicated settlement of the pump house earlier than the data of MH&C, the Technical Specifications require the licensee to report settlement exceeding 75% of the allowed value only when settlement is measured in a survey of a certain accuracy after the technical specification's effective date. Unlike the Stone & Webster survey, the MH&C survey met the accuracy required by the specifications. Relying on the results of the MH&C survey, VEPCO appropriately reported settlement to the NRC after receiving measurements taken by MH&C in March 1978. VEPCO was not required to report the results of the Stone & Webster surveys.⁴ Therefore, I conclude that:

³The inspection team also reviewed the data and inspected the expansion joints for differential settlement between the pumphouse and the north side service water piping expansion joint. The inspectors found that the data indicated insignificant differential settlement and detected no problems in the expansion joints.

⁴The NAEC misplaces reliance on a report dated July 19, 1978, Paul Rizzo to the Advisory Committee on Reactor Safeguards in which Mr. Rizzo reviewed VEPCO's special report of May 31, 1978. Upon review of the data contained in Figure 4c, of the VEPCO report, which

Continued on next page.

- 1) The survey performed to meet the requirements of Technical Specification 3.7.12.1 indicated that the average pumphouse settlement exceeded 75% of the allowable value in March 1978;
- 2) The surveys were made at the frequency required in the technical specification; and
- 3) The licensee notified the NRC within 60 days of the time the survey detected settlement of 75% of the allowable value.

As VEPCO was in compliance with the technical specifications and 10 CFR 50.55(e), no enforcement action is appropriate, and accordingly, the NAEC's request to revoke the North Anna operating licenses is denied. It is therefore unnecessary in this context to reach the question of a material false statement.

A copy of this determination will be placed in the Commission's Public Document Room at 1717 H Street, N.W., Washington, D.C. 20555, and the local Public Document Rooms for the North Anna Power Station located at the Louisa County Courthouse, Louisa, Virginia 23092, and the University of Virginia, Alderman Library, Charlottesville, Virginia 22901. A copy of this document will also be filed with the Secretary of the Commission for its review in accordance with 10 CFR 2.206(c) of the Commission's regulations.

In accordance with 10 CFR 2.206(c) of the Commission's Rules of Practice, this decision will constitute the final action of the Commission twenty (20) days after the date of issuance, unless the Commission on its own motion institutes review of this decision within that time.

Victor Stello, Jr., Director
Office of Inspection
and Enforcement

Dated at Bethesda, Maryland
this 25th day of June 1979

[Appendices A and B have been omitted from this publication but are available for inspection at the NRC Public Document Room, 1717 H Street, N.W., Washington, D.C.]

Continued from previous page.

shows settlement measurements by Stone & Webster and MH&C between June 1977 and May 1978, Mr. Rizzo commented that 75% of allowable settlement "occurred, for all practical purposes, as early as August 1977." This is not to say, however, that VEPCO was obligated under the technical specification to report the Stone & Webster data or that the MH&C survey made to comply with the technical specification indicated 75% of allowable settlement in August 1977.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Harold R. Denton, Director

In the Matter of

MAINE YANKEE ATOMIC
POWER COMPANY

Docket No. 50-309
(10 CFR 2.206)

(Maine Yankee Atomic Power
Station)

June 26, 1979

The Director of Nuclear Reactor Regulation denies a petition filed under 10 CFR 2.206 of the Commission's regulations that requested continued shutdown of the Maine Yankee Atomic Power Station pending an evaluation of asymmetric LOCA loads.

DIRECTOR'S DECISION UNDER 10 CFR 2.206

By petition dated May 2, 1979, Nancy Crane DeWick of Woolich, Maine, and Safe Power for Maine requested that the shutdown of the Maine Yankee Power Station be continued pending an evaluation of asymmetric loads on the reactor vessel and reactor support systems caused by a loss of coolant accident (LOCA). As the basis of the request, the petition cited shutdown of the Maine Yankee facility ordered on March 13, 1979, the unresolved issue regarding asymmetric LOCA loads, the incentive that continued shutdown of the facility would provide for completion of the licensee's analysis of asymmetric LOCA loads, and the alleged lack of an appropriate evacuation plan for the facility's vicinity.

The primary issues under the Director of Nuclear Reactor Regulation's Order of March 13, 1979, 44 Fed. Reg. 16506, which directed that the Maine Yankee facility be placed in cold shutdown, concerned the incorrect use of algebraic summation in seismic design computer codes. Termination of the Order required satisfactory resolution of those issues. Once those issues were resolved, and in the absence of a safety concern which itself would warrant that the facility be kept shut down, restart of the facility would be authorized. On May 24, 1979, the Director issued a Termination of Order to Show Cause

to the licensee, 44 Fed. Reg. 31756. In this action the Director concluded that the public health, safety, or interest did not require continued shutdown of the facility, and thus restart of the facility was authorized.

As noted in the petition, the NRC Staff, by letter dated January 25, 1978, requested information from the licensee regarding the asymmetric LOCA loads issue. In this letter the Staff defined the scope of this issue and requested that the licensee indicate its intent to proceed with an evaluation. The letter also requested a detailed schedule for providing this evaluation, consistent with the Staff's desire to resolve this issue within two years.

On February 21, 1978, the licensee committed to proceed with the evaluation. By letter dated September 8, 1978, the licensee indicated that it was unable to submit a schedule for completion of the evaluation. As noted in the petition the licensee has not yet submitted a detailed schedule for resolution of this issue.

Enclosure 1 to the Staff's letter of January 25, 1978, explains the Staff's bases for concluding that the probability of a pipe break resulting in substantial transient loads on the vessel support system or other structures is low enough that continued reactor operation is acceptable while this concern is being resolved. Furthermore, this interim period of operation was defined as two years. Since the Staff's conclusion is based primarily on the low likelihood of the event, an evaluation of the effects of the event was not necessary.

The information presented in the petition regarding asymmetric LOCA loads, including the lack of the licensee's schedule, highlights the chronology of this issue. The petition does not, however, provide any new information which was not considered in or which would affect the Staff's previous determination of an acceptable interim period of operation. The Staff is aware of the ongoing effort by licensees on this issue and expects a schedule from Maine Yankee in the near future. Should this issue remain unresolved beyond the acceptable interim period, the Staff will review the information available at that time and take further action as appropriate.

Requiring that the facility be shut down until the asymmetric LOCA loads issue is resolved may provide an additional incentive for the licensee to complete its evaluation, but there is no indication that the licensee will not responsibly address the issue. As discussed, the safety concern associated with this issue does not in itself warrant the shutdown of operating facilities at this time. Thus, I do not find shutdown of Maine Yankee merely to improve the licensee's schedule for resolution of the issue either necessary or appropriate.

The petitioners state as a further basis for the shutdown of Maine Yankee that "[t]here is no generally disseminated, coordinated, or approved inhabitant evacuation plan covering the surrounds of Maine Yankee." The Maine Yankee Emergency Plan meets the Commission's current standards for emergency

planning. 10 CFR Part 50, Appendix E. The Staff reviewed the Maine Yankee Emergency Plan and found it to be satisfactory as discussed in the Safety Evaluation Report (SER) dated February 24, 1972, issued in support of facility licensing. Improvement of emergency planning is, however, of continuing concern to the Commission. Efforts are underway within the Commission to review all aspects of emergency planning, including the adequacy of present planning and the need for coordination with and participation of other agencies in developing emergency planning.

The State of Maine Radiological Incident Plan, prepared by Lt. Allan H. Weeks of the Maine State Police, is included in the table of contents of the Maine Yankee Emergency Plan. The State of Maine Radiological Incident Plan includes individual radiological incident plans for the towns of Westport, Boothbay, Wiscasset, Edgecomb, and Woolich. Local plans have a basic plan, an increased readiness plan, an emergency evacuation plan, a notification list, evacuation routes, and a statement of local police responsibilities and transportation facilities. The State of Maine is reevaluating its current plan to improve its planning for emergencies.

The Central Maine Power Company distributes with its residential electric service bills a brochure entitled "Lamplighter." Once a year, the Lamplighter presents a summary of the Maine Yankee Emergency Plan. The summary includes a short description of public notification procedures with the call letters of local radio stations. The summary states that a copy of the Maine Yankee Emergency Plan is available in the Wiscasset Public Library, and that copies of town plans are available in the municipal offices of Westport, Boothbay, Wiscasset, Edgecomb, and Woolich. The summary also gives the phone number of the responsible person to call for further information. Calls for such information have averaged a few per year.

Inasmuch as the Maine Yankee Emergency Plan meets the Commission's current standards for emergency planning and as the Commission is currently reviewing the overall need for improving emergency planning, I do not find the petitioner's allegation to be an adequate basis for suspending the operating license for Maine Yankee and thereby shutting down the facility.

Accordingly, for the foregoing reasons, the petition on behalf of Safe Power for Maine and Nancy Crance DeWick is *denied*.

A copy of this decision will be placed in the Commission's Public Document Room at 1717 H Street, N.W., Washington, D.C. 20555 and the local public document room for the Maine Yankee Atomic Power Station at the Wiscasset Public Library, High Street, Wiscasset, Maine 04578. A copy of this decision will also be filed with the Secretary of the Commission for its review in accordance with 10 CFR 2.206(c) of the Commission's regulations.

In accordance with 10 CFR 2.206(c) this decision will constitute the final action of the Commission twenty (20) days after issuance, unless the Commission on its own motion institutes review of this decision within that time.

**FOR THE NUCLEAR
REGULATORY COMMISSION**

**Harold R. Denton, Director
Office of Nuclear Reactor
Regulation**

**Dated at Bethesda, Maryland
this 26 day of June, 1979.**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

WILLIAM J. DIRCKS, Director

In the Matter of

GENERAL ELECTRIC COMPANY

Docket No. 70-754
(10 CFR 2.206)

(Vallecitos Nuclear Center,
License No. SNM-960)

June 29, 1979

The Director of Nuclear Material Safety and Safeguards denies a petition filed under 10 CFR 2.206 of the Commission's regulations that requested suspension of License No. SNM-960, removal of plutonium from the licensee's facility, and public hearings on future activities at the facility prior to return of plutonium to the site.

RULES OF PRACTICE: SHOW-CAUSE PROCEEDING

A challenge to the Commission's regulations should be addressed to the Commission as a petition for rule making.

DIRECTOR'S DECISION UNDER 10 CFR 2.206

On December 14, 1978, the Friends of the Earth (FOE), San Francisco, California, requested pursuant to 10 CFR 2.206 that the Director of Nuclear Material Safety and Safeguards suspend activities under License No. SNM-960 at the General Electric Company's Vallecitos Nuclear Center (VNC). In addition to suspension of the license, the FOE also requested that all plutonium be removed from the Vallecitos Nuclear Center and that public hearings be held on future activities at Vallecitos prior to the return of plutonium to the site. The FOE also asked that the Commission provide the FOE with an

inventory of radioactive materials at the Vallecitos site and structural analyses of buildings at Vallecitos containing radioactive materials.¹

Congressmen John Burton and Ronald V. Dellums, California Assemblyman Thomas Bates, and other California residents joined the FOE request.² Similar requests to suspend the license based on new seismic interpretations of the site were received from Jan Goldman of North Fork, California, Marion Hill of Belmont, California, and the Tri-City Ecology Center of Fremont, California, and these requests were consolidated with the FOE's request for consideration. Notice of receipt of the FOE's request was published in the *Federal Register* on January 10, 1979. 44 Fed. Reg. 2209 (1979).

The bases for the FOE's request are essentially that

- (1) the Preliminary Safety Evaluation Report (PSER) issued by the Office of Nuclear Material Safety and Safeguards (NMSS) in November 1977 is deficient in light of new seismic information;
- (2) Nuclear Regulatory Commission (NRC) estimates of plutonium release from the plutonium labs after an earthquake are too low;
- (3) NRC estimates of plutonium toxicity are too low; and
- (4) it is inadvisable to allow the plutonium to remain onsite in light of seismic conditions and the potential consequences of an earthquake at the site.

For the reasons stated in this decision, the petitions to suspend License No. SNM-960 have not presented any new information which would change the PSER under which the Office of Nuclear Material Safety and Safeguards (NMSS) permitted continuation of licensed activities under License No. SNM-960. As this decision describes, NMSS finds that the analysis in its PSER dated November 7, 1977, is essentially sound. Based on current analysis of conditions at VNC and activities under the license, NMSS concludes that continued activities at VNC under License No. SNM-960 do not pose an undue risk to public health and safety. Therefore, the requests to suspend the license are denied. It is unnecessary to consider the FOE's requested removal of plutonium from the site and the associated hearing prior to return of plutonium to the site.

¹As the FOE requested, NMSS will provide the FOE structural analyses applicable to the Special Nuclear Material License review when the reports are completed. The operating inventories of radioactive materials under License No. SNM-960 in forms conducive to release are listed in General Electric's (GE) submittals to which the FOE referred in its petition. Because GE has committed itself not to exceed these levels, these quantities are the only values which are appropriate for release calculations.

²Others joining the FOE's request are Janice Delfino, Sally Harris, Lore Kohn, and Hiram Wolch of Castro Valley, California; Louis Bookbinder, Marjorie Koenig, Sherman Lewis, Ann Mocht, Al Murdoch, Jo-Ann Murdoch, and Helen Smith of Haywood, California; Lawrence Evans of San Leandro, California; and Barbara Shockley of San Lorenzo, California.

In the remainder of this decision, NMSS will specifically address the concerns raised in the requests to suspend the license with regard to seismicity of the site, structural integrity of Building 102, the estimated quantities of plutonium released and its impact on the surrounding population, and plutonium toxicity.

Background

As indicated in the Acting Director of Nuclear Reactor Regulation's Order to Show-Cause³ dated October 24, 1977, which suspended activities under Operating License No. TR-1, 42 Fed. Reg. 57573, the NRC staff met with the GE-VNC staff to discuss all NRC-licensed activities at the site. Although continued operation of the General Electric Test Reactor (GETR) was the subject of the Order to Show-Cause, the safety and environmental impact of continuing activities under NRC License No. SNM-960 were of concern to NMSS. The NMSS staff performed an evaluation of the SNM activities in light of the new geologic interpretations. The November 7, 1977, PSER was the product of this effort and was used as the basis for the decision to permit the activities covered under that license to continue. At the NMSS staff's request, General Electric made commitments to restrict the activities covered by the SNM license as a result of the staff's preliminary review and the basis used in the PSER.⁴ These commitments included limiting quantities, types, and form of materials used at the site, restricting presence of explosive and flammable materials in all buildings containing special nuclear material, draining of Lake Lee which was located on the site, and restricting operations in Cell No. 3 of the Radioactive Materials Laboratory which involve fission product or radioisotope separation.

The staff's evaluation as presented in the PSER was based on consideration of the following information:

1. GE VNC's SNM-960 license renewal application and supporting license renewal documents,⁵

³The issues at hand were the then recently revised interpretations of the geologic and seismic characteristics of the site area.

⁴The Licensee's commitments are listed in November 7, 1977, PSER cover letter to R. W. Darmitzel, Manager, Irradiation Processing Product Operation, GE VNC, from Clifford V. Smith, Jr., Director, NMSS.

⁵At that time the NMSS staff and its consultants were reviewing GE VNC's SNM-960 License Renewal Application and supporting license renewal documents. These documents may be examined at the local reading room set up at the NRC Office of Inspection and Enforcement, Region V Office located at 1990 N. California Boulevard, Suite 202, Walnut Creek, California 94596, and at the NRC Public Document Room located at 1717 H Street, N.W., Washington, D.C. 20555.

2. Oral presentation made by GE staff in Bethesda, Maryland as documented by GE in a November 12, 1977, submittal,⁶ and
3. The staff's firsthand information and data relative to the then ongoing activities.⁷

With respect to the issues specifically raised by the FOE, NMSS believes for the reasons stated in the remainder of this decision that, based on current information, the PSER is a conservative assessment of the consequences of a seismic event of unspecified high magnitude at VNC.

Seismicity of the Site

For purposes of the preliminary safety evaluation the staff based its review on conservative simplifying assumptions which would provide upper bound environmental and safety impacts on the surrounding area. Under the PSER's analysis, a hypothetical seismic event of unspecified magnitude was assumed to occur which would result in structural failure of varying degree to all buildings housing activities covered under the SNM license. Engineering judgment was used to provide the sequence and extent of failure used in the analysis which is described below. This approach provided a mechanism to determine the maximum credible impact of such an event on the surrounding area. Contrary to the FOE's understanding, the PSER is not based on an earthquake at the site which could produce ground acceleration of .75g. Again, the PSER assumed a hypothetical seismic event of unspecified magnitude that resulted in significant structural failure.

Structural Integrity of Building 102

In analyzing activities under the SNM license at VNC the NMSS staff was concerned with the structural failure of the buildings which would result in the potential generation and release of an aerosol composed of particles less than 10 μm aerodynamic equivalent diameter (AED),⁸ or less. The staff by onsite examination of the SNM activities estimated the quantities of material at risk⁹ in process as well as total inventories. As state in the PSER,¹⁰ NMSS

⁶Letter to Clifford V. Smith, Jr., Director, NMSS from R. W. Darmitzel, Manager Irradiation Processing Product Operation, GE VNC, dated November 12, 1977.

⁷The firsthand information and data collection was obtained through a staff site visit on October 25 and 26, 1977. This information was documented through a memorandum to R. W. Starostecki, Chief, FCRR, from W. Burkhardt, FCRR, Subject: "Trip Report - GE Vallecitos Nuclear Center, October 25 and 26, 1977" dated December 12, 1977.

⁸A particle exhibiting the aerodynamic behavior of a unit-density sphere of the stated size.

⁹Material at risk is material that is in a location and condition such that it is available for release in the event of breach of confinement.

¹⁰The locations of quantities of materials that could be released during a catastrophic event was discussed in great detail in the PSER, Section III, "Materials At Risk," pages 11-20. This discussion provided the basis for the staff's determination of Building 102 as the only location which could provide a significant source term for material available for release.

determined that Building 102 was the only building that contained a significant inventory of radioactive material available for dispersion. The quantities of radioactive material housed in other VNC facilities are either small or otherwise contained such that significant dispersal following a seismic event is unlikely.

Building 102 houses the Advance Fuels Laboratory (AFL), the Plutonium Analytical Laboratory (PAL), and the Radioactive Material Laboratory (RML). The PAL and RML activities are essentially located on the first floor of Building 102. The AFL operations are located in the basement of Building 102.

The PSER assumed the following modes of structural failure for those three laboratories:

Advance Fuel Laboratory (AFL)

- Cracks develop in the walls and ceiling with sections of the ceiling falling on glove boxes causing a breach of confinement.
- Glove boxes shift from their normal location and lose their leak-tight integrity.

Plutonium Analytical Laboratory (PAL)

- The walls and ceiling of the PAL, which is located on the first floor of Building 102, collapse.
- Glove boxes are overturned and crushed by falling debris.

Radioactive Material Laboratory (RML)

- The first floor walls and ceiling that surround the four main hot cells collapse.
- Interconnecting ductwork and utilities in the RML collapse.
- In-cell liners remain intact but filters are punctured.

The failure modes were a conservative estimate of the impact of a seismic event of the structures for the following reasons. The analysis assumed total collapse of the PAL. Total collapse of the AFL was not assumed since it is located in the basement and total collapse would result in merely burying the material. Thus, total collapse of the AFL would not provide a pathway for the plutonium to escape from the AFL. In assuming partial collapse from ceiling cracks and sections of concrete falling on glove boxes to breach confinement a path was provided for the material to escape thereby increasing the possibility of release. It should be noted that since the issuance of the PSER, GE-VNC has tied down all glove boxes in the AFL to increase the resistance to the forces of a seismic event.¹¹ Collapse of all RML structures was assumed

¹¹In developing a source term, NMSS assumed that the glove boxes would overturn, tumble around, load the glove box air with plutonium, and would then be crushed by a large chunk of AFL ceiling. By tying down the glove boxes, GE-VNC has reduced the possibility of this situation occurring and thus reduced the possibility of material release since vibratory motion alone will not significantly load the air with plutonium.

except the four main hot cells. The hot cells were assumed to maintain their integrity because they are massive structures, with 2-3 feet thick reinforced concrete walls, floors, and ceiling. Approximately 70% of the volume of the below grade box structure (base mat, foundation walls, and cell floor) is concrete. The volume of above grade structure (cell walls and roof slab) is approximately 50% concrete and steel.

The staff developed scenarios and made simplifying assumptions that imposed more catastrophic effects upon the facilities than would be realistically expected if NMSS had completed a full geologic and structural review of the facilities in question. Based on the aforementioned damage scenarios, source terms were derived for use in the calculation of radiological consequences.

Releases and Doses

The release mechanisms presented in the PSER were first generation material transport models (i.e., puff release and constant continuous release). Engineers use this bounding technique as a first cut at the problem to see whether or not a problem exists and what the controlling features are. In this approach, the assumptions made were simple in nature assuming release not hindered by transportation mechanisms which would reduce the quantities released and projected impact on the surrounding area, such as plutonium deposition within the area and 50% meteorology.

Using the simplified approach as presented in the first generation models, the assumptions used encompassed the suspension mechanisms such as after-shocks and winds although they were not specifically identified in the analysis. In the development of the PSER source terms, NMSS assumed the current working level inventories for the various processes and experiments, and devised release mechanisms based on the aforementioned damage scenarios.¹² It was assumed that the glove boxes would overturn, tumble around, load the glove box air with plutonium in concentrations of 300 mg/m³, and then the glove boxes would be crushed by large chunks of the AFL ceiling breaching the glove box and releasing the material.¹³ This methodology provides suspension mechanisms for release that are greater than one would expect from suspension of material as a result of aftershocks and winds.

With respect to the AFL, aftershocks and winds are not considered a

¹²As noted earlier, GE has committed itself to restrict operations to the current working level inventories.

¹³Experimental data shows maximum air loading factors of 100 mg/m³. Thus, the PSER's assumption of 300 mg/m³ air loading within the glove boxes is conservative by a factor of 3. J. M. Selby et al. "Consideration in the Assessment of the Consequences of Effluents from Mixed Oxide Fuel Fabrication Plants," BNWL-1697 Rev. 1. Battelle Pacific Northwest Laboratory at page 76 (June 1975).

major factor in determining the upper bound material release quantities for the following reasons. Because of the location of the AFL and of the physical properties of plutonium, aftershocks and winds play a minor role in the transport of material out of the AFL rubble after the primary earthquake movement has taken place.¹⁴ The winds would have to follow a tortuous path to reach the plutonium in the AFL. Wind speed reduction would occur because of surface drag and directional changes since the wind would have to pass through a hole in the basement ceiling, descend to near the basement floor and find its way through the rubble to reach the bulk of the plutonium. The wind velocity at that point would essentially be zero. Most plutonium would be covered with rubble. Vibratory motion as a result of aftershocks will not suspend a significant amount of material. The glove box has already been crushed after the first earthquake strike. Thus, the potential for additional air loading has been greatly diminished. Considering these factors, suspension of material due to aftershocks and winds would be credited to the initial release as presented in the PSER.

Fire was not considered as a mechanism for dispersion of plutonium since the laboratories did not contain an appreciable amount of flammable material. As explained in the PSER,

“Potential secondary effects including fires, explosions, and flooding, were considered by the staff since these events may represent means by which material can become mobilized. The absence of appreciable quantities of flammable material lessens the potential for fires. This has been verified independently by the staff. Consequently heat sources, such as electrical short circuits, are not likely to result in severe fires. GE has agreed that no additional quantities of flammable materials shall be used or stored in these areas without prior NRC approval.

The license did state the 6 percent pre-mixed hydrogen/inert gas is stored onsite outside Building 102 and is made available through a piping system to the AFL for use in the sintering process. Also, a limited quantity of quenching gas is present. The licensee does not consider these gases as explosive mixtures. The staff agrees. The licensee stated that no explosive mixtures are stored in the RML and AFL. Therefore the staff did not assume this as a credible mechanism for dispersing plutonium. GE has agreed that no such materials shall be used or stored in these areas without prior NRC approval.” (PSER, at pages 17-18)

¹⁴Winds were considered in the analysis of the hot cells and the PAL. For the hot cells the effect of winds were incorporated as part of the breathing rate of the damaged cells. PSER at page 23. For the PAL, the effects of winds were considered in the assumption of plutonium flux from the floor of $1 \times 10^{-8}/\text{sec.}$ for the nitrate and $6 \times 10^{-8}/\text{sec.}$ for the powder, PSER at page 26.

The NMSS release estimates, as calculated for the assumed structural failure, have been recently confirmed by the Pacific Northwest Laboratory (PNL). Following the issuance of the PSER, the staff asked PNL to independently review its estimates of consequences. PNL's findings are contained in a report entitled, "Source Term and Radiation Dose Estimates for Postulated Damage to the 102 Building at the General Electric Vallecitos Nuclear Center," dated February 1979, which is attached to and made part of this Decision.

PNL developed three scenarios representing significant levels of loss of confinement due to moderate, substantial, and major damage to Building 102 at VNC. The damage scenarios were not correlated to any specific level of seismic activity. The three scenarios are:

1. Moderate damage scenario - perforation of the enclosures in and the structure comprising the Plutonium Analytical Laboratory.
2. Substantial damage scenario - complete loss of confinement of the Plutonium Analytical Laboratory and loss of the filters sealing the inlet to the Radioactive Materials Laboratory hot cells.
3. Major damage scenario - the damage outlined in (2) plus the perforation of enclosures holding significant inventories of dispersible plutonium in and the structure comprising the Advanced Fuels Laboratory.

The results of the PNL review have shown that for the worst case (major damage scenario) the maximum-exposed individual was estimated to receive 0.7 rem to the lung and 1 rem to the bone, which are comparable to the doses presented in the PSER (PSER Table V-2 at page 31). The calculated 50-year committed dose is equivalent to 50 years of exposure to natural background radiation and medical X-rays.

Releases from the failed structures, if any, are expected to be controlled after any earthquake. Temporary isolation of the material from the environment may be achieved through several methods. For example, large plastic sheets can be drawn over the openings, thereby depriving the material of exposure to driving forces of winds. After the releases are controlled, clean up can proceed in an orderly fashion such that additional releases, if any, will be as low as reasonably achievable and are not expected to exceed levels greater than those specified under 10 CFR Part 20, "Standards for Protection Against Radiation." Once controlled, the clean up at VNC would not pose extraordinary problems that would preclude use of normal procedures for decontamination of the site.

Pre-clean up and decontamination for the offsite area will not pose a health and safety problem as a result of the postulated catastrophic earthquake. PNL's estimates for the worst case scenario indicate that the maximum residual plutonium contamination, as a result of a three day uncontrolled continuous

release, are within EPA's proposed guidelines of $0.2 \mu\text{Ci}/\text{m}^2$. Therefore, there is no indication that offsite clean-up and decontamination will be necessary since the postulated ground contamination is below the proposed EPA standard.

Water contamination will not be a problem, even assuming that the basement floor has developed cracks. Because of the transport properties of plutonium in either the oxide or nitrate form, transportation through the soil into the groundwater is an extremely slow process. Significant groundwater contamination by plutonium migration through the soil is impossible because of the time requirement, plutonium concentration in the soil; the end plutonium concentration in the groundwater, and the dilution factors involved with groundwater motion.

Contamination of the nearby San Antonio reservoir is not considered in the PSER since the dam for the reservoir is located on the considered fault network. If the earthquake destroyed the dam, there would be no reservoir, but assuming dam failure, no flooding of the VNC would occur since the topography of that region would not permit flooding of the site. Even if the dam withstood the earthquake, that reservoir along with the others in the area would not be significantly contaminated due to the volume of water contained in these reservoirs as compared to the quantities of plutonium released. By way of comparison only, and not to establish a guideline for accidental releases, any contamination of bodies of water would be expected to be well below the concentration limits established in 10 CFR Part 20 for releases to unrestricted areas.

As further assurance that the impact of such an event will be minimized, GE-VNC has a written emergency control plan for the site. The plan meets the requirements for plutonium handling facilities as set forth in 10 CFR 70.22(i). Specific plans have been developed for various emergencies including earthquakes. Building emergency teams have been trained in the use of survey instruments, protective apparel and remote manipulation equipment. Periodic drills are conducted to assure adequate personnel response to emergency situations, and responsibilities are designated for maintenance of communication equipment and standby equipment and instruments. Arrangements have been made for hospitals, with supervision by competent nuclear safety personnel, to receive and care for injured who may be contaminated. During an emergency the General Electric Test Reactor (GETR) shift supervisor is assigned control of all emergency operations and insures coordination between the Emergency Control Organization and outside organizations such as law enforcement agencies, fire control agencies, and mutual aid organizations. This responsibility includes the operations at the laboratories which house the SNM activities.

Plutonium Toxicity

In the PSER, the Staff compared the calculated dose consequences with annual exposures for occupational workers allowed on a routine basis under 10 CFR Part 20. The doses from the assumed seismic event were found to be of the same magnitude as the aforementioned regulatory dose limits. The use of the regulatory limit was not intended to establish guidelines for accidental releases and the resultant estimated doses. They were used to put into perspective the consequences of such a postulated catastrophic event for which no definitive criteria exist. To the extent the Friends of the Earth challenge the validity of the dose levels given in 10 CFR Part 20 and postulate greater material toxicity than now assumed by the Commission, that challenge is essentially directed to the Commission's regulations and should be addressed in a petition for rule making to the Commission.

Conclusion

Continued operation of activities covered under License No. SNM-960 does not pose a significant health and safety risk to the public. The FOE petition and other requests to suspend License No. SNM-960 have not provided new information that would change NMSS's conclusions as presented in the PSER. Moreover, the plutonium release estimates presented in the PSER were recently confirmed by PNL.

Nonetheless, NMSS is continuing to evaluate the effects of seismic phenomena on the VNC site. Before the Order to Show-Cause for the GETR was issued, NMSS had initiated a program of analysis of the effects of abnormal natural phenomena (earthquakes, severe weather, and flooding) on existing commercial plutonium research and development and fabrication facilities,¹⁵ including General Electric's Vallecitos facility. This natural phenomena review program will provide a realistic assessment of the range of likelihood of occurrence and credible consequences of natural phenomena. In the course of the analysis of the effects of natural phenomena, NMSS will refine the release calculations on the basis of the structural response to specific seismic events and the risk associated with continued SNM operations.

These reviews will, of course, take into account the latest evidence regarding the geologic and tectonic conditions at the Vallecitos site.

A copy of this decision will be placed in the Commission's Public Document Room at 1717 H Street, N.W., Washington, D.C. 20555 and the local

¹⁵James E. Ayer and Winston Burkhardt, "Analysis of the Effects of Abnormal Natural Phenomena on Existing Plutonium Fabrication Plants," presented at American Nuclear Society Topical Meeting, Bal Harbor, Florida, May 2-4, 1977. The paper dealt with the approach being used to perform the analysis. It does not present the results of the analysis. (continued)

reading room for VNC set up at the NRC's Office of Inspection and Enforcement, Region V, located at 1990 N. California Boulevard, Suite 202, Walnut Creek, California 94596. A copy of this decision will also be filed with the Secretary of the Commission for its review in accordance with 10 CFR 2.206(c) of the Commission's regulations.

In accordance with 10 CFR 2.206(c) of the Commission's Rules of Practice, this decision will constitute the final action of the Commission twenty (20) days after the date of issuance, unless the Commission on its own motion institutes review of this decision within that time.

William J. Dircks, Director
Office of Nuclear Material Safety
and Safeguards

Dated at Silver Spring, Maryland
this 29th day of June, 1979.

In an attachment to its petition, the Friends of the Earth allege that members of the Natural Phenomena Review (NPR) team have "obvious conflicts of interests that interfere in their objectivity" as members of the NPR team. Although action with regard to the membership of the team was not part of the requested relief and the work of the review team does not form the basis of this decision, the staff is satisfied that no conflicts of interest exist with respect to members of the review team which would affect the conduct of their duties.

Engineering Decision Analysis Company (EDAC) is not a member of the NPR team which is reviewing the Vallecitos site. The staff removed EDAC from the team approximately 1 1/2 years ago because EDAC had performed some seismic analyses for General Electric with respect to the test reactor at Vallecitos. Teknetron Energy Resources Analysts (TERA) has not performed work for General Electric, based on information provided the staff by both TERA and General Electric. Representatives from the Lawrence Livermore Laboratory, Los Alamos Scientific Laboratory, Pacific Northwest Laboratory, and Argonne National Laboratory are also members of the NPR team for Vallecitos; however, none of these labs have direct contractual relationships with the General Electric Company.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

EXECUTIVE DIRECTOR FOR OPERATIONS

Lee V. Gossick

In the Matter of

Docket No. PRM-71-5

CHEM-NUCLEAR SYSTEMS, INC.

June 13, 1979

The Commission's Executive Director for Operations denies petition for rulemaking to exempt the package owner from the requirements that the package owner furnish the named user with the safety analysis report and blueprints of a particular container or package if the named user is provided with specific procedures developed by the owner and filed with the NRC in accordance with the provisions of quality assurance criteria for shipping packages for radioactive material.

**TECHNICAL ISSUES: DESCRIPTION OF APPLICANT'S SPECIFIC
QUALITY ASSURANCE PROVISIONS**

The requirement in a package approval for a description of the applicant's specific quality assurance provisions is in addition to, and not in substitution for, the package's safety evaluation which is based on the safety analysis report of the package design or application.

TECHNICAL ISSUES: ISSUANCE OF PACKAGE APPROVALS

The NRC staff issues package approvals on the basis of safety analysis reports prepared by applicants and refers to applications that contain blueprints.

TECHNICAL ISSUES: ASSURANCE THAT PACKAGES ARE AS DESCRIBED IN PACKAGE APPROVALS

It is the general licensees delivering licensed radioactive material to a carrier for transport under the authority of 10 CFR 71.12(b) who must assure themselves and the NRC that the subject packages are as described in the package approvals.

TECHNICAL ISSUES: EXERCISE OF REGULATORY AUTHORITY THROUGH GENERAL LICENSEES

The NRC must exercise its regulatory authority through its general licensees who use package approvals because the NRC has no general enforcement powers over package manufacturers or package owners unless they possess or use licensed radioactive material. They would, however, be subject to 10 CFR Part 21, "Reporting of Defects and Noncompliance."

TECHNICAL ISSUES: APPRISING PUBLIC OF INFORMATION IN SAFETY ANALYSIS REPORTS AND BLUEPRINTS

For the public to be assured that general licensees comply with the terms and conditions of package approvals, the public must be apprised of the information in safety analysis reports and blueprints referred to in package approvals. Therefore, these documents cannot be exempt from public disclosure.

TECHNICAL ISSUES: RIGHT OF PUBLIC TO BE APPRISED OUTWEIGHS CONCERN FOR PROTECTION OF COMPETITIVE POSITION

The right of the public to be fully apprised as to the bases (e.g., safety analysis reports and blueprints) for licensing under 10 CFR 71.12(b) outweighs the concern for protection of a competitive position that may be set out in a safety analysis report or blueprint.

DENIAL OF PETITION FOR RULEMAKING

The Nuclear Regulatory Commission's regulation, "Packaging of Radioactive Material for Transport and Transportation of Radioactive Material Under Certain Conditions," 10 CFR Part 71, provides a general license in 10 CFR 71.12 to persons holding a general or specific Commission license, to deliver licensed material to a carrier for transport. The licensee must have a quality assurance program whose description has been sub-

mitted to and approved by the Commission as satisfying the provisions of 10 CFR 71.51. Further, if delivery is made in a package for which a license, certificate of compliance (Form NRC-618) or other approval has been issued by the NRC or the Atomic Energy Commission, the person using the package must have a copy of the specific license, certificate of compliance, or other approval authorizing use of the package and all documents referred to in the license, certificate, or other approval, as applicable (10 CFR 71.12(b) (1) (i)). Quality assurance requirements specific to the particular package design are specified in the package approval.

THE PETITION

By letter dated September 24, 1977, Chem-Nuclear Systems, Inc. filed with the Commission a petition for rulemaking (PRM-71-5) requesting that the Commission exempt the package owner from the requirements in 10 CFR Part 71 that the package owner furnish the named user with the safety analysis report and blueprints of a particular container or package if (1) a user of the NRC approved container or package is named a user; (2) the named user is supplied with a copy of the license or certificate; and, (3) the named user is provided with specific procedures which have been developed by the owner of the container or package and filed with the NRC in accordance with the provisions of 10 CFR Part 71, Appendix E, "Quality Assurance Criteria for Shipping Packaging for Radioactive Material."

BASES FOR REQUEST

The bases for the request are set out by the petitioner as follows:

- a. Chem-Nuclear has been advised by NRC licensing staff that "all documents referred to in the license" would include the safety analysis report and blueprints of the particular container or package.
- b. In several cases, some of the information contained in the safety analysis and blueprints is regarded by Chem-Nuclear as proprietary. For competitive reasons, Chem-Nuclear wishes to limit the furnishing of this information to instances where such information is necessary and where adequate safeguards can be imposed.
- c. In all cases, the license or certificate issued by the NRC clearly defines the specific conditions for use of a particular container or package. Users of containers or packages have no need for the safety analysis and blueprints. Providing the safety analysis and blueprints to the user can serve no useful purpose, but only create a large amount

of additional paperwork for the owner of the container or package and adds to the risk of misuse of proprietary data.

- d. The need of the users for safety information can be met thoroughly by the specific procedures developed by the owner of the container or package and filed with the NRC in accordance with the provisions of Appendix E to 10 CFR Part 71.

REQUEST FOR COMMENTS ON PETITION

A notice of filing of petition for rulemaking was published in the Federal Register on October 6, 1977 (42 FR 54475). The comment period expired December 5, 1977. No comments were received in response to the notice.

PREVIOUS ACTION

On August 4, 1977 (42 FR 39364), the Commission amended 10 CFR Part 71 to add new Appendix E and upgraded quality assurance requirements that are the subject of the petitioner's request.

In the preamble to the final rule, the Commission discussed package manufacturers' submission of information on specific aspects of quality assurance:

The licensee who is an applicant for the package approval provides the descriptions of quality assurance programs governing the manufacturer and use of the package. If the package is approved by the Nuclear Regulatory Commission for use in the transportation of radioactive material, a package approval is issued which incorporates the package description and identification, its safety evaluation, and a description of the applicant's specific quality assurance provisions for design, fabrication, assembly, testing, use, and maintenance of the package.

Clearly, the requirement in a package approval for a description of the applicant's specific quality assurance provisions is in addition to, and not in substitution for, the package's safety evaluation which is based on the safety analysis report of the package design or application.

WITHHOLDING FROM PUBLIC DISCLOSURE

Persons who submit to the Commission information believed to be privileged, confidential, or a trade secret are on notice (10 CFR 2.790) that it is the policy of the Commission to achieve an effective balance between

legitimate concerns for protection of competitive positions and the right of the public to be fully apprised as to the basis for and effects of licensing actions, and that it is within the discretion of the Commission to withhold such information from public disclosure.

Under this policy and as a matter of licensing practice, the NRC staff issues package approvals on the basis of safety analysis reports prepared by applicants and refers to applications that contain blueprints. As a consequence, it is the general licensees delivering licensed radioactive material to a carrier for transport under the authority of 10 CFR 71.12(b) who must assure themselves and the NRC that the subject packages are as described in the package approvals. (The NRC must exercise its regulatory authority through its general licensees who use package approvals because the NRC has no general enforcement powers over package manufacturers or package owners unless they possess and use licensed radioactive material. They would, however, be subject to 10 CFR Part 21, "Reporting of Defects and Noncompliance.") An exemption from the requirements of 10 CFR Part 71 for furnishing the safety analysis reports and blueprints as requested by the petitioner could deny general licensees information essential to the safe use of packages to deliver licensed materials to carriers for transport. In addition, for the public to be assured that general licensees comply with the terms and conditions of package approvals, the public must be apprised of the information in safety analysis reports and blueprints referred to in package approvals. Therefore, these documents cannot be exempt from public disclosure.

GROUND FOR DENIAL

The Commission has given careful consideration to this petition for rulemaking (PRM-71-5) and has decided to deny the petition on the grounds that: (1) The requirement in a package approval for a description of the applicant's specific quality assurance provisions is in addition to, and not in substitution for, the package's safety evaluation which is based on the safety analysis report of the package design or application; and (2) The right of the public to be fully apprised as to the bases (e.g., safety analysis reports and blueprints) for licensing under 10 CFR 71.12(b) outweighs the concern of Chem-Nuclear Systems, Inc. for protection of a competitive position that may be set out in a safety analysis report or blueprint.

A copy of the petition for rulemaking and the Commission's letter of denial are available for public inspection at the Commission's Public Document Room at 1717 H Street NW., Washington, D.C.

For the Nuclear Regulatory Commission.

Lee V. Gossick
Executive Director for Operations

Dated at Bethesda, Maryland
this 30th day of May, 1979.

[NOTICE PUBLISHED IN THE FEDERAL REGISTER ON JUNE 13,
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