

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

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Before the Atomic Safety and Licensing Board

In the Matter of)
)
Philadelphia Electric Company) Docket Nos. 50-352
) 50-353
(Limerick Generating Station,)
Units 1 and 2))

APPLICANT'S ANSWER TO THE FURTHER PARTICULARIZATION
OF INTERVENORS' CONDITIONALLY ADMITTED CONTENTIONS

Introduction

In its "Memorandum and Order Continuing Informal Discovery, Providing for Further Specification of Conditionally Admitted Contentions and Noting Dismissal of ECNP" (February 10, 1983) ("Memorandum and Order"), the Atomic Safety and Licensing Board ("Licensing Board" or "Board") required, inter alia, that:

The intervenors shall particularize all conditionally admitted contentions, with the exception of emergency planning contentions, to the fullest extent practicable in light of the information supplied since the special prehearing conference. In judging the particularity of such contentions, and bases supplied in support of the particularized contentions, the Board will take into account the level of information presently available on Applicant's plans as they apply to a contention. Accordingly, intervenors should explain why they believe missing information prevents a contention from being particularized beyond what is set forth in the upcoming refiling of the

contentions. However, intervenors should make every effort to specify better all conditionally admitted contentions, even those for which information from the Applicant is still pending. 1/

The Board supplied a list of pending non-emergency planning, conditionally admitted contentions.^{2/}

On April 13, 1983, Applicant received a copy of the reply of intervenors Limerick Ecology Action ("LEA"), Frank Romano and Marvin Lewis to this requirement of the Licensing Board's Memorandum and Order.^{3/} As discussed herein, Applicant opposes the admission of intervenors' contentions. Applicant's answer addresses the standard for acceptance of intervenors' contentions judged against the requirements of the Licensing Board's Memorandum and Order and the Commission's regulations. Next, Applicant addresses the authority of the Licensing Board to consider probabilistic risk assessment-related contentions. Each of the PRA contentions are analyzed in this framework. LEA's non-PRA contentions are then discussed, followed by the submittal related to quality assurance filed by Intervenors Romano and Lewis.

1/ Memorandum and Order at 4-5.

2/ Id. at 5-6.

3/ As discussed, infra, Mr. Lewis chose not to submit a statement of contentions, but merely requested to address the Licensing Board at the forthcoming prehearing conference.

Standard for Admissibility of Contentions

Section 2.714 of the Commission's Rules of Practice requires that in order to be admissible a contention be stated with specificity and be accompanied by a statement of its bases. The stated bases must be sufficient to assure that the other parties in the proceeding are on notice as to the issues that will be litigated. Philadelphia Electric Company (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 (1974). As recognized by the Licensing Board in its Memorandum and Order, the particularity of a contention must be judged against the level of information presently available. Applicant submits that not only should the information in the application be taken into account in judging the specificity of a contention, but also information provided by virtue of completed discovery. As previously noted, over 150,000 pages of material on the Probabilistic Risk Assessment ("PRA") and other contentions have been provided.

When judged against the information available, Applicant submits that a number of the proffered contentions are deficient. Intervenor LEA has failed to comply with the Board's Memorandum and Order in that it has provided neither specificity or bases. In a number of cases, Intervenor has stated that its contention is the "same" as originally submitted. Such contentions should be dismissed outright as no real effort to comply with the Board's Memorandum and Order has been made.

LEA has submitted five new contentions related to PRA matters. However, it has not provided good cause for such filing nor addressed the other criteria for the admission of late-filed contentions.^{4/} While the published results of the Brookhaven National Laboratory ("BNL") analysis of the Limerick Station Probabilistic Risk Assessment are cited in four out of the five contentions, the publication of this document is not good cause. Intervenors, using due diligence, could have raised these issues themselves at the outset of this proceeding or shortly thereafter. In Catawba, the Appeal Board has made it clear that

as a matter of law a contention cannot be rejected as untimely if it (1) is wholly dependent upon the content of a particular document; (2) could not therefore be advanced with any degree of specificity (if at all) in advance of the public availability of that document; and (3) is tendered with the requisite degree of promptness once the document comes into existence and is accessible for public examination. ^{5/}

Utilizing this test, these contentions should be rejected. The document upon which these contentions are dependent is the Probabilistic Risk Assessment Limerick Generating Station ("Limerick Probabilistic Risk Assessment") submitted in 1981, not the BNL study. The information which BNL

^{4/} 10 C.F.R. §2.714(a)(1)(i)-(v).

^{5/} Duke Power Company (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC ____, slip op. at 16 (August 19, 1983).

analyzed is all in the Applicant's submittal. LEA's consultant had the same or more information available to him and could have arrived at the same conclusions without having BNL's study before him. It is Applicant's position that the Licensing Board should not be put in the position of having to plow through all of the Staff's various consultants' work merely because an intervenor seeks to adopt the consultants' conclusions as its own.

LEA should not be permitted to "piggyback" upon the Staff consultants' review to introduce new issues in this proceeding. Nothing prevented intervenors from independently reviewing the Application and filing these contentions in a timely manner.

There are a number of contentions which are premature under the Atomic Safety and Licensing Appeal Board decision, ALAB-687, in the Catawba proceeding. These are matters for which portions of the information required to meet Commission regulations are yet to be submitted. Applicant has merely identified such contentions as falling in this category in this reply. Most of the remainder of this information will be submitted in the next three months. Under the standards set forth in Catawba, ALAB-687, supra, the proffered contention must be denied at this time.

On March 21, 1983, the Board had required that the NRC Staff:

shall file a written report which authoritatively and definitively explains the scope and purpose of the use

it will make of the Applicant's Probabilistic Risk Assessment, and the NRC Staff review of it, in the context of the Staff's licensing review of the Limerick plant. In formulating its report, the NRC Staff should address the questions and uncertainties expressed by the Board at the first special prehearing conference, in the SPCO, supra, 15 NRC at 1489-94, and during the conference call of March 17, 1983. The expected substance of the Staff's report shall be thoroughly discussed with the Applicant and LEA, in advance of its being filed, as part of the required thorough discussions among these parties on PRA and other contentions. 6/

On April 13, 1983, the "Statement of the NRC Staff's Use of Limerick PRA" was filed as an attachment to "NRC Staff Response to Licensing Board's Order of March 21, 1983 (April 13, 1983)" ("Staff PRA Position").

Inasmuch as the Licensing Board's determination as to the manner in which the PRA for Limerick will be utilized to determine whether operating licenses should be issued, i.e., in determining whether the NRC standards for the issuance of an operating license as contained in the governing statute and regulations are met, directly affects the admissibility of LEA's PRA related contentions, this topic will be addressed in some detail.

As part of this analysis, the Applicant will present its views as to the nature of the Board's authority to

6/ Notice and Order of Second Special Prehearing Conference (March 21, 1983) at 4.

consider PRA related matters both from the perspective of the Commission's safety and environmental regulations. Inasmuch as there is some, but not total agreement between the Staff's position, as contained in the Statement of the NRC Staff's Use of Limerick PRA, and that of the Applicant, the Staff's position paper is used as a basis for analysis.

The Use of PRA in Licensing Decisionmaking

Probabilistic Risk Assessment Associated
with the Limerick Generating Station

Inasmuch as the term "Probabilistic Risk Assessment" has been used imprecisely as it relates to the Limerick Generating Station, it is important to discuss the documents associated with this type of analysis contained in the docket.

A May 6, 1980 letter from Darrell Eisenhut, Director of Licensing, Office of Nuclear Reactor Regulation, requested that the Applicant "conduct a preliminary risk assessment of the Limerick facility utilizing the WASH-1400 methodology, but taking into account significant differences between the WASH-1400 reference plant and the Limerick facility." In response to this request, a two-volume document entitled "Probabilistic Risk Assessment, Limerick Generating Station, Philadelphia Electric Company" was submitted on March 17, 1981, along with, but not as a part of, the Application for Operating Licenses. The prime contractor for this document was General Electric Company.

In response to NRC questions and in order to better reflect facility design, five revisions to this document were submitted. The review of this document by the Staff's contractor Brookhaven National Laboratories resulted in the preparation of NUREG/CR-3028, "A Review of the Limerick Generating Station Probabilistic Risk Assessment."^{7/} In transmitting this document to the Board, the NRC Staff stated that it planned to review the BNL report and prepare an assessment of it for inclusion in the Safety Evaluation Report. It noted a number of areas of disagreement between the Applicant and BNL and stated that these would be focused upon during the course of its review.^{8/}

On July 6, 1981, the NRC Staff asked Applicant to submit information addressing the Commission's Statement of Interim Policy, Nuclear Power Plant Accident Considerations Under the National Environmental Policy Act of 1969.^{9/} The response to that request is contained in Section 7.1 of the Environmental Report-Operating License ("EROL").^{10/} A

^{7/} The document was dated February, 1983. A draft version of this report was issued in October, 1982.

^{8/} Board Notification-NUREG/CR-3028, "A Review of the Limerick Generating Station Probabilistic Risk Assessment" (Board Notification No. 83-25) (March 4, 1983) transmitting Memorandum, Speis to Eisenhut, "BNL Review of LGS PRA" (March 4, 1983).

^{9/} See Question E.450.1. See also Questions E.450.2, .3 and .4 dated August 10, 1982.

^{10/} This section describes the analysis of postulated

copy of that section of the EROL was submitted to the Staff on March 21, 1983 and the formal amendment will be filed by the end of April.^{11/} A report giving details of the methodology and results contained in EROL Section 7.1 entitled Severe Accident Risk Assessment ("SARA") was submitted to the NRC Staff on April 21, 1983.^{12/} The prime contractor for this effort was NUS, Inc. This effort is collectively referred to as the EROL Section 7.1 submittal.

Not all the material from the Limerick Probabilistic Risk Assessment was utilized in or as the basis for the EROL Section 7.1 submittal. The portions not utilized are those listed below.^{13/} As discussed infra, it is only these sections which have been utilized in EROL Section 7.1 or as a basis therefor which have any viability whatsoever. Furthermore, under the Commission's two recent statements of policy, the comparison of risk due to operation of the Limerick Generating Station to that presented in WASH-1400, as originally requested by the Staff, has no place

accidents that were previously designated Class 9.

^{11/} See letter from Mark J. Wetterhahn to the Licensing Board (April 14, 1983).

^{12/} At that time, a copy was provided to counsel for LEA. The Licensing Board will be provided copies shortly.

^{13/} Sections of PRA not used to develop EROL Chapter 7 were: Section 4 - Comparison to WASH-1400; Sections 3.7 and 3.8 - Consequences and Uncertainties; Appendix E - Consequences; Appendix I - Uncertainties.

whatsoever in the licensing process of the Limerick Generating Station as those issues are before this Board. The next three sections present Applicant's position on the statements of the NRC Staff's use of Limerick PRA.

Analysis of Staff Position Regarding Use
In Safety Portion of the Limerick Proceeding

The first section of the Staff PRA Position states that
it

will use the information that evolves from the review of the Limerick PRA, particularly information concerning risk dominant sequences, to check whether such sequences are attributable to structures, systems, components or procedures which fail to satisfy NRC regulatory requirements. If non-conformances are identified, the items involved must be changed to conform to NRC requirements in order for the necessary licensing findings to be made. 14/

Applicant interprets this to mean that the Staff will utilize information from the PRA as one of a number of secondary sources to identify structures, systems and components which are to be reviewed for compliance with the Commission's regulations as part of its regular evaluation accorded all nuclear power plants undergoing an operating license review. This use is consistent with following even hunches or intuition to raise matters to be reviewed against the Commission's regulations. This use is consistent

14/ Staff PRA Position at 1.

therewith. It must be emphasized that in this case, the issue is whether the design of the Limerick Generating Station meets Commission regulations. It is not the underlying PRA which may have brought the matter to the Staff's attention. This would be consistent with the NRC's Policy Statement on Safety Goals for the Operation of Nuclear Power Plants ("Safety Goal Policy Statement")^{15/} which states:

The qualitative safety goals and quantitative design objectives contained in the Commission's Policy Statement [on Safety Goals] will not be used in the licensing process or be interpreted as requiring the performance of probabilistic risk assessments by applicants or licensees during the evaluation period. The goals and objectives are also not to be litigated in the Commission's hearings. The staff should continue to use conformance to regulatory requirements as the exclusive licensing basis for plants. ^{16/}

Thus, the Commission is clearly on record as stating that its review for conformance with its regulations and not an analysis of a probabilistic risk assessment will determine the licensability of facilities such as the Limerick Generating Station. The Commission succinctly spelled out the reasons for reliance upon its regulatory requirements for assuring the health and safety of the public:

To provide adequate protection of the public health and safety, current NRC regulations require conservatism in

^{15/} 48 Fed. Reg. 10772 (March 14, 1983).

^{16/} Emphasis supplied. Id. at 10775.

design, construction, testing, operation and maintenance of nuclear power plants. A defense-in-depth approach is mandated in order to prevent accidents from happening and to mitigate their consequences. 17/

The Commission contrasted this to the present difficulty in using probabilistic risk assessment techniques in reaching licensing decisions:

[I]t is not clear how the Commission's essentially deterministic regulations would be supplemented if the qualitative safety goals and quantitative design objectives-which are based on considerations of probable risk-were incorporated into the regulatory framework. 18/

Thus, at least for the present, the NRC has admitted that it has no standards for utilization of a probabilistic risk assessment to determine the acceptability of a facility. As fully discussed in its Safety Goal Policy Statement and the even more recently issued Proposed Commission Policy Statement on Severe Accidents and Related Views on Nuclear Reactor Regulation ("Proposed Policy on Severe Accidents"), 19/ there are a number of major studies and developmental steps which must be completed prior to even considering the use of PRA as part of the licensing process for individual facilities. These studies are expected to

17/ Id.

18/ Id.

19/ 48 Fed. Reg. 16014 (April 13, 1983).

take at least two years.^{20/} The Commission recognized the present limited utility of probabilistic risk assessments and therefore limited uses during the developmental period.

The basic impediment to adoption of regulations requiring risks to the public to be below certain quantitative limits, as exemplified by the quantitative design objective for large-scale core melt, is that the techniques for developing quantitative risk estimates are complex and, in the cases of interest here, have substantial associated uncertainties. This raises a serious question whether, for a specific nuclear power plant, the achievement of a regulatory-imposed quantitative risk goal can be verified with a sufficient degree of confidence. For this reason, the Commission has decided that, during the evaluation period, implementation of the Policy statement should be limited to uses such as examining proposed and existing regulatory requirements, establishing research priorities, resolving generic issues, and defining the relative importance of issues as they arise. The evaluation period should be used to develop information and understanding as to how to further define and use the design objectives and the cost-benefit guideline.^{21/}

Applicant believes that the second prong of the Staff's statement regarding the use of the Limerick PRA in the safety portion of the Limerick proceeding is not consistent with the Commission's two recent expressions of policy. With regard to the situation that there might be a "unique

^{20/} Safety Goal Policy Statement, 48 Fed. Reg. at 10772.

^{21/} Id. at 10775.

design aspect of Limerick" leading to a "dominant risk sequence" which is "significant to overall facility safety but is attributable not to a failure of compliance with Commission regulations," the Staff states:

In the event that a dominant risk sequence is identified which is significant to overall facility safety but is attributable not to a failure of compliance with Commission regulations but to a unique design aspect of Limerick, the Staff may recommend additional measures to compensate for the unique problem. */

*/ Depending on the nature of such unique problem, if any, there are various regulatory provisions which may be applicable, e.g., 10 C.F.R. Part 100 provides for consideration of compensatory engineered safety features to offset adverse siting characteristics such as large nearby populations. 22/

Initially, the Staff's position is entirely hypothetical. It is based upon the legal assumption that there are "unique design aspects of the Limerick Station." The Staff does not define this term; certainly the Staff gave no examples. The design of the Limerick Generating Station is not unique, being similar to already-licensed boiling water reactors. To the best of Applicant's knowledge, no such "unique design features" have ever been identified during

22/ Staff PRA Position at 1.

the completed construction permit review or during the operating license review to date.

In any event, the Staff's position runs contrary to the Commission's Policy Statement and can be given no operative effect by this Board.^{23/} The Staff's position refers to a "dominant risk sequence." The determination of such sequences would require the use of probabilistic risk assessment techniques and implies a threshold for the imposition of additional regulatory requirements. As discussed above, the Commission has clearly prohibited such a use in licensing actions. The Commission seemed to be addressing the situation at hand when it stated in its Safety Goal Policy Statement:

The Commission recognizes that some probabilistic risk analyses have already been performed for individual nuclear plants and that safety inferences might be made as a result of comparing the results of these analyses to the preliminary design objectives. The Commission cautions against the use of such inferences to reach bottom-line safety conclusions. The Commission believes that existing requirements contained in current regulations are adequate to protect the public health and safety. ^{24/}

^{23/} It is clear that the Commission's policy statements are binding upon the Staff and this Board. Cleveland Electric Illuminating Company, et al. (Perry Nuclear Power Plant, Units 1 and 2), Docket Nos. 50-440 and 50-441, Memorandum and Order (Motion for Reconsideration or Certification), slip op. at 3 (August 30, 1982).

^{24/} Safety Goal Policy Statement, 48 Fed. Reg. at 10772.

The Commission has thus prohibited the use of probabilistic risk assessment techniques to impose additional requirements above and beyond those contained in its regulations. In other words, at least until the various studies discussed in the Policy Statement are completed, the Commission has determined that compliance with existing regulations provides the reasonable assurance of the health and safety of the public mandated by the Atomic Energy Act.

The Staff's reference to 10 C.F.R. Part 100 is totally misplaced as allowing use of probabilistic risk assessment methodology in licensing.^{25/} Analyses under 10 C.F.R. Part 100 are done in accordance with the requirements of the Commission's regulations to determine the acceptability of design basis accidents for the facility. For example, the single failure criterion, as referenced in General Design Criterion 17, is utilized in such an analysis. A probabilistic risk assessment methodology imposes multiple failure mechanisms which are not part of the deterministic Commission regulations.^{26/} The type of accident sequences which are analyzed in a probabilistic risk assessment treatment

^{25/} No other specific examples of applicable regulatory provisions are cited.

^{26/} For example, Commission regulations do not require consideration of pressure vessel failure because of the high quality of its design and construction. Neither do they require consideration of earthquakes larger than the conservatively set Safe Shutdown Earthquake.

"involve sequences of postulated successive failures more severe than those postulated for the design basis for protective systems and engineered safety systems"^{27/} and "would necessarily involve the simultaneous malfunction of numerous safety systems designed and built into the nuclear facility."^{28/} Thus, it is not possible to utilize the Limerick PRA in examining compliance with NRC regulations even if it were permissible under the Safety Goal Policy Statement. In this regard, the Commission stated:

[C]ompliance with current regulations (principally Parts 20, 50, and 100) generally provides adequate protection against the risks from anticipated transients and low consequence accidents as well as design basis accidents; therefore, these need not be analyzed to demonstrate conformance with the safety goals. Thus, to evaluate the safety goal policy statement during the evaluation period, this action plan will focus on the risks from accidents involving potential core-melt. ^{29/}

The Commission's regulations, as consistently interpreted over the years, have established a methodology for evaluating the proposed design basis of a facility and they must be understood in such historical context. It is

^{27/} Offshore Power Systems (Floating Nuclear Power Plants), ALAB-489, 8 NRC 194, 209 n.47 (1978).

^{28/} Id. at 209.

^{29/} Safety Goals Policy Statement, 48 Fed. Reg. at 10779.

impossible directly to use probabilistic risk techniques to examine selection of design basis events.^{30/}

Finally, as recognized by the Commission, even if one of the proposed design objectives contained in the Safety Goals Policy Statement was not met and noncompliance with a regulation was not involved, a gap in NRC requirements and not an improvement in the plant may be involved.

Because of the uncertainties inherent in PRAs one must be cautious in making absolute comparisons between a risk estimate for a plant and one of the safety goal design objectives. If, for example, such a comparison indicates that a design objective is not met, one would expect the next step would be to examine the underlying technical reasons. It could be that such an examination would reveal that an existing regulatory requirement is not met, in which case the appropriate regulatory action would be to focus on the improvements in the plant needed to meet the regulatory requirement. In other cases, it may reveal a gap in our requirements, in which case appropriate actions may be needed to amend the regulations, depend-

^{30/} The Commission has recognized that the "design bases events" are not tied to probability calculations:

The term "design basis event" is not defined in the regulations. However, staff's licensing review of a nuclear power plant includes an analysis of the plant's responses to certain postulated accidents referred to as design basis events. These accident scenarios are chosen on the basis of staff's engineering judgment and are not necessarily identified as design basis accidents from a calculation of their probability of occurrence. Florida Power & Light Company (St. Lucie Nuclear Power Plant, Unit No. 2), CLI-81-12, 13 NRC 838, 844 (1981).

ing on the safety benefits and the costs of the proposed actions. 31/

In such a case, rulemaking or other generic treatment to consider closing such a "gap" on a generic basis is indicated, rather than imposing additional requirements on an ad hoc basis only on the facility whose review caused such gap to be revealed.

In conclusion, while submitted in a response to a Staff request, subsequent Commission action has made it clear that the Limerick Probabilistic Risk Assessment is not to be utilized in assessing the safety of the facility. That portion of the Limerick FRA not specifically utilized as input to the EROL Section 7.1 submittal is no longer of any operative effect. Furthermore, comparisons made with WASH-1400 as originally requested by the NRC have no validity as an issue in this proceeding.

Analysis of Staff Position Regarding Use in Environmental Portion of the Limerick Proceeding

Applicants submit that the Supreme Court's recent decision in Metropolitan Edison Company v. People Against Nuclear Energy, No. 81-2399 (U.S. April 19, 1983) combined with the two recent policy statements preclude the consideration of the risk of so-called Class 9 accidents. In People Against Nuclear Energy, the Supreme Court held that "NEPA does not require agencies to evaluate the effects of

31/ Safety Goal Policy Statement at 10780.

risk, qua risk."^{32/} While the decision dealt with alleged psychological health damage due to operation, the Court did emphasize that it was considering "effects caused by the risk of an accident."^{33/} It clearly found that "a risk of an accident is not an effect on the physical environment. A risk is, by definition, unrealized in the physical world."^{34/} Thus, under this decision, the NRC does not need to examine the risk associated with accidents which are of low probability, i.e., Class 9 accidents, to fulfill its obligations under NEPA.

Moreover, Applicant submits that, while not focused on NEPA considerations, the Commission's recent pronouncements regarding probabilistic risk assessments, taken as a whole, raise so many questions concerning this technique as to render it impotent as a tool of environmental analysis. The Commission has recognized that at the present there are so many unknowns associated with probabilistic risk assessments that extensive further study is necessary before this technique is useful.^{35/} Certainly this technique need not

^{32/} Slip op. at 12.

^{33/} Id. at 8, n.9. The Court stated that the NRC had fulfilled its obligation under NEPA by considering the possible effects of a number of accidents which might occur at a facility.

^{34/} Id. at 8.

^{35/} Safety Goal Policy Statement, 48 Fed. Reg. at 10779-81. Areas of uncertainty include whether to include risks

be utilized for environmental disclosure purposes if the NRC has found it not to be suitable at this time as a safety evaluation technique. Thus, this Board should deny these contentions to the extent they seek to require the use of probabilistic risk assessment tools to comply with NEPA.

Even should the Board find it has an obligation to consider the risk of low probability accidents under NEPA, several additional points should be considered which would limit such inquiry. Compliance with the Commission's Statement of Interim Policy concerning Nuclear Power Plant Accident Considerations under the National Environmental Policy Act of 1969 is discussed in EROL Section 7.1, and not the Limerick Probabilistic Risk Assessment. Thus, as previously noted, except as utilized to develop EROL Section 7.1, the PRA is not relevant.

Second, with regard to the National Environmental Policy Act of 1969 ("NEPA")^{36/}, it is clear that the issue before the Licensing Board relates to the environmental review by the NRC and not the Applicant's submittal. The ultimate issue is the adequacy of the NRC's environmental impact statement and not directly the input of the

of external events, the proper source terms and the extent of uncertainties in the results.

36/ 42 U.S.C. §4321 et seq.

Applicant.^{37/} Therefore, the Board should not admit issues related only to asserted deficiencies in the presentation of the Applicant.

Third, it must be emphasized that NEPA is a disclosure statute and, as recognized by the Commission, should not be used to impose safety requirements upon the facility. Thus, the Commission has stated in its Proposed Policy on Severe Accidents:

Accordingly, individual licensing proceedings are not appropriate forums for a broad examination of the Commission's regulatory requirements relating to control and mitigation of accidents more severe than the design basis. Similarly, notwithstanding the Class 9 accidents review requirements for environmental hearings of the Commission's Statement of Interim Policy on "Nuclear Power Plant Accident Considerations Under the National Environmental Policy Act of 1969" (45 FR 40101, June 13, 1980), the capability of current designs or procedures (or alternatives thereto) to control or mitigate severe accidents should not be addressed in case-related safety hearings. ^{38/}

For purposes of analysis of the individual probabilistic risk assessment contentions, infra, it is assumed that the EROL Section 7.1 submittal would still be required to be considered by the Board.

^{37/} Boston Edison Company (Pilgrim Nuclear Generating Station, Unit 2), ALAB-479, 7 NRC 774, 792-4.

^{38/} 48 Fed. Reg. at 16018.

Analysis of Staff Position Regarding Additional
Uses Outside the Limerick Licensing Proceeding

By its very nature, such uses are beyond the Board's purview and detailed comment is unnecessary. Suffice it to say that the Commission has stated in its policy statements with some specificity what role probabilistic risk assessments have in the development of its safety goal outside the decisional context of licensing. These uses are outside the docket and bear no relationship to the questions of whether the Commission's present regulations have been met and whether operating licenses should be issued.

Discussion of LEA Probabilistic
Risk Assessment Contentions

I-3

This contention relates to the asserted need for improving the WASH-1400 model in order to permit a comparison with Limerick Generating Station. As discussed previously, the Commission's recent policy statements prohibit the use of the Limerick Probabilistic Risk Assessment in licensing decisionmaking. In any event, the comparison of risks to the Limerick Generating Station to the hypothetical generic BWR as contained in WASH-1400, even though such comparison was requested by the Staff in 1980, has no present place in the licensing of the facility. Furthermore, there is no requirement as far as the NRC's environmental review is concerned for any comparison of risk with other particular or generic type nuclear reactors. This

contention, which is also totally lacking in specificity and basis, should be denied.

I-4

This contention which relates to pressure vessel failure suffers from the same deficiencies as the previous one as it involves a comparison with WASH-1400. In any event, such contention is based upon a misstatement of fact and presents no litigable issue. The analysis described in EROL Section 7.1 does indeed factor in the effect of pressure vessel failure on risk estimates from the operation of Limerick.^{39/} This contention, as well as a number of others, states that if a study is undertaken (presumably by the Applicant or Staff) a certain outcome may result. Such type of speculation does not result in a litigable contention in that no specific deficiency is alleged. Certainly such a contention lacks basis. This contention presents no litigable issue and should be denied.

I-5

This contention alleges that the radionuclide inventory assumed for Limerick as it relates to the cesium isotopes is understated. It appears that the alleged discrepancy is traceable to Table E.8 of the Limerick Probabilistic Risk Assessment (Appendix E, page E-30). The entries for cesium for the WASH-1400 column are in error. However, the

39/ See also SARA Section 2.3.

WASH-1400 values in this table were not utilized for calculational purposes in the Limerick Probabilistic Risk Assessment. The corrected values are set forth in the margin and are in relatively close agreement with those for Limerick.^{40/} Aside from this error, there is no basis given as to the incorrectness of the values for cesium inventories utilized in the Limerick analysis, which were the result of specific calculations tailored to the Limerick design. No issue as to the values for cesium as utilized in the Limerick Probabilistic Risk Assessment is presented here.

I-7

This contention which states that the fault tree model only extends to the component level lacks specificity and basis. There is absolutely no support given for the asserted proposition that "subpart level common mode failures could increase the probability of core-melt." This contention is speculative and fails to address any specific system, component or subcomponent. It should be denied.

40/ For cesium, Table E.8 should read:

	<u>WASH-1400</u>	<u>Limerick</u>
Cs-134	2.3 x 10 ³	1.72 x 10 ³
Cs-136	9.4 x 10 ²	5.86 x 10 ²
Cs-137	1.5 x 10 ³	1.71 x 10 ³

I-8

This contention merely asserts that a log normally distributed variants are more appropriately used for analyzing loss of offsite power. No basis is stated nor is the cited BNL reference supportive of this proposition. There is no indication given whether such effect is significant in the context of risk. This contention should be denied.

I-10

This contention relates to a comparison of Limerick to the WASH-1400 model and as such has no continuing validity in the light of recent Commission policy statements discussed previously. To the extent this contention seeks to consider "mitigation schemes for Limerick" it is also defective.^{41/} The contention lacks specificity as to what "location-dependent common mode failures" are being addressed. There is also no stated basis for the assertions made. Finally, it is alleged only that the failures "may be" important. As such, no litigable issue is presented.

I-11

This contention asserts that the failure rate assumption "cannot be seriously asserted for many classes of equipment."^{42/} However, no classes of equipment are identified nor is any basis stated for this proposition.

^{41/} See p. 22, supra.

^{42/} LEA Submittal at 4.

This contention lacks specificity and basis and should be denied.

I-12

This contention asserts that there is no accounting made for "intentional or accidental errors" in the Limerick PRA. This contention is so general and non-specific as not to be litigable. Intervenor makes no showing whatsoever how this general allegation could ever be considered in the context of the operating license proceeding. It is unclear to what the term "penalty report" refers or how such a report could be utilized. This contention should be denied.

I-14

This contention is similar to I-12 in that its thrust is not clear. Nor does the contention state how it relates specifically to the Limerick Generating Station EROL Section 7.1 submittal. The Commission has recently prescribed procedures for environmental qualification of equipment. The Limerick Generating Station is required to conform to such testing and other requirements associated with this recent rule.^{43/} If intervenor is seeking to challenge the implementation of this rule as far as its effect on the health and safety of the public, this contention is clearly prohibited by 10 C.F.R. §2.758. The Board should not

^{43/} Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants, 43 Fed. Reg. 2729 (January 21, 1983).

entertain such a challenge without the proper showing which is not provided.

If intervenor is stating that the equipment associated with an event is assumed operable beyond its design basis for which it is qualified, it has failed to provide any basis therefore and is simply incorrect.^{44/} No specificity with regard to any deficiency is stated in this contention and it should be denied.

I-15

This contention alleges that there may be potential "interfacing LOCA initiators" which may substantially increase the risk. However, intervenor merely states that a "more thorough search" for such initiators should be undertaken, without any specificity whatsoever. This is an improper contention in that it alleges no specific deficiency, merely that further general research should be undertaken. With regard to the example given, leakage past main steam isolation valves, this matter bears no relationship to the design of the Limerick Generating Station.^{45/}

^{44/} For example, the Limerick Probabilistic Risk Assessment uses the very conservative position that all accident sequences leading to loss of containment also result in disruption and loss of safety systems ("ECCS") and eventual core melt. The PRA also uses higher failure rates in sequences when containment is not breached but pressure and/or temperature is calculated to be above design value.

^{45/} While intervenor has relied on a BNL reference, it must take responsibility if the cited reference is incorrect

Limerick Generating Station has a specific design feature which will collect leakage through the closed main steam isolation valves and prevents its release directly to the environment.^{46/} This contention is broad and unfocused and should be denied.

I-16a

Contrary to the assertion, the analysis of immediate evacuation contained in the EROL Section 7.1 submittal only considers evacuation to a radius of 10 miles, rather than the 25 mile evacuation radius used in the Limerick PRA which is superseded in this regard. Thus, this contention is without factual basis, bears no relation to the application, and should be denied.

I-16b

Again, the evacuation model used in the consequence analysis for the Limerick EROL Section 7.1 is different from and supersedes that contained in the Limerick Probabilistic Risk Assessment. The model utilized does take into consideration different evacuation delay times and speeds to a distance of 10 miles. Thus, this contention is without basis and should be denied. Additionally, this contention asserts that "available site-specific emergency response

in that it has an obligation to review the application itself in preparing contentions.

^{46/} See FSAR Section 6.7 for a complete description of this system.

data" should be utilized. The specific evacuation times could change for each situation, e.g., night, day or different weather conditions. There is no allegation that the evacuation model presently used in EROL Section 7.1 does not adequately represent evacuation modeling. Thus, this contention should be denied.

The material following Contention I-16b relates to a discussion of the now superseded evacuation modeling in the Limerick Probabilistic Risk Assessment. As previously discussed, such modeling has been superseded by the use of the CRAC II code and modeling contained in EROL Section 7.1. This in effect negates most if not all of the discussion contained therein. The remainder of the "discussion" relates to a comparison with WASH-1400 results. As previously discussed, any such comparison contained in the Limerick Probabilistic Risk Assessment has no continuing validity. Therefore, any argument with the comparison is extraneous and cannot support a contention. These two contentions, 16a and 16b, should be denied.

I-21

The contention generally alleges that additional consideration must be given to increased risk that may occur due to operation of Unit 1 during the completion of construction of Unit 2. This contention is broad and unfocused. Commission regulations require that, in accordance with 10 C.F.R. §50.34(b)(6)(vii), an analysis which assures that any interactions are considered must be prepared. This

contention is a prohibited challenge to the Commission's regulations. Furthermore, there are no specific systems interactions alleged which could occur at the Limerick Generating Station. No basis for this contention is stated. For these reasons, this contention should be denied.

I-22

This contention generally asserts that there will be interaction between the two Limerick units once they are both in operation and generally asserts there may be common structures and components which could impact both units simultaneously. However, the contention is completely lacking in specificity as it regards the Limerick Generating Station. There is not even a single example given of shared components which could lead to an impact on both units simultaneously which have not been adequately considered by Applicant. This contention is non-specific, without basis, and should be denied.

I-23

This contention alleges that the Limerick PRA excludes consideration of external initiators of accidents such as fires, earthquakes, floods, severe weather conditions, sabotage and some types of operator error. EROL Section 7.1 does consider external initiating events as part of the analysis regarding the environmental risk of the Limerick

Generating Station.^{47/} Specifically, such analysis considers fires, earthquakes, external and internal floods, and severe weather conditions, i.e., tornadoes. However, in accordance with Commission policy statements, EROL Section 7.1 does not consider sabotage. In this regard, the Commission has stated that there is no means to measure the risk associated with sabotage and it would not be considered in such probabilistic risk assessments:

The possible effects of sabotage or diversion of nuclear material are also not presently included in the safety goal. At present there is no basis on which to provide a measure of risk on these matters. It is the Commission's intention that everything that is needed shall be done to keep such risks at their present, very low, level; and it is our expectation that efforts on this point will continue to be successful. With these exceptions, it is our intent that the risks from all various initiating mechanisms be taken into account to the best of the capability of current evaluation techniques. 48/

In subsection c, it is alleged that "[a] strong financial incentive exists for continued operation while a dormant safety system is unavailable." LEA presents nothing which would provide a basis for the assertion that Applicant would not completely comply with the terms of its licenses or the Commission's regulations. Absolutely no basis for

47/ SARA provides complete details of the analyses and assumptions used.

48/ 48 Fed. Reg. at 10773.

this assertion is given as it relates to the operation of the Limerick Generating Station. This contention is without basis and should be denied. Similarly, in subsection d which again relates to sabotage, it is stated that "sabotage is more likely at a plant near a large population center." However there is no specific basis for this assertion. Inasmuch as the Commission has stated that sabotage should not be considered, this portion of the contention should be denied. The entire contention should be excluded from consideration.

I-26

This contention seems to assert that, because the Commission's regulations do not require that emergency planning be conducted to 25 miles, individuals will not heed instructions and take shelter if directed by emergency response personnel. There is no basis for such assertion given. The Commission's setting of a 10 mile plume exposure pathway emergency planning zone was partially based on the fact that this would provide an additional basis for planning beyond such area.^{49/} In any event, the assumption used in the EROL Section 7.1 submittal is that outside the

^{49/} In the Statement of Consideration accompanying the latest emergency planning regulations (45 Fed. Reg. 55402, 55406) (August 19, 1980), the NRC stated that "[the 10 mile plume EPZ and 50 mile ingestion pathway EPZ] are considered large enough to provide a response base that would support activity outside the planning zone should this ever be needed."

10 mile EPZ normal activity takes place for 12 hours with no credit given for "sheltering."^{50/} This contention is non-specific and should be denied.

I-30

This contention asserts that the calculation for latent cancers is improperly understated as it fails to include the contribution of malignant thyroid nodules with fatal outcome. The EROL Section 7.1 submittal does take into account thyroid cancer. Therefore this contention is without basis or applicability to the Limerick docket and should be denied.

I-31

This contention states that justification is not provided in the PRA for the assumption that large scale medical treatment will be available to people exposed to radiation as a result of an accident. Again, EROL Section 7.1 presents a parametric evaluation showing the effect if no or different types of medical treatment were given to the exposed population.^{51/} Thus, this contention is without basis and should be denied.

^{50/} See SARA Section 10.1.6.1.5 at 10-11.

^{51/} SARA, Appendix F, Section 5.1 at F-26; SARA, Section 10.1.7 at 10-5; SARA Section 10.3.3.2 at 10-26.

New Probabilistic Risk Assessment Contentions

As discussed previously, these new contentions are late-filed and unaccompanied by any showing of good cause. These contentions could have been submitted at the outset.

New PRA Contention 1

In this contention, intervenor alleges that the PRA modeling of accident sequence was not "realistically" performed. The intervenor asserts generally that "inter-functional dependencies" were underestimated, "errors of logic" were made in some system fault trees and "[s]ome Limerick support systems were not considered at all in the accident sequences."^{52/} Intervenor, however, has not set forth with specificity any of the alleged deficiencies or how such deficiencies would affect the results of the analyses presented. It relies generally upon certain references. However, Applicant submits that this contention is lacking in specificity and should be denied.

New PRA Contention 2

This contention alleges that the procedures used in the PRA for the binning of accident sequences were improper. Again, no specificity is given as to the exact nature of the deficiencies alleged. This contention is lacking in specificity and should be denied. It should be noted that the analysis contained in the EROL Section 7.1 submittal explicitly analyzes more release categories than the

^{52/} LEA Statement of Contentions at 17.

original Limerick Probabilistic Risk Assessment. Thus, Applicant submits there is no basis for this contention and it should be denied.

New PRA Contention 3

This contention alleges certain deficiencies in the determination for the frequency of the loss of offsite power. It states a detailed study of the causes for loss of offsite power must be undertaken. However, intervenor ignores the specific material related to the determination of the frequency of loss of offsite power which is contained in Applicant's letter to the NRC dated December 22, 1982 which was transmitted to the Board and parties. There is no showing of any deficiency in such presentation nor is there any specific allegation of error. It merely seems to raise questions concerning the analysis. This contention should be denied.

New PRA Contention 4

This contention asserts that the Applicant used a 1973 American Nuclear Society ("ANS") curve for decay heat removal. In fact, the Applicant used the same decay heat curve used in WASH-1400, Appendix VIII for the core melt and energy release aspects of the Limerick Probabilistic Risk Assessment. The BNL reference cited only states that BNL in its use of the MARCH Code noted a difference between data derived from the 1973 and 1979 standards. However, it is clear by reference to Section 1, page 1-25 of the Limerick Probabilistic Risk Assessment that the 1973 standard does

not form the basis for the analysis of success criteria. Therefore, inasmuch as this contention is entirely unrelated to the Limerick Probabilistic Risk Assessment, it should be denied.

New PRA Contention 5

This contention relates to a comparison of the risk associated with the Limerick Generating Station and that calculated in WASH-1400. As previously stated, the comparison made in the Limerick Probabilistic Risk Assessment between the Limerick Station and the WASH-1400 BWR is no longer of any value in determining the licensability of the facility and is an inappropriate subject matter for a contention. Thus, New PRA Contention 5 should be denied.

Other Contentions

Contentions I-33(A), (B), (E), ^{53/} and (K) are premature in that, according to Applicant's schedule as presented to the Atomic Safety and Licensing Board, these matters were not complete. Thus, under the Appeal Board's decision in Catawba, ALAB-687, supra, these contentions should not be admitted.

^{53/} The April 15, 1982 letter, Boyer to Eisenhut at pp. 2-4, discusses Applicant's program for control room design review, including human factors aspects (Items I.D.1, II.F.1 and II.D.3), which is responsive to this contention. Further specification at this time should be required by the Licensing Board as to these aspects. An analysis of plant shielding (Item II.B.2) will be submitted in May, 1982.

With regard to Contention 33(C), the April 15, 1982 letter, Boyer to Eisenhut at pp. 5-6, discusses Applicant's program for evaluation and development of procedures for transients and accidents which is responsive to this contention. Further specification at this time should be required by the Licensing Board.

With regard to Contention 33(D), the Applicant's response to Question 640.11, FSAR Revision 10, September 1982, discusses its plans for expanded low power testing and training which are responsive to this contention. Further specification at this time should be required by the Licensing Board.

With regard to Contention 33(G), this contention asserts that Applicant should meet the requirements of Regulatory Guide 1.97, Rev. 2 for reactor vessel level indication instrumentation unless explicit justification for failure to do so is provided. As set forth in Section 7.5, FSAR Revision 16 (January 1983), reactor vessel water level instrumentation is safety grade and complies with Regulatory Guide 1.97, Rev. 2. Further specification at this time should be required by the Licensing Board.

With regard to Contention I-33(M), additional clarification regarding the Applicant's position is being presented in May. However, Applicant believes that this contention lacks specificity in that it does not specify the threat to health and safety of the public that is assertedly associated with Applicant's proposal. It should be noted

that Applicant's proposal, including the schedule for installation at the first refueling outage, is in complete compliance with NUREG-0737.^{54/} Applicant submits its plans in this regard are adequate, this contention does not demonstrate otherwise, and it should be rejected.

I-38

This contention asserts that the post-accident sampling system for Limerick should be able to operate in the environment associated with accidents which are beyond the DBA/LOCA. The basis cited for this contention is NUREG-0737, Item II.B.3. However, NUREG-0737 specifies the criteria to which the post-accident sampling system should be designed, i.e., Regulatory Guide 1.3 releases. The Limerick Generating Station meets these criteria and therefore is in compliance with NUREG-0737. Applicant thus submits that this contention is without basis and should be denied.

I-41(a) and (b)

These contentions address NRC's program to resolve generic unresolved safety issues A-17 and A-47. Applicants submit that this contention is premature. Commission requirements do not require applicants to directly assess operation pending final resolution of generic unresolved

^{54/} Clarification of TMI Action Plan Requirements, Enclosure 2, at 2-10.

safety issues; the relevant assessment is that of the Staff as contained in the Safety Evaluation Report.^{55/} Inasmuch as that document has not been published, Applicants submit that these contentions are premature.

I-42

This contention relates to compliance with the Commission's rule on environmental qualification of electric equipment important to safety.^{56/} Applicant, of course, intends to comply with this rule. Associated with compliance with this rule is the designation of that equipment which is being qualified in accordance with it. This information will be submitted in May, 1983. Thus, Applicant submits that this contention is premature and should be denied by the Licensing Board at this time.

I-45

This contention apparently is a reservation of the right to review a submittal regarding the Applicant's commitments regarding ATWS. Under the Appeal Board's ruling in Catawba, ALAB-687, supra, Applicants submits that this contention must be denied at this point in time.

^{55/} Gulf States Utilities Company (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760, 773 (1977); Virginia Electric Power Company (North Anna Nuclear Power Station, Units 1 and 2), ALAB-491, 8 NRC 245 (1978).

^{56/} See n.43, supra.

I-59

This contention is an apparent attack on NRC regulations regarding the selection of "design basis accidents" for the Limerick Generating Station. It is clear that the Commission in its Safety Goal rulemaking and its severe accident degraded core cooling rulemaking has mandated that further consideration of accidents beyond the present design basis, i.e., Class 8 accidents, not be pursued while such actions as were prescribed by the Commission are taking place. In this regard, the Commission stated in its proposed Commission policy statement on severe accidents and related views on nuclear reactor regulation:

Accordingly, individual licensing proceedings are not appropriate forums for broad examination of the Commission's regulatory requirements relating to control and mitigation of accidents more severe than the design basis.^{57/}

It is clear that the Commission was referring to its present design basis accidents, i.e., those which are defined in Regulatory Guide 1.70 and NUREG-0800, which have been historically considered for reactors similar to the Limerick Generating Station and which were, in fact, considered at the construction permit stage for the Limerick Generating Station.^{58/} Therefore, Applicant submits that the Commission has stated that such attempts to have accidents more

^{57/} 48 Fed. Reg. 16018.

^{58/} See n.30, supra.

severe than the presently considered design basis accidents are prohibited by the Commission. This contention should be denied.

Contention I-60

This contention is seemingly similar to the previous contention in that it seeks to have accidents more severe than the design basis accidents for Limerick considered by the Licensing Board. Inasmuch as design basis accidents are in fact considered in the Final Safety Analysis Report,^{59/} LEA can only be referring to considerations related to accidents beyond the design basis. This contention should therefore be denied.

Quality Assurance/Control

VII-1 (Romano)

In this contention, it is alleged that there is a "pattern of careless workmanship, departure from specified procedures and faulty inspection and supervision in the construction of Units 1 and 2 of the Limerick Generating Station." It is further asserted that such "lack of quality assurance during the construction of the Limerick reactors increases the risk of an accident during operation and thereby threatens the health and safety of intervenors and

^{59/} See FSAR Section 15 for a complete discussion of the analysis of design basis accidents and the evaluation that shows that doses resulting from both liquid and gaseous releases are within the dose guidelines of 10 C.F.R. Part 100 for each such analyzed event.

the public." This contention is completely lacking in basis. Initially, the examples given fail to establish any pattern as alleged by intervenor Romano. There is no link among the deficiencies which were found by the Nuclear Regulatory Commission. A number of non-conformances are not unexpected for a project of this size. There is absolutely no showing that there is a pattern or link among these nonconformances nor that their number has been extraordinary. Nor has Mr. Romano demonstrated how these occurrences could "increase the risk of an accident during operation." Applicant submits that the Commission has not set up this Board to duplicate the Staff's role of providing oversight of construction of the facility. Applicant sees nothing which would in any way present a specific litigable issue regarding the overall quality assurance program at the Limerick Generating Station. In particular, with regard to subpart a, Applicant submits that this is based upon a misunderstanding of the actions taken subsequent to the indicated Notice of Violation. As set forth in documents made available to Mr. Romano, all welds inspected by the particular inspector, not only accessible wells, were reexamined. Therefore, this subpart is lacking in foundation and is without basis.

Intervenor Romano states that he is unable at this time to provide further specificity regarding his contention. Applicant submits that the enumerated reasons for not doing

so do not constitute good cause which would allow him to amend his contention in the future.

Intervenor alleges that the Applicant has failed to supply certain documents requested during informal discovery. He asserts that "certain inspection reports and related correspondence known to exist have not been provided (or not properly identified in the large volume of documents produced in Applicant's discovery room so that intervenor could locate them)." Applicant asserts that it has made every effort to respond fairly and completely to the discovery requests of Mr. Romano. The documents responsive to his requests were of a technical nature and it is possible that he, as a layman, does not understand their import. Mr. Romano has never specifically brought to Applicant's attention any particular documents he believes were not provided and should have been as responsive to his requests. To the extent possible, documents have been segregated in separate folders responsive to each specific request.

With regard to the second reason, Bechtel Power Corporation has stated that they would not make available the name and the employment records of an individual inspector "except in response to a subpoena or other lawful process." Applicant does not understand how the refusal to provide a single name and resume would prevent specification of these quality assurance contentions.

The third reason given is the loss in mail of one of intervenors two September 3, 1982 written discovery requests

to Applicant. While Mr. Romano states that other parties on the service list did receive the letter, Applicant has inquired of Staff counsel who stated that this letter was not received by the NRC Staff. In any event, a complete response to that letter was sent to Mr. Romano on April 6, 1983 and, on that date, documents responsive to that request were placed in the Applicant's document room.

Finally, Applicant sees no connection between any allegations of conditions at Three Mile Island or at the Midland site in relation to the construction of the Limerick Generating Station. Certainly, Mr. Romano does not demonstrate any such relationship.

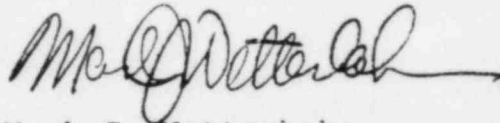
In response to the note contained in the section stating that Mr. Lewis "intends to discontinue his participation in the QA/QC contention. . .", Applicant intends to respond to any argument Mr. Lewis might present at the prehearing conference.

Conclusion

For the reasons discussed above, the conditionally admitted contentions should be denied and no further consideration need be given to them at this time by the Licensing Board.

Respectfully submitted,

CONNER & WETTERHAHN, P.C.

A handwritten signature in black ink, appearing to read "Mark J. Wetterhahn", with a long horizontal flourish extending to the right.

Mark J. Wetterhahn
Counsel for Applicant

April 27, 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
)
Philadelphia Electric Company) Docket Nos. 50-352
) 50-353
(Limerick Generating Station,)
Units 1 and 2))

CERTIFICATE OF SERVICE

I hereby certify that copies of "Applicant's Answer to the Further Particularization of Intervenor's Conditionally Admitted Contentions," dated April 27, 1983, in the captioned matter have been served upon the following by deposit in the United States mail this 27th day of April, 1983:

- | | |
|---|---|
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