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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
PHILADELPHIA ELECTRIC COMPANY)	Docket Nos. 50-352
(Limerick Generating Station,)	50-353
Units 1 and 2))	

NRC STAFF RESPONSE TO LEA'S RESPECIFIED CONTENTION I-42

I. INTRODUCTION

On July 11, 1983, Limerick Ecology Action (LEA) filed its respecified Contention I-42 pursuant to the Board's Memorandum and Order Confirming Schedule Established During Prehearing Conference (Order), dated May 16, 1983. As discussed below, the Staff believes that, except to the extent that I-42 may be limited to two portions of its basis, the respecified contention is inadmissible and should be denied.

II. BACKGROUND

On November 24, 1981, LEA submitted a supplemental petition, which included for the Licensing Board's consideration a contention based on the requirements regarding environmental qualification (EQ) of safety-related electrical equipment set out in NUREG-0588. NUREG-0588 describes the requirements regarding environmental qualification that were current at the time the contention was originally submitted. In its Special Prehearing Conference Order of June 1, 1982, the Board admitted LEA's contention I-42 "subject to the development of specific contentions and

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their basis on particular aspects of the planned environmental qualification after sufficient information regarding such plans is [furnished] as part of the Application."^{1/}

Subsequently, two events relevant to LEA's contention I-42 occurred: (1) the Appeal Board in Duke Power Company (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC 460 (August 11, 1982) concluded that a licensing board has no authority to admit conditionally a contention that falls short of the specificity requirements of 10 C.F.R. 2.714(a);^{2/} and (2) in January, 1983 the Commission promulgated a Final Rule on Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants, 48 Fed. Reg. 2729 (January 21, 1983).

In light of these events and pursuant to a Board Order of February 10, 1983, LEA filed on April 12, 1983 its Specifications of Conditionally Admitted Contentions. The Staff opposed LEA's resubmitted I-42 as lacking in basis. After a second Special Prehearing Conference, the Board issued an Order in which it denied certain contentions "which all parties recognized as lacking specificity and basis since the materials to which they relate are either just recently filed or still lacking."^{3/} LEA's I-42 was among these contentions.

^{1/} 16 NRC 1423 at 1497-98.

^{2/} The Commission's decision on review of ALAB-687, Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 18 NRC (July 1, 1983), modified ALAB-687 in part but did not affect this conclusion.

^{3/} Order, May 16, 1983 at 7.

The Board offered LEA an opportunity to respecify Contention I-42 in a filing to be received by July 15, 1983. It is to this filing of LEA's that the Staff now responds.

III. DISCUSSION

A. Except For Two Portions Of Its Basis, LEA's Resubmitted Contention Lacks Specificity And Should Be Denied

Contention I-42 as resubmitted by LEA on July 11, 1983 is unchanged from the version submitted on April 12, 1983. However, the basis for the contention has been expanded and now reflects, among other things, LEA's consideration of the Applicant's submission to the Staff of an Environmental Qualification Report (EQ Report) in May 1983. The basis for LEA's proposed contention I-42 is presented in three parts; part (a) reads as follows:

The new rule covers qualification of safety-related electrical equipment, required by NUREG-0588 (safety-related equipment being Class 1E equipment in IEEE Standard 323), and non-safety-related equipment whose failure under postulated environmental conditions could mislead the operator or otherwise prevent satisfactory accomplishment of specified safety functions. It also covers certain post-accident monitoring equipment. Applicant's EQ program, designed prior to issuance of the new rule, was designed to qualify safety-related equipment only (see EQ Report, §§ 1 and 2 and Appendix B, for example). Applicant relies upon NUREG-0588 to demonstrate the adequacy of its EQ program.

It is clear from the new EQ rule, however, that it was the Commission's intention to expand its EQ requirements to cover equipment outside of the scope of the Class 1E list (see 48 FR 2733, column 1, including footnote 3). In addition, GDC 4 of 10 CFR Part 50, Appendix A, requires

that equipment important to safety be designed to be compatible with postulated environmental conditions.

In light of the broader coverage of 10 CFR §50.49 and the confusion and/or disagreement that has arisen between NRC staff members and between NRC staff and the regulated community concerning the definitions of safety classifications (see affidavit of James H. Conran, pp. 28-33, previously submitted), applicant should promptly develop a list of the equipment at Limerick that is "important to safety" (and not just safety-related) and that will be tested in its environmental qualification program (such a list is required by 10 CFR §50.49(d)). Failure to promptly develop this list and to reach agreement as to what additional equipment must be qualified in order to comply with the new §50.49 and GDC-4 will seriously impair applicant's progress in qualifying all necessary equipment.

Without the documentation that the applicant has included all necessary non-safety-related but important-to-safety equipment in its EQ program, and without the analysis required by §50.49(i), applicant cannot assure that post-accident failure of non-safety-related equipment will not degrade any safety function or mislead the operator pending completion of qualification.

Examples of systems or equipment that should be reviewed for inclusion in the applicant's EQ program include those for feedwater control, emergency lighting and communications systems, the plant process computer system, and computer software.

Section 50.49 requires holders of or applicants for an operating license for a nuclear power plant to establish a program for qualifying certain electrical equipment that is important to safety. That electrical equipment required to be qualified includes: 1) safety-related equipment relied on during design basis events, 2) nonsafety-related equipment whose failure could prevent the satisfactory accomplishment of required safety functions by safety-related equipment and 3) Regulatory Guide 1.97, Revision 2 post-accident monitoring equipment.

Equipment of these three types which is located in a potentially harsh environment is required to be qualified pursuant to the rule. The Statement of Considerations accompanying 10 C.F.R. § 50.49 explicitly states that:

The final rule does not cover the electric equipment located in a mild environment. The Commission has concluded that the general quality and surveillance requirements applicable to electric equipment as a result of other Commission regulations, including 10 CFR Part 50, Appendix B (see for example, Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operation)," Revision 3) are sufficient to ensure adequate performance of electric equipment important to safety located in mild environments. Since it has been concluded that no further environmental qualification requirements are needed for such equipment provided they fully satisfy all other applicable regulations, the Commission has determined that no additional requirements are necessary with respect to electric equipment important to safety located in mild environments in order for licensees to satisfy, with respect to such equipment, existing license conditions or technical specifications calling for qualification of safety-related electric equipment in accordance with DOR Guidelines or NUREG-0588. 48 Fed Reg 2729 at 273 (January 21, 1983).

The Staff agrees with LEA that it was the Commission's intention in promulgating the EQ rule to expand environmental qualification requirements to cover equipment which might be outside the scope of safety-related equipment (the Class 1E list).^{4/}

As examples of systems or equipment which LEA believes the Applicant should review for possible inclusion on the list of equipment to be environmentally qualified required by § 50.49(d), LEA offers four

^{4/} "Safety-related equipment" is referred to as "Class 1E equipment" in IEEE 323-1974. The terms are used interchangeably. See subsection (b)(1) of the final rule.

systems: feedwater control, emergency lighting and communications systems, the plant process computer system and computer software. These examples are non-specific in that LEA does not make clear whether any part of any of these systems will be subjected to a potentially harsh environment. In order for the contention to be acceptable LEA should have shown: 1) that the equipment belongs to one of the three categories described above as comprehended by the term "important to safety" as defined in § 50.49 and 2) that it is located in a potentially harsh environment. On this point, the Staff notes that in a Memorandum and Order dated May 13, 1983, the Licensing Board in Public Service Company of New Hampshire (Seabrook Station, Units 1 and 2) denied a contention similar to LEA's and opined that "the real, substantive contention that the Board might consider is that a certain specified piece of equipment is not environmentally qualified and should be."^{5/} (Emphasis added). Similar treatment would be appropriate here. The Board should deny LEA's I-42 as lacking in specificity insofar as it relies on the statements set forth in (a) regarding systems that should be reviewed for inclusion in the Applicant's EQ program as a basis.

As regards LEA's statement that "without the analysis required by § 50.49(i), applicant cannot assure that post-accident failure of non-safety related equipment will not degrade any safety function or mislead the operator," the Staff notes that the phrase "mislead the operator" appears in the final rule only in (i)(4) and (5). Section 50.49(i)(4)(5) requires applicants for operating licenses to be

^{5/} Memorandum at 5 n.1.

granted on or after February 22, 1983, but prior to November 30, 1985, to perform and submit prior to the granting of an operating license an analysis to ensure that the plant can be safely operated pending completion of equipment qualification required by the section. The analysis must include, among other things, consideration of:

(4) Completion of the safety function prior to exposure to the accident environment resulting from a design basis event and ensuring that the subsequent failure of the equipment does not degrade any safety function or mislead the operator.

(5) No significant degradation of any safety function or misleading information to the operator as a result of failure of equipment under the accident environment resulting from a design basis event.

A Section 50.49(i) analysis is required only for plants whose qualification will not be complete prior to operation.

The Applicant indicated in its Answer that it does not yet know whether its equipment qualification will be complete prior to operation or whether it will file Justifications for Interim Operation (JIOs) pursuant to 50.49(i).^{6/} Although in construing ALAB-687 as it applies to

^{6/} On June 30, 1983, the U.S. Court of Appeals for the District of Columbia Circuit issued an opinion in Union of Concerned Scientists v. Nuclear Regulatory Commission, No. 82-2000, vacating and remanding the June 30, 1982 interim final rule suspending the June 30, 1982 deadline for environmental qualification of electrical equipment, 47 Fed. Reg. 28363. The Court directed the Commission on remand to provide an opportunity for comment on the sufficiency of current documentation purporting to justify continued operation pending completion of environmental qualification. The Commission has not yet taken any action in responding to the decision. In any case, the Court of Appeals decision pertains to plants having operating licenses with conditions requiring implementation of environmental qualification requirements and would not seem to extend to plants whose operating license applications are pending. When the Commission takes action on remand, the Staff will furnish the Board and parties with the relevant documents. Should that action in any way affect the final EQ rule as it applies to OL applicants, the Staff will inform the Board.

LEA's submission, one might well conclude that LEA's contention depends on documents not yet available, namely JIOs not yet submitted, and therefore, lacks the requisite specificity, the Commission's decision in Catawba seems to indicate that such contentions are admissible and subject to summary disposition to the extent that they are superseded by the subsequent issuance of licensing-related documents.^{7/} Therefore, the Staff believes that the fourth paragraph of (a) sets forth a proper basis for Contention I-42 and that the contention is admissible as limited by that basis.

Part (b) of LEA's basis for proposed contention I-42 reads as follows:

Consideration of those systems that are required to mitigate the consequences of a LOCA or HELB, in order to determine the list of systems and equipment to be qualified, is inadequate (see EQ Report, p. 2-1.) It is important to consider not only the interaction of failed equipment with other equipment caused by accident initiators such as LOCA and HELB, but to conduct a human interaction review to determine which equipment failures caused by adverse environmental conditions can mislead the operator and therefore degrade safety functions. As an example, the applicant's response to Q 281.11 of the FSAR states:

Non-safety-related valves that are part of the PASS [post-accident sampling system] are not included in the Limerick equipment qualification program. However, those valves that are not accessible for repair after an accident do not contain materials that, if degraded, would prevent the PASS from performing its sampling function.

^{7/} See CLI-83-19, slip op. at 13-14.

LEA contends, however, that it is important to determine whether failure of such valves would mislead the operator into misjudging the level of radionuclide releases occurring, and therefore to cause miscategorization of an accident for emergency planning purposes. Applicant's EQ Report contains no documentation that such human interaction problems have been addressed.

LEA's assertion of the need for a "human interaction review" to determine which equipment failures can mislead the operator seems to be based on a misunderstanding of the scope of the rule, which addresses the environmental qualification of electrical equipment. This part of the basis does not depend on Applicant's failure to address a requirement of § 50.49, as § 50.49 states no such requirement; LEA should have identified the document on which this part of its basis depends and provided a justification for the late filing. Insofar as LEA has failed to provide a basis in Part (b), the contention should be denied to the extent it depends on Part (b) as a basis.

Part(c) of LEA's basis for proposed Contention I-42 reads as follows:

- c) The applicant's EQ Report is inadequate, in that:
 - 1) EQRRs (Equipment Qualification Review Records) are provided for only one type of equipment -- Limitorque valve motor operators (see Appendix E.)
 - 2) Where qualified life of a piece of equipment does not equal the 40 year plant life, no action is identified to correct the deficiency (see EQRRs, pp. 8, 32-35).
 - 3) The Report excludes some safety-related equipment without explanation or justification. For instance, in its qualification of equipment related to the standby liquid control system,

squib valves and the related key lock switch in the control room are excluded.

The Staff agrees with the statement made by LEA in (c)(1), that is that the Applicant's EQ Report provides Equipment Qualification Review Records (EQRRs) for only one class of equipment, namely Limitorque valve motor operators. Presumably, items on the § 50.49(d) list which do not appear in the EQRRs have not yet been qualified. I-42(c)(1) does not identify where LEA's concerns lie regarding equipment not yet qualified and, therefore, does not provide a specific basis for the resubmitted contention.

In (c)(2), LEA points to an alleged deficiency in the EQ Report, namely the failure to identify an action plan for maintenance and replacement of equipment whose qualified life does not equal the 40 year life expectancy of the plant. The Applicant in its Answer points out that the matter was addressed in the EQ Report and that I-42(c)(2) is, therefore, lacking in basis. The Staff agrees that as the information is not lacking in the EQ Report, I-42(c)(2) fails to provide a specific basis to support LEA's contention.

In (c)(3), LEA asserts that some safety-related equipment, namely squib valves and the related key lock switch, is excluded from the EQ Report without explanation or justification. In its Answer, the Applicant notes that squib valves will be addressed in the October 1983 revision and that because the key lock switch is located in a mild environment it is not required to be qualified pursuant to the rule. As LEA has identified one item of equipment, squib valves, which although safety-related has been omitted from consideration in the qualification

of equipment related to the standby liquid control system, the Staff believes that LEA has stated an adequately specific basis. Therefore, the part of I-42(c)(3) relating to the failure to qualify squib valves in the standby liquid control system provides an adequate basis in support of the contention. To the extent that the contention is limited to squib valves,^{8/} it is admissible.

B. A Balancing Of The Five Factors Set Out In § 2.714(a) As Applicable To Late-filed Contentions Requires That Except For Two Parts Of Its Basis LEA's Contention Be Denied

On July 26, 1983, this Board issued its Second Special Prehearing Conference Order (SSPCO). In its Order, the Board construed the recent Catawba decisions of the Appeal Board and the Commission insofar as those decisions affect admissibility of contentions in this proceeding.^{9/}

The Board instructed that LEA may file contentions based on information arising from new licensing-related documents and that in doing so in the future it should address the factors set forth in the Catawba decisions. Although it did not explicitly state whether or not LEA should have addressed the factors set out in 10 C.F.R. § 2.714(a) regarding the admission of late filed contentions in submitting its respecified Contention I-42,^{10/} the Staff believes that LEA should have addressed these factors. Because the Board's Order of May 16, 1983 denied

^{8/} As indicated above, the general concern expressed by LEA with regard to the treatment of the possibility of the operator's being misled is appropriate at this early stage and provides an adequate basis at this time.

^{9/} SSPCO at 2-3.

^{10/} LEA's contention was filed before the Board issued its SSPCO. See, discussion infra.

Contention I-42, the resubmitted contention should be viewed as late-filed. In allowing LEA to respecify, the Board did not waive the requirements with regard to late filings. Pursuant to ALAB-687, LEA should have shown that there was good cause for its nontimely filing in that its proposed Contention I-42 depended on a document not previously available.

Although Part (a) of the new basis refers to the EQ Report of May 1983, it seems to depend as well on other material which is not identified and about which one cannot, therefore, make a judgment concerning the time frame of availability. Part (b) depends not on the EQ Report or on any other recently issued document of which the Staff is aware but apparently is based on other sources which have not been specifically identified by LEA. In the Staff's opinion, LEA has failed to establish the requisite good cause with respect to these matters. However, Part (c)(3) of I-42's basis seems to depend on the Applicant's EQ Report and, therefore, the Staff believes that good cause has been established with respect to this issue.

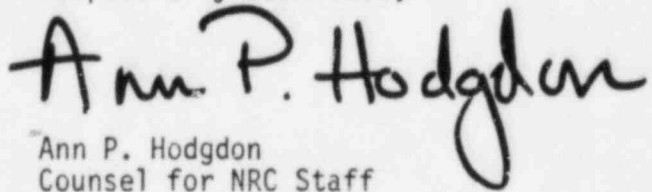
In CLI-83-19, the Commission ruled that all five factors set out in 10 C.F.R. § 2.714(a) must be balanced in determining whether to admit contentions filed after the initial period for submitting contentions. See Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 18 NRC ___, ___ slip op. at 5-6 (July 1, 1983). LEA's Contention I-42 was filed on July 11, 1983 and it should have addressed the five factors. However, in view of LEA's resubmitted contention's being filed only ten days after the Commission's Catawba decision and of LEA's not having the benefit of this Board's views regarding that decision at the time it filed, the Staff believes that the Board can assess LEA's contentions

without the additional delay entailed in another round of pleadings. As discussed above we believe LEA could show good cause insofar as discrete portions of the basis for I-42 depend on information made available in the Applicant's EQ Report. The Staff further believes that in accordance with CLI-83-19 a balancing of the five factors would allow for a conclusion that the contention limited as discussed above should be admitted.

IV. CONCLUSION

As discussed above, the Board should admit a portion of LEA's Contention I-42 and should reject the remainder of the contention.

Respectfully submitted,


Ann P. Hodgdon
Counsel for NRC Staff

Dated in Bethesda, Maryland
this 1st day of August 1983