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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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ATOMIC SAFETY AND LICENSING APPEAL BOARD

Administrative Judges:

Alan S. Rosenthal, Chairman
Howard A. Wilber

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

April 25, 1988
(ALAB-891)

SERVED APR 25 1988

_____)
In the Matter of)
)
PUBLIC SERVICE COMPANY OF)
NEW HAMPSHIRE, et al.)
)
(Seabrook Station, Units 1)
and 2))
_____)

Docket Nos. 50-443-OL-1
50-444-OL-1

(Onsite Emergency Planning
and Safety Issues)

Dean R. Tousley, Washington, D.C., for the
intervenor New England Coalition on Nuclear
Pollution.

Thomas G. Dignan, Jr. and Deborah S. Steerland,
Boston, Massachusetts, for the applicants Public
Service Company of New Hampshire, et al.

Gregory Alan Berry for the Nuclear Regulatory
Commission staff.

MEMORANDUM AND ORDER

For a third time, we are confronted with a challenge to
the Licensing Board's treatment of the issue of the
environmental qualification of the RG58 coaxial cable used
for data transmission in the Seabrook nuclear power
facility's computer system. For a third time, we conclude
that that treatment did not appropriately dispose of the
matter. For a third time, therefore, we are constrained to
return the issue to the Licensing Board for further
consideration.

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A.

1. We first summarize the tortuous evolution of the RG58 cable issue in this proceeding. The issue had its genesis in Contention I.B.2 of the intervenor New England Coalition on Nuclear Pollution (Coalition), which asserted that the applicants had not satisfied General Design Criterion (GDC) 4 in Appendix A to 10 CFR Part 50. GDC 4 requires that

[s]tructures, systems, and components important to safety shall be designed to accommodate the effects of and to be compatible with the environmental conditions associated with normal operation, maintenance, testing, and postulated accidents, including loss-of-coolant accidents.

As litigated, the contention focused upon the capability of electrical equipment subject to GDC 4, including RG58 coaxial cable, to continue to perform its intended function for such period after an accident as might be necessary -- i.e., whether the equipment is "environmentally qualified."

The Commission's regulations identify several permissible methods for demonstrating that an electrical component is environmentally qualified.¹ In the case of RG58 coaxial cable supplied by International Telephone and Telegraph Corporation (ITT), the applicants chose the method of "[t]esting a similar item of equipment with a supporting

¹ See 10 CFR 50.49(f).

analysis to show that the equipment to be qualified is acceptable."² Specifically, the applicants relied upon the results of tests performed on ITT RG59 coaxial cable to demonstrate the environmental qualification of the RG58 cable. Those tests, described in a particular equipment qualification file (EQF) prepared for the applicants, included measurement of both (1) the insulation resistance of a cable specimen during its exposure to an adverse environment (insulation resistance test); and (2) the leakage current during the application of a high alternating current voltage to the cable following its exposure to an adverse environment (high-potential test).³

On March 25, 1987, the Licensing Board issued a partial initial decision in which it authorized the issuance of a license for low-power operation (up to five percent of rated power) for Unit 1 of the Seabrook facility subject to certain conditions.⁴ In that decision, the Board found, inter alia, that the justification for environmental qualification of the RG58 cable by comparison with the

² 10 CFR 50.49(f)(2).

³ See Coalition's Exhibit 4, Electrical Equipment Qualification File No. 113-19-01, Reference 2, Qualification Tests of Electrical Cables in a Simulated Steam-Line-Break and Loss-of-Coolant-Accident Environment: 100-Day Duration RG-11/u and RG-59/u Coaxial Cables.

⁴ See LBP-87-10, 25 NRC 177.

tested RG59 cable was adequately documented in the applicants' EQF.⁵ The only specific evidentiary basis provided by the Board for its finding that the RG58 and RG59 cables possessed the requisite similarity, however, was a letter contained in that EQF from the cable vendor to Seabrook's architect-engineer and constructor.⁶

On its appeal from the Licensing Board's March 25 decision, the Coalition challenged the Board's determination that there had been an adequate demonstration of the environmental qualification of RG58 cable. In an October 1 decision, we agreed with the Coalition that the letter referenced by the Licensing Board was insufficient to establish the environmental qualification of the RG58 cable.⁷ In that letter, the cable vendor stated simply that the RG58 and RG59 cables have "similar construction details" and that it was "confident" that the RG58 cable "would have been approved" had it been tested.⁸ On the face of it, this terse statement appeared difficult to square with the fact that the RG59 cable insulation is 50 percent thicker than

⁵ Id. at 211.

⁶ Id. at 210. See Coalition's Exhibit 4, Reference 4, Letter from Joel T. Sibley, ITT, to George Morris, United Engineers & Constructors (February 11, 1983).

⁷ See ALAB-875, 26 NRC 251, 269-71 (1987).

⁸ Coalition's Exhibit 4, Reference 4.

the RG58 cable insulation.⁹ That consideration led us to return the matter to the Licensing Board with instructions to point to additional support in the existing record for its finding that the RG58 cable is environmentally qualified or, failing that, to take further evidence on the issue.¹⁰

On October 16, the Licensing Board issued a memorandum in which it advised us that, in its judgment, there was no need to supplement the record.¹¹ This was so, we were told, because the EQF demonstrated that the dimensional differences between the RG58 and RG59 cables are of such little importance that the test results for the RG59 cable could serve to qualify the untested RG58 cable. For that conclusion, the Board relied on two separate pieces of information that had not previously been discussed by it. The first disclosure was to the effect that the specified operating requirement for the insulation resistance of the RG58 cable is lower than that for the RG59 cable.¹² The

⁹ Id., Reference 1, United Engineers & Constructors Specification for Specialty Cable, Specification No. 9763-006-113-19, Appendix A at A1-A2.

¹⁰ ALAB-875, 26 NRC at 271.

¹¹ See Memorandum to the Appeal Board (October 16, 1987, unpublished) [hereinafter, Licensing Board October 16 Memorandum] at 4.

¹² See Coalition's Exhibit 4, Reference 1, Section 2.6.1.2 at 5-6.

Board consequently believed that "the predicted performance of the smaller RG58 cable under conditions of environmental qualification testing would be proportional to the lower required operating resistance of its insulation."¹³ Second, the high-potential test of the RG59 cable (wherein the magnitude of the voltage applied to that cable was based on its insulation thickness) yielded satisfactory results.¹⁴ As the Board saw it, had the RG58 cable undergone a like test, similar results would have been obtained.¹⁵

In commenting on the Licensing Board's October 16 memorandum, the Coalition criticized the Board's theory regarding the proportionality of insulation resistance requirements and insulation thickness of RG58 and RG59 cable.¹⁶ In this connection, the Coalition pointed to other information in the EQF that cast substantial doubt upon the validity of the theory.¹⁷ Based on these and other concerns, the Coalition maintained that the issue of the

¹³ Licensing Board October 16 Memorandum at 3.

¹⁴ See Coalition's Exhibit 4, Reference 2 at 2, 13.

¹⁵ See Licensing Board October 16 Memorandum at 3-4.

¹⁶ See New England Coalition on Nuclear Pollution's Supplemental Memorandum Regarding Environmental Qualification of RG58 Coaxial Cable (November 4, 1987) at 3.

¹⁷ Id. at 3-4.

environmental qualification of the RG58 cable required a further adjudicatory hearing.¹⁸

For their part, the applicants made an endeavor to support the Licensing Board's proportionality theory.¹⁹ Proceeding on an entirely new tack, however, they went on to assert that, even if that theory proved unavailing, the RG58 cable should be deemed environmentally qualified because it serves no function in the mitigation of the consequences of an accident.²⁰ Rather, according to the applicants, such cable need withstand an adverse environment only to the extent necessary to ensure that that cable does not compromise the safety function of other components.²¹ Given

¹⁸ Id. at 7. The Coalition also put forth a new concern that the RG59 cable might not be environmentally qualified. Id. at 6. We denied, however, that intervenor's subsequent motion to reopen the record to admit a new contention challenging the environmental qualification of the RG59 cable. ALAB-886, 27 NRC ____ (February 22, 1988).

¹⁹ See Applicants' Response Regarding Environmental Qualification of RG-58 Coaxial Cable (November 25, 1987) [hereinafter, Applicants' November 25 Response] at 4. Notwithstanding their attempt to defend the Licensing Board's theory, the applicants stated that operating insulation resistance values should not be considered as acceptance criteria for accident conditions. Id. at 9.

²⁰ Id. at 3.

²¹ Ibid. As we interpret the applicants' argument, the data transmitted by the RG58 cable to the facility's computer system are not required during an accident. The RG58 cable must be environmentally qualified, however, to the extent necessary to ensure that the cable will not

(Footnote Continued)

this claimed fact -- said to be established by the documentation in the EQF of a telephone conversation concerning color-coding of electrical cable used at Seabrook²² -- the applicants insisted that acceptable performance of the RG58 cable should be measured by its ability to avoid a catastrophic failure during its exposure to an adverse environment.²³ As the applicants saw it, the results of the high-potential test performed on the RG59 cable, standing alone, demonstrated that the RG58 cable meets that standard.²⁴

Unlike the applicants, the staff expressed disagreement with the Licensing Board's proportionality theory.²⁵ Nonetheless, it concurred in the ultimate conclusion reached by the Board in the October 16

(Footnote Continued)

degrade so severely as to prevent (e.g., by causing a fire) other equipment from performing its safety function.

²² See Coalition's Exhibit 4, Reference 6, Record of Conversation from N.K. Woodward, Impell Corporation, to C.D. Greiman, United Engineers & Constructors, reproduced in the Appendix to this opinion. Mr. Woodward also served as a witness for the applicants in regard to environmental qualification of electrical equipment. See Tr. 344.

²³ See Applicants' November 25 Response at 3.

²⁴ Id. at 3-5.

²⁵ See NRC Staff Response to Memorandum of Licensing Board and New England Coalition on Nuclear Pollution Regarding Environmental Qualification of RG-58 Coaxial Cable (December 11, 1987) [hereinafter, Staff's December 11 Response] at 5.

memorandum.²⁶ In this connection, the staff supplied us with a new affidavit of Harold Walker, who had served as a staff witness on the environmental qualification issue during the hearing that preceded the partial initial decision. In that affidavit, Mr. Walker adopted the applicants' thesis that the RG58 cable performs no accident mitigation function (and made a passing reference to the telephone conversation that the applicants offered in support of that thesis).²⁷

In responding to the submittals of the applicants and the staff, the Coalition asserted, inter alia, that (1) there is no explanation in the memorandum summarizing the telephone conversation respecting why certain color-coded cables do not serve an accident mitigation function; (2) the memorandum does not clearly establish that the cables addressed in the telephone conversation include the RG58 cable; and (3) equal uncertainty exists respecting why, if the RG58 cable does not perform a safety function, the EQF specifies operating insulation resistance requirements for it.²⁸

²⁶ Id. at 5-6.

²⁷ Id., Affidavit of Harold Walker at 3, 6.

²⁸ See New England Coalition on Nuclear Pollution's Reply to Applicants' Response Regarding Environmental
(Footnote Continued)

On consideration of the divergent views of the parties, we concluded in ALAB-882 that another remand was in order.²⁹ For the reasons there set forth, we agreed with the Coalition and the staff that the Licensing Board's proportionality theory was flawed. We further directed that Board to examine in the first instance the dispute between the parties with regard to whether the evidence established that the RG58 cable performed no accident mitigation function, so that, standing alone, the RG59 cable high-potential test results would suffice. If the Board found the record at hand to demonstrate clearly that the applicants and the staff have correctly identified the role of the RG58 cable in an accident environment, it was to explicate the basis for the finding. Otherwise, there would be a need for additional evidence on the question whether the RG59 cable test results could serve as the foundation for the environmental qualification of the RG58 cable.³⁰

2. Apparently, the Licensing Board saw no need to obtain any further development of the views of the parties

(Footnote Continued)

Qualification of RG-58 Coaxial Cable (December 10, 1987) at 2-3; NECNP Response to Staff Regarding Environmental Qualification of RG-58 Coaxial Cable (December 23, 1987) at 4-5.

²⁹ See 27 NRC 1 (1988).

³⁰ Id. at 4-5.

on the matter remanded to it. For, without providing an opportunity for such development (let alone soliciting additional submissions), the Board issued a memorandum on March 2 in response to the ALAB-882 remand. We are told that

there is adequate evidence in the record, as averred by the Applicants and NRC Staff, to show that full environmental qualification of cable RG-58 is not required, that the high-potential withstand test is all that is needed to demonstrate its environmental qualification, and that the successful environmental qualification of cable RG-59 can serve to qualify the untested RG-58 cable by comparison.³¹

In arriving at this determination, the Board accepted the telephone conversation, as memorialized in the EQF, as evidence that the RG58 cable has no accident mitigation function.³² It also alluded to the fact that the Walker affidavit had made (albeit without explanation) a like claim.³³

Unfortunately, however, the Licensing Board failed to illumine the foundation for its apparent rejection of several Coalition arguments that were previously presented to us

³¹ Memorandum to Appeal Board on Environmental Qualification of Coaxial Cable RG-58 (March 2, 1988, unpublished) [hereinafter, Licensing Board March 2 Memorandum] at 2-3 (emphasis in original).

³² Id. at 4-5, 8.

³³ Id. at 5.

and very well might have been explicitly renewed before the Board had supplemental submissions been allowed. Indeed, there is little, if any, mention in the Board's March 2 memorandum of the Coalition's insistence last December that (1) the foundation for the crucial representation in the telephone conversation (as memorialized in the EQF) remains unexplained; (2) it is not clear that the representation was intended to include RG58 cable within its ambit; and (3) the EQF likely would not have set forth operating requirements for RG58 cable insulation resistance had that cable been deemed to possess no accident mitigation function.³⁴

3. In a March 22 submittal invited by us,³⁵ the Coalition takes exception to the Licensing Board's determination in the March 2 issuance.³⁶ That intervenor renews its insistence that the memorandum documenting the telephone conversation concerning color-coding of electrical cables does not provide an adequate evidentiary basis for establishing the environmental qualification requirements for the RG58 cable. As before, the Coalition questions the

³⁴ See supra p. 9.

³⁵ See March 3, 1988 order (unpublished).

³⁶ See New England Coalition on Nuclear Pollution's Supplemental Memorandum on Environmental Qualification of RG-58 Coaxial Cable [hereinafter, Coalition's March 22 Memorandum].

source of the statement in the memorandum that certain color-coded electrical cable need only remain intact during and following an accident.³⁷ Further, as the memorandum does not specifically mention RG58 cable or its purchase order number, the Coalition remains unconvinced that the color-coding scheme applies to the cable.³⁸ Because of these and other concerns, the Coalition requests that we once again remand the matter to the Licensing Board -- this time with instructions that the record be reopened to verify the environmental qualification of the RG58 cable.³⁹

In a filing with us last December, the staff seemingly had endorsed, at least implicitly, the use of the memorandum documenting the telephone conversation to demonstrate that the RG58 cable does not have an accident mitigation function, and, thus, need only remain intact in order to be considered environmentally qualified.⁴⁰ Now, however, we are told that the memorandum cannot serve that purpose.⁴¹

³⁷ Id. at 5.

³⁸ Id. at 6.

³⁹ Id. at 8.

⁴⁰ See Staff's December 11 Response, Affidavit of Harold Walker at 6.

⁴¹ See NRC Staff Response to NECNP Supplemental Memorandum on Environmental Qualification of RG-58 Coaxial Cable (April 8, 1988) [hereinafter, Staff's April 8 Response] at 2.

Nevertheless, the staff endeavors to support the Licensing Board's outcome by pointing to excerpts from the Seabrook Final Safety Analysis Report (FSAR).⁴² According to the staff, these excerpts adequately demonstrate (when taken in conjunction with certain disclosures in the EQF) that the RG58 cable has no accident mitigation function but, rather, need only remain intact in the event of an accident.⁴³ This being so, the staff maintains that the Licensing Board correctly accepted the applicants' thesis that the results of the high-potential test of the RG59 cable suffice to establish the environmental qualification of the RC58 cable.⁴⁴

Upon receipt of the staff's filing, we informally inquired of its counsel respecting whether the relied-upon portions of the FSAR are to be found in the existing record. It turns out that, in significant measure, they are not.⁴⁵ The staff suggests that, in order to cure this deficiency,

⁴² Id. at 3, Attachment 2. The FSAR, which is prepared by or on behalf of the applicant(s) for an operating license, must be submitted to the Commission as part of the license application. See 10 CFR 50.34(b). It does not, however, automatically become part of the record of any adjudicatory proceeding on that application.

⁴³ See Staff's April 8 Response at 3-4.

⁴⁴ Id. at 4.

⁴⁵ See Letter from Edwin J. Reis to this Board (April 14, 1988).

we reopen the record ourselves to receive the material in question and to provide "all parties the opportunity to object to the genuineness and the significance" of that material.⁴⁶

Unlike the staff, the applicants endorse both the Licensing Board's March 2 determination and the reasoning underlying it.⁴⁷ In particular, the applicants insist that the memorandum documenting the telephone conversation, in combination with other portions of the EQF, demonstrates that the RG58 cable does not perform an accident mitigation function and, therefore, can be environmentally qualified on the basis of the acceptable results of the high-potential test on the RG59 cable.⁴⁸ Further, the applicants point to the Walker affidavit previously submitted to us as providing additional support for that thesis.⁴⁹

⁴⁶ Ibid.

⁴⁷ See Applicants' Supplemental Response on Environmental Qualification of RG-58 Coaxial Cable (April 8, 1988).

⁴⁸ Id. at 6.

⁴⁹ Id. at 5-6. It is worthy of note, however, that the Licensing Board refused to consider one segment of the affidavit relied upon by the applicants -- that concerned with failure modes of the cable -- on the ground that there is no record evidence dealing with that subject. See Licensing Board March 2 Memorandum at 8 note 5.

B.

As we have just seen, at every stage of the consideration of the RG58 cable issue, we have been either favored with a new theory or referred to new asserted evidence (or both) to justify the Licensing Board's conclusion in its partial initial decision that that cable has been shown to be environmentally qualified. In the first instance, the Licensing Board rested that conclusion on a letter written by the cable vendor that had found its way into the EQF. When we determined that that letter was insufficient to support the conclusion, the Board produced its proportionality theory. Although endorsing that theory, the applicants also came up with an entirely different theory of its own, based upon another document in the EQF (the memorandum of a telephone conversation). Now acknowledging that this document does not of itself allow the acceptance of the applicants' current proposition that the RG58 cable has no accident mitigation function and therefore can be deemed environmentally qualified on the strength of the RG59 cable high-potential test results, the staff tells us that there is yet another document -- the Seabrook FSAR -- that does provide an adequate foundation for the proposition. Regrettably, however, the staff has also been compelled to concede (following our inquiry) that the FSAR provisions it deems of particular relevance are not currently included in the evidentiary record.

There is no good reason why the resolution of such a relatively simple and narrow issue should have taken such a winding path and consumed so much time of the parties and the two boards. Much of the difficulty in this regard might have been avoided had the applicants and the staff reviewed at the outset -- and then brought to the fore at one time instead of piecemeal -- all of the available materials of possible relevance to the issue at hand. And it might well have proven helpful had the Licensing Board sought the views of the parties before acting on the ALAB-882 remand.⁵⁰

Be that as it may, our task at this juncture is to determine whether the Licensing Board correctly concluded that the evidence now of record adequately establishes that "full environmental qualification of cable RG-58 is not required"; that the high-potential test is "all that is needed to demonstrate its environmental qualification"; and that the RG59 cable test results suffice for this purpose.⁵¹ In common with the Coalition and the staff, we answer that question in the negative. In addition, we agree with both

⁵⁰ Insofar as the ALAB-875 remand is concerned, before advancing the entirely new proportionality theory the Licensing Board might have solicited the parties' thinking on its merit. Had it done so, it would have encountered the belief of both the Coalition and the staff that the theory is flawed.

⁵¹ See supra p. 11.

of these parties that the resolution of this matter requires the receipt of additional evidence. We decline, however, the staff's invitation to receive ourselves what the staff regards as sufficient evidence to support the claim that the RG59 cable test results carry the day.

1. The brief memorandum of the telephone conversation upon which the applicants and the Licensing Board rely is reproduced in full in the Appendix, infra. It reflects that there was a discussion between employees of the Impell Corporation (the company retained by the applicants to prepare the EQF at hand) and United Engineers & Constructors (the Seabrook architect-engineer and constructor)⁵² respecting the means for identification of cables required to perform "a safety function subsequent to accident events." According to the memorandum, the Impell representative was informed that "the different cables" in a purchase order identified as "P.O. 113-18" and "other cable specifications" were color-coded for that identification purpose. Specifically, those cables having an accident mitigation function were provided an outer jacket of one of four solid colors. If not bearing such an outer jacket (and the EQF indicates that the jacket for the RG58 cable is

⁵² The memorandum, written by the Impell employee, erroneously refers to the company as United Engineers & Contractors.

multi-colored),⁵³ the cable need only remain intact under accident conditions (i.e., in the words of the memorandum, there must be no "shorting to ground").⁵⁴

There are several manifest difficulties with the applicants' reliance upon the memorandum. To begin with, it does not clearly appear that RG58 cable comes within its scope. That type of cable is not specifically mentioned in the memorandum. Further, the caption on the cover page of the EQF discloses that the RG58 cable was not obtained by purchase order 113-18, but rather by purchase order 113-19.⁵⁵ For these reasons, the applicants are constrained to ask us to assume that the reference in the memorandum to "other cable specifications" was intended to embrace RG58 cable. We find insufficient justification for drawing any such inference. In this regard, it is noteworthy that, notwithstanding the weight they now attach to it, the applicants have never sought to have the memorandum

⁵³ See Coalition's Exhibit 4, Reference 1, Appendix A at A1.

⁵⁴ As we understand the use of the phrase in the memorandum, a wire "shorts to ground" if there is a complete breakdown of its insulation resistance with the possible consequence that the current passing through it would impair the performance of components having an accident mitigation function.

⁵⁵ On this score, the record discloses that purchase order 113-18 involved cable supplied by a vendor other than ITT. See Salvo, et al., fol. Tr. 357, at 7.

sponsored by one or the other of the participants in the telephone conversation -- either of whom presumably could eliminate any room for doubt respecting the scope of the discussion of color-coding for identification purposes.

The lack of sponsorship of the memorandum takes on still greater significance when other portions of the existing record are examined. Among other things, it appears from the Harsh Environment Equipment List contained in the EQF that all cables covered by the EQF (and that includes the RG58 cable) are within Operability Code A and thus, according to the testimony of applicants' witness Joseph M. Salvo, serve a safety function.⁵⁶ To the same effect, the report of a pre-audit review of a number of equipment qualification files placed all of the cables in the EQF covering the RG58 cable in Operability Code A.⁵⁷ Yet, in the case of many other such files, the report put some of the equipment addressed in the file in category A

⁵⁶ Tr. 387-88.

⁵⁷ See Coalition's Exhibit 13, Notegram from M. Trojovsky, EG&G Idaho, to H. Walker, NRC (February 21, 1986), forwarding Pre-Audit Review of the Seabrook Station Equipment Qualification Program at 16. The subsequently issued audit report similarly did not provide any indication of a classification less than Operability Code A for the RG58 cable. See Coalition's Exhibit 12, Letter from C.F. Obenchain, EG&G Idaho, to M. Carrington, NRC (March 31, 1986), forwarding Audit of the Environmental Qualification of Safety-Related Electrical Equipment for the Seabrook Station (March 1986) at 32, 53.

and the balance of the equipment in lesser categories (i.e., B or C).⁵⁸

2. The short of the matter thus is that the Licensing Board erred in relying upon the memorandum of the telephone conversation to establish the environmental qualification of the RG58 cable. As the Coalition correctly observes, before attaching any (let alone controlling) weight to that memorandum, the Board should have insisted that it be sponsored by a witness in a position both to attest that RG58 cable is within its scope and to explain the basis for the representation in the memorandum regarding the color-coding scheme.⁵⁹ Any such explanation would, of course, have had to come to grips with the possible inconsistency between that representation (assuming that it was intended to extend to RG58 cable) and the other record

⁵⁸ See Coalition's Exhibit 13 at 8, 9, 11, 13-22, 24-31.

As previously noted, at an earlier stage the Coalition raised a question respecting why, if the RG58 cable does not perform a safety function, the EQF included operating insulation resistance requirements for it. See supra pp. 11-12. Although, as also noted (supra p. 9), that question was not addressed in the Licensing Board's March 2 memorandum, it has not been renewed in the Coalition's most recent filing with us. In the circumstances, it is not clear whether the Coalition intends to pursue the point.

⁵⁹ Cf. Duke Power Co. (William B. McGuire Nuclear Station, Units 1 and 2), ALAB-669, 15 NRC 453, 477 (1982).

evidence to the effect that the RG58 cable is capable of performing a safety function.

In the circumstances, we are compelled once again to conclude that neither the Licensing Board nor any party has brought to light any evidence of record that might adequately support the Board's finding that the environmental qualification of the RG58 cable has been established. There being no conceivable good reason to allow either the Board or the parties yet another opportunity to comb the existing record in search of such evidence, the appropriate course is clear: that finding, as set forth in the March 25, 1987 partial initial decision and repeated in subsequent Board memoranda, must now be vacated and, to the extent dependent upon that finding, the decision reversed. Given this mandated disposition, we agree with the Coalition that the next step should be a further evidentiary exploration of the RG58 cable issue.⁶⁰

The staff's suggestion that we preside over that exploration is not without its attraction. As earlier noted, the litigation of this issue has already consumed too much time. And were we to take the additional evidence ourselves, the final curtain might be rung down at an earlier date.

⁶⁰ See Coalition's March 22 Memorandum at 8.

Absent truly exceptional circumstances, however, we should not impinge upon the Licensing Board's role as the initial fact finder in NRC licensing proceedings. In this instance, and despite our desire to have the RG58 cable issue resolved without further unnecessary delay, we cannot say that such circumstances are present.⁶¹ Accordingly, we once again remand the matter to the Board below. In the interest of the prompt development of an adequate record on the issue, however, we provide some additional guidance to the Board.

In the present posture of the matter, two questions are crucial to the examination on the remand. First, does the RG58 cable have an accident mitigation function in its intended use as part of the facility's computer system? Second, if the RG58 cable has no such function, does it follow that the RG59 cable high-potential test results establish that the cable is environmentally qualified so long as it is used exclusively for data transmission in the

⁶¹ The Licensing Board responsible for the resolution of the onsite emergency planning and safety issues still has other remanded issues before it. See ALAB-875, 26 NRC at 275 (steam generator tube integrity and cooling system debris); ALAB-883, 27 NRC _____ (February 3, 1988) (public emergency notification in the Massachusetts portion of the Seabrook plume exposure pathway emergency planning zone). It does not now appear that the ALAB-883 remand will be soon completed.

computer system?⁶² All new evidence on these questions -- whether accompanying a motion for summary disposition or introduced at a hearing⁶³ -- must be sponsored by a competent affiant or witness.⁶⁴

In addressing the first question, the parties undoubtedly will wish to take into account the revelation in the existing record that the RG58 cable has been placed in a

⁶² We appreciate that ALAB-882 could be read to imply that this question required an affirmative answer. See supra p. 10. But the Coalition has now suggested (in its March 22 memorandum at 7) that shorting to ground might not be the only failure mode by which the RG58 cable could compromise the safety function of other components. If there is merit to that suggestion, the RG59 high-potential test results might well not demonstrate that the RG58 cable is environmentally qualified. Inasmuch as the applicants and staff are being provided with yet another opportunity to establish that the RG58 cable is environmentally qualified, fairness dictates that the Coalition be allowed to pursue the suggestion on the remand.

⁶³ Our reference to the possibility that a summary disposition motion might be filed should not be taken as implying any belief respecting whether such a motion would be warranted.

⁶⁴ Presumably, the new evidence will include the portions of the Seabrook FSAR to which the staff referred in its April 8 filing with us. See supra pp. 13-14. See also Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-717, 17 NRC 346, 366-67 (1983), aff'd, Carstens v. NRC, 742 F.2d 1546 (D.C. Cir. 1984), cert. denied, 471 U.S. 1136 (1985). We intimate no opinion, of course, on whether those portions support the proposition for which they have been offered. In passing upon their significance, the Licensing Board should, inter alia, consider the nature and extent of the applicants' obligations in satisfying the environmental qualification provisions found in section 8.3.1.4 b.1(d) of the FSAR.

classification reserved for components having a safety function.⁶⁵ This consideration may or may not cut against the insistence of the applicants and staff that, in its intended use in the facility's computer system, the cable lacks an accident mitigation function. The new evidence might show, for example, that its Operability Code A classification had other possible uses of the cable in mind. But if it involved an accident mitigation function, no such alternate use would be permissible on the strength of a finding (assuming one is made on the remand) that the cable is environmentally qualified when employed in the computer system solely because, in that capacity, it need only remain intact in the event of an accident. Stated otherwise, before a nuclear facility uses for a particular purpose a component subject to the environmental qualification requirements, it must be demonstrated that that component meets those requirements when so employed.

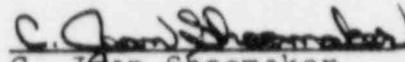
For the foregoing reasons, the March 25 partial initial decision, LBP-87-10, 25 NRC 177, is reversed to the extent that it found that the environmental qualification of the RG58 coaxial cable had been established. That issue is

⁶⁵ See supra pp. 20-21.

remanded to the Licensing Board for further proceedings consistent with this decision.⁶⁶

It is so ORDERED.

FOR THE APPEAL BOARD


C. Jean Shoemaker
Secretary to the
Appeal Board

⁶⁶ In the absence of any indication to the contrary, we have assumed in this decision that the applicants have no present interest in subjecting the RG58 cable itself to such tests as might establish directly its full or limited environmental qualification. Although, as we have seen (supra pp. 2-3), Commission regulations permit the continued reliance upon the RG59 cable test results for whatever conclusions those results might support, needless to say there is nothing in our decision that would preclude the applicants, if so inclined, from now changing directions and calling for the testing of the RG58 cable.

In our prior remand of the RG58 cable issue, we indicated that, if necessary, the Licensing Board is to decide whether low-power operation of the Seabrook facility must await the ultimate resolution of the issue. See ALAB-882, 27 NRC at 5 note 14. At the present time, such a determination is unnecessary. This is because, unless the Commission should otherwise direct, low-power operation is precluded in any event pending the resolution of the public emergency notification issue remanded in ALAB-883. See 27 NRC at ___ (slip opinion at 23-24). As earlier observed (supra note 61), it may be some time before that resolution is achieved.

APPENDIX

New England Coalition on Nuclear Pollution's
Exhibit 4, Reference 6



Record of Conversation

File: 0570-032-1661

Copy: GRahner
ABiswas
GMOore
DGhosh
RBergeron (PSNH)
WCloutier (YAES)

Telephone Meeting Other _____
To: C.D. Greiman From: N.K. Woodward NKW

Company: United Engineers & Contractors Phone No 215-422-3292 Date 10/8/85

Subject: Seabrook EQ: P.O. 113-18

Summary of Conversation:

Chuck and I discussed how Impell can identify which of the different cables in P.O. 113-18 and the other cable specifications are connected to equipment which must perform a safety function subsequent to accident events.

The color coding of the outer jacket as defined in UE&C separation documents enables this determination. Specifically, outer jackets with the single solid color of red, white, blue, or yellow designates cables for which performance requirements such as I.R. and accuracy must be met during environmental qualification. Cable of other colors or color schemes must only remain intact (e.g. no shorting to ground). However, all Class 1E cables as defined by the Specification must be environmentally qualified.

Chuck will forward a copy of the UE&C separation document which defines these color schemes so that it may be included in the EQFs.

NKW/jm