

August 19, 1988 DOCKETED
USNRC

UNITED STATES NUCLEAR REGULATORY COMMISSION '88 AUG 22 P5:14
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
Public Service Company of)	
New Hampshire, et al.)	Docket Nos. 50-443 OL
)	50-444 OL
(Seabrook Station, Units 1 & 2))	OFFSITE EMERGENCY
)	PLANNING ISSUES
)	

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NEW ENGLAND COALITION ON NUCLEAR POLLUTION'S
ANSWERS TO APPLICANTS' FIRST SET OF INTERROGATORIES
AND FIRST REQUEST FOR PRODUCTION OF DOCUMENTS
REGARDING NEW ENGLAND COALITION ON NUCLEAR POLLUTION'S
CONTENTIONS CONCERNING RG-58 CABLE

Introduction

The New England Coalition on Nuclear Pollution ("NECNP") answers below Applicants' first set of interrogatories and request for the production of documents. In response to paragraph 6 under the heading "Definitions and Guidelines," NECNP responds that any substantive technical information in these answers was contributed by Robert D. Pollard, an engineer employed by the Union of Concerned Scientists in Washington, D.C. A copy of his professional qualifications is attached.

Answers to Interrogatories and Requests for Production

- 1) With respect to NECNP's answers to each of the interrogatories 6-15 that follow, is that answer based upon reference to or knowledge of the existence of one or more documents: If so, please:
 - (a) Identify each such document on which the answer is based.
 - (b) Identify the information in each document on which the answer is based.
 - (c) Identify all documents possessed by or known to exist by NECNP which deal with the same subject matter.

- (d) Produce all identified documents.

ANSWER: All answers to the following interrogatories are based on documents that have been filed before this Licensing Board, or which consist of regulations or regulatory guidance that are publicly available. Where NECNP relies on a particular document for an answer to an interrogatory, that document is identified in the answer to the interrogatory.

2) With respect to NECNP's answers to each of the interrogatories 6-15 that follow, is that answer based upon any type of study, calculation, procedure, method, instruction, assumption, conclusion, recommendation or analysis? If so, please:

(a) Describe the nature of the study, calculation procedure, method, instruction, assumption, conclusion, recommendation or analysis.

(b) Identify and produce any documents that constitute, discuss or describe it.

(c) Identify the person(s) who performed it, including the institutional affiliation and professional qualifications, if any, of the person(s).

(d) State when and where it was prepared or performed.

(e) Describe in detail the information or data that was examined.

(f) Describe the results.

(g) Explain how it provides a basis for the answer.

ANSWER: Where applicable, this information will be provided in the answer to the interrogatory.

3) With respect to NECNP's answers to each of the interrogatories 6-15 that follow, is that answer based upon conversations, consultations, correspondence or any other type of communication with one or more individuals or entities? If so, please:

(a) Identify each such individual or entity.

(b) State the educational and professional background of each such individual, including occupation and institutional affiliates.

(c) Describe the nature of each communication with each such individual or entity, when it occurred, and identify all other individuals or entities involved.

(d) Describe in detail the information received from each such individual or entity, and explain how it provides a basis for the answer.

(e) Identify and produce each letter, memorandum, contract, tape, note, or other document related to each conversation, correspondence, or other communication with such individual or entity.

ANSWER: All answers to these interrogatories are based on conversations between counsel for NECNP and Robert D. Pollard which have taken place since the Appeal Board's remand of this proceeding in ALAB-875. They are also based on NECNP's filings in this proceeding and on Applicants' answers to NECNP's first, second, and third set of interrogatories and document requests. A copy of Mr. Pollard's professional qualifications is attached to these interrogatory answers. NECNP is unable to recall the date, location, or content of each of the many conversations that support these answers.

4) Does NECNP intend to offer the testimony of any expert witness with respect to the issue remanded in ALAB-891?

ANSWER: NECNP does not intend to offer affirmative testimony on this issue at this time. If circumstances should change, NECNP will amend its answer.

5) Does NECNP intend to offer the testimony of any non-expert witness with respect to the issue remanded in ALAB-891?

ANSWER: NECNP does not intend to offer affirmative testimony on this issue at this time. If circumstances should change, NECNP will amend its answer.

6) Do you assert that RG-58 cable is not environmentally qualified? If so, please state in detail all the facts underlying this assertion and explain exactly how those facts support the assertion.

ANSWER: Yes. The conclusion in E.Q. File 113-19-01 (NECNP Ex.

4) that RG-58 cable is qualified based on comparison with tested

RG-59 cable lacks analytical support, and did not stand up under the scrutiny of the Appeal Board.

Moreover, the environmental qualification test report for the recent test of RG-58 cable, which is not now on the record in this proceeding, does not appear to demonstrate that RG-58 cable is qualified. It appears that the insulation resistance readings dropped below the purported 1 megohm performance specification many times during the test (Indeed, many zero readings were recorded.), and the tested cable actually failed (shorted to ground) repeatedly during testing under accident conditions, as evidenced by the repeated blowing of the in-line 1-amp fuse measuring charging/leakage current when the test setup was at ambient temperatures. The response in this paragraph is based on "Test Report for Environmental Qualification Testing of Coaxial Instrument Cables (RG-58)", 24843-89N-1 and -2, which was received by counsel for NECNP from Applicants on August 9, 1988.

7) What are the performance specifications for environmentally qualified cable?

ANSWER: The performance specifications for environmentally qualified cable depend on the application--the function the cable serves and the normal and accident environments in which it must function. Performance specifications relating to electrical characteristics must be met under the range of voltage, frequency, load, electromagnetic interference, and other electrical characteristics as described in IEEE Std 323-1974, Section 6.2.

NECNP is unable to say what the particular performance specifications for either RG-58 or RG-59 cable are because they are not adequately specified in the equipment qualification file for these cables (NECNP Ex. 4).

8) What is the electrical characteristic that demonstrates that a cable is environmentally qualified?

ANSWER: A cable is demonstrated to meet the electrical characteristics necessary for environmental qualification if it meets the performance specifications for that cable. See response to question 7.

9) Do you assert that Applicants have not identified all RG-58 cable exposed to a harsh environment that need to be either qualified or replaced with qualified cable? If so, please state

- (a) which cable(s) did Applicants fail to identify;
- (b) the function(s) performed by each cable;
- (c) the safety-related nature of the function(s) performed by each cable; and
- (d) all the facts underlying this assertion and explain exactly how those facts support the assertion.

ANSWER: Yes. In response to subparagraph (a), we have insufficient information with which to identify which cable(s) Applicants failed to identify. In response to subparagraph (b), the functions performed by each of the 126 identified cable are described in Attachment 4 to Applicants' answers to NECNP's First Set of Interrogatories. We have insufficient information to describe the functions performed by any other RG-58 cable which may be in the plant. In response to subparagraph (c), the functions performed by the 126 identified RG-58 cable do not appear to be safety related. We have insufficient information to determine whether the functions performed by any other RG-58

cable which may be in the plant are safety-related. In response to subparagraph (d), Applicants have not demonstrated that their method of verifying the location of RG-58 cable is independent; nor have they physically traced the route of RG-58 cable to determine whether it is in fact exposed to a harsh environment. In categorizing the location of the cables, they have also made a number of tabulation errors which raise questions about the adequacy of their review. Finally, it is not uncommon for installation of nuclear power plant equipment to fail to conform to schematic drawings.

10) Do you assert that Applicants did not replace all RG-58 cable exposed to a harsh environment that need to be either qualified or replaced with a qualified cable? If so, please state

- (a) which cable(s) did Applicants fail to replace;
- (b) the function(s) performed by each cable;
- (c) the safety-related nature of the function(s) performed by each cable; and
- (d) all the facts underlying this assertion and explain exactly how those facts support the assertion.

ANSWER: NECNP is unable to say based on information provided to date whether Applicants have identified all RG-58 cable exposed to a harsh environment that needs to be either qualified or replaced with qualified cable. See answer to Interrogatory 9. We do not contend that Applicants failed to replace any cable that they assert to have replaced.

11) Do you assert that there are other RG-58 cables, in addition to the 12 RG-58 cables replaced, that must be environmentally qualified? If so, please state

- (a) which other cable(s) need to be replaced;
- (b) the function(s) performed by each cable;
- (c) the safety-related nature of the function(s) performed by each cable; and
- (d) all the facts underlying this assertion and explain exactly how those facts support the assertion.

ANSWER: NECNP is unable to determine, based on the information in the record and provided by Applicants, whether the 12 replaced RG-58 cables are the only ones that must be environmentally qualified. See answer to interrogatory 9.

12) Do you assert Applicants must replace any RG-58 cables other than the 12 RG-58 cables replaced with RG-59 cable?

If so, please state

- (a) which cable(s) need to be replaced;
- (b) the function(s) performed by each cable;
- (c) the safety-related nature of the function(s) performed by each cable; and
- (d) all the facts underlying this assertion and explain exactly how those facts support the assertion.

ANSWER: NECNP is unable to determine, based on the information in the record and provided by Applicants, whether the 12 replaced RG-58 cables are the only ones that must be environmentally qualified or replaced. Because this question is phrased ambiguously, we wish to clarify that we do not consider that RG-59 is an adequate substitute for RG-58 or any other cable, because it has not been demonstrated to be environmentally qualified.

13) Do you assert that RG-59 cable is not technically qualified to perform the functions required by the 12 RG-58 cables that were replaced? If so, please state for each cable

- (a) the function(s) that cannot be performed;
- (b) the conditions under which the function(s) cannot be performed;
- (c) the safety-related nature of the function(s);
- (d) the nature of the technical inadequacy;
- (e) the effect of this technical inadequacy on functional performance;
- (f) all the facts underlying this assertion and explain exactly how those facts support the assertion.

ANSWER: NECNP asserts that RG-59 cable is not technically qualified to perform the 12 RG-58 cable functions in an accident

environment because Applicants have not specified performance criteria for each such application. Our reasons for this position are described in NECNP's Motion for Clarification or Reconsideration of the Board's Order of June 23, 1988, dated July 13, 1988, and NECNP's Reply to NRC Staff Response to Board Request of July 20, 1988, and Affidavit of Newell K. Woodward, dated July 27, 1988. With respect to technical qualifications for performance under normal operating conditions, NECNP has not had an opportunity to review the Engineering Evaluation Report provided by Applicants in response to NECNP's interrogatories, which addresses this issue. We will supplement our answer when that review is completed.

14) Do you continue to assert the facts and opinions expressed in the affidavits you have filed before the Licensing Board and Appeal Board following the issuance of ALAB-891? If any of these facts or opinions have changed, please identify them and describe the reasons for the changes.

ANSWER: Based on Attachment 4 to Applicants' response to NECNP's First Set of Interrogatories, NECNP now believes that the 126 identified applications of RG-58 cable are not safety-related. This resolves NECNP's concern that Applicants have failed to show that these applications are not safety related or Class 1E, as raised in paragraphs 4(c), 15, 16, and 17 of Robert D. Pollard's affidavit, filed in support of NECNP's Response to Applicants' Suggestion of Mootness Regarding Environmental Qualification of RG-58 cable, dated June 9, 1988. In addition, based on Applicants' answers to NECNP's interrogatories, it no longer appears, as stated in paragraph 7, that two or more individuals

queried the same computer based listing of cables when they attempted to verify the location of the RG-58 cables; rather, they reviewed CASP and electrical schematic drawings. It should be noted, however, that NECNP continues to believe, for the other reasons stated in the affidavit, that a review of CASP and the schematic drawings lacked independence. Finally, with respect to paragraph 11, it now appears that there are no other purchase orders of RG-58 cable.

15) Identify all individuals on whose knowledge or opinions you relied in each of the filings before the Licensing Board and Appeal Board since the issuance of ALAB-891. For each of these individuals, describe that portion of the filing for which you relied on that individual.

ANSWER: NECNP relied on the technical knowledge and opinions of Mr. Robert D. Pollard for all of the filings before the Licensing Board and Appeal Board since the issuance of ALAB-891.

Respectfully submitted,

Dean R. Lousley for

Diane Curran
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August 19, 1988

CERTIFICATE OF SERVICE

I certify that on August 19, 1988, copies of the foregoing pleading were served by hand, overnight mail, or first-class mail

on all parties to this proceeding, as designated on the attached service list.

Dean R. Lousley for
Diane Curran

UNION OF CONCERNED SCIENTISTS

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ROBERT D. POLLARD

Robert D. Pollard, 48, is Senior Nuclear Safety Engineer for the Union of Concerned Scientists, a non-profit group of scientists and other professionals supported by over 100,000 sponsors nationwide.

Robert Pollard's formal education in nuclear design began in May 1959, when he was selected to serve as an electronics technician in the U.S. Navy nuclear power program. After completing the required training, he became an instructor responsible for teaching naval personnel both the theoretical and practical aspects of operations, maintenance and repair of nuclear propulsion plants. From February 1964 to April 1965, he served as senior reactor operator, supervising the reactor control division of the U.S.S. Sargo, a nuclear-powered submarine.

After his honorable discharge in 1965, Robert Pollard attended Syracuse University, where he graduated with a Bachelor of Science degree magna cum laude in electrical engineering in June 1969.

In July 1969, Robert Pollard was hired by the Atomic Energy Commission (AEC), and continued as a technical expert with the AEC and its successor the Nuclear Regulatory Commission (NRC) until February 1976. After joining the AEC, he studied advanced electrical and nuclear engineering at the Graduate School of the University of New Mexico in Albuquerque. He subsequently advanced to the positions of reactor engineer and project manager with the AEC/NRC.

As a reactor engineer, Robert Pollard was primarily responsible for performing detailed technical reviews analyzing and evaluating the adequacy of the design of reactor protection systems, control systems and emergency electrical power systems in proposed nuclear facilities. In September 1974, he was promoted to project manager, responsible for planning and coordinating the design and safety reviews of applications for licenses to construct and operate seven commercial nuclear power plants. While with NRC, Mr. Pollard also served as the agency's representative in standard-setting groups, participating in the development of standards and safety guides, and as a member of IEEE committees.

He resigned from the NRC and began working for UCS in February 1976. In his work for UCS, Mr. Pollard has continued to use his expertise in nuclear safety analysis. He has testified as an expert witness in NRC and judicial proceedings in the U.S. and overseas. Mr. Pollard conceived and provided the technical analysis for a petition filed by UCS with the NRC that resulted in the 1980 adoption of industry-wide safety standards for nuclear plant components. He has traveled extensively throughout the country speaking to citizens and government officials on issues related to nuclear power.

AFFIRMATION OF ROBERT D. POLLARD

I, Robert D. Pollard, affirm that, to the best of my knowledge and belief, the factual information contained in the answers to the foregoing interrogatories is true and correct.

Robert D. Pollard

Dated:

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