

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD APR 18 AM 10:26

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

Docket Nos. 50-443
50-444

OFFICE OF SECRETARY
DOCKETING & SERVICE
DIVISION

10/13/82

NECNP FIRST SET OF INTERROGATORIES AND
REQUEST FOR DOCUMENTS TO THE NRC STAFF
ON CONTENTIONS I.A.2., I.B.1., I.B.2. AND I.C.

INSTRUCTIONS FOR USE

The following interrogatories are to be answered in writing and under oath by an employee, representative or agent of the NRC Staff with personal knowledge of the facts or information requested in each interrogatory.

The following definitions shall apply to these interrogatories:

1. "Document" shall mean any written or graphic matter of communication, however produced or reproduced, and is intended to be comprehensive and include without limitation any and all correspondence, letters, telegrams, agreements, notes, contracts, instructions, reports, demands, memoranda, data, schedules, notices, work papers, recordings, whether electronic or by other means, computer data, computer print-outs, photographs, microfilm, microfiche, charts, analyses, intra-corporate or intra-office communications, notebooks, diaries, sketches, diagrams, forms, manuals, brochures, lists, publications, drafts, telephone minutes, minutes of meetings, statements, calendars, journals, orders, confirmations and all other written or graphic materials of any nature whatsoever.

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2. "Identify" shall mean with respect to any document, to state the following respecting the document: its title, its date, the author of the document, the person to whom the document was sent, all persons who received or reviewed the document, the substance and nature of the document, and the present custodian of the document and of any and all copies of the document.

3. "Identify" with respect to any action or conduct shall mean state the following regarding any such action or conduct: the person or persons proposing and taking such action; the date such action was proposed and/or taken; all persons with knowledge or information about such action; the purpose or proposed effect of such action; any document recording or documenting such action.

4. "Describe" with respect to any action or matter shall mean state the following regarding such action or matter: the substance or nature of such action or matter; the persons participating in or having knowledge of such action or matter; the current and past business positions and addresses of such persons; the existence and location of any and all documents relating to such action or matter.

Contention I.A.2.

1. What is the NRC Staff's position with respect to NECNP Contention I.A.2.? State all facts and opinions and identify and provide access to all documents on which that position is based.

2. Identify all individuals whom the NRC Staff expects to call as witnesses with respect to NECNP Contention I.A.2., and identify all documents on which the NRC Staff expects to rely at the hearing with respect to this contention.

3. Does the NRC Staff know the location, function, and purpose of all electric valve operators installed inside the containment? If so, describe the location, function, and purpose of each. If not, identify those electric valve operators inside containment for which the NRC Staff has determined location, function, and purpose, and provide that information in each case. Answer (a)-(e) with respect to all electric valve operators for which the NRC Staff has determined location, function, and purpose:

- a. For each electric valve operator, state its function in the event of a loss of coolant accident (LOCA).
- b. For each such electric valve operator, state its purpose or function, if any, in preventing a LOCA.
- c. For each such electric valve operator, describe the degree, if any, and the manner in which it contributes to the safety of the facility.
- d. Identify those electric valve operators installed inside the containment that the NRC Staff considers to be "safety related."^{1/}
- e. Identify those electric valve operators installed inside the containment that the NRC Staff does not consider to be "safety related." Of those, state which ones the NRC Staff considers to be "important to safety."^{2/} In each case, explain why the NRC Staff does not consider the electric valve operator to be "safety related" or "important to safety" if they do not.

^{1/} The term "safety related" has the same meaning throughout these Interrogatories as it does in the Introduction to Appendix B to 10 CFR Part 50.

^{2/} The term "important to safety" has the same meaning throughout these Interrogatories as it does in the Introduction to Appendix A to 10 CFR Part 50.

4. Identify all electric valve operators installed inside the containment that the NRC Staff believes are required to comply with Criterion 4 of 10 CFR Part 50, Appendix A.

a. Identify those electric valve operators installed inside the containment that the NRC Staff believes are not required to comply with GDC 4. In each case, explain why compliance is not required.

5. Identify all electric valve operators installed inside the containment that the NRC Staff classifies as Class IE equipment, as the term is used in the preamble to the proposed rule on environmental qualification, 47 Fed. Reg. 2876, 2877 (January 20, 1982).

a. Identify any additional electric valve operators installed inside the containment that the NRC Staff believes would be governed by PR 10 CFR 50.49(c), Id. at 2878.

6. Is it the NRC Staff's position that all safety related electric valve operators installed inside the containment comply with GDC 4?

a. Is it the NRC Staff's position that all safety related electric valve operators installed inside the containment comply with the Division of Operating Reactors' "Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors" ("DOR Guidelines")?

b. Is it the NRC Staff's position that all safety related electric valve operators installed inside the containment comply with NUREG-0588?

7. Identify each safety related electric valve operator installed inside the containment that does not comply with the DOR Guidelines or NUREG-0588.

a. For each such electric valve operator, state whether the NRC Staff believes it complies with GDC 4 and justify that position in light of the noncompliance with the DOR Guidelines and NUREG-0588.

8. Answer Questions 6 and 7 with respect to electric valve operators installed inside the containment that the NRC Staff considers to be "important to safety."

9. Is it the NRC Staff's position that compliance with IEEE Standards 382-1972 and 323-1974 constitutes compliance with GDC 4?

10. Identify the parameters of the accident environment for which the NRC Staff believes the electric valve operators installed inside the containment must be qualified.

a. Explain the basis for that choice of accident environment parameters. For each parameter, explain how it differs from the accident environment that existed during and after the accident at Three Mile Island Unit 2.

11. Describe specifically how the NRC Staff has determined that the electric valve operators in question could survive the accident environment identified in response to Question 10.

a. Identify and provide access to all documents reflecting testing or calculations done for the purpose of making this determination or otherwise relied upon or referred to in connection with making this determination.

Identify and describe any actual environmental conditions that were created for test purposes and to which electric valve operators were subjected. In each case, identify the length of time that the electric valve operators

were subjected to the simulated accident environment. When and where were these tests performed? In each case, how many electric valve operators were tested? Of these, how many were of the same design as those to be used at Seabrook?

12. State the length of time that the NRC Staff believes the electric valve operators installed inside the containment must remain environmentally qualified and capable of withstanding the effects of an accident should one occur.

- a. Explain the basis for this statement.
- b. Identify all documents on which the NRC Staff relies or to which it has referred in making this statement.
- c. Identify all tests or studies of any sort of which the NRC Staff is aware in which any electrical equipment has been examined after more than one year of use to determine whether it is still environmentally qualified.

13. State the length of time after an accident has occurred that the NRC Staff believes the electric valve operators installed inside the containment will continue to withstand the effects of an accident and perform effectively after an accident has occurred and they have been subjected to the accident environment.

- a. Explain the basis for this statement.
- b. Identify all documents on which the NRC Staff relies or to which it has referred in making this statement.

14. Describe specifically how the NRC Staff has considered the effects of aging of the equipment and cumulative radiation exposure in determining whether electric valve operators installed inside the containment are environmentally qualified for the life of the plant.

Contention I.B.1.

15. What is the NRC Staff's position with respect to NECNP Contention I.B.1.? State all facts and opinions and identify and provide access to all documents on which that position is based.

a. Identify all individuals whom the NRC Staff expects to call as witnesses with respect to NECNP Contention I.B.1., and identify all documents on which the NRC Staff expects to rely at the hearing with respect to this contention.

16. Identify all systems that the NRC Staff understands perform the function or are required in order to perform the function of residual heat removal under any circumstances. For each system, explain how and under what circumstances it performs or contributes to the function of residual heat removal.

17. Is it the NRC Staff's position that a system that performs the function of residual heat removal or that is required in order to perform that function is not, by virtue of that fact, safety related?

18. Is it the NRC Staff's position that a system that performs the function of residual heat removal or that is required in order to perform that function, is not, by virtue of that fact, important to safety?

19. If it is the NRC Staff's position that the fact that a system performs the function of residual heat removal or is required in order to perform that function does not, by itself, render the system either safety related or important to safety such that it must be environmentally qualified pursuant to GDC 4, does the NRC Staff believe that there is any system or situation in which the

Staff believes are not important to safety and state the justification for that position. Identify and provide access to all documents relied upon by the NRC Staff in reaching that position or otherwise related to the issue of environmental qualification of the equipment in question.

22. Identify the parameters of the accident environment for which the NRC Staff believes systems that perform or contribute to the residual heat removal function must be qualified.

a. Explain the basis for that choice of accident environment parameters. For each parameter, explain how it differs from the accident environment that existed during and after the accident at Three Mile Island Unit 2.

23. Describe specifically how the NRC Staff has determined that systems which perform or contribute to the residual heat removal function could survive the accident environment identified in response to Question 16.

a. Identify and provide access to all documents reflecting testing or calculations done for the purpose of making this determination or otherwise relied upon or referred to in connection with making this determination.

Identify and describe any actual environmental conditions that were created for test purposes and to which residual heat removal systems were subjected. In each case, identify the length of time that the systems which perform or contribute to residual heat removal were subjected to the simulated accident environment. When and where were these tests performed? In

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each case, how many of the residual heat removal systems were tested? Of these, how many were of the same design as those to be used at Seabrook?

24. State the length of time that the NRC Staff believes that systems which perform or contribute to the residual heat removal function must remain environmentally qualified and capable of withstanding the effects of an accident should one occur.

- a. Explain the basis for this statement.
- b. Identify all documents on which the NRC Staff relies or to which it has referred in making this statement.
- c. Identify all tests or studies of any sort of which the NRC Staff is aware in which any residual heat removal equipment has been examined after more than one year of use to determine whether it is still environmentally qualified.

25. State the length of time after an accident has occurred that the NRC Staff believes that systems which perform or contribute to the residual heat removal function will continue to withstand the effects of an accident and perform effectively after an accident has occurred and they have been subjected to the accident environment.

- a. Explain the basis for this statement.
- b. Identify all documents on which the NRC Staff relies or to which it has referred in making this statement.

Contention I 3.2.

26. What is the NRC Staff's position with respect to NECNP Contention I.B.2.? State all facts and opinions and identify and provide access to all documents on which that position is based.

a. Identify all individuals whom the NRC Staff expects to call as witnesses with respect to NECNP Contention I.B.2., and identify all documents on which the NRC Staff expects to rely at the hearing with respect to this contention.

27. Is it the NRC Staff's position that structures, systems, and components governed by GDC 4 must be able to accommodate the effects of and be compatible with the environmental conditions associated with loss of coolant accidents throughout the operating lifetime of the plant?

a. If not, state how long the NRC Staff believes that structures, systems, and components governed by GDC 4 must be able to accommodate the effects of and be compatible with the environmental conditions associated with loss of coolant accidents. If the response is different depending upon the structure, system, or component in question, provide the specific information. In each case, explain the basis for the NRC Staff's position and identify and provide access to all documents referred to in reaching that position or otherwise relevant to the issue.

b. If so, identify all structures, systems, and components governed by GDC 4 that the NRC Staff contends comply with that requirement. In each case, explain the basis for that contention and describe in detail the methodology employed to

determine whether the structure, system, or component complies with the requirement that it remain environmentally qualified throughout the operating lifetime of the reactor.

28 To the extent that the NRC Staff contends that structures, systems, or components will remain in compliance with GDC 4 and environmentally qualified for any period of time less than the operating lifetime of the plant, explain the basis for that contention and describe in detail the methodology employed to determine that the structure, system, or component will remain environmentally qualified for the time period in question.

29. Has the NRC Staff made any effort to determine how long after a LOCA begins and an accident environment is created structures, systems, and components governed by GDC 4 will remain capable of accommodating the effects of and continue to be compatible with the environmental conditions associated with a LOCA at Seabrook? If so, please describe that effort, identify and provide access to all relevant documents, and state the conclusions reached by the NRC Staff concerning this question. Explain the basis for each such conclusion.

30. Is it the NRC Staff's position that neither it nor the Applicants need establish that structures, systems, or components governed by GDC 4 will remain environmentally qualified for any period of time once an accident begins? If not, for what period of time does the NRC Staff contend that structures, systems, and components governed by GDC 4 must be shown to remain environmentally qualified once an accident begins?

Contention I.C.

31. What is the position of the NRC Staff with respect to NECNP Contention I.C.? State all facts and opinions and identify and provide access to all documents on which that position is based.

a. Identify all individuals whom the NRC Staff expects to call as witnesses with respect to NECNP Contention I.C., and identify all documents on which the NRC Staff expects to rely at the hearing with respect to this contention.

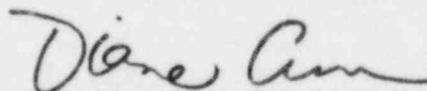
32. Identify and describe all components of the HVAC system for the emergency feedwater pumphouse that the NRC Staff believes must be environmentally qualified pursuant to GDC 4. In each case, state whether the NRC Staff knows whether the component is environmentally qualified and the source of and basis for that knowledge.

a. Identify and describe all components that the NRC Staff believes are not required to be environmentally qualified pursuant to GDC 4. In each case, provide the justification for this conclusion. Identify and provide access to all documents that support this conclusion, that the NRC Staff referred to in reaching this conclusion, or that otherwise relate to the issue of whether the component in question should be environmentally qualified.

Respectfully submitted,



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