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OFFICE OF SECRETARY  
REGULATORY & SERVICE  
BRANCH

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
before the  
ATOMIC SAFETY AND LICENSING BOARD

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

Docket Nos. 50-443 OL  
50-444 OL

APPLICANTS' INTERROGATORIES  
AND REQUEST FOR THE PRODUCTION OF DOCUMENTS  
TO  
STATE OF NEW HAMPSHIRE (ATTORNEY GENERAL)

Pursuant to 10 C.F.R. § 2.740 and 2.740b, the  
Applicants hereby propound the following  
interrogatories to State of New Hampshire (Attorney  
General) ("NHAG").

DS03

### Definitions

As used in these interrogatories, the following terms have the following meanings:

"Litigate" with regard to a topic or contention means to offer direct testimony relating to, to cross-examine on, to offer proposed findings or rulings regarding, or to urge the denial (or allowance subject to conditions) of the pending application on the basis of the topic or contention.

"Identify" with respect to an expert witness means to state:

(a) The name, mailing address, age and present professional or employment affiliation of the person;

(b) The profession or occupation and field of claimed expertise of the person;

(c) The history of formal education or training of the person, including, but not limited to, (i) the name and address of each school where the person received special education or training, (ii) the date those schools were attended, and (iii) a description of each degree earned, including the date and granting institution;

(d) The history of specialized training in the area of claimed expertise, including, but not limited to,

(i) the type of training received, (ii) the name and address of the institution providing this training, and (iii) the dates of such training;

(d) The history of membership of the person in any professional or trade association in the area of claimed expertise, including, but not limited to, (i) the name of each professional or trade association, (ii) the dates of membership, and (iii) a description of each office held in each association;

(f) A list of publications of any kind by the person in the area of claimed expertise, including, but not limited to, (i) the title and subject matter, (ii) the name and address of the publisher, and (iii) the date of publication;

(g) A list of any and all licenses in the area of claimed expertise, including, but not limited to, (i) the designation of the authority by which the license was issued, (ii) the date(s) of the licensing, (iii) the requirements for obtaining each license, and (iv) the manner by which these requirements were met;

(h) The amount of time the person has worked in the field of claimed expertise, stating periods where work was other than on a full-time basis;

(i) The name and address of every person, or every corporation or other institution, that has employed the person within the last ten years of employment;

(j) All periods of claimed self-employment, including a description of all duties and responsibilities thereof;

(k) All previous experience in the field of claimed expertise which involved problems, analyses or studies similar to those concerning which the person is expected to testify in this proceeding;

(l) All other litigation in which the person has been consulted, specifying those matters in which the person has testified, including the name of the case or matter and the court or other forum in which testimony was given; and

(m) Any other experience in the field of claimed expertise.

Notice Regarding Supplementation

Your attention is called to the provisions of 10 CFR § 2.740(3)(1)(ii) regarding your obligation to supplement interrogatories calling for information regarding proposed expert witnesses.

General Interrogatories

G-1. With respect to your answers to each of the specific interrogatories that follow (other than the last interrogatory in each series, relating to expert witnesses), is your answer based upon one or more documents? If so, please:

- (a) Identify each such document on which your answer is based.
- (b) Identify the information in each document on which your answer is based.

G-2. With respect to your answers to each of the specific interrogatories that follow (other than the last interrogatory in each series, relating to expert witnesses), is your answer based upon any type of study, calculation or analysis? If so, please:

- (a) Describe the nature of the study, calculation or analysis and identify any documents that discuss or describe the study, calculation or analysis.
- (b) Identify the persons who performed the study, calculation or analysis.
- (c) State when and where the study, calculation or analysis was performed.
- (d) Describe in detail the information or data that was studied, calculated or analyzed.
- (e) Describe the results of the study, calculation or analysis.

- (f) Explain how such study, calculation or analysis provides a basis for your answer.

G-3. With respect to your answers to each of the specific interrogatories that follow (other than the last interrogatory in each series, relating to expert witnesses), is your answer based upon conversations, consultations, correspondence or any other type of communication with one or more individuals? If so, please:

- (a) Identify each such individual.
- (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, when it occurred, and identify all other individuals involved.
- (d) Describe in detail the information received from each such individual and explain how it provides a basis for your answer.
- (e) Identify each letter, memorandum, tape, note or other record related to each conversation, correspondence, or other communication with such individual.

#### Specific Interrogatories

I-1. Does NHAG intend to litigate Contention NH-9 (Radioactive Monitoring)? (If the answer to this

interrogatory is an unqualified negative, you may proceed to Interrogatory II-1.)

I-2. Please identify in detail each respect in which NHAG contends that the Seabrook radiation monitoring program fails to meet the requirements GDC-63, GDC-64, NUREG-0737 or NUREG-0800.

I-3. Please identify each addition to, deletion from, or change in the Seabrook radiation monitoring program that, if made, would cause NHAG to be satisfied that the program meets all applicable regulatory requirements.

I-4. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

II-1. Does NHAG intend to litigate contention NH-10 (Control Room Design)? (If the answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory III-1.)

II-2. Please specify in detail each respect in which NHAG contends that the Seabrook control room design does not comply with GDC-19.

II-3. Please sepcify in detail each respect in which NHAG contends that the Seabrook control room design does not comply with GDC-20.

II-4. Please specify in detail each respect in which NHAG contends that Seabrook control room design does not comply with GDC-21.

II-5. Please specify in detail each respect in which NHAG contends that Seabrook control room design does not comply with GDC-22.

II-6. Please specify in detail each respect in which NHAG contends that Seabrook control room design does not comply with NUREG-0737, Item I.D.1.

II-7. Please specify in detail each respect in which NHAG contends that Seabrook control room design does not comply with NUREG-0737, Item I.D.2?

II-8. Please specify each change in the Seabrook control room design that, if made, would satisfy NHAG that the Seabrook control room design complies with all applicable regulatory requirements.

II-9. For each change specified in response to the foregoing interrogatory, please: (i) identify each and

every United States nuclear power plant that incorporates the change specified, and (ii) identify each and every United States nuclear power plant that does not incorporate the change specified.

II-10. Please describe each respect in which each change specified in response to Interrogatory No. II-8 would or might have an offsetting negative effect on control room efficiency or operator performance.

II-11. When did NHAG first review the Seabrook control room design, and what persons reviewed that design on NHAG's behalf?

II-12. When did NHAG last review the Seabrook control room design, and what persons reviewed that design on NHAG's behalf?

II-13. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

III-1. Does NHAG intend to litigate contention NH-13 (Operations Personnel Qualifications and Training)?

(If the answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory IV-1.)

III-2. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the station manager of Seabrook do not comply with NUREG-0737, Item I.A.1.1

III-3. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the station manager of Seabrook do not comply with NUREG-0737, Item I.A.2.1

III-4. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the station manager of Seabrook do not comply with NUREG-0737, Item I.A.2.3

III-5. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the station manager of Seabrook do not comply with NUREG-0737, Item II.B.4

III-6. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the station manager of Seabrook do not comply with NUREG-0737, Item I.C.1

III-7. Please specify in detail each and every respect in which NHAG contends that the qualifications

or training of the station manager of Seabrook do not comply with NUREG-0737, Appendix C.

III-8. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the assistant station manager of Seabrook do not comply with NUREG-0737, Item I.A.1.1.

III-9. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the assistant station manager of Seabrook do not comply with NUREG-0737, Item I.A.2.1

III-10. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the assistant station manager of Seabrook do not comply with NUREG-0737, Item I.A.2.3

III-11. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the assistant station manager of Seabrook do not comply with NUREG-0737, Item II.B.4

III-12. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the assistant station manager of Seabrook do not comply with NUREG-0737, Item I.C.1

III-13. Please specify in detail each and every respect in which NHAG contends that the qualifications

or training of the assistant station manager of Seabrook do not comply with NUREG-0737, Appendix C.

III-14. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the senior reactor operators of Seabrook do not comply with NUREG-0737, Item I.A.1.1.

III-15. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the senior reactor operators of Seabrook do not comply with NUREG-0737, Item I.A.2.1

III-16. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the senior reactor operators of Seabrook do not comply with NUREG-0737, Item I.A.2.3

III-17. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the senior reactor operators of Seabrook do not comply with NUREG-0737, Item II.B.4

III-18. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the senior reactor operators of Seabrook do not comply with NUREG-0737, Item I.C.1

III-19. Please specify in detail each and every respect in which NHAG contends that the qualifications

or training of the reactor operators of Seabrook do not comply with NUREG-0737, Appendix C.

III-20. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the reactor operators of Seabrook do not comply with NUREG-0737, Item I.A.1.1.

III-21. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the reactor operators of Seabrook do not comply with NUREG-0737, Item I.A.2.1

III-22. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the reactor operators of Seabrook do not comply with NUREG-0737, Item I.A.2.3

III-23. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the reactor operators of Seabrook do not comply with NUREG-0737, Item II.B.4

III-24. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the reactor operators of Seabrook do not comply with NUREG-0737, Item I.C.1

III-25. Please specify in detail each and every respect in which NHAG contends that the qualifications

or training of the reactor operators of Seabrook do not comply with NUREG-0737, Appendix C.

III-26. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the shift/technical advisors of Seabrook do not comply with NUREG-0737, Item I.A.1.1.

III-27. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the shift/technical advisors of Seabrook do not comply with NUREG-0737, Item I.A.2.1

III-28. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the shift/technical advisors of Seabrook do not comply with NUREG-0737, Item I.A.2.3

III-29. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the shift/technical advisors of Seabrook do not comply with NUREG-0737, Item II.B.4

III-30. Please specify in detail each and every respect in which NHAG contends that the qualifications or training of the shift/technical advisors of Seabrook do not comply with NUREG-0737, Item I.C.1

III-31. Please specify in detail each and every respect in which NHAG contends that the qualifications

or training of the shift/technical advisors of Seabrook do not comply with NUREG-0737, Appendix C.

III-32. Please specify each and every addition to, deletion from, or change to the qualifications and training requirements for the Seabrook station manager that, if made, would satisfy NHAG that the qualifications and training of the Seabrook station manager fully complied with all applicable requirements.

III-33. Please specify each and every addition to, deletion from, or change to the qualifications and training requirements for the Seabrook assistant assistant station manager that, if made, would satisfy NHAG that the qualifications and training of the Seabrook assistant assistant station manager fully complied with all applicable requirements.

III-34. Please specify each and every addition to, deletion from, or change to the qualifications and training requirements for the Seabrook senior reactor operators that, if made, would satisfy NHAG that the qualifications and training of the Seabrook senior reactor operators fully complied with all applicable requirements.

III-35. Please specify each and every addition to, deletion from, or change to the qualifications and training requirements for the Seabrook reactor operators that, if made, would satisfy NHAG that the qualifications and training of the Seabrook reactor operators fully complied with all applicable requirements.

III-36. Please specify each and every addition to, deletion from, or change to the qualifications and training requirements for the Seabrook shift/technical advisors that, if made, would satisfy NHAG that the qualifications and training of the Seabrook shift/technical advisors fully complied with all applicable requirements.

III-37. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

IV-1. Does NHAG intend to litigate Contention NH-20 (Emergency assessment, classification, and notification)? (If the answer to this interrogatory is

an unqualified negative, you may proceed to Interrogatory V-1.)

IV-2. Please specify in detail each and every respect in which NHAG contends that the Seabrook emergency plan does not comply with 10 CFR § 50.47(b)(4).

IV-3. Please specify in detail each and every respect in which NHAG contends that the Seabrook emergency plan does not comply with NUREG-0654, Appendix 1.

IV-4. Please specify each and every addition to, deletion from, or change to the Seabrook emergency plan that, if made, would satisfy NHAG that the emergency classification and action plan for Seabrook meets all applicable regulatory requirements.

IV-5. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

V-1. Does NHAG intend to litigate contention NH-21 (Protective action-onsite)? (If your answer to this

interrogatory is an unqualified negative, you may proceed to Interrogatory VI-1.)

V-2. Please specify each and every respect in which NHAG contends that the protective measures set forth in the Seabrook emergency plans fail to meet the requirements of 10 CFR dac 50.47 and Part 50, Appendix E.

V-3. Please specify in detail each and every additional protective action that NHAG contends ought to be called for in the Seabrook emergency plan.

V-4. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written

report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

VI-1. Does NHAG intend to litigate Contention NECNP-I.A.2? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory VII-1.)

VI-2. Please list each valve operator that NHAG contends must be environmentally qualified in order to achieve compliance with 10 CFR Part 50, Appendix A, GDC 4.

VI-3. Please list each additional valve operator (beyond those required to be environmentally qualified in order to achieve compliance with GDC 4) that NHAG contends must be environmentally qualified "to provide a reasonable assurance that the equipment can survive an accident environment of the harshness and duration experienced at TMI Unit 2."

VI-4. For each valve operator listed in response to Interrogatory VI-2, state whether NHAG contends that the valve operator is not environmentally qualified, and describe the basis for such contention.

VI-5. For each valve operator listed in response to Interrogatory VI-3, state whether NHAG contends that the valve operator is not environmentally qualified, and describe the basis for such contention.

VI-6. Please quantify what NHAG means by the "harshness" of the "accident environment . . . experienced at TMI Unit 2."

VI-7. Please quantify what NHAG means by the "duration" of the "accident environment . . . experienced at TMI Unit 2."

VI-8. Please describe each and every accident scenario that NHAG contends could produce at Seabrook

an "accident environment of the harshness and duration experienced at TMI Unit 2".

VI-9. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

VII-1. Does NHAG intend to litigate Contention NECNP-I.B.1? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory VIII-1.)

VII-2. Please list each and every system that NHAG contends is "required for residual heat removal."

VII-3. Please state in detail each portion of each of the systems listed in response to the foregoing interrogatory that NHAG contends is not environmentally qualified.

VII-4. Please describe in detail the nature and duration of the environment for which NHAG contends each of the portions identified in response to the foregoing interrogatory should be qualified.

VII-5. Please describe in detail each and every accident scenario that NHAG contends could expose the portions identified in response to Interrogatory VII-3 to the environmental conditions described in response to Interrogatory VII-4 at Seabrook.

VII-6. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or

principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

VIII-1. Does NHAG intend to litigate Contention NECNP-I.B.2? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory IX-1.)

VIII-2. Please identify each item of equipment at Seabrook for which NHAG contends that the duration of environmental qualification is either inadequate or inadequately specified.

VIII-3. For each item of equipment specified in response to the foregoing interrogatory, please state the nature and duration of the environment which NHAG contends that item ought to be qualified.

VIII-4. Please describe each and every accident scenario that NHAG contends could produce at Seabrook an environment of the nature and duration stated in response to the foregoing interrogatory.

VIII-5. What does NHAG contend was the "duration" of the accident at TMI?

VIII-6. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

IX-1. Does NHAG intend to litigate Contention NECNP-I.C? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory X-1.)

IX-2. Please specify in detail each and every part of the pumphouse HVAC system that NHAG contends must be "considered safety related."

IX-3. Please state the basis upon which NHAG concludes that each of the items specified in response to the foregoing interrogatory must be "considered safety related."

IX-4. Please specify in detail each and every part of the pumphouse HVAC system that NHAG contends must be environmentally qualified.

IX-5. For each part identified in response to the foregoing interrogatory please describe the nature and duration of the environment for which NHAG contends the part the part must be qualified.

IX-6. Please describe in detail each and every accident scenario that NHAG contends could produce at Seabrook an environment in the pumphouse of the nature and duration described in response to the foregoing interrogatory.

IX-7. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

X-1. Does NHAG intend to litigate Contention NECNP-I.D.1? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XI-1.)

X-2. Please describe in detail each respect in which NHAG contends that the ultrasonic testing of

reactor vessel welds during preservice examination fails to comply with GDC 1.

X-3. Please specify in detail each addition to , deletion from, or change to the preservice reactor vessel weld ultrasonic testing procedure that, if made, would satisfy NHAG that GDC 1 has been fully complied with.

X-4. Please describe in detail each respect in which NHAG contends that the ultrasonic testing of reactor vessel welds during inservice examination fails to comply with GDC 1.

X-5. Please specify in detail each addition to, deletion from, or change to the inservice reactor vessel weld ultrasonic testing procedure that, if made, would satisfy NHAG that GDC 1 had been fully complied with.

X-6. Does NHAG contend that Regulatory Guide 1.150 describes the only procedure for the preservice and inservice ultrasonic testing of reactor vessel welds by which compliance with GDC 1 may be demonstrated?

X-7. If your answer to the foregoing interrogatory is in the affirmative, please state in detail NHAG's basis for this contention.

X-8. If your answer to Interrogatory X-6 was other than in the affirmative, please describe in detail each and every other procedure for preservice and inservice ultrasonic testing of reactor vessel welds that also complies with GDC 1.

X-9. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or

principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XI-1. Does NHAG intend to litigate Contention NECNP-I.D.2? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XII-1.)

XI-2. With respect to each of the twelve systems referred in this contention, does NHAG contend that no justification for not testing each at full power is acceptable?

XI-3. With respect to each of the twelve systems referred to in this contention, please describe each and every justification for not testing each at full power that NHAG would conclude is acceptable.

XI-4. With respect to each of the twelve systems referred to in this contention, does NHAG contend that the only way of reliably testing each is testing at full power?

XI-5. With respect to each of the systems referred to in this contention, please describe each means of testing each other than at full power that, in NHAG's judgment, is reliable.

XI-6. Please define the term "reliable" as it is used by NHAG with respect to this contention.

XI-7. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written

report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XII-1. Does NHAG intend to litigate Contention NECNP-I.D.3? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XIII-1).

XII-2. Does NHAG contend that the "airborne radioactivity detector" referred to in the second sentence of this contention fails to comply with GDC 21?

XII-3. Please list and describe each and every system and device which NHAG contends comprises a part of "the leakage detection system" and which NHAG contends fails comply with GDC 21.

XII-4. Please state each and every reason why NHAG contends that GDC 21 applies to the Seabrook "leakage detection system."

XII-5. Please describe every regulation, regulatory guide, NUREG (or similar document) or other authority upon which NHAG relies for its contention that GDC 21 applies to a leakage detection system.

XII-6. Please identify and list each and every other nuclear power plant in connection with the operating license for which the NRC Staff has asserted that GDC 21 applies to the leakage detection system of which.

XII-7. Does NHAG contend that Regulatory Guide 1.45 is not complied with by any portion of the Seabrook application?

XII-8. Unless your answer to the foregoing interrogatory is an unqualified negative, please identify each portion of the Seabrook plant which NHAG contends fails to comply with any applicable portion of Regulatory Guide 1.45, and, for each such portion,

identify the provision of Regulatory Guide 1.45 that NHAG contends is not complied with and state each and every reason why NHAG contends (i) that that portion of Regulatory Guide 1.45 is applicable to that portion of the plant and (ii) that that portion of Regulatory Guide 1.45 is not complied with.

XII-9. Please list and identify each component of the Reactor Coolant Pressure Boundary Leakage Detection System that NHAG contends must be tested or calibrated in accordance with the provisions of IEEE 279-71.

XII-10. For each component identified and listed in response to the foregoing interrogatory, please state each and every reason why NHAG contends that the component must be tested or calibrated under IEEE 279-71.

XII-11. For each component identified and listed in response to Interrogatory No. XII-9, please specify those that NHAG contends are required to be tested at power.

XII-12. For each component identified and listed in response to the foregoing interrogatory, please state each and every reason why NHAG contends that the component must be tested or calibrated at power.

XII-13. Does NHAG contend that compliance with Regulatory Guide 1.22 requires testing of the Reactor Coolant Pressure Boundary Leakage Detection System at power?

XII-14. Unless your answer to the foregoing interrogatory is an unqualified negative, state each and every reason why NHAG so contends.

XII-15. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XIII-1. Does NHAG intend to litigate Contention NECNP-I.D.4? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XIV-1.)

XIII-2. Does NHAG contend that the application fails in any respect to meet the requirements of IEEE 338-1975?

XIII-3. If your answer to the foregoing interrogatory was anything other than an unqualified negative, please describe in detail each and every

respect in which NHAG contends that the application fails to meet the requirements of IEEE 338-1975.

XIII-4. Please describe in detail each and every addition to, deletion from, or change to the application that, if made, would satisfy NHAG that the application meets all the requirement of IEEE 338-1975.

XIII-5. Please describe in detail each and every difference between IEEE 338-1977 and IEEE 338-1975 that NHAG contends is significant for purposes of judging the compliance of the application with GDC 21.

XIII-6. Does NHAG contend that IEEE 338-1977 describes the only way in which GDC 21 can be complied with?

XIII-7. If your answer to the foregoing interrogatory was anything other than an unqualified affirmative, please describe in detail each and every means of complying with GDC 21 other than by meeting the requirements of IEEE 338-1977.

XIII-8. If your answer to Interrogatory No. XIII-6 is in the affirmative, please describe how GDC 21 was complied with prior to the promulgation of IEEE 338-1977.

XIII-9. Please list and describe each and every system, device and component that NHAG contends must

comply with GDC 18, GDC 21, 10 CFR § 50.55a or Criterion XI of Appendix B to 10 CFR Part 50.\*

XIII-10. Please list each of the standards identified by the Applicants in their answer to NECNP-Interrogatory No. I.D.4-6 that NHAG contends is inadequate.

XIII-11. For each standard listed in response to the foregoing interrogatory, please state (i) each and every respect in which NHAG contends the standard is inadequate, (ii) each and every reason why NHAG contends the standard is inadequate, and (iii) the standard that NHAG contends ought to be applied instead.

XIII-12. Does NHAG contend that any of the ways in which the Applicants meet the design and operational criteria for performance of periodic testing of safety systems identified by the Applicants in response to NECNP-Interrogatory I.D.4-8 fails to comply with any applicable regulatory requirement?

XIII-13. Unless your answer to the foregoing interrogatory is an unqualified negative, please (i) identify each such way, (ii) identify each regulatory requirement that NHAG contends is applicable and not

complied with, and (iii) state each and every reason why NHAG so contends.

XIII-14. Does NHAG contend that any system other than or in addition to those systems identified by the Applicants in response to NECNP-Interrogatory I.D.4-10 are subject to a periodic testing requirement perforce GDC 21?

XIII-15. Unless your answer is a unqualified negative, please (i) identify and describe each such additional system, (ii) state whether NHAG contends that the requirements of GDC 21 are not met in respect of that system, (iii) state fully each and every reason why NHAG contends that the system is subject to the requirements of GDC 21, (iv) state fully each and every reason why NHAG contends that the requirements of GDC are not met in respect of that system, and (v) describe in detail each and every change to or respecting that system or the testing thereof that, if made, would satisfy NHAG that the requirements of GDC have been fully satisfied.

XIII-16. Does NHAG contend that the test equipment will cause a loss of independence between redundant channels or load groups?

XIII-17. Unless your answer to the foregoing interrogatory is an unqualified negative, please (i) describe and list each loss of independence that NHAG contends will be caused, (ii) state fully each and every reason why NHAG so contends, and (iii) describe each and every modification to the equipment or procedures that, if implemented, would satisfy NHAG that such loss of independence would not occur.

XIII-18. Does NHAG contend that there is not sufficient redundancy within each safety system to provide redundancy even when degraded by a single random failure?

XIII-19. Unless your answer to the foregoing interrogatory is an unqualified negative, please (i) describe and list each system which NHAG contends lacks such redundancy and (ii) for each such system: (a) identify specifically each point at which NHAG contends redundancy is lost, (bi) describe in detail how NHAG contends that a single random failure will cause the loss of redundancy, and (c) describe in detail each modification to the system that NHAG contends would eliminate the loss of redundancy.

XIII-20. Does NHAG contend that any of the test intervals specified in the Standard Technical

Specification (Regulatory Guide 452) fails to meet the requirements of GDC 21?

XIII-21. Unless your answer to the foregoing interrogatory is an unqualified negative, please (i) specify each test interval that NHAG contends is inadequate, (ii) state what NHAG contends is the required test interval, (iii) state fully each and every reason why NHAG so contends, and (iv) identify each nuclear power plant possessing an operating license at which the intervals specified in the Standard Technical Specifications has been found to be inadequate.

XIII-22. Does NHAG contend that status, annunciating, display and monitoring functions are other than control functions? If so, please state each and every reason why NHAG so contends.

XIII-23. Does NHAG contend that status, annunciating, display and monitoring functions are safety functions? If so, please state each and every reason why NHAG so contends.

XIII-24. Does NHAG contend that response time testing is required by GDC 21 to any extent beyond that set forth in Applicants' response to RAI 420.17 and Applicants' response to NECNP-Interrogatory I.D.4-23?

XIII-25. Unless your answer to the foregoing interrogatory is an unqualified negative, please, (i) identify each system, component, channel, or sensors in respect of which NHAG contends such testing is required and (ii) state each and every reason why NHAG so contends.

XIII-26. Does NHAG contend that the procedures described in FSAR ¶ 1.8 are in any respect not in compliance with the guidance of Regulatory Guide 1.22?

XIII-27. Unless your answer to the foregoing interrogatory is an unqualified negative, please (i) describe each aspect of the procedures described in that paragraph that NHAG contends fail to meet the guidance of the Regulatory Guide, (ii) state fully each and every reason why NHAG so contends, (iii) state whether NHAG contends that the applications therefore fails to comply with GDC 21, and (iv) state fully each and every reason why NHAG so contends.

XIII-28. Does NHAG contend that the design of the Seabrook safety systems fails to provide adequate means to prevent the expansion of any bypass condition to redundant channels or load groups during testing operations?

XIII-29. Unless your answer to the foregoing interrogatory is an unqualified negative, please (i) describe each point at which NHAG contends an expansion is inadequately prevented, (ii) state fully each and every reason why NHAG so contends, and (iii) describe each and every modification to the design that, if made, would satisfy NHAG that expansion is adequately prevented.

XIII-30. Does NHAG contend that in any portion of the Seabrook safety systems redundant components are used within a single channel or load group?

XIII-31. Unless your answer to the foregoing interrogatory is a unqualified negative, please identify and describe each place at which NHAG contends such redundant components are used and state fully each and every reason why NHAG so contends.

XIII-32. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XIV-1. Does NHAG intend to litigate Contention NECNP-I.F? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XV-1.)

XIV-2. Please specify in detail each respect in which NHAG contends that the Applicants have not met the requirements of GDC 17, as alleged in Contention NECNP-I.F.

XIV-3. Please specify in detail each respect in which NHAG contends that the Applicants have not met the requirements of Criterion III, Appendix B, as alleged in Contention NECNP-I.F.

XIV-4. Please specify in detail each respect in which NHAG contends that the Applicants have not met the requirements of IEEE 323-1974, as alleged in Contention NECNP-I.F.

XIV-5. Please specify in detail each respect, if any, in which NHAG contends that the Applicants have not met the requirements of Reg. Guide 1.9 insofar as Reg. Guide 1.9 addresses compliance with GDC 17, Criterion III, App. B, IEEE 323-1974, or the environmental qualification of diesel generators.

XIV-6. Please specify in detail each and every change in or regarding the diesel generators proposed

for Seabrook that NHAG contends must be made in order for the regulatory requirements of the NRC to be met.

XIV-7. For each change specified in response to the foregoing interrogatory, specify the regulatory requirement that, in NHAG's judgment, requires the change.

XIV-8. Please describe all differences between IEEE 323-1974 and "IEEE 323-1977."

XIV-9. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so,

whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XV-1. Does NHAG intend to litigate Contention NECNP-I.G? (If your answer to this interrogatory is an unqualified negative, you may proceed to interrogatory XVI-1.)

XV-2. Please list and describe each of the the instruments that NHAG contends are within the description "RCS wide-range pressure instruments being utilized at Seabrook."

XV-3. Please describe the location of each of the instruments listed in response to the foregoing interrogatory.

XV-4. Please provide the basis for each of the locations provided in response to the foregoing interrogatory.

XV-5. For each of the instruments listed and described in response to Interrogatory No. XV-2, please state each and every reason why NHAG contends that the instrument "cannot be relied upon to provide accurate information."

XV-6. Does NHAG have any basis for this contention other than I&E Information Notice No. 82-11?

XV-7. Does NHAG contend the I&E Information Notice No. 82-11 applies to the instrumentation proposed for Seabrook?

XV-8. Prior to the time that NHAG filed its contentions, had any person or firm advised NHAG that I&E Information Notice No. 82-11 applied to the instrumentation proposed for Seabrook?

XV-9. Unless your answer to the foregoing interrogatory is an unqualified negative, please identify the person or firm who so advised NHAG, please state the date or dates on which the advice was given,

please state whether the advice was in writing and, if so, identify the document or documents contained or transmitting the advice, and please describe in detail the qualifications of the person or firm that NHAG contends qualified him, her or it to give the advice.

XV-10. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or

principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XVI-1. Does NHAG intend to litigate Contention NECNP-I.1? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XVII-1.)

XVI-2. Please describe each path to cold shutdown that, if environmentally qualified, would satisfy NHAG that the provisions of I&E Bulletin 70-01B have been fully satisfied.

XVI-3. For each of the paths identified in response to the foregoing interrogatory, please list each system or device that NHAG contends must be environmentally qualified in order for that path to satisfy fully the provisions of I&E Bulletin 79-01B.

XVI-4. Is there any path to cold shutdown at Seabrook that, even if environmentally qualified, NHAG contends would not satisfy the provisions of I&E Bulletin 79-01B?

XVI-5. Unless your answer to the foregoing interrogatory is an unqualified negative, please describe each and every such path, and state in detail all of the reasons why it would not satisfy I&E Bulletin 79-01B.

XVI-6. Is there any path to cold shutdown at Seabrook that NHAG contends cannot be environmentally qualified in order to meet the provisions of I&E Bulletin 79-01B?

XVI-7. Unless your answer to the foregoing interrogatory is an unqualified negative, please describe each and every such path and state fully all of the reasons why it cannot be environmentally qualified.

XVI-8. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or

engineering book or other publication, and, if so, identify the book or publication.

XVII-1. Does NHAG intend to litigate Contention NECNP-I.L? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XVIII-1.)

XVII-2. Please specify in detail each and every reason why NHAG contends that the Seabrook PORV position indicators do not comply with the regulatory requirements of the NRC.

XVII-3. For each and every reason specified in response to the foregoing interrogatory, please identify the regulatory requirement that NHAG contends imposes requirement.

XVII-4. Please identify the source of NHAG's contention that the Applicants intend to rely upon "measuring noise."

XVII-5. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XVIII-1. Does NHAG intend to litigate Contention NECNP-1.M? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XIX-1.)

XVIII-2. Please specify each regulatory requirement which NHAG contends that Applicants' fire protection plan must comply with.

XVIII-3. Please specify in detail each and every respect in which NHAG contends that the Applicants' fire protection plan does not comply with any other regulatory requirements which NHAG contends must be met, describing in detail for each such instance of asserted non-compliance: (i) the nature of the asserted non-compliance, (ii) the nature of the addition to, deletion from, or change in the fire protection plan which NHAG contends must be made in order to bring the plan into compliance, (iii) the regulatory requirement which NHAG contends is not complied with, and (iv) NHAG's basis for contending that the regulatory requirement applies to Seabrook.

XVIII-4. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XIX-1. Does NHAG intend to litigate Contention NECNP-I.N? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XX-1.)

XIX-2. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so,

whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XX-1. Does NHAG intend to litigate Contention NECNP-I.U? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XXI-1.)

XX-2. Please specify the values which NHAG contends are the proper values for  $p_1$ ,  $p_2$ ,  $p_3$  and  $p_4$  for the calculation of turbine missile probability at Seabrook?

XX-3. What is the uncertainty associated with each of NHAG's values for the foregoing parameters?

XX-4. Please explain in detail how NHAG derives the values supplied by it in response to the two foregoing interrogatories.

XX-5. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or

principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XXI-1. Does NHAG intend to litigate Contention NECNP-II.B.1? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XXII-1.)

XXI-2. Please describe in detail what NHAG contends is the proper definition of the term "safety related."

XXI-3. Please describe what NHAG contends is the proper definition of the term "important to safety."

XXI-4. Please explain what NHAG contends are the differences between "safety related" and "important to safety."

XXI-5. Does NHAG agree that if, in fact, the Applicants have aggregated all of the equipment that is "safety related," as NHAG understands the term, and all of the equipment that is "important to safety," as NHAG understands the term, and has subjected the aggregated equipment to requirements applicable to equipment that is "safety related," then the difference in understanding between NHAG and the Applicants is academic?

XXI-6. Please specify and describe each and every respect in which NHAG contends that the Applicants' Quality Assurance Program for operation fails to meet the requirements of 10 CFR Part 50, App. B, specifying in each case: (i) the specific part of the Program that NHAG contends is not in compliance, (ii) the specific part of App. B. with which NHAG contends it is not in compliance, and (iii) each and every addition to, deletion from, or change in the Program that NHAG contends must be made in order to bring the Program into compliance.

XXI-7. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XXII-1. Does NHAG intend to litigate Contention NECNP-II.B.3? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XXIII-1.)

XXII-2. Please describe in detail each and every reason why NHAG contends that the Program does not have the independence required by App. B.

XXII-3. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XXIII-1. Does NHAG intend to litigate Contention NECNP-II.B.4? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XXIV-1.)

XXIII-2. Please state each and every reason why NHAG contends that the Program does not meet the

requirements of App. B, specifying in detail: (i) each specific part of the Program which NHAG contends is not in compliance, (ii) each part of App. B with which NHAG contends the specific part of the Program is not in compliance, and (iii) each and every addition to, deletion from, or change in the Program which NHAG contends must be made in order to bring the Program into compliance.

XXIII-3. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so,

whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XXIV-1. Does NHAG intend to litigate Contention NECNP-II.B.5? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XXV-1.)

XXIV-2. Please state each and every reason why NHAG contends that the Program does not meet the requirements of App. B, specifying in detail: (i) each specific part of the Program which NHAG contends is not in compliance, (ii) each part of App. B with which NHAG

contends the specific part of the Program is not in compliance, and (iii) each and every addition to, deletion from, or change in the Program which NHAG contends must be made in order to bring the Program into compliance.

XXIV-3. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or

principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XXV-1. Does NHAG intend to litigate Contention SAPL Supp-3? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XXVI-1.)

XXV-2. Please describe in detail each and every respect in which NHAG contends that the Applicants are not in compliance with the Policy Statement of June 13, 1980.

XXV-3. Please describe in detail in terms of initiating sequences and source terms each and every "class 9" accident which NHAG contends is required to be discussed by the Applicants.

XXV-4. For each and every "class 9" accident identified in response to the foregoing interrogatory, please describe each and every consequence which NHAG contends will result from that accident.

XXV-5. Separately for each of the consequences described in response to the foregoing interrogatory, please state what NHAG contends is the probability that the consequence will occur per reactor year of Seabrook Station operation.

XXV-6. Please describe in detail the derivation of each of the probabilities supplied in response to the foregoing interrogatory.

XXV-7. Does NHAG contend that on account of the probability or consequences of any "class 9" accident at Seabrook, additional design or related features are required as a condition to the granting of the operating license?

XXV-8. Unless your answer to the foregoing interrogatory is an unqualified negative, please list each such feature that NHAG contends should be required, and for each such feature state: (i) the particular accident scenario and consequences producing the requirement, (ii) the extent to which the additional features will mitigate either probability or

consequence, (iii) the cost (including the cost of delay) of implementing the additional feature, and each and every basis for the values given in response to this interrogatory.

XXV-9. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or

principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XXVI-1. Does NHAG intend to litigate Contention CCCNH-4? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XXVII-1.)

XXVI-2. Please describe each and every fact on which NHAG relies in support of this contention.

XXVI-3. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XXVII-1. Does NHAG intend to litigate Contention CCCNH-5? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XXVIII-1.)

XXVII-2. Please describe each and every fact on which NHAG relies in support of this contention.

XXVII-3. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XXVIII-1. Does NHAG intend to litigate Contention CCCNH-7? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XXIX-1.)

XXVIII-2. Please state each and every fact on which NHAG relies in support of this contention.

XXVIII-3. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or

engineering book or other publication, and, if so, identify the book or publication.

XXIX-1. Does NHAG intend to litigate Contention NECNP-III.1? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XXX-1.)

XXIX-2. Please specify each and every respect in which NHAG contends that the Applicants' classification and action level scheme fails to comply with the requirements of 10 CFR § 50.47(b)(4)

XXIX-3. For each respect specified in response to the foregoing interrogatory, please describe each addition to, deletion from, or change in the Applicants' classification and action level scheme that, if made, would satisfy NHAG that the scheme complies with 10 CFR § 50.47(b)(4) in all respects.

XXIX-4. For each "justification" that NHAG contends is both required and not provided by the Applicants, please describe in detail each and every justification that would satisfy NHAG as being adequate and in compliance with 10 CFR § 50.47(b)(4).

XXIX-5. Please explain what is meant by the contention that "The classification scheme minimizes the potential significance of transients."

XXIX-6. With respect to the contention that "The classification scheme minimizes the potential significance of transients," please list and describe each of the transients that NHAG contends have been minimized.

XXIX-7. With respect to the contention that "The classification scheme minimizes the potential significance of transients," please quantify (i) what NHAG contends is the Applicants' statement of the potential for each transient of which NHAG contends the Applicants have minimized the potential, and (ii) what NHAG contends the potential actually is.

XXIX-8. With respect to the contention that "The classification scheme minimizes the potential significance of transients," describe each change in the scheme that, if made, would satisfy NHAG that the potential had not been minimized.

XXIX-9. With respect to the contention that "The Applicants' classification scheme fails to include consideration of specific plant circumstances, such as the anticipated time lag for evacuation due to local problems," please specify in detail the "local problems" that NHAG contends will affect evacuation times.

XXIX-10. With respect to the contention that "The Applicants' classification scheme fails to include consideration of specific plant circumstances, such as the anticipated time lag for evacuation due to local problems," please state:

- (i) For each sector on the compass, what NHAG accepts as the evacuation time under maximum population conditions apart from each of the "local problems" specified in response to the foregoing interrogatory (i.e., assuming they did not exist);
- (ii) The amount of additional time that NHAG contends must be added to the evacuation time estimate for each sector for each of the "local problems" separately stated;
- (iii) The aggregate evacuation time that NHAG contends must be employed for emergency planning purposes for each sector, taking into account all of the "local problems; and
- (iv) Each and every ameliorative step that NHAG contends must be taken on account of each of the "local problems."

XXIX-11. With respect to the contention that "The Applicants' classification scheme fails to include consideration of specific plant circumstances, such as the anticipated time lag for evacuation due to local problems," please specify in detail each and every other "specific plant circumstance" that NHAG contends must be considered.

XXIX-12. For each of the "specific plant circumstances" specified in response to the foregoing interrogatory, please specify each and every addition to, deletion from, or change in the classification scheme that NHAG contends should be made as a result of consideration of the "circumstance."

XXIX-13. With respect to the contention that "The classification scheme fails to provide a reasonable assurance that Seabrook onsite and offsite emergency response apparatus and personnel can be brought to an adequate state of readiness quickly enough to respond to an accident," please specify each item and category of onsite apparatus with respect to which NHAG intends to litigate this contention.

XXIX-14. With respect to the contention that "The classification scheme fails to provide a reasonable assurance that Seabrook onsite and offsite emergency response apparatus and personnel can be brought to an adequate state of readiness quickly enough to respond to an accident," please specify each item and category of offsite apparatus with respect to which NHAG intends to litigate this contention.

XXIX-15. With respect to the contention that "The classification scheme fails to provide a reasonable

assurance that Seabrook onsite and offsite emergency response apparatus and personnel can be brought to an adequate state of readiness quickly enough to respond to an accident," please specify each item and category of onsite personnel with respect to which NHAG intends to litigate this contention.

XXIX-16. With respect to the contention that "The classification scheme fails to provide a reasonable assurance that Seabrook onsite and offsite emergency response apparatus and personnel can be brought to an adequate state of readiness quickly enough to respond to an accident," please specify each item and category of offsite personnel with respect to which NHAG intends to litigate this contention.

XXIX-17. With respect to the contention that "The classification scheme fails to provide a reasonable assurance that Seabrook onsite and offsite emergency response apparatus and personnel can be brought to an adequate state of readiness quickly enough to respond to an accident," please specify in detail each addition to, deletion from, or change in the classification scheme that, if made, would satisfy NHAG that onsite and offsite emergency response apparatus and personnel

can be brought to an adequate state of readiness quickly enough to respond to an accident.

XXIX-18. With respect to the contention that "The classification scheme fails to provide a reasonable assurance that Seabrook onsite and offsite emergency response apparatus and personnel can be brought to an adequate state of readiness quickly enough to respond to an accident," please quantify, for each item and category of apparatus and personnel with respect to which NHAG intends to litigate this contention, what is denoted by the expression "quickly enough."

XXIX-19. With respect to the contention that "The classification scheme fails to provide a reasonable assurance that Seabrook onsite and offsite emergency response apparatus and personnel can be brought to an adequate state of readiness quickly enough to respond to an accident," please quantify, for each item and category of apparatus and personnel with respect to which NHAG intends to litigate this contention, what is denoted by the expression "adequate state of readiness."

XXIX-20. With respect to the contention that "The classification scheme fails to provide a reasonable assurance that Seabrook onsite and offsite emergency

response apparatus and personnel can be brought to an adequate state of readiness quickly enough to respond to an accident," does NHAG contend that the assurance that it finds missing from the classification scheme is not supplied by other documents or parts of documents constituting a part of or prepared in connection with the application?

XXIX-21. Please list each of the documents or parts of documents reviewed by NHAG prior to and for the specific purpose of responding to the foregoing interrogatory.

XXIX-22. With respect to the contention that "The [classification] scheme is incapable of being implemented effectively to protect the public health and safety because it provides no systematic means of identifying, monitoring, analyzing, and responding to the symptoms of transients and other indicators that transients may occur," does NHAG contend that this omission violates any regulatory or quasi-regulatory standard other than NUREG-0654?

XXIX-23. Unless your answer to the foregoing interrogatory is an unqualified negative, please specify each regulatory standard which NHAG contends is violated by the omission alleged.

XXIX-24. With respect to the contention that "The [classification] scheme is incapable of being implemented effectively to protect the public health and safety because it provides no systematic means of identifying, monitoring, analyzing, and responding to the symptoms of transients and other indicators that transients may occur," please list each of the transients that NHAG contends must be included, and, for each such transient, please describe in detail the "symptoms" of that transient.

XXIX-25. With respect to the contention that "The [classification] scheme is incapable of being implemented effectively to protect the public health and safety because it provides no systematic means of identifying, monitoring, analyzing, and responding to the symptoms of transients and other indicators that transients may occur," please describe each and every "other indicator that" each such transient "may occur."

XXIX-26. Has NHAG performed, or has it had any other person perform on its behalf, any estimates of Seabrook evacuation times?

XXIX-27. Unless your answer to the foregoing interrogatory is an unqualified negative, please: (i) identify each such estimate, (ii) identify the

author(s) of and principal contributor(s) to the estimate, and (iii) state the date the estimate was completed.

XXIX-28. Does NHAG intend to rely upon any estimate of Seabrook evaluation times other than any estimate identified in response to the foregoing interrogatory? If so, please: (i) identify each such estimate, (ii) identify the author(s) of and principal contributor(s) to the estimate, and (iii) state the date the estimate was completed.

XXIX-29. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written

report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XXX-1. Does NHAG intend to litigate Contention NECNP-III.2? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XXXI-1.)

XXX-2. Please describe in detail each addition to, deletion from, or change in the Seabrook emergency plan that NHAG contends is necessary in order to respond to a "failure of both units" on account of an earthquake.

XXX-3. Please describe what NHAG means by the phrase "failure of both units" as used in connection with the foregoing interrogatory.

XXX-4. Please quantify the parameters of the earthquake that NHAG contends could cause a "failure of both units."

XXX-5. Please describe in detail each addition to, deletion from, or change in the Seabrook emergency plan that NHAG contends is necessary in order to respond to a "failure of both units" on account of a severe storm.

XXX-6. Please describe what NHAG means by the phrase "failure of both units" as used in connection with the foregoing interrogatory.

XXX-7. Please quantify the parameters of the severe storm that NHAG contends could cause a "failure of both units."

XXX-8. Please describe in detail each addition to, deletion from, or change in the Seabrook emergency plan that NHAG contends is necessary in order to respond to a "failure of both units" on account of a loss of offsite power.

XXX-9. Please describe what NHAG means by the phrase "failure of both units" as used in connection with the foregoing interrogatory.

XXX-10. Please quantify the parameters of the loss of offsite power that NHAG contends could cause a "failure of both units."

XXX-11. Please describe in detail each addition to, deletion from, or change in the Seabrook emergency plan that NHAG contends is necessary in order to respond to a "failure of both units" on account of a degraded grid voltage.

XXX-12. Please describe what NHAG means by the phrase "failure of both units" as used in connection with the foregoing interrogatory.

XXX-13. Please quantify the parameters of the degraded grid voltage that NHAG contends could cause a "failure of both units."

XXX-14. Please describe each and every respect in which NHAG contends that 10 CFR § 50.47(b)(1) requires "different actions for a simultaneous event than for an event at a single reactor."

XXX-15. Please describe each and every respect in which NHAG contends that 10 CFR § 50.47(b)(2) requires "different actions for a simultaneous event than for an event at a single reactor."

XXX-16. Please describe each and every respect in which NHAG contends that 10 CFR § 50.47(b)(3) requires

"different actions for a simultaneous event than for an event at a single reactor."

XXX-17. Please describe each and every respect in which NHAG contends that 10 CFR § 50.47(b)(4) requires "different actions for a simultaneous event than for an event at a single reactor."

XXX-18. Please describe each and every respect in which NHAG contends that 10 CFR § 50.47(b)(6) requires "different actions for a simultaneous event than for an event at a single reactor."

XXX-19. Please describe each and every respect in which NHAG contends that 10 CFR § 50.47(b)(7) requires "different actions for a simultaneous event than for an event at a single reactor."

XXX-20. Please describe each and every respect in which NHAG contends that 10 CFR § 50.47(b)(8) requires "different actions for a simultaneous event than for an event at a single reactor."

XXX-21. Please describe each and every respect in which NHAG contends that 10 CFR § 50.47(b)(9) requires "different actions for a simultaneous event than for an event at a single reactor."

XXX-22. Please describe each and every respect in which NHAG contends that 10 CFR § 50.47(b)(10) requires

"different actions for a simultaneous event than for an event at a single reactor."

XXX-23. Please describe each and every respect in which NHAG contends that 10 CFR § 50.47(b)(11) requires "different actions for a simultaneous event than for an event at a single reactor."

XXX-24. Please describe each and every respect in which NHAG contends that 10 CFR § 50.47(b)(13) requires "different actions for a simultaneous event than for an event at a single reactor."

XXX-25. Please describe each and every respect in which NHAG contends that 10 CFR § 50.47(b)(15) requires "different actions for a simultaneous event than for an event at a single reactor."

XXX-26. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XXXI-1. Does NHAG intend to litigate Contention NECNP-III.3? (If your answer to this interrogatory is

an unqualified negative, you may proceed to Interrogatory XXXII-1.)

XXXI-2. Please describe in detail each addition to, deletion from, or change in the Seabrook emergency plan that NHAG contends is required to be made in order to bring the plan into conformance with 10 CFR Part 50, App. E, § IV(F).

XXXI-3. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XXXII-1. Does NHAG intend to litigate Contention NECNF-III.12? (If your answer to this interrogatory is an unqualified negative, you may proceed to Interrogatory XXXIII-1.)

XXXII-2. Please describe in detail each and every respect in which NHAG contends that the "evacuation time estimate provided by the Applicants in Appendix C of the Radiological Emergency Plan are inaccurate."

XXXII-3. Please describe in detail each and every respect in which NHAG contends that the "evacuation time estimate provided by the Applicants in Appendix C

of the Radiological Emergency Plan . . . provide unreasonably optimistic estimates of the time required for evacuation."

XXXII-4. Please quantify what NHAG would contend is a "reasonable" degree of optimism.

XXXII-5. Please describe what NHAG contends is the proper method of determining "bounds of error" when using the EVAC computer model for calculating evacuation times.

XXXII-6. Please describe what NHAG contends is the proper method of determining "bounds of error" when using the CLEAR computer model for calculating evacuation times.

XXXII-7. For each sector of the compass, please quantify and specify: (i) what NHAG understands the Applicants' maximum population evacuation time to be, (ii) what NHAG contends the "real" evacuation time is, (iii) what the error bound to the NHAG estimate is, (iv) the confidence interval to which the NHAG error bound is associated, and (v) what NHAG contends is the error bound associated with the Applicants' estimate?

XXXII-8. Please identify each study of Seabrook evacuation times other than the study contained in Appendix C which NHAG has reviewed. For each such

study, please quantify and specify: (i) what NHAG understands the study's maximum population evacuation time to be, (ii) what NHAG contends the "real" evacuation time is, (iii) what the error bound to the NHAG estimate is, (iv) the confidence interval to which the NHAG error bound is associated, and (v) what NHAG contends is the error bound associated with the study's estimate?

XXXII-9. With respect to NHAG's reference to "common knowledge of the difficulties of leaving the beach area on a crowded weekend," please describe each and every difficulty which NHAG contends affects evacuation of the beach.

XXXII-10. With respect to NHAG's reference to "common knowledge of the difficulties of leaving the beach area on a crowded weekend," please describe each and every means by which NHAG acquired this "common knowledge," including: (i) the identification of the persons at NHAG who acquired the knowledge on its behalf, (ii) the identification of all documents which contain the knowledge, (iii) the identification of all persons outside of NHAG who provided this knowledge to it, (iv) the dates on which all such interviews were had, (v) whether such knowledge was acquired by means

to verbal or written communication and, if and to the extent of the former, whether the communication is recorded in any notes, memoranda, or the like, and the identification thereof, and the extent to which the "difficulties" are subject to the following parameters: (A) time of the year, (B) time of the day, (C) day of the week, (D) cloud cover, (E) outside air temperature, and (f) history of cloud cover and outside air temperature over the preceding twelve hours.

XXXII-11. With respect to the "conversation with the Hampton Police Department" referred to by NHAG, please: (i) identify the person, rank, and capacity of the individuals with whom NHAG conversed, (ii) identify the persons at NHAG with whom the conversation took place, (iii) state the date and time of the conversation and the identification of all persons not previously identified who were present, (iv) state whether the conversation was recorded by any means, including notes or memoranda, and, if so, identify the record, and (v) state as fully as possible what each participant in the conversation said to each other person.

XXXII-12. With respect to the assertion that "According to the Hampton Police Department, during a

hurricane several summers ago, evacuation of only 7,300 people from Hampton beach on a weekday night to nearby schools and churches took 3 hours," please state: (i) all of the information called for by the foregoing interrogatory with respect to this conversation, (ii) the date of the "evacuation" referred to, (iii) the time at which the "evacuation" occurred, (iv) what, insofar as NHAG is aware, 7,300 people were doing at the beach at night during a hurricane, (iv) NHAG's estimate of the additional time that would have been required for the same persons under the same circumstances if, instead of evacuating to "nearby schools and churches," the people had been evacuated to a point 10 miles from the beach, and (v) each and every basis for NHAG's estimate.

XXXII-13. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

XXXIII-1. Does NHAG intend to litigate Contention NECNP-III.13? (If your answer to this interrogatory is

an unqualified negative, you need not answer the balance of these interrogatories.)

XXXIII-2. Please state each and every change in the input assumptions used by the Applicants' for the evacuation time estimates submitted by them that NHAG should be made in order to produce a "worst case" situation.

XXXIII-3. Please state separately for each such change the extent to which the change would alter the resulting evacuation time estimates.

XXXIII-4. Please state the frequency per year with which all of the "worst case" assumptions adopted by NHAG in response to the foregoing interrogatories occur between the hours of 9 am and 7 pm.

XXXIII-5. For each sector of the compass, please state what NHAG contends is the worst case evacuation time.

XXXIII-6. Please describe what NHAG means by the term "evacuee directional bias."

XXXIII-7. Has NHAG accounted for "evacuee directional bias" in its evacuation time estimates?

XXXIII-8. For each sector of the compass, please state the correction that NHAG must be made to the

Applicants' evacuation time estimates solely to account for "evacuee directional bias."

XXXIII-9. Please describe each measure that might be taken by emergency personnel, both onsite and offsite, to mitigate or eliminate the effects of "evacuee directional bias" and the extent to which NHAG contends such measures would be effective.

XXXIII-10. Please describe what NHAG means by the term "evacuation shadow."

XXXIII-11. Has NHAG accounted for "evacuation shadow" in its evacuation time estimates?

XXXIII-12. For each sector of the compass, please state the correction that NHAG must be made to the Applicants' evacuation time estimates solely to account for "evacuation shadow."

XXXIII-13. Please describe each measure that might be taken by emergency personnel, both onsite and offsite, to mitigate or eliminate the effects of "evacuation shadow" and the extent to which NHAG contends such measures would be effective.

XXXIII-14. Please describe what NHAG means by the term "reasonably expected vehicle mix."

XXXIII-15. Has NHAG accounted for "reasonably expected vehicle mix" in its evacuation time estimates?

XXXIII-16. For each sector of the compass, please state the correction that NHAG must be made to the Applicants' evacuation time estimates solely to account for "reasonably expected vehicle mix."

XXXIII-17. Please describe each measure that might be taken by emergency personnel, both onsite and offsite, to mitigate or eliminate the effects of "reasonably expected vehicle mix" and the extent to which NHAG contends such measures would be effective.

XXXIII-18. Please state what NHAG would contend is the maximum probability of each of the following events in the vicinity of the Seabrook beaches: (i) a decline in visibility from CAVU to less than 0.5 miles in 60 minutes; (2) a decline in barometric pressure of more than 0.5 inches of mercury from a reading of more than 29.92 inches in less than 30 minutes; (3) a decline in outside air temperature of more than 13 degrees fahrenheit from a temperature of more than 80 degrees in less than 45 minutes; and (4) all three of the foregoing simultaneously.

XXXIII-19. Is it the contention of NHAG that the Police Department of Hampton, New Hampshire, is not capable of evacuating the beaches within its jurisdiction in 6 hours or less?

XXXIII-20. Is it the contention of NHAG that the Police Department of Seabrook, New Hampshire, is not capable of evacuating the beaches within its jurisdiction in 6 hours or less?

XXXIII-21. Does NHAG intend to offer the testimony of any expert witness with respect to this contention? If so, please:

(a) identify each expert witness whom NHAG intends to present with respect to this contention;

(b) state the substance of the facts to which each expert witness is expected to testify;

(c) state the substance of the opinion or opinions to which each expert witness is expected to testify;

(d) provide a summary of the grounds for each opinion to which each expert witness is expected to testify;

(e) state whether the facts and opinions listed in response to the foregoing are contained in any written report, memoranda, or other transcript, and, if so, whether NHAG is willing to produce the same without the necessity of a notice to produce;

(f) state whether the opinion of any expert witness is based in whole or in part on any scientific rule or

principle, and, if so, set forth such rule or principle;

(g) state whether the opinion of any expert witness is based in whole or in part on any code or regulation, governmental or otherwise, and, if so, identify each such code or regulation and the specific section or portion thereof relied upon; and

(h) state whether the opinion of any expert witness is based in whole or in part upon any scientific or engineering book or other publication, and, if so, identify the book or publication.

Request for the Production of Documents

Pursuant to 10 CFR § 2.741, the Applicants' request that NHAG produce for inspection and copying all of the documents identified or referred to in its answer to the foregoing interrogatories at its preference of the following places: (a) the offices of the Applicants' counsel at 225 Franklin Street, Boston, Massachusetts, 24th Floor, or (b) the offices of the Applicants' counsel at 1200 New Hampshire Avenue, N.W., Washington, D.C., or (c) the offices of Public Service Company of New Hampshire, 1000 Elm Street, Manchester, New Hampshire, on January 13, 1983. Please advise of the location at which the documents will be produced.

By its attorneys,

*1s/ Thomas G. Dignan, Jr.*  
*1s/ R. K. Gad III*

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Thomas G. Dignan, Jr.  
R. K. Gad III  
Ropes & Gray  
225 Franklin Street  
Boston, Massachusetts 02110

Dated: December 8, 1982.

DOCKETED  
UNRC

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OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

CERTIFICATE OF SERVICE

I, Robert K. Gad III, one of the attorneys for the Applicants herein, hereby certify that on December 8, 1982 I made service of the within "Applicants' Interrogatories to State of New Hampshire (Attorney General)" by mailing copies thereof, postage prepaid, to:

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Board Panel  
U.S. Nuclear Regulatory Commission  
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*1s/ Robert K. Gad III*

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Robert K. Gad III