

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

In the Matter of	)	
	)	
PUBLIC SERVICE COMPANY OF NEW	)	Docket Nos. 50-443 OL
HAMPSHIRE, et al.	)	50-444 OL
	)	
(Seabrook Station, Units 1 & 2)	)	
	)	

APPLICANTS' MOTION TO COMPEL  
SUPPLEMENTARY ANSWERS TO INTERROGATORIES  
FROM THE NEW HAMPSHIRE ATTORNEY GENERAL  
(Contention NH-10)

The Applicants move, for the reasons set forth herein, that the Board issue an order compelling the New Hampshire Attorney General ("NHAG") to file supplementary answers to certain of the interrogatories propounded to NHAG by the Applicants.

In support of this motion, the Applicants say as follows:

1. Contention NH-10 was admitted by the Board on September 13, 1983. LBP-82-76, 16 NRC 1029, 1040-41 (1982). It provides as follows:

"The Seabrook Station control room design does not comply with general design criteria 19 through 22 and 10 CFR Part 50, Appendix A, and NUREG-0737, item I.D.1 and I.D.2."

2. On December 8, 1982, the Applicants propounded interrogatories to NHAG, including certain interrogatories relating to Contention NH-10 (numbered II-1 through II-13). These interrogatories sought to elicit, inter alia, information as to the aspects of the Seabrook Control Room design that NHAG contended were deficient and any changes or modifications to the Seabrook Control Room design that NHAG contended ought to be made, together in both regards with NHAG's basis for its contentions. (Similar interrogatories were propounded to each of the other intervenors. Each of the others, however, answered Interrogatory No. II-1 (i.e., "Does [Name of Intervenor] intend to litigate [as defined] Contention NH-10?") in the negative.)

3. In response to these interrogatories, NHAG answered to the effect that it was then engaged in a review of the Seabrook Control Room design, by and

through its retained expert (Dr. Stephen T. Fan), and that it did not expect to have reached any definite position until completion of a design review then being undertaken by the Applicants (the so-called Detailed Control Room Design Review or "DCRDR"). (For the convenience of the Board, copies of Applicants' interrogatories Nos. II-1 through II-13, and of NHAG's responses thereto, are attached to this motion.)

4. Given NHAG's position, on June 13, 1983 the Applicants suggested that litigation of Contention NH-10 be deferred, and no party objected to that suggestion.

5. Since NHAG filed its answers, the DCRDR has been performed. On July 7, 1983, a DCRDR report was sent by the Applicants to the Staff, and a copy was provided to NHAG. On July 26 through 29, 1983, a series of meetings between the Applicants and the Staff on the subject of the DCRDR were held, and, at NHAG's request, Dr. Fan was invited to attend and did attend. During the course of that those meetings, Dr. Fan requested copies of certain documents regarding the DCRDR and these copies were furnished to him. On August 11, 1983, a DCRDR "follow-up" report was sent by

the Applicants to the Staff, and a copy was provided to NHAG.

6. Since August 11, 1983, NHAG has not supplemented any of its answers to interrogatories or otherwise acted in response to contention NH-10.

On the basis of the foregoing subsequent events, the Applicants submit that NHAG should now be ordered to re-answer Interrogatories Nos. II-1 through II-13.

By their attorneys,

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Dated: December 21, 1983

CERTIFICATE OF SERVICE

I, Robert K. Gad III, one of the attorneys for the Applicants herein, hereby certify that on December 21, 1983, I made service of the within "APPLICANTS' MOTION TO COMPEL SUPPLEMENTARY ANSWERS TO INTERROGATORIES FROM THE NEW HAMPSHIRE ATTORNEY GENERAL (Contention NH-10)" by mailing copies thereof, postage prepaid, to:

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(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 specify 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)?

Contention NH-10 Control Room Design

II-1 Yes.

II-2 through II-7

For the purposes of clarity, these Interrogatories can be answered together. A detailed Control Room Design Review or preliminary Control Room Design Assessment is required under NUREG-0737, I.D.1 and Supplement thereto. Equally important to this review requirement is the requirement under I.D.2 that safety parameters be displayed as a system. Evaluation of control room design problems since the accident at Three Mile Island has indicated that improvement of Control Room Design and procedures is essential to safe operation of a nuclear power facility. It is noted that review of emergency procedures is required by NUREG-0737, I.C.1.

The focus of New Hampshire's contention is to assure that an assessment of the Control Room Design and emergency procedures is performed and results in appropriate modifications. The Applicant's answers to Interrogatories NH-10.13 and NH-10.14 reflect that such a review or assessment has not been performed and that human factors and task analyses have not been performed. Similarly, the Applicant has not developed a proposal for SPDS.

The State of New Hampshire has not performed a technical assessment of the Applicant's compliance with General Design Criteria 19, 20, 21, and 22 and at this time, we do not intend to offer direct testimony on these specific issues. However, the absence of the required review and assessment process required by NUREG-0737 indicates that compliance with the General Design Criteria has not been demonstrated. Since we have not had an opportunity to review the DCRDR or preliminary assessment, as neither is yet available, we cannot be more specific on areas in which the Applicant has failed to improve Control Room Design and procedures as required by NUREG-0700 and 0737.

New Hampshire bases its position that a detailed Control Room Design review is required on the following regulatory requirements and documents. These documents, in general, indicate the importance of timely review and upgrading of Control Room Design and procedures. Because the Applicant has not completed its Control Room Design Review, this is a partial list which may be supplemented.

GDC 13, 19, 20, 21, 22

NUREG-0700

NUREG-0737, I.C.1, I.D.1, I.D.2, II.B.1, II.D.3, II.F.1, II.F.2, and Supplement 1

NUREG-0800

NUREG-0696

Regulatory Guide 1.97

Documents produced by the Applicant in response to the New Hampshire's interrogatories on Contention NH-10

Technical Note: The Control Room Design Review, E.W. Hagen (Ed.), Nuclear Safety, 23 (291-299), 1982

Survey of Control Room Design Practices with Respect to Human Factors Engineering, J.L. Seminara, S.W. Parsons, Nuclear Safety, 21 (603-617), 1980

Human Factors Engineering Enhancement of Nuclear Power Plant Control Rooms, J.L. Seminara, R.W. Pack, S. Seidenstein, S.K. Eckert, Nuclear Safety, 21 (351-363), 1980

Human Factors Engineering in the U.S. Nuclear Arena, E.W. Hagen, G.T. Mays, Nuclear Safety, 22 (337-346), 1981

Some Possible Ways to Improve Nuclear Power Plant Instrumentation, Y.Y. Hsu, A.L.M. Hon., Nuclear Safety, 22 (728-737), 1981



Establishing Priorities in Control Room Design Review, E.L. Zebroski, M.E. Maddox, P.E. Dietz, Nuclear Engineering International, July 1982, pp. 30-34

- II-8 New Hampshire believes that changes to control room design and procedures should result from a thorough Control Room Design Review, including human factors and task analysis. New Hampshire has not performed such an analysis since this is the responsibility of the Applicant under 0737, I.C.1, I.D.1, and I.D.2. Once a Control Room Design Review is produced and New Hampshire has an opportunity to review it, New Hampshire will comment on the proposed upgrading of control room design and procedures.
- II-9 As far as is known to New Hampshire, every nuclear power plant in the United States is required to perform a Control Room Design Review and/or Assessment.
- II-10 When specific changes in control room design are proposed as a result of a Control Room Design Review and of the development of procedures for transients and accidents as required by NUREG-0737, I.C.1, New Hampshire will be in a position to review such changes for possible off-setting negative effect on control room efficiency or operator performance, as well as the significance of such changes in enhancing the safe operation of the plant.
- II-11 New Hampshire began reviewing the Seabrook FSAR when it was received in November of 1981. Initial review of the FSAR was on a non-technical basis by the staff of the Attorney General's Office, E. Tupper Kinder, Esquire and George Dana Bisbee, Esquire. Technical review was begun by Dr. Stephen S. T. Fan in August of 1982.
- II-12 Review of the Seabrook control room design is a continuing process and continues to be reviewed by Dr. Stephen S.T. Fan.

- II-13 New Hampshire has not yet determined which witnesses it will offer with respect to this contention.
- G-1 The documents upon which the above answers are based are listed in the above Interrogatories.
- G-2 The answers are not based upon any type of study, calculation, or analysis other than a review of the FSAR, RAI, and the above-mentioned documents by Dr. Fan.
- G-3 The above answers were developed as a result of a number of discussions between Dr. Fan and Assistant Attorney General E. Tupper Kinder since August of 1982 and are not based on communications with any other individuals.

Contention NE-13 Operations Personnel Qualifications

- III-1 Yes.
- III-2 Item I.A.1.1 does not apply to the position of station manager.
- III-3 New Hampshire does not assert non-compliance with Item I.A.2.1 with regard to the position of station manager.
- III-4 New Hampshire does not assert non-compliance with Item I.A.2.3 with regard to the position of station manager.
- III-5 Chapter 13 of the FSAR does not provide sufficient detail to ensure that the station manager has the proper qualifications and training to respond properly in controlling or mitigating an accident in which the core is severely damaged. New Hampshire's concern focuses on the ability of the station manager to determine the extent of core damage, understand instrumentation response in an accident environment, understand the expected chemistry results and ramifications of severe core damage, and properly determine the level of radiation inside the containment.