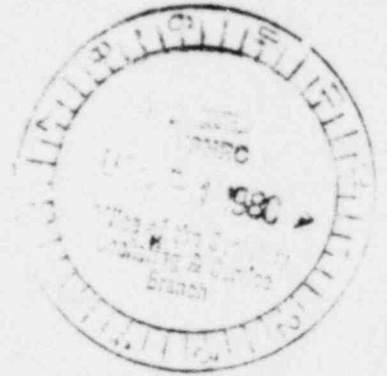


UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

before the
ATOMIC SAFETY AND LICENSING APPEAL BOARD



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

Docket Nos. 50-443
50-444

INTERROGATORIES OF PUBLIC SERVICE
COMPANY OF NEW HAMPSHIRE TO NECNP
TO BE ANSWERED BY DR. CHINNERY
UNDER OATH

Pursuant to the Commission's Rules of Practice and the Appeal Board's Memorandum and Order of November 6, 1980, Public Service Company of New Hampshire (PSCO) herein poses the following interrogatories to NECNP to be answered under oath by Michael A. Chinnery, Ph.D.

I. The following questions, Nos. 1-10, refer to the "Statement of Dr. Michael Chinnery Submitted by The New England Coalition on Nuclear Pollution," with Figure 1 attached which was marked as NECNP Exhibit 20 before the Licensing Board in this matter.

1. Please describe the so-called "Boston-New Hampshire area" or "seismic zone" referred to in NECNP No. 10.

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2. Please explain in detail why this, as opposed to a larger portion of New England, is a valid choice of area from which to form the statistical base used in Figure 1.

3. For each data point in the "Boston-New Hampshire 1800-1959" curve on Figure 1, please list by name, date and epicentral intensity on the Modified Mercalli scale each earthquake included in that data point.

4. For each data point in the "Mississippi Valley 1833-1961" curve on Figure 1, please list by name, date and epicentral intensity on the Modified Mercalli scale each earthquake included in that data point.

5. For each data point in the "Southeastern U.S. 1870-1970" curve on Figure 1, please list by name, date and epicentral intensity on the Modified Mercalli scale each earthquake included in that data point.

6. Please describe the geographic area of the "Mississippi Valley" seismic zone referred to on Figure 1.

7. Please explain in detail your justification for treating that area described in your answer to No. 6 as a discrete seismic zone in your analysis.

8. Please describe the geographic area of the "Southeastern U.S." seismic zone referred to on Figure 1.

9. Please explain in detail your justification for treating that area described in your answer to No. 8 as a discrete seismic zone in your analysis.

10. Please justify the validity of drawing conclusions based upon reviews of data from various areas which has been compiled over time periods of different lengths.

II. The following question Nos. 11-16 refer to the letter of October 23, 1980, from Michael A. Chinnery, Ph.D. to the Applied Seismology Group and Ms. Ellyn R. Weiss which was attached to the "NECNP Request that Dr. Chinnery be Called as a Board Witness and Memorandum on Related Issues".

11. Please state precisely where in the "Power Company's Site Investigation Report" it is stated that "an intensity VIII earthquake [in the tectonic region containing the Seabrook site] was inconceivable" as you state in your letter.

12. What is the "tectonic province containing the Seabrook site" which you advocate should be adopted for analysis of the Seabrook seismic design?

13. Please explain in detail your justification for the choice expressed in your answer to No. 12.

14. Please enumerate each and every study you have performed to develop the basis for the choice expressed in Paragraph 12, in particular, setting forth the date of each such study and where, if anywhere, it has been published.

15. Is the validity of your theory as to Seabrook dependent upon selection of the "tectonic province" you have described in your answer to interrogatory No. 12?

16. If your answer to No. 15 is anything other than a simple negative, please explain in detail.

17. What changes do you wish to make in Appendix A to 10 CFR Part 100?

18. Please explain in detail the basis for your statement that "we know remarkably little about earthquakes in the New England area".

19. Which "expert number" are you in NUREG/CR-1582 Vol. 3, Seismic Hazard Analysis Solicitation of Expert Opinion TERA Corporation?

20. Is it your position, regardless of what you think of 10 CFR 100, Appendix A, that the present design of the Seabrook Station if followed in construction is such that Seabrook will be "unsafe"?

21. Please explain in detail the basis for the opinion you have given in No. 17 including, if you choose, the concept of "unsafe" you have utilized in forming that opinion.

22. If your theory as to earthquake probability is correct, on what basis, if any, can one justify selecting as the SSE for a nuclear power plant intensity IX, i.e., why, given the lack of a historical record of thousands of years, should not an SSE of XII be required for all nuclear power plants in the U.S.A.?

By its attorneys,

Thomas G. Dignan, Jr.
R. K. Gad III
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November 26, 1980

CERTIFICATE OF SERVICE

I, Thomas G. Dignan, Jr., one of the attorneys for the applicants herein, hereby certify that on November 26, 1980, I made service of the within document by mailing copies thereof, postage prepaid, first class or airmail, to:

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