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Mr. William C. Tallman
Chairman and Chief Executive Officer
Public Service Company of New Hampshire
Post Office Box 330
Manchester, New Hampshire 03105

Dear Mr. Tallman:

Subject: Request for Additional Information (Equipment Qualification Branch)

Enclosed are requests for additional information from the NRC Equipment Qualification Branch (EQB, 271.1-11).

After reviewing the enclosed requests, your representatives should contact the Seabrook Project Manager (Mr. L. L. Wheeler, 301/492-7792) to coordinate a date for your responses to be received by the NRC.

Sincerely,

Original signed by
Frank J. Miraglia

Frank J. Miraglia, Chief
Licensing Branch No. 3
Division of Licensing

Enclosure:
Request for Additional
Information

cc w/enclosure:
See next page

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SEABROOK FSAR QUESTION LIST FOR SECTIONS 3.9.3.2
AND 3.10, SEISMIC AND DYNAMIC QUALIFICATION OF
MECHANICAL AND ELECTRICAL EQUIPMENT

Section 3.9.3.2

- 271.1 The FSAR should clearly define loads and how they are being combined. The loads should be defined such that they can be distinguished from one another as to their causes, for example, normal operation, loss of coolant accident, high energy line break, etc. In tables 3.9(B) 2 both the load definition and the load combination should be clarified.
- 271.2 For operability qualification, thermal loads should be considered as a primary load and both the inertia and relative displacement load from earthquake and other dynamic loads should be accounted for.
- 271.3 Clearly define the stress limits for non-ASME components and address interaction effect of stress components in a complex stress field, for example between tension and shear.
- 271.4 Do you intend to commit to the most recent IEEE Standards, that is, IEEE-323-1974 and IEE-344-1975 and Regulatory Guides 1.89 and 1.100 for both BOP and NSSS equipment? The commitment should be reflected in the FSAR or the justification for not committing.
- 271.5 Please provide submittal dates for the following documentation:
- i. Report number of the Westinghouse Seismic Qualification Report on the motors for the emergency feedwater pumps.
 - ii. The motor analysis for the diesel fuel oil transfer pump.
- 271.6 What active pumps and active valves remain to be qualified by test and/or analysis as referenced in FSAR Sections 3.9(B).3.2?
- 271.7 Regarding pump and valve operability assurance, was the entire assembly (pump and motor or valve and driver) analyzed and/or tested as a unit or separately. If separately did the analysis include the load imposed from each component on one another.
- 271.8 In order to assure operability through the qualified life of the equipment it is necessary, first to age the equipment to a condition which simulates its expected end of life condition including the effect of radiation, and second, to qualify for the accident environment. Discuss your qualification program in sufficient detail addressing the qualification sequence indicated above.

Section 3.10

- 271.9 It is indicated that electric equipment that do not undergo a change of state are qualified for seismic resistance by analysis. Batteries have heavy mass and the terminals connecting the batteries generally develop an interface for change in rigidity. Thus, the batteries may need to be qualified by tests with supporting analysis. Also, certain cooling accessories to transformers may need to be qualified by a combination of test and analysis. Modify the FSAR to clearly indicate the procedure you are following.
- 271.10 Certain electric equipment may be subject to the effect of impulsive pressure pulses or other dynamic loads. These equipment may be close to a high energy line. Describe in the FSAR what other dynamic loads will be used in the qualification of electric equipment, and how the dynamic loads will be combined with the seismic loads when (1) the qualification is performed by analysis, (2) the qualification is done by tests.
- 271.11 Indicate in the FSAR how the seismic qualification will be performed in sequence with environmental qualification test as required under IEEE-323-1974.