

June 13, 1986

Public Service of New Hampshire

SBN-1113 T.F. B7.1.2

NEW HAMPSHIRE YANKEE DIVISION

United States Nuclear Regulatory Commission Washington, DC 20555

Attention:

Mr. Vincent S. Noonan, Project Director

PWR Project Directorate No. 5

References:

(a) Construction Permits CPPR-135 and CPPR-136, Docket Nos. 50-443 and 50-444

(b) PSNH Letter (SBN-1017), dated April 24, 1986, "Fire Protection Site Audit; Response to Open Items", J. DeVincentis to V. S. Noonan

Subject:

Structural Steel Protection From Fire

Dear Sir:

As a result of discussion with the Staff on June 12, 1986, the following additional information is provided to support our request for deviation from 10CFR50, Appendix R, III.G.a provided in Reference (b).

Professional Loss Control, Inc., (PLC) conducted a Seabrook Structural Steel Survivability Analysis as indicated in Reference (b). The methodology used to evaluate Seabrook's structural steel is the same as that used on Limerick Generating Station, Units 1 and 2, also done by PLC.

Using the results of the PLC analysis, a structural integrity review was conducted. The review assumed those elements of steel which could potentially be lost were lost, and the integrity of the remaining concrete slab and supporting steel framing was checked. The following assumptions were considered:

- 1. Dead load.
- 2. Snow load.
- 3. Equipment loads.
- 4. No seismic loads.

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- Soil pressure, surcharge, compaction, and hydrostatic pressure.
- 6. Load factor for the above loads considered to be one.
- 7. Rebar yield stress (fy) assumed equal to 30,000 psi to allow for elevated temperatures due to fire.

Those steel elements which were required for structural integrity and were identified in the PLC analysis as potentially exposed to high temperatures (in excess of 1100°F) were fire proofed.

We trust this information is satisfactory and request the resolution of this item be reflected in the next supplement to Seabrook's SER.

Very truly yours,

John De Vincentis

Director of Engineering

cc: Atomic Safety and Licensing Board Service List

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