

Public Service of New Hampshire

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September 13, 1984

SBN-713 T.F. Q2.2.2

United States Nuclear Regulatory Commission Region I 631 Park Avenue King of Prussia, PA 19406

Attention:

Mr. Richard W. Starostecki, Director Division of Project and Resident Programs

References:

- (a) Construction Permits CPPR-135 and CPPR-136, Docket Nos. 50-443 and 50-444
- (b) Telecon of April 5, 1984, A. L. Legendre, Jr. (YAEC) to J. Beall (NRC Region I)
- (c) PSNH Letter, dated May 4, 1984, "Interim 10CFR50.55(e) Report; Components and Component Supports Spanning Expansion Joints", J. DeVincentis to R. W. Starostecki

Subject:

Interim 10CFR50.55(e) Report; Components and Component Supports Spanning Expansion Joints

Dear Sir:

On April 5, 1984, we reported a potential 10CFR50.55(e) deficiency to Region I [Reference (b)], regarding components and component supports spanning structural expansion joints. The referenced letter indicated that an additional report would be submitted by August 15, 1984, however, as was indicated to the Senior Resident Inspector, the corrective action specified herein has only recently been determined.

It has been determined that this item is reportable under 10CFR50.55(e). The following information is being filed pursuant to the interim reporting provision of 10CFR50.55(e)(3).

A. Description of Deficiency

We have identified conditions in the containment annulus area where components and component supports span expansion joints located in the Annular Steel Framing System. The expansion joints serve to relieve thermal stresses applied to the annulus steel framing during normal plant operation. The original designs of these components and component supports did not consider this condition. The expansion joint movements could apply additional stresses to these components and component supports. Our investigation into this matter was initiated by an inquiry from the NRC Senior Resident Inspector.

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United States Nuclear Regulatory Commission

Afield walkdown of all building expansion joints is being performed to identify all areas where an expansion joint movement could adversely affect a component, component support or building structural steel. The field walkdown is approximately 85% complete. The containment annulus area portion of the field walkdown is complete; the field walkdowns of the remaining areas of the containment and the East and West Pipe Chase structures is ongoing.

To date, the walkdown has identified a relatively small number of expansion joint-related conditions that could adversely affect the structural integrity of safety-related systems and portions of the containment Annular Steel Freming System. These identified

To date, the walkdown has identified a relatively small number of expansion joint-related conditions that could adversely affect the structural integrity of safety-related systems and portions of the containment Annular Steel Framing System. These identified conditions are: one pipe support supplementary steel member, four cable tray support supplementary steel members, and portions of the containment Air Handling System (this duct work is designated nonsafety-related but its failure could adversely impact safety-related systems). Because a rigorous analysis would be required to determine the acceptability of these identified conditions, we have decided to modify the existing design.

We have determined that this item constitutes a reportable condition under 10CFR50.55(e) for the following reason:

o The deficiency is significant such that the design does not conform to the criteria and bases as stated in the FSAR and had the potential for remaining undetected.

B. Analysis of Safety Implications

The omission of the effect of expansion joint movement on components, component supports, or structural steel could adversely affect the structural integrity of the safety-related systems and the Annulus Framing System.

C. Corrective Action

The following actions have either been taken, or will be taken, to assure that the integrity of the structures and systems is not adversely affected.

- a. Complete walkdown of the remaining areas.
- b. Identify all potential problems.
- c. Perform analysis to define those components or supports which are acceptable as designed.
- d. Make design changes where it is expeditious to do so in lieu of analysis to assure the integrity of the systems and structures.

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e. Issue instructions to the contractors and preconstruction walkdown crews such that any new installations will meet the design requirements.

We will notify Region I when the above corrective actions are completed.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

John DeVincentis, Director Engineering and Licensing

cc: Atomic Safety and Licensing Board Service List

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