PSNH PUBLIC SERVICE
Company of New Hampshire

SEABROOK STATION
Engineering Office:
1671 Worcester Road
Framingham, Massachusetts 01701
(617) - 872 - 8100

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SBN-373
T.F. B4.2.7

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 Permit CPPR-135 and CPPR-136, Docket Nos. 50-443 and 50-444
(b) USNRC Letter, dated October 20, 1982, "Combined Inspection Nos. 50-443/82-10 and 50-444/82-10," R. W. Starostecki to W. C. Tallman

Subject: Response to Inspection Nos. 50-443/82-10 and 50-444/82-10

Dear Sir:

In response to the violations which you reported in Reference (b), PSNH offers the following:

NRC Notice of Violation (443/82-10-01):

A. 10CFR50, Appendix B, Criterion XVI and the Seabrook Station PSAR require that measures be established for prompt corrective action of conditions adverse to quality. As one of these measures, UE&C Quality Assurance Procedure QA-16-1, establishes methods to handle significant conditions adverse to quality, defining one type as "an initial condition, which if left uncorrected, would result in defective or sub-standard equipment or services, or in errors in quality-related documents." Such documents include UE&C pipe support drawings, some of which (eg: M800332S) illustrate "phantom" pipe lines that were intended by design to clear and impart no load to the pipe support. The pipe-to-support clearance issued was previously identified by the NRC on February 12, 1982 and resulted in licensee recognition of a need for corrective action and the issuance of a general clearance directive.

Contrary to the above, as of September 30, 1982, corrective action to address the "phantom" pipe problem was neither prompt nor effective in that the general clearance directive, a preliminary UE&C Technical Procedure on piping and component erection clearances, did not address the previously identified "phantom" pipe problem. Furthermore, as of

September 30, 1982, a "phantom" line (CS-327) shown as clearing a pipe support (MS-332-RG-5) on Drawing M800332S, Sheet 10 was in contact with the support.

This is a Severity Level IV Violation (Supplement II).

Response:

Corrective Action Taken and Results Achieved:

UE&C has prepared and issued on 11/5/82, Technical Procedure No. 8 (Technical Procedure for Separation Criteria) which is intended to provide valid direction to resolve certain clearance problems. The general clearance directive provides that in cases where the generic clearance guidelines are not met, the specific case will be documented and either (1) physically corrected, or (2) analyzed to determine the adequacy of the existing condition. Such is the case of line CS-327 found to be in contact with Support MS-332-RG-5 (Ref. Drawing M8003325, Sheet 10, Rev. 12). The total loads on the support are being analyzed to verify that this is an acceptable condition.

This analysis is expected to be completed by 11/30/82.

Additionally, UE&C is developing a program of reinspection to identify and correct existing conditions which do not meet the criteria established by TP-8.

The details of the reinspection program will be completed by 12/31/82.

NRC Notice of Violation (443/82-10-02):

B. 10CFR50, Appendix B, Criterion III and the Seabrook Station PSAR require the establishment of design control measures to assure that appropriate quality standards and suitable materials are specified and included in the design documents. Such measures include preparation and review requirements to assure design basis details are included in UE&C contract drawings. UE&C drawing F104043 (Revision 3) currently specifies the erection details for pipe whip restraint PW-4001-4.

Contrary to the above, as of September 30, 1982, the design control measures applied to the drawing details of PW-4001-1 failed to clearly specify the required bolt material and the applicable bolting standards.

This is a Severity Level V Violation (Supplement II).

Response:

Corrective Action and Results Achieved:

The Pipe Whip Restraint (PWR) designs in which bolting is called out have the bolting and nut material called out either in the field of the drawings or in the drawing notes. Generically, where bolted connections are used, bolting material conforms to ASTM A-325 unless otherwise specified on the design drawings.

The bolting material call out for the 5/8 x 4-1/2 lg. bolts was inadvertently omitted on Drawing 9763-F-104043. It was the design engineer's intent that material call out for these bolts be ASTM A-307 GR B and ASTM 307 for the nuts. The drawing is being revised to show this change.

The AISC requirements for slotted hole dimensions, minimum edge distance and use of plate washers over slotted holes were deemed not to be applicable requirements for PWR 4001-4 shown on Drawing 9763-F-104043. The AISC requirements are based on bolted joint connections in which loads are transferred through the connected parts either as bearing or friction type connections. For the PWR designs, slotted holes were provided primarily in the areas where U-bolts are applied normal to the plane of the slotted holes rather than in bearing or friction. To insure that loads induced into the structural members in the vicinity of the slotted holes did not locally overstress the member, stress analysis was performed to show that material stress limits were not exceeded.

In all cases where slotted holes were called out, the purpose of the slotted holes was only to insure alignment of mating parts of PWR components and/or interface alignments between piping and PWR components.

The length of the slotted holes were established as a result of this requirement. Where possible, the length of the slotted holes was based on an assumed 1-1/2 inch misalignment of the PWR with respect to its mating embedment and 1/2 inch misalignment resulting from the pipe being out of true position with respect to the PWR. Therefore, AISC requirements for slotted holes were not addressed for this application.

The AISC code, with the exceptions noted abov[illegible]llowed and used as the design basis for PWR designs. Since the A[illegible]es not address stress limit to be applied for faulted plant cor[illegible]SME Level D service limits) nor does it address design and analysis procedures for members loaded beyond their material yield strength, allowable stress criteria was developed.

AISC requirements which dictate the use of plate washers to cover slotted holes in bearing or friction type connections do not apply for the reasons given above.

UE&C Engineering has taken the necessary steps to insure that design and erection specifications for PWRs are revised to note compliance and exceptions taken to the AISC code and Drawing 9763-F-104043 was revised to call out ASTM A-307 bolt material.

Corrective action was achieved on 11/12/82.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

J. DeVincentis
Project Manager

ALL/fsf
cc: Atomic Safety and Licensing Board Service List

ASLB SERVICE LIST

Philip Ahrens, Esquire
Assistant Attorney General
Department of the Attorney
General
Augusta, ME 04333

Representative Beverly Hollingworth
Coastal Chamber of Commerce
209 Winnacunnet Road
Hampton, NH 03842

William S. Jordan, III, Esquire
Harmon & Weiss
1725 I Street, N.W.
Suite 506
Washington, DC 20006

E. Tupper Kinder, Esquire
Assistant Attorney General
Office of the Attorney General
208 State House Annex
Concord, NH 03301

Robert A. Backus, Esquire
116 Lowell Street
P.O. Box 516
Manchester, NH 03105

Edward J. McDermott, Esquire
Sanders and McDermott
Professional Association
408 Lafayette Road
Hampton, NH 03842

Jo Ann Shotwell, Esquire
Assistant Attorney General
Environmental Protection Bureau
Department of the Attorney General
One Ashburton Place, 19th Floor
Boston, MA 02108