

May 22, 1981  
SBN-162  
T.F. B4.2.7

United States Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Region I  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

Attention: Office of Inspection and Enforcement

Subject: Combined Inspection Nos. 50-443/81-03 and 50-444/81-03

Dear Sir:

Pursuant to receipt of your correspondence regarding the results of the subject inspection, we offer the following reply:

NRC Notice of Violation (81-03-02)

10 CFR 50, Appendix B, Criterion V states, in part that: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings...(which) shall include appropriate quantitative or qualitative criteria..."

The Seabrook Station PSAR states, in part, in paragraph 17.1.5 that: "Each organization is required to perform their respective quality related activities covered by this program in accordance with documented instructions, procedures, or drawings (which) shall include appropriate quantitative or qualitative acceptance criteria..."

Contrary to the above, as of March 4, 1981, several UE&C pipe hanger drawings, to include the drawing for hanger 360-RG-24 which had already been field welded, neither provided quantitative details as to the required length of support to embedment weld, nor accounted for approved construction tolerances in the location of the embedments. This lack of appropriate acceptance criteria has resulted in the potential for the erection of inadequate hangers.

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

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Response:

Correction Action Taken and Results Achieved

Minimum length of welds will be shown on all pipe support drawings issued after April 1, 1981. In the interim, during the planning for installation, the contractor will initiate a Request for Information (RFI) to UE&C for all welds for which the length has not previously been included in the drawing.

UE&C will review all pipe hangers which have been installed connected to embedded plates with only a portion of the total member length actually welded to the embedment. Applicable drawings will be revised and reissued to the contractor by July 1, 1981, showing the required weld overlap.

Corrective action will be completed subsequent to receipt of revised drawings at the construction site on July 1, 1981.

NRC Notice of Violation (31-03-01)

10 CFR 50, Appendix B, Criterion IX states, in part that: "Measures shall be established to assure that special processes...are controlled and accomplished...using qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements."

The Seabrook Station PSAR, in paragraph 17.1.9, requires site constructors to control special processes in accordance with the applicable codes, standards, or specification criteria.

Perini Field Civil Construction Procedure FCCP-155, Revision 1, governing the Tension Set (TS) bolting process, specifies in paragraph 6.3.1.1 that, "the specified TS Bolts of the proper length" shall be installed. Perini FCCP-155, Revision 4, governing the welding of structural steel, requires conformance to AWS Standard D1.1-75.

UE&C Foreign Print FP12086, Revision 5, indicates the connection of W18 beams to a structural beam (Cives Mark No. 12B49B) with 7/8" diameter, high-strength bolts, 2 1/2" long. AWS Standard D1.1-75 specifies in paragraph 2.8.3 that, "The minimum center to center spacing of plug welds shall be four times the diameter of the hole."

Contrary to the above, as of March 19, 1981, the controlling measures for high-strength TS bolting and AWS welding, to include their final inspection, were inadequate to preclude the following nonconforming conditions on structural beam 12B49B:

- Several connections were noted to have been final bolted and accepted with TS bolts having lengths other than 2 1/2".
- Plug welding repair of ten bolt holes in the beam web had been accomplished as directed by the disposition to Perini nonconformance report 1355, with the resultant plug weld spacing much less than the minimum AWS spacing requirements, and without consideration of the residual tensile stresses remaining in the beam web as a result of this welding.

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

Response:

Corrective Action Taken and Results Achieved

Perini has initiated a complete reinspection of previously installed TS bolts to assure that proper sizes have been used. Incorrect bolts will be replaced. To prevent recurrence of this situation, Perini has issued a revision to Procedure QAP 10.8 which redefines the inspection criteria and clarifies that the AISC tolerances previously used are for design purposes and not for construction.

The reinspection was completed by May 19, 1981 and all bolted joints which did not meet the acceptance criteria have been documented and are being corrected.

The Owner recognizes the infraction as it relates to the implications of the repair welding process. An investigation is on-going which will evaluate the repair method used and resultant residual stresses. Other repairs of a similar nature will be investigated concurrently. It is expected that this investigation will be completed by June 30, 1981.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

*W. P. Johnson*

W. P. Johnson  
Vice President

COMMONWEALTH OF MASSACHUSETTS)

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MIDDLESEX COUNTY )

Then personally appeared before me W. P. Johnson, who, being duly sworn, did state that he is a Vice President of Yankee Atomic Electric Company, that he is duly authorized to execute and file the foregoing request in the name and on the behalf of Yankee Atomic Electric Company, and that the statements therein are true to the best of his knowledge and belief.

*Robert H. Groce*

Robert H. Groce

Notary Public

My Commission Expires September 14, 1984

