

DMB

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

July 10, 1986

U.S. Nuclear Regulatory Commission
Region II
ATTN: Dr. J. Nelson Grace, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Dear Dr. Grace:

SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2 - NRC-OIE REGION II INSPECTION REPORT
50-327/86-16 AND 50-328/86-16 - RESPONSE TO VIOLATION

Enclosed is our response to your June 9, 1986 letter to S. A. White which transmitted revised Notice of Violation Nos. 50-327/86-16-01 and 50-328/86-16-01 for our Sequoyah Nuclear Plant. Enclosure 1 is our response to the subject violation and our commitments are listed in enclosure 2. We do not recognize any other actions described herein or the subject inspection report as commitments.

Please note that a short extension for this response was coordinated with your staff on July 8, 1986.

If you have any questions, please get in touch with G. B. Kirk at (615) 870-6549.

To the best of my knowledge, I declare the statements contained herein are complete and true.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

J. A. Domer

J. A. Domer, Assistant Director
Nuclear Safety and Licensing

Enclosures

cc (Enclosures):

Mr. James Taylor, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. S. P. Weise, Chief
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ENCLOSURE 1
RESPONSE - NRC-OIE INSPECTION REPORT
NOS. 50-327/86-16 AND 50-328/86-16
JOHN A. OLSHINSKI'S LETTER TO S. A. WHITE
DATED MARCH 26, 1986
AS REVISED BY
J. NELSON GRACE'S LETTER TO S. A. WHITE
DATED JUNE 9, 1986

Violation 50-327/86-01 and 50-328/86-01

During the Nuclear Regulatory Commission (NRC) inspection conducted on February 24-28, 1986, a violation of NRC requirements was identified. The violation involved inspection and installation of concrete expansion anchor bolts pertaining to safety-related piping systems. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1985), the violation is listed below:

Appendix B, Criterion V of 10 CFR 50, requires that activities affecting quality shall be prescribed by documented instructions and procedures, and shall be accomplished in accordance with these instructions and procedures.

General Construction Specification G-32 requires that the installers are to be instructed to tighten the bolts between 1/8 and 1/4 turn after the bolt head comes into contact with the attachment or baseplate.

Contrary to the above, between February 24-28, 1986 activities affecting quality had not been accomplished in accordance with documented instructions and procedures in that the licensee's QC inspectors failed to detect the anchor bolt deficiencies for nine pipe supports and one pump support platform baseplate during their inspections. The deficiencies were the gaps between the bolt-heads and the baseplates.

This is Severity Level IV violation (Supplement 1).

1. Admission or Denial of the Alleged Violation

TVA admits the violation.

2. Reason for the Violation

Personnel error is the attributable cause for the violation. A level of vibration judged sufficient to cause loosening of the anchor bolts at the subject baseplates has not been noted. Instructions for implementing the provisions of the General Construction Specification G-32, such as Inspection Instruction II-1 (used during the construction phase) and M&AI-9 (used during the operating phase) require the anchor bolts be tightened to the baseplate or attachment. With one exception the anchor bolts were initially inspected during the 1977-1978 time period, and may have been

removed in conjunction with other plant activities and not properly reinstalled. Current work control instructions are designed to identify the return to service requirements associated with maintenance activities.

3. Corrective Action Taken and Results Achieved

The following is a list of the support or component identifiers associated with the nine discrepancies. They are arranged in the same order as in the inspection report, and use more complete or corrected identifiers than were first transmitted by TVA to the NRC inspector. Observations and dispositions as to corrective action for each bolt which was not in contact with the baseplate are also provided.

<u>Component Identifier</u>	<u>Observations and Dispositions</u>
1067HPABERCWH-230	Floor mounted bolt bound in place. Penetrating oil used to free threads. Bolt tightened to requirements.
1067HPABERCH-235	Floor mounted bolt bound in place and penetrating oil used to free the threads. Bolt tightened to requirements.
1070HPABCCH-1141	Floor mounted bolt bound in place. Removed, cleaned and reinstalled to requirements.
1070HPABCCH-1142	Floor mounted bolt. Removed, cleaned and reinstalled to requirements.
1070HPABCCT-041-06	Wall mounted bolt, tightened to contact baseplate.
0-067-2015	This support is on ERCW replacement stainless steel pipe and has not been placed in service. Bolt will be tightened as part of modification completion.
1031HPABHVAC-9114	Floor mounted bolt. Removed bolt, cleaned grit from shell, reinstalled bolt to requirements.
1031HPABAVAC-9115	Floor mounted bolt. Tightened bolt to requirements.
0059HPAB-47W491-3-8	Floor mounted bolts. Removed bolts, cleaned grit from shell, tightened bolts to requirements except one bolt which was broken. Replaced the broken bolt.
0-A5SMAB721A1010W000	Platform column baseplate for thermal barrier booster pump for RCS pump. Bolt replaced to requirements.

4. Corrective Steps Which Will Be Taken to Avoid Further Violations

A pipe support enhancement inspection previously planned lists approximately 2,200 supports for Unit 1 to be inspected. The inspections are covered by SMI-1-317-24, and step 11.8 of the SMI requires:

Visually verify the anchor bolts are installed and in contact with the baseplate. Where a washer is used, verify it cannot be rotated by hand. Otherwise verify the bolt or nut is not loose by attempting to move it with the unaided hand.

These inspections with their associated corrective action are expected to improve the condition of the Unit 1 pipe support anchor bolts. The inspections which began about May 12, 1986 are still in progress and will be complete prior to Unit 1 start up.

The more stringent inspection criteria which have been developed since the 1977 period as implemented through successive revisions of Inspection Instruction II-1 and M&AI 9, 10 and 11 should result in improved quality of the initial installation of anchor bolts.

Improved work control through the evolution of SQM-2 for control of maintenance activities and of AI-19 Part IV for modification activities should reduce the possibility of anchor bolts being removed and not being properly reinstalled. Over the years, additional emphasis has been placed on compliance with plant instructions.

5. Date When Full Compliance Was Achieved

With the exception of the broken bolt on support 0059HPAB-47W491-3-8 the plant was in compliance on April 11, 1986. The broken bolt was replaced on May 15, 1986.

ENCLOSURE 2

COMMITMENT

By startup of Unit 1, a pipe support-enhancement inspection of approximately 2,200 supports per SMI-1-317-24 will be completed.