

**TENNESSEE VALLEY AUTHORITY**

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

July 24, 1984

U.S. Nuclear Regulatory Commission  
Region II

Attn: Mr. James P. O'Reilly, Regional Administrator  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNIT 1 - NRC-OIE REGION II INSPECTION  
REPORT 50-390/84-39 - RESPONSE TO VIOLATION

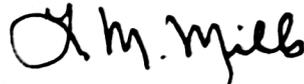
The subject inspection report cited TVA with a Severity Level IV Violation (390/84-39-01) in accordance with 10 CFR 2.201. Enclosed is our response to the subject violation.

If you have any questions concerning this matter, please get in touch with R. H. Shell at FTS 858-2688.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY



L. M. Mills, Manager  
Nuclear Licensing

Enclosure

cc (Enclosure):

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

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Institute of Nuclear Power Operations  
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ENCLOSURE  
WATTS BAR NUCLEAR PLANT UNIT 1  
NRC-OIE REGION II INSPECTION REPORT  
50-390/84-39  
RESPONSE TO VIOLATION

Severity Level IV Violation--390/84-39-01

10 CFR 50, Appendix B, Criterion V, as implemented by Watts Bar FSAR Section 17, paragraph 17.1A.5 requires that activities affecting quality be prescribed by documented procedures and drawings and be accomplished in accordance with these procedures and drawings.

Watts Bar QCP 4.23-4, QCP 4.23-8, QCP 5.04, QCP 1.47, and QCP 1.42-2 provide the procedures and acceptance criteria for inspection of the safety-related pipe hangers and cable tray supports.

Contrary to the above, between May 15-18, 1984, activities affecting quality were not being accomplished in accordance with documented procedures and drawings in that a field inspection of 25 (pipe and cable tray) QC accepted supports revealed ten supports with deviations from the documented requirements. These ten supports are listed below as follows:

1. Hanger No. 47A435-9-11, Revision 2, was disassembled. The snubber end to the pipe clamp had been disconnected.
2. Hanger No. 47W491-50, No. 1216, Revision 1, required a minimum of 1 inch grout underneath the base plate which had not been placed.
3. Hanger No. 67-1ERCW-R383, Revision 905, the as-built configuration did not match the detail drawing.
4. Hanger No. 1-70-075, Revision 902, two of the four concrete expansion anchor bolts were loose.
5. Hanger No. 17A586-1-20, Revision 5, contained incorrect base plate dimension and inadequate information in FCR MH-820.
6. Cable Tray Support 0-CTSP-292-2437, two anchor bolts were loose and six other anchor bolts showed inadequate thread engagements.
7. Cable Tray Support 0-CTSP-292-2438, one anchor bolt was loose and three other anchor bolts had no nuts/washers on top of the base plate.
8. Hanger No. 1-63-154, Revision 905, actual welds did not match the latest detail drawing. Information in FCR (MH 2213) had not been incorporated into the latest detail drawing.
9. Hanger No. 1-63-369, Revision 05, a fillet weld was missing at the end of beam item 1.
10. Hanger No. 1-62A-304, Revision 905, two flare bevel welds were missing at the end of the strut connection.

### Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

### Reason for the Violation

The reasons for the various elements of this deficiency are as follows:

The loose nuts and bolts and missing nuts and washers cited in items 1, 4, 6, and 7 were the result of unauthorized removal or tampering after the supports were finalized.

The lack of grout under the baseplate cited in item 2 was due to the fact that placement of grout is not part of the hanger finalization process since grout is a civil feature and is inspected and documented separately by Civil QC inspectors. The placement of grout is done after the hanger is finalized. Normally the placement of grout is performed before application of protective coating if possible and verified complete at time of architectural transfers. Following architectural transfers any remaining hanger requiring grout are added to the outstanding work items list (OWIL). TVA does not consider the violation applicable to this item.

Items 3, 5, and 8 were the result of failure to properly incorporate drawing details.

Item 9 was caused by a misinterpretation of a typical weld symbol.

Item 10 and the part of item 6 dealing with inadequate thread engagements was caused by a failure to follow inspection procedures.

### Corrective Steps Taken and Results Achieved

The hanger deficiencies noted in this violation have been corrected and redocumented as necessary.

### Corrective Steps Taken to Avoid Further Violations

Site personnel are cognizant of the repetitive nature of some deficiencies and have been alerted to identify and correct these conditions in a timely manner. This is evidenced by the large number of items identified and corrected by site personnel during the normal construction/inspection process as opposed to deficiencies identified by auditing organizations and inspection agencies. An independent review recently conducted by the Construction Quality Engineering Staff shows that a very high percentage of the deficiencies in this area are identified by site engineering and quality control personnel. As a result of our efforts to identify and prevent recurring deficiencies we have implemented the following measures:

1. Procedures have been revised to require that drawings be reviewed to ensure that current revision levels are included in work packages and workplans.
2. Design representatives have conducted training classes for design, engineering, and quality control personnel to ensure correct weld symbol identification and usage.

3. TVA and vendor upper tier criteria (specifications, drawings, and procedures) have been reviewed to eliminate conflicts and omissions.
4. The site engineering group conducts an ongoing training program for engineering and quality control personnel with emphasis on repetitive conditions.
5. The site engineering unit has taken a lead role in reviewing site instructions and procedures for adequacy and compliance. This is in addition to the review performed independently by the site Procedures and Training Staff.
6. The construction interface with operations has been enhanced to preclude the inadvertent dismantling of finalized supports.

TVA believes that these actions are reducing occurrences of deficiencies of the type cited in this violation. We plan to maintain our present emphasis on identifying and addressing repetitive deficiencies. These efforts effectively constitute action to prevent recurrence of similar repetitive deficiencies.

Date When Full Compliance Will Be Achieved

TVA is now in full compliance.