

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

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December 19, 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 UNITS 1 AND 2 - NRC-OIE REGION II INSPECTION REPORT  
50-390/84-79, 50-391/84-53 - RESPONSE TO VIOLATIONS

The subject inspection report cited TVA with two Severity Level V Violations  
(390,391/84-79,53-01 and 390,391/84-79,53-02) in accordance with 10 CFR 2.201.  
Enclosed is our response to the subject violations.

If you have any questions, 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



J. A. Domer  
Nuclear Engineer

Enclosure

cc: Mr. Richard C. DeYoung, Director (Enclosure)  
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U.S. Nuclear Regulatory Commission  
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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2  
NRC-OIE REGION II INSPECTION REPORT  
50-390/84-79 AND 50-391/84-53  
RESPONSE TO VIOLATIONS

Severity Level V Violation - 390/84-79-01, 391/84-53-01

1. 10 CFR 50, Appendix B, Criterion XIII, as implemented by FSAR Section 17.A.1.13, requires that measures be established to control the storage and preservation of materials and equipment to prevent damage or deterioration. As implemented by the TVA quality assurance (QA) program, ANSI N45.2.2-1972, "Packaging, Shipping, Receiving, Storage and Handling of Items for Nuclear Power Plants (During the Construction Phase)," paragraph Nos. 2.7.4(9) and 6.1.2(4), require piping assemblies to be stored upon curbing to avoid trapping water. ANSI N45.2.2, Appendix A.3.5.2(3), as amended by Regulatory Guide (RG) 1.38, paragraph C.2.d, requires tape to be colored to contrast with materials on which they are used.

Contrary to the above, adequate measures had not been established to control the storage and preservation of piping materials in that the following was noted:

- 1.a. Approximately 25 examples of safety-related piping and piping assemblies off curbing and in contact with the ground.
- 1.b. The approved tape for use on austenitic material is silver gray in color, close to the color of austenitic stainless steel.

Admission or Denial of the Alleged Violation - Part 1.a

TVA admits the violation occurred as stated.

Reason for the Violation

The failure of having safety-related piping assemblies off the curbing and in contact with the ground is attributed to a temporary lack of area supervision in that no foreman was assigned to the pipe fabrication shop.

Corrective Steps Taken and Results Achieved

The piping and piping assemblies have been placed on curbing.

### Corrective Steps Taken to Avoid Further Violations

A management level employee has been assigned the responsibility for supervision over the pipe fabrication shop. Craft personnel have been given a directive by the construction superintendent to maintain piping assemblies in the required storage conditions.

### Date When Full Compliance Will Be Achieved

TVA is now in full compliance.

### Admission or Denial of Alleged Violation - Part 1.b

TVA denies that the tape used on austenitic stainless steel constitutes a violation.

### Reason for Denial of Alleged Violation

In 1980, TVA reviewed RG 1.38 and ANSI N45.2.2 and judged that TVA was in compliance. ANSI 45.2.2 states that "the extent to which the individual requirements of this standard shall apply will depend upon the nature and scope of the work to be performed and the importance of the item or service involved." RG 1.38 further states that, "This guideline (ANSI 45.2.2) states that tapes should be brightly colored to preclude their loss into a system. In lieu of this guideline, tapes should be colored to contrast with the materials on which they are used." During the 1980 review, TVA reviewed the requirement that tapes "contrast with the materials on which they are used" and concluded that grey duct tape contrasted sufficiently with materials on which they are used to be readily visible and to preclude their loss into a system.

In addition, TVA specifications for external cleanliness require the removal of all tapes before system operation for those systems with temperature greater than 200°F. Also, all systems are flushed before operation to verify that the systems are free of all foreign objects.

The current TVA controls on duct tapes and system cleanliness are adequate to preclude the loss of duct tape into a system.

### Severity Level V Violation - 390/84-79-02, 391/84-53-02

2. 10 CFR 50, Appendix B, Criterion IX, as implemented by FSAR Section 17.A.1.9 requires that measures be established to assure control of special processes, including nondestructive testing and welding. TVA-WBN Drawing 47A053-145 and SVS No. H-53-145-94 require the 4" X 4" X 1/4" tube steel to base plate weld to be 1/4-inch fillet weld. ASME, Section III, Code Case N-127 of February 14, 1983, has been identified as applicable to a portion of the sampling system that was welded with Detail Welding Procedure GTA-88-S-2 supported by Welding Procedure Qualification Record GTA-88-S-2. Code Case N-127, paragraph 5, requires welding travel speed specified in the Detail Welding Procedure not varying by more than  $\pm 10\%$  of the welding travel speed documented in the Welding Procedure Qualification Record.

Contrary to the above, adequate measures to control welding and nondestructive examination had not been established as evidenced by the following:

- A. The completed, inspected and accepted fillet weld connecting the 4" X 4" X 1/4" tube steel to base plate on pipe support No. 1062-555-7-40-13, as shown on TVA Drawing 47A053-145 and SVS No. H-53-145-94, was noted to be smaller than 1/4-inch.
- B. The welding travel speed specified in Detail Welding Procedure GTA-88-S-2 varies by more than 10% from the welding travel speed documented in Welding Procedure Qualification Record GTA-88-S-2.

Admission or Denial of the Alleged Violation - Part A

TVA admits the violation occurred as stated.

Reason for the Violation

The undersize weld on pipe support 1062-555-7-40-13 was the result of a failure to follow quality control procedure (QCP) 4.23-4, "Visual Examination of Support Weld Joints." This was due to an inspector oversight in assuring that the correct weld size was performed.

Corrective Steps Taken and Results Achieved

Nonconformance report (NCR) 5844 was initiated to correct this deficiency. During rework it was noted that downgrading of the pipe class had resulted in reduced loads. In accordance with TVA's Office of Engineering (OE) approved support variance sheet (SVS) H-53-145-505, the reduced weld size is adequate. The support has been reinspected and redocumented in accordance with the SVS and QCPs 4.23-4 and 4.23-8, "Support Final Inspection."

Corrective Steps Taken to Avoid Further Violations

This hanger was finalized October 16, 1981. Since that time hanger quality control inspectors have been reinstructed on a recurring basis in the acceptance criteria of QCP-4.23-4 and other applicable procedures and specifications.

Date When Full Compliance Will Be Achieved

TVA is now in full compliance.

Admission or Denial of the Alleged Violation - Part B

TVA admits the violation occurred as stated.

Reason for the Violation

Detail Weld Procedure GTA-88-S-2 (for the Astro-Arc process) is depicted on TVA drawing 47B333 "Welding and NDT Requirements," and was utilized in conjunction with Code Case N-127. However, GTA-88-S-2 does not incorporate the parameter requirements of Code Case N-127. Site engineering did not recognize that the travel speed parameters of GTA-88-S-2 exceeded those specified by Code Case N-127.

Corrective Steps Taken and Results Achieved

Welds made by the Astro-Arc process will be radiographed. Radiographed welds are not subject to code case N-127 requirements. In the event that any welds are inaccessible, they will be addressed on a case-by-case basis.

Corrective Steps Taken to Avoid Further Violations

OE Codes, Standards and Materials group will issue Detail Weld Procedure (DWP) GTA-88-S-2E, implementing Code Case N-127 parameter requirements. The scheduled completion date for the DWP is January 31, 1985.

Date When Full Compliance Will Be Achieved

TVA will be in full compliance by January 31, 1985.