

TENNESSEE VALLEY AUTHORITY

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FEB 07 1990

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of the Application of)
Tennessee Valley Authority)

Docket Nos. 50-390
50-391

WATTS BAR NUCLEAR PLANT (WBN) - NRC INSPECTION REPORT NOS. 50-390/89-20 AND
50-391/89-20 - REPLY TO NOTICE OF VIOLATION 390, 391/89-20-02

Enclosure 1 is our response to the subject violation. Enclosure 2 identifies
commitments made in this submittal.

If there are any questions, please telephone G. R. Ashley at (615) 365-8527.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

Mark O. Medford
Mark O. Medford, Vice President
Nuclear Technology and Licensing

Enclosures
cc: See page 2

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U.S. Nuclear Regulatory Commission

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cc (Enclosures):

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ENCLOSURE 1

RESPONSE TO NRC'S JANUARY 03, 1990
LETTER TO TVA TRANSMITTING NOTICE OF VIOLATION
390, 391/89-20-02

VIOLATION 390, 391/89-20-02

Description

10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," is implemented in part by the Nuclear Quality Assurance Manual (NQAM), Part 1, Section 2.5, Revision 2, which states that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. The Quality Assurance (QA) Topical Report, TVA-TR75-1, Revision 10, further implements 10 CFR 50 Appendix B, and commits to American National Standards Institute (ANSI) Standard N45.2.3-1973, which requires procedures for ensuring plant cleanliness, and to ANSI N18.7-1976, which requires independent verification of clearance tagging boundaries. Administrative Instruction (AI)-2.19, Revision 5, states in paragraph 6.6.2, "When safety related equipment is removed from service for protection of personnel, the clearance procedures shall require independent verification for alignment, for tagging, and for return to service from off-normal configuration." Contrary to the above,

1. The licensee failed to establish or implement instructions, procedures, or drawings to ensure cable tray cleanliness, in that on November 1, 1989, tools, metal debris, insulation clips, and nails were found in electrical cable trays 5B2081 and 4B2125. This foreign material could possibly have led to damage of safety-related cables.
2. As of May 1989, the licensee adopted a policy of not performing the independent verifications of equipment clearances which were required by AI-2.19. Examples of clearances on safety-related equipment which were not independently verified included hold orders 890606, 890607, 890608, and 890609 on the Safety Injection System, and 890697 on the Auxiliary Feedwater System.

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

RESPONSE TO EXAMPLE 1

Admission or Denial of the Violation

TVA admits the violation occurred as stated.

Reason for the Violation

This example of violation is a result of craft personnel not implementing routine housekeeping as required by AI-1.8, "Plant Housekeeping." Section 6.3.10 of AI-1.8 states:

INCLUDE in the work instruction a final housekeeping check signoff which includes items such as those identified in Appendix B and any additional checks to ensure the area is returned to normal (e.g., cleaned up) upon completion of the activity.

Standard workplans include the statement "Craft foreman to verify/document housekeeping daily."

Corrective Steps Taken and Results Achieved

The cable trays identified in the violation have now been verified free of foreign material. To determine the extent of this problem, selected additional cable trays in the Cable Spreading Room, Auxiliary Control Room, Auxiliary Building and Reactor Building were inspected for cleanliness. This inspection identified foreign material in many of the trays inspected. However, no cable damage was identified.

A memorandum has been sent to construction craft employees to reinforce AI-1.8 on craft cleanup after work is performed. The memorandum specifically identifies NRC's finding with regard to foreign material in cable trays and directs attention to cable trays during housekeeping inspections. Additionally, the memorandum stresses the importance of procedures and warns employees that they will be subject to disciplinary action for ignoring or violating procedures.

Corrective Steps Which Will Be Taken to Avoid Further Violations

TVA will remove any foreign material inside uncovered cable trays, including metal shavings and other material that could damage cable insulation. Any cable damage identified will be addressed in accordance with TVA's corrective action program.

Date When Full Compliance Will Be Achieved

TVA is now in compliance with the postwork housekeeping requirement.

Cable tray cleanliness will be verified before fuel load.

RESPONSE TO EXAMPLE 2

Admission or Denial of the Violation

TVA admits the violation occurred, as verification of clearance tagging boundaries has not been performed as required.

Reason for the Violation

The failure to perform independent verification in accordance with AI-2.19 occurred because implementation of AI-2.19 had been suspended pending a two-year review and the subsequent reimplementation. AI-2.19 was implemented in 1984 in anticipation of fuel load. Given the plant status in 1989, it was deemed appropriate to delay full implementation. The decision to suspend implementation was reviewed by the Plant Operations Review Committee (PORC) to ensure that suspension of this procedure would not affect the quality or safety of the plant. In addition, suspension of the procedure was not considered to represent a change to our QA program commitments, as the ANSI N18.7 requirement for independent verification of clearances specifically states that independent verification shall be required "where appropriate." Clearances are being used primarily to ensure personnel safety while performing construction or layup activities and to protect equipment. The verifications required by AI-2.12, "Clearance Procedure," are to be performed by the person requesting the clearance and by the craft representative performing work, and have been determined to be sufficient to ensure personnel safety and protect plant equipment. Additional independent verification required by AI-2.19 to ensure system operability is unwarranted at this time.

However, TVA's Nuclear Manager's Review Group (NMRG) noted during an assistance audit in November 1989 that the verifications required by AI-2.12 are not being adequately implemented. This deficiency was documented on Condition Adverse to Quality Report (CAQR) WBP 890639.

Corrective Steps Taken and Results Achieved

Shift operations supervisors (SOS) and assistant shift operations supervisors (ASOS) were informed of the importance of enforcing the AI-2.12 requirement that persons requesting clearances assure that equipment is properly cleared and tagged by discussing the clearance with the SOS or designated ASOS and by physically verifying tag location and correct component alignment and/or verification of zero voltage or pressure. Additionally, a memorandum was issued to employees on the WBN clearance list to emphasize the importance of compliance with this requirement. The importance of compliance with the clearance program and of careful definition of clearance boundaries was stressed in recent site-wide safety meetings to improve awareness of site personnel.

Corrective Steps Which Will Be Taken to Avoid Further Violations

AI-2.19 will be implemented to ensure system operability for each system on completion of prestart testing for that system.

As a result of issuance of TVA's Nuclear Quality Assurance Plan (NQAP), which redefines our QA program commitments, WBN is reviewing site procedures to ensure that the commitments are adequately specified in site requirements. This will ensure that compliance with QA program requirements has not been relaxed.

Date When Full Compliance Will Be Achieved

TVA is in full compliance, in that AI-2.12 provides an appropriate level of verification for personnel safety and protection of equipment.

AI-2.19 will be reimplemented for each system on completion of prestart testing for that system.

ENCLOSURE 2

LIST OF COMMITMENTS

1. TVA will remove any foreign material inside cable trays, including metal shavings and other material that could damage cable insulation. Any cable damage identified will be addressed in accordance with TVA's corrective action program.
2. Administrative Instruction (AI)-2.19 will be reimplemented for each system on completion of prestart testing for that system.
3. WBN is reviewing site procedures to ensure that the commitments are adequately specified in site requirements. This will ensure that compliance with QA program requirements has not been relaxed.