



Tennessee Valley Authority Post Office Box 2000, Spring City, Tennessee 37381

OCT 27 1995

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

Gentlemen:

In the Matter of the Application of) Docket Nos. 50-390
Tennessee Valley Authority) 50-391

WATTS BAR NUCLEAR PLANT (WBN) - UNIT 1 - NRC INSPECTION REPORT NO.
50-390, 391/95-45 - SUPPLEMENTAL INFORMATION - NOTICE OF VIOLATION
50-390/95-45-01

The purpose of this letter is to provide additional information regarding Notice of Violation 390/95-45-01 cited in the subject inspection report dated August 15, 1995. This violation concerns the installation and support of resistance temperature detectors (RTDs) in accordance with vendor supplied instructions or requirements. TVA's original reply was submitted on September 14, 1995. A revised response was submitted on October 10, 1995.

The enclosed information supplements TVA's previous submittals, and provides the basis for the adequacy of the stated recurrence controls.

If you should have any questions, please contact P. L. Pace at (423) 365-1824.

Sincerely,

R. R. Baron
Nuclear Assurance
and Licensing Manager (Acting)

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cc: See page 2

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cc (Enclosure):

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ENCLOSURE

SUPPLEMENTAL INFORMATION - NOTICE OF VIOLATION 95-45-01

Initial RTD Installation

As previously discussed in TVA's response, the RTD cables were not supported in accordance with the vendor-specified requirements because the RTD cables were mistakenly installed using generic guidance for commodity installation, rather than vendor component installation instructions. These cables are similar to other cable/flexible conduit installed routinely in the plant using standard TVA cable supporting requirements.

Although vendor drawings for the RTD cable support installations were available within the TVA documentation system at the time of RTD installation, the installers incorrectly assumed that normal cable/flexible conduit commodity support criteria were applicable. This caused the retrieval and application of the appropriate vendor guidelines not to occur. This condition reflects an error in judgment on the part of the individuals involved in the RTD installations. Additionally, Engineering output used at the time of the original RTD installations lacked the specificity necessary to ensure that the appropriate vendor requirements were utilized.

The reason for this violation example can therefore be traced to personnel error by Nuclear Engineering and Construction. Procedures requiring the consideration of vendor requirements were not properly followed.

As corrective action, Design Change Notices (DCNs) W-37478-A and W-37395-A were issued for the installation of supports at the pressurizer and RHR heat exchanger locations. Installation of supports for the pressurizer and RHR heat exchanger RTD cables has been completed.

Additionally, the following controls were implemented since the identification of this deficient condition, to emphasize the need to consult applicable vendor requirements for work processes:

1. EAI-3.05, R27, "Design Change Notices," Section 5.1.7.d currently states:

"Vendor documents, including manuals, are to be reviewed to identify information pertinent to the design. Vendor documentation is cross referenced to component identifiers in the EMS database..."

Following these requirements should prevent the recurrence of design personnel overlooking vendor drawings in their design output documents.

2. SSP-7.53, R13, CN2, "Modification Workplans," Section 2.3.E currently states:

"Consult Site Engineering approved vendor manuals when modifying or installing equipment originally supplied to TVA by a vendor..."

3. SSP-6.02, R15, CN2, "Maintenance Management System," Section 2.2.2.C currently states:

"Obtain and incorporate appropriate vendor manual information into component related Work Orders... Do not use drawings in the vendor manual directly in the performance of work. Drawings included in vendor manuals are information only and are included for the convenience of the user in determining which drawings to obtain from the TVA Document Control Change Management System (DCCM)."

Following these requirements should prevent the recurrence of construction personnel overlooking vendor drawings in their work implementing documents.

These requirements coupled with improved access to the EMS database represent a significant improvement over the program barriers which existed when the RTDs were initially installed.

Subsequent Reinstallation

One of the subject RTDs (1-TE-074-0025-F) was subsequently replaced in February 1995 under DCN F-34505-AA04 due to cable damage. The new RTD was reinstalled "like for like" with the as-found configuration, in accordance with guidance for commodity installations found in existing site construction specifications (TVA Construction Specification N3C-944). Modification activities related to replacement of damaged commodities generally do not result in a re-review of the original installation requirements. Accordingly, the RTD cables were handled as TVA commodities rather than as vendor components, resulting in this field initiated F-DCN failing to appropriately consider the vendor requirements.

Programmatically, the TVA work control process implemented since the original installation of these RTDs requires a thorough review of equipment installation requirements prior to the issuance and implementation of a work plan. The closure process acts as a safety net to ensure that vendor information has been correctly utilized when an F-DCN is issued. The engineering closure review for DCN F-34505 did not identify the problem described above.

Since one of the subject RTDs was recently reinstalled without considering vendor requirements, when the procedures discussed above were in place, the training of the personnel performing the reinstallation was reviewed. Some of these personnel did not have an opportunity to attend the latest training (December 1994) conducted to emphasize that vendor specified requirements be properly addressed.

This recent occurrence can again be traced to personnel error on the part of the individuals involved in the processing of this FDCN. Training in the area of vendor requirements compliance was not adequate enough to prevent this condition recurrence. As a consequence, TVA took the following action to address this condition. A memorandum (T41 950928 805) was issued to engineering personnel stressing the need for the responsible organization (RO) to use extra care to ensure that all pertinent information has been transmitted when heavy reliance is placed upon communication from another discipline to determine the EOC for a corrective action document. Where possible, alternate information sources should be reviewed to verify the EOC.

To address the specific issue raised by the closure review of DCN F-34505, Refresher Training was held for all personnel in the F-DCN Closure Group on October 18 - October 19, 1995. This training reiterated the need for attention to detail when performing closure of F-DCNs affecting vendor components. Requirements pertaining to use of vendor information were reviewed as well.

Schedule for Full Compliance

With respect to the cited violation, TVA is currently in full compliance.