ENCLOSURE 1

NOTICE OF VIOLATION

Tennessee Valley Authority
Watts Bar Unit 1

Docket No. 50-390
License No. CPPR-91

During an NRC inspection conducted July 8 through July 19, 1991, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1991), the violation is listed below:

10 CFR Part 50, Appendix B, Criterion V requires 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..."

Watts Bar Nuclear Plant Administrative Instruction AI-9.2.3, paragraph 6.2.2.D.2, "Maintenance Request Performance", requires that the craftsman record the TVA tag number and calibration due date for each piece of Measuring and Test Equipment used to obtain data in the Corrective Action/ Work Performed Section of the Maintenance Request if provisions for recording this information are not provided elsewhere in the Maintenance Request work package or associated documents.

Administrative Instruction AI-9.4.2, Revision 15, paragraph 6.4.10, "Controlling Welding, Brazing and Soldering Processes," requires that the responsible craft management ensure that each date welding was performed be entered on the Weld Data Sheet. Paragraph 6.5.2.2 and Appendix G of the Administrative Instruction require that the Welding Engineering Unit verify that all hold points are signed and correlations between sequence of operations and dates are correct (e.g., final inspection(s) has not been completed prior to fitup inspection).

Construction Process Instruction CPI-8.1.8-E-100A, Revision 2, paragraph 6.2, "Termination, Splicing, and Repair of Low and Medium Voltage Cables," requires megger testing of low voltage power cables.

Contrary to the above:

1. The licensee did not have adequate procedures to assure that vendor manual torque requirements were incorporated into the maintenance work instructions as evidenced by the following:

   The body to bonnet fasteners for valves 1-DRV-62B-987B, 2-BYV-62B-962C, and 2-BYV-62B-962D were torqued to 20 ft-lbs (240 in-lbs), during the work of MR A627606, contrary to the vendor manual (TVA vendor manual 0904, contract 54114-1, ITT Grinnell Diaphragm Valves Maintenance and Instruction Manual) which specified a maximum torque of 96 in-lbs.

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The packing gland cap screws for valve 2-ISV-62A-724 were tightened "snug tight," during the work of MR A627811, contrary to the vendor manual (Kerotest Installation, Maintenance, and Operation Manual Number MG-044, contract 85K74-835795) which specified a maximum torque of 18 ft-lbs.

2. Procedures were not followed in that:

Licensee craftsmen performing the work on Maintenance Request A627606 failed to enter the TVA tag number and calibration due date for the torque wrench used to accomplish the work of the Maintenance Request.

For weld 0-070A-T027-01 on Workplan M-5767-1, the Weld Data Sheet shows the filler and cap of the weld being welded the day before the fitup was signed-off (fitup sign-off 2/2/90, filler and cap welded 2/1/90). The Welding Engineering Unit failed to properly verify the correct sequence of operations and dates.

Replacement cables 0-4P1-30-2298 and 0-4PL-30-2775 on Workplan K-M09615A-1 were not megger tested as required by CPI-8.1.8-E-100A, Revision 2.

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

Pursuant to the provisions of 10 CFR 2.201, Tennessee Valley Authority is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, Region II, and if applicable, a copy to the NRC Resident Inspector, Watts Bar, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps which will be taken to avoid further violations, and (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

FOR THE NUCLEAR REGULATORY COMMISSION

Bruce A. Wilson

Bruce A. Wilson, Chief
TVA Projects

Dated at Atlanta, Georgia
this 5th day of September 1991

EXECUTIVE SUMMARY

This inspection was performed to evaluate the licensee's progress toward construction restart in the areas of procedures and workplan control. In addition to review of the new WP program and a sample of new WPs, the inspection included review of: the status of planned procedure changes; the Safety Net Review program, including the status of reviews for WPs, Maintenance Requests and Design Change Notices; the Quality Review Pipeline program; training records for new WP writers; interface controls between Engineering and Construction; a sample of closed WPs and MRs; licensee's Look Back Assessment relative to closed WP records; and controls for in-process and completed work documents (WPs, MRs, etc.).

The inspection was conducted July 8-19, 1991, by a five man multi-disciplined team.

The following summarizes the more significant findings of the inspection.

- The licensee is progressing adequately in resolving the issues associated with the stop work order.

- In the area of procedures, new corporate standards have been issued and onsite procedure types and numbering systems are being changed to agree with the new standards and to provide consistency and uniformity between all TVA sites. In addition, Watts Bar is revising the work control process to mirror the Browns Ferry process and to correct existing weaknesses that led to the stop work. Therefore, many site procedures are being revised, replaced, or deleted. TVA had concluded that, for construction restart, only Modification/Addition Instructions which replaced the Construction Process Instructions, and a few selected Administrative Instructions need to be completed. Based on the fact that a number of the key technical and administrative procedures are not yet issued, the team concluded further licensee reviews are needed on these procedures to ensure that all procedures affecting construction activities are implemented prior to restart.

- The team's review of the new AI-8.6 procedure that controls the WP process determined the procedure was adequate, but identified potential weaknesses in the procedure relative to: interface with the Wang computer data base, user friendly aspects of the procedure, use of standard format and organization of WP packages, materials control, lack of coverage of key elements of the closure process, and administrative controls of WPs after issuance.

- In the area of new WPs, the team found that the licensee appears to be on track to solve many of the problems associated with the old WPs. However, at the time of the inspection only 11 new, relatively simple WPs had been completed. These did not provide an adequate sample for the team to determine if TVA is ready for restart in this area. Further reviews will be required.

- The team found that the Safety Net Review process for review and disposition of work documents (WPs and MRs) and DCNs appeared to be working well. However, large backlogs of documents (WPs, MRs, and DCNs) remain to be reviewed. The team considers that if this large backlog is not reduced prior to construction restart, the field engineers may be restricted from performing adequate field monitoring since the personnel performing the reviews are the same personnel who will be implementing and monitoring work when construction restarts.

- Relative to the "Shutdown Assessment," the team found the licensee assessment on the sample of WPs reviewed was very thorough and identified primary record deficiencies in many of the vaulted WPs. Some of the deficiencies affected the installed plant hardware. The teams review found similar conditions. Licensee management determined that further review of old, completed WPs and MRs was not needed because of other corrective action programs presently in progress or planned. The team has a concern that these programs may not identify some of the types of primary record deficiencies identified by the assessment. This is not a restart issue but is a concern relative to the adequacy of the records to support licensing the plant.

- The team's review of completed WPs and MRs revealed deficiencies similar to those found by the licensee's "Shutdown Assessment" review. The more significant findings identified were: failure to record M&TE used to torque fasteners, failure to identify that a weld record indicated the required fitup inspection was performed after the weld was made, failure to megger test new electrical cable, and inadequate procedure for specifying torquing requirements for fasteners. These findings are identified as a violation of NRC requirements.

- Relative to control of QA records, the team noted the licensee could not account for 9 WPs and 178 MRs that were issued prior to the stop work order going into effect. Part of the corrective action for control of in-process records was implementation of the WP library. The team noted weaknesses in the control of in-process work documents in that: there was no formal procedure for operation of the WP library (e.g., positive control for checking documents in and out, storage controls, etc.), access to the WP library was not controlled, and records were not stored in fire proof cabinets. The lack of fire proof cabinets was identified earlier by the licensee. The informal administrative controls were not working in that the team noted that some WPs had been removed without being checked out and others were returned without being signed in. Further, the team was concerned with the program that controls removal and return of completed, vaulted records.

- In the details of the report, the team identified several issues that, although not a violation of NRC requirements, should be considered by the licensee before restart. Examples are WP backlog and administrative control of WPs. The team believes these issues collectively caused some of the problems in work control that Watts Bar was experiencing before the stop work went into effect.