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 August 24-28, 1992, one 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 (1992), the violation is listed below:

10 CFR 50, Appendix B, Criterion III, Design Control, requires in part that measures be established to assure that applicable regulatory requirements are correctly translated into drawings and procedures. The measures shall include provisions to assure that appropriate quality standards are specified and included in design documents. The design control measures shall also provide for verifying or checking the adequacy of design.

Tennessee Valley Authority Nuclear Quality Assurance Plan TVA-NQA-PLN89-A, Revision 2, Section 7.0, Design Control, requires that measures be established to ensure that applicable design requirements are correctly translated into procedures or instructions. It also requires that design assumptions and inputs be identified and provisions made to relate the final design to the source of the design input. Furthermore, measures shall be established to control the approval, issuance and revision of design output documents. These measures shall include criteria to ensure that adequate technical and quality requirements are incorporated prior to issuance.

Contrary to the above, on August 28, 1992, the established design control measures were determined to be deficient in that the following deficiencies were identified:

1. Electrical system calculation WBN-EEB-MS-TI07-0005 documented the adequacy of KWN 10 A fuses for use in low voltage switchgear close and trip circuits. DCN M-12564-A was issued to implement the replacement of existing KWN 6 A fuses with KWN 10 A fuses. Design Change Notice M-12564-A replaced two (2) of the four (4), 6 A fuses with 10 A fuses for the control circuits for each fan motor 1-MTR-30-92/1-B and 1-MTR-30-80/1-B. The remaining two (2) fuses for each of the motors (a total of 4) were not included in the DCN and remained as 6 Amp fuses. Therefore, the design change reflected in DCN M-12564-A was deficient in that it failed to incorporate all the required fuse replacements as specified in the calculation.

2. Electrical system calculation WBN-EEB-MS-TI08-0008 evaluated the adequacy of installed fuses and identified fuses for replacement to provide adequate coordination and protection. Design Change Notice

M-12212-A was issued but failed to identify fuse 0-FU-215-C2/FS1-S for replacement from A4J40 to A4J60 as required by calculation results.

3. Calculation WBN-EEB-MS-TI08-0028, LV Electrical Penetration Protection Analysis, Revision 17, analyzed the protection of electrical penetration assemblies based on fuse time-current characteristic curves which were not traceable to their source. In addition, the evaluation used to justify the acceptability of these curves was deficient in that it used a 50 percent tolerance criteria with no technical basis for such criteria and it only evaluated the fuse time-current characteristics for 10 seconds and not the full range of 1000 seconds.

4. Procedure EAI-3.22, Equipment Management System, Revision 3, which provides the design control measures to ensure that fuses are properly input into the EMS, did not require that Unit 2 fuses required for Unit 1 safe operation or safe shutdown be flagged as such to ensure that the Master Fuse List design output drawings were accurate and complete.

5. Procedures WB-DC-30-5, Power, Control, and Signal Cables for Use in Category I Structures, Revision 6, and WB-DC-40-66, Penetration Assemblies and Seals For Category I Structures, Revision 0, specify design criteria for containment penetration protection but contain different design requirements for electrical penetration assembly protection. Furthermore, WB-DC-40-66 was not referenced in any of the applicable penetration protection calculations.

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

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, D.C. 20555, with a copy to the Regional Administrator, Region II, and 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 that 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 or demand for information may be issued as to 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.

Dated at Atlanta, Georgia
this 25th day of Sept 1992