

ENCLOSURE 1

NOTICE OF VIOLATION

Tennessee Valley Authority
Browns Ferry 1, 2, and 3

Docket Nos. 50-259, 50-260, 50-296
License Nos. DPR-33, DPk-52, DPR-68

During the Nuclear Regulatory Commission (NRC) inspection conducted on January 1-31, 1988, a violation of NRC requirements was identified. The violation involved failure to comply with plans and procedures in modification of hangers in the HPCI and RHR systems, and in the modification and installation of conduit and cabling in the ADS and HPCI systems. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions", 10 CFR Part 2, Appendix C (985), the violation is listed below:

10 CFR 50, Appendix B, Criterion V, requires that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings and shall be accomplished in accordance with these instructions, procedures and drawings.

- A. Browns Ferry Instruction BF MAI-23, Support & Installation of Piping Systems in Category I Structures, contains the following requirements: Paragraph 1.2.3 requires that piping and support installations shall be in compliance with the instruction and appropriate plant piping and support design output documents. Paragraph 2.6 requires that relocated supports be fabricated within the allowable tolerances of Section 2.7. Paragraph 2.7.3 requires that angles be maintained to a tolerance of 2 degrees. Paragraph 5.1 requires that a final hanger inspection shall be documented by using MAI-23, Attachment A, "Hanger and Restraint Inspection Data Sheet".

Contrary to the above, activities affecting quality were not being accomplished in accordance with documented procedures and drawings in that an NRC field inspection of two QC accepted pipe supports revealed one support with deviations from the documented requirements. As a result, the support may not be able to perform its intended function as required by the design. Examples include:

1. Unit 2, support H-94 (47B2455-202, Rev. 0) was installed with a strut/spring load can misalignment of about 10 degrees, causing the spring to bear against the loadcan wall. This support had been repositioned during the modification process with no supporting documentation for its movement.
2. Support H-94 required load adjustment and lateral movement on the supported pipe. However, the Hanger and Restraint Inspection Data Sheet, Steps 5.1.3, and 5.1.4 referring to tightness and configuration correctness were checked "No" (meaning not required)

in the "Inspection Required Checklist". No evidence was available to show that required inspections were performed.

- B. Browns Ferry Instruction BF MAI-27, Installation of Electrical Conduit Systems and Junction Boxes, contains the following requirements: Paragraph 2.0 requires all electrical conduit systems for Browns Ferry be installed in accordance with the instruction. Paragraph 6.15 requires that all panel doors, junction box covers and conduit covers opened and/or removed shall be reclosed or reinstalled and the work area left clean upon completion of conduit work. Paragraph 7.0 requires that Inspection Requirements of the procedure attachments be included with documentation that installs conduit systems. Paragraph I., Attachment 1, MAI-27, requires that the fittings required by installation drawings at the end points of a conduit are firmly tightened.

Browns Ferry Instruction BF MAI-44, Cable Pulling for Insulated Cables up to 15,000 Volts, contains the following requirements: Paragraph 5.1 requires that the Electrical Craft perform work according to requirements of the instruction and applicable drawings; Paragraph 5.2 requires the Responsible Engineer to ensure that procedural requirements are met; Paragraph 5.3 requires the QC inspector to perform inspections to the acceptance criteria of the instruction; Introductory paragraphs of Attachment 1, MAI-44, Cable Pulling Acceptance Criteria, require the craft foreman or his designee to perform first-party verification of Cable Pulls, and the QC inspector to perform second-party verification for all cable pulls through Class 1E and CSSC conduit; Paragraph 4.H, Attachment 1, includes the requirements to ensure that flexible conduit is reconnected in accordance with design documents, including any torquing requirements, and that conduit assemblies and junction box covers are reinstalled.

Contrary to the above, activities affecting quality were not being accomplished in accordance with procedures and drawings in that a field inspection of numerous QC accepted electrical conduits revealed numerous deviations from the documented requirements. As a result, the conduits may not be able to perform their intended function as required by the design. The deviations are identified below:

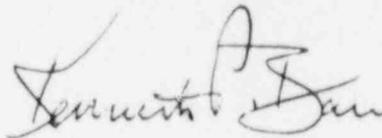
1. Auxiliary Instrument Room #2, Conduit 2ES 200-IS2 was found loose (penetration at 593' level in concrete pad, drawing 45B2895-165).
2. Auxiliary Instrument Room #2, junction of Conduits 2ES 200-IS2, 2ES 204-IS2, and 2ES 211-IS2 was found to have all fittings loose.
3. Auxiliary Instrument Room #2, flexible Conduit 2ES 211-IS2 (at overhead) was missing the cover on the conduit (LB) fitting, and the fittings were loose.
4. Cable Spreading Room, 606' elev., conduit body on Conduit 2ES 211-IS2 was missing its cover, and was loose at the conduit reducer and coupling (dwg. 45B2895-166).

5. Cable Spreading Room, 606' elev., the LB fitting at the junction of Conduits 2ES 201-IS2, and 2ES 1436-IS2 was missing its cover.
6. Cable Spreading Room, 606' elev., the conduit at the top of flexible Conduit 2ES 201-IS2 entering Panel 9-3 was missing its cover.
7. Control Room, Panel 9-3, 617' elev., the conduit fittings (2ES 201-IS2) in the bottom of the panel were loose and missing a cover; debris from the installation was left in the bottom of the panel.

This is a Severity Level IV violation (Supplement I) and is applicable to Unit 2 only.

Pursuant to the provisions of 10 CFR 2.201, you are hereby required to submit to this Office within 30 days of the letter transmitting this Notice a written statement or explanation in reply including: (1) admission or denial of the violation, (2) the reason for the violation if admitted, (3) the corrective steps which have been taken and the results achieved, (4) the corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved. Where good cause is shown, consideration will be given to extending the response time.

FOR THE NUCLEAR REGULATORY COMMISSION



Kenneth P. Barr, Acting Assistant
Director for Inspection Programs
TVA Projects Division
Office of Special Projects

Dated at Atlanta, Georgia
this 24th day of March 1988