TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

May 25, 1983

U.S. Nuclear Regulatory Commission
Region II
ATTN: James P. O'Reilly, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Enclosed is our response to R. C. Lewis' April 18, 1983 letter to H. G. Parris transmitting Inspection Report Nos. 50-259/83-09, -260/83-09, -296/83-09 regarding activities at our Browns Ferry Nuclear Plant which appeared to have been in violation of NRC regulations. We have enclosed our response to Appendix A, Notice of Violation. In a telephone conversation between George Jenkins of your staff and Mike Hellums of my staff on May 17, 1983, we were granted a seven-day extension for submitting our response. If you have any questions, please call Jim Domer at FTS 858-2725.

To the best of my knowledge, I declare the statements contained herein are complete and true.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

D S Kammer

D. S. Kammer
Nuclear Engineer

Enclosure

RESPONSE - NRC INSPECTION REPORT NOS.
50-259/83-09, 50-260/83-09, AND 50-296/83-09
R. C. LEWIS' LETTER TO H. G. PARRIS
DATED APRIL 18, 1983

Item A - (259, 260, 296/83-09-10)

10 CFR 50, Appendix B, Criterion V, as implemented by TVA's QA Topical Report, TVA-TR-75-1, requires activities affecting quality be prescribed by procedures appropriate to the circumstances and accomplished in accordance with those procedures. Construction Specification G-3, Section E-3, requires that conduits terminating in fittings shall be supported not farther than 12 inches from the terminal.

Contrary to the above, this requirement was not met in that numerous safety-related equipment did not meet the procedure for the installation of electrical conduit supports as prescribed by construction specification G-3. The incorrect support installations affect previously installed equipment and current Unit 2 outage installations.

This is a Severity Level IV Violation (Supplement I) and is applicable to all units.

1. Admission or Denial of the Alleged Violation

   TVA admits the violation occurred as stated.

2. Reasons for the Violation if Admitted

   The conduit supports on the safety-related equipment, which were identified by the NRC inspector in his report, were installed during original installation (construction at the plant), except the supports for the conduit to the low-pressure coolant injection (LPCI) motor generator (mg) sets. The requirements of General Construction Specification G-3 were not met because some personnel were not interpreting Section E.3 to require a conduit support within 12 inches from where a transition from rigid to flex conduit occurred. Section E.3 of G-3 states "conduits terminating." The flex conduit was considered a continuation of the conduit and not a termination; however, flex conduit is only supported at the attached ends by the equipment or by the rigid conduit. The rigid conduit was supported to meet the requirements for supporting horizontal and vertical run conduits.

3. Corrective Steps Which Have Been Taken and the Results Achieved

   All conduit supports for the safety-related equipment in the NRC report have been corrected by either a workplan or maintenance requests. Additionally, conduit supports on LPCI mg sets were

identified and corrected. A new plant procedure, Maintenance Addition Instruction (MAI) 27, has been approved which implements the requirements of G-3 and requires quality assurance (QA) inspection and verification on all class 1E conduits and 10 percent of critical structures, systems, and components conduits.

4. Corrective Steps Which Have Been Taken to Avoid Further Violations

All further workplans and maintenance requests which involve permanent conduit installations will be performed per MAI-27. In addition, personnel presently responsible for verification of conduit installations per MAI-27 will attend a class on MAI-27. A walkdown will be made to identify equipment that does not meet the requirements of G-3 at the transition from rigid to flex conduit per Section E.3. The walkdown will cover normally-accessible equipment in the reactor building, control bay, diesel-generator buildings, and intake pumping station. The discrepancies identified by this walkdown will be corrected by maintenance requests as required. MAI-27 will be revised to include a statement that the rigid conduit will be supported within 12 inches of the transition from rigid to flex conduit.

5. Date When Full Compliance Will Be Achieved

The walkdown will be completed by August 1, 1983, and after the results of the walkdown have been evaluated, a revision to the initial response that provides the implemented schedule will be submitted by September 1, 1983. The revision to MAI-27 will be completed by July 1,1983, with training to be completed by September 30, 1983.

Item B - 259/83-09-09

10 CFR 50, Appendix B, Criterion V, as implemented by TVA Topical Report TVA-TR-75-01, paragraph 17.2.5, requires activities affecting quality be accomplished in accordance with instructions, procedures, and drawings that include appropriate quantitative and qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

Contrary to the above, this requirement was not met in that the repair of Condensate Storage and Supply (CSS) wire rope hangers in the Unit 1 reactor building was conducted without quality assurance review or inspection as required by NOQAM Part II, Section 2.1. Maintenance was accomplished in accordance with Maintenance Requests (MRs) A064800 and A064881. The MRs incorrectly listed the CSS piping and support as non-Critical Structures, Systems and Components (CSSC), in contradiction to NOQAM, Appendix A.

This is a Severity Level IV Violation (Supplement I) and is applicable to Unit 1.

1. Admission or Denial of the Alleged Violation

   TVA admits the violation occurred as stated.

2. Reasons for the Violation if Admitted

   The MRs were worked as non-CSSC, nonsafety-related in error. The N-OQAM, Appendix A, Part II, Section 2.7.3, was used to determine the classification of the MRs. Although the N-OQAM, Appendix A, Part I, Section 15.8, addresses "Condensate Ring Header and Piping Inside the Reactor Building," the engineer involved interpreted this section not to be applicable to the condensate storage and supply piping but instead applicable to the ring header and 24-inch piping associated with the ring header. The supports for the condensate storage and supply piping are category 2 and should have been treated as safety related.

3. Corrective Steps Which Have Been Taken and the Results Achieved

   The MRs were intended as an interim repair until design drawings were issued to provide additional design details. After the drawings were issued, the supports were reworked by workplan 10293 per engineering change notice P-0571. This workplan did receive QA review and required QA inspections to be made. The engineer involved has been made aware of the correct usage of the CSSC list.

4. Corrective Steps Which Will Be Taken To Avoid Further Violations

   No further corrective action required.

5. Date When Full Compliance Will Be Achieved

   Full compliance has been achieved.

Item C - (260/83-09-02)

Technical Specification 6.3.A.6 requires that detailed written procedures shall be adhered to as related to surveillance requirements. Surveillance Instruction (SI) 4.3.B.1.a, Control Rod Coupling Integrity Check, requires that the operator initial a signoff column when all rods within the specified pull group are completed with movement. The operator signoff

also satisfies the requirement of Technical Specification 4.3.B.1.a which specifies that nuclear instrumentation response be observed during rod movement.

Contrary to the above, the requirement was not met in that several Unit 2 rods moved on March 22, 1983, in accordance with SI 4.3.B.1.a did not have operator signoff to indicate that coupling integrity was verified.

This is a Severity Level V Violation (Supplement I) and is applicable to Unit 2.

1. Admission or Denial of the Alleged Violation

   TVA admits the violation occurred as stated.

2. Reasons for the Violation if Admitted

   The operator involved failed to sign SI 4.3.B.1.a due to an oversight on his part.

3. Corrective Steps Which Have Been Taken and the Results Achieved

   The operator involved in this incident has received appropriate disciplinary action for failure to follow procedures in that he did not verify by initials that rod moves were made.

4. Corrective Steps Which Will Be Taken to Avoid Further Violations

   None required at this time.

5. Date When Full Compliance Will Be Achieved

   The operator was reprimanded on April 5, 1983.

Item D - (259, 260, 296/83-09-01)

Technical Specification 3.7.E.1 requires that both Control Room Emergency Ventilation (CREV) systems shall be operable at all times when any reactor vessel contains irradiated fuel.

Contrary to the above, the requirement was not met in that CREV "A" was found on March 14, 1983, with the flow control damper fully open. System flow rate measurements require the damper to be approximately 5% open to meet design flow requirements in accordance with Technical Specification 3.7.E.2.c and ANSI N510. Design flow rate is 500 CFM $\pm$ 10%. Units 1, 2 and 3 contained irradiated fuel.

This is a Severity Level V Violation (Supplement I) and is applicable to Units 1, 2, and 3.

1. Admission or Denial of the Alleged Violation

   TVA admits the violation occurred as stated.

2. Reasons for the Violation if Admitted

   We have investigated the incident but have been unable to determine the reason for the mispositioned damper. However, the required position of the damper was not clearly marked at the damper as is general operating procedures at the plant for important manual dampers.

3. Corrective Steps Which Have Been Taken and the Results Achieved

   A flow test was run on control room emergency ventilation unit "A" on March 15, 1983 and the damper reset to the proper position.

4. Corrective Steps Which Will Be Taken to Avoid Further Violations

   The damper position was clearly marked to indicate proper position on March 15, 1983.

5. Date When Full Compliance Will Be Achieved

   Full compliance was achieved on March 15, 1983.