

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA TENNESSEE 37401

400 Chestnut Street Tower II

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November 16, 1984

U.S. Nuclear Regulatory Commission  
Region II  
ATTN: James P. O'Reilly, Regional Administrator  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

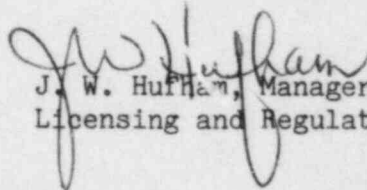
Dear Mr. O'Reilly:

Enclosed is our response to R. C. Lewis' October 17, 1984 letter to H. G. Parris transmitting IE Inspection Report Nos. 50-259/84-26, -260/84-26, -296/84-26 for our Browns Ferry Nuclear Plant which appeared to have been in violation of NRC regulations. We have the responses to the Notice of Violation as enclosure 1 and the Notice of Deviation as enclosure 2. 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

  
J. W. Huffman, Manager  
Licensing and Regulations

Enclosure

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ENCLOSURE 1  
NRC INSPECTION REPORT NOS.  
50-259/84-26, 50-260/84-26,  
AND 50-296/84-26  
R. C. LEWIS'S LETTER TO H. G. PARRIS  
DATED OCTOBER 17, 1984

RESPONSE TO NOTICE OF VIOLATION

The following violations were identified during an inspection conducted on June 26 - July 27, 1984.

The Severity Levels were assigned in accordance with the NRC Enforcement Policy (10 CFR Part 2, Appendix C).

Item 1 - (259, 260/84-26-02)

Technical Specification (TS) 3.5.C.6 requires that if TS 3.5.C.2 through 3.5.C.5 are not met, an orderly shutdown shall be initiated and the unit placed in the cold shutdown condition within 24 hours. Technical Specification 3.5.C.2 requires a minimum of four operable Residual Heat Removal Service Water (RHRSW) pumps assigned to RHRSW service during reactor power operation of two units.

Contrary to the above, this requirement was not met on July 20, 1984 in that an orderly shutdown was not initiated when TS 3.5.C.2 was not met for the required number of operable residual heat removal service water pumps. Unit 1 remained at 100% power and unit 2 at 55% power during this period.

This is a Severity Level IV violation (Supplement I) applicable to Units 1 and 2.

1. Admission or Denial of the Alleged Violation

TVA admits the alleged violation as stated.

2. Reasons for the Violation

RHRSW pumps B1, B2, C1 and D1 were declared inoperable on July 20, 1984 at 9:45 p.m. for failing to meet pump performance criteria of ASME Section XI, Pump and Valve Testing. They met Technical Specification requirements for pump operability at all times except when tagged out for maintenance adjustments. Diesel generator A had previously been removed from service to accommodate installation of throttling valves as committed in our response to an earlier NRC violation (84-01-01). Therefore, two additional pumps (A1 and A2) were considered to be inoperable because the 1A diesel generator was inoperable, but plant personnel misinterpreted Technical Specification 1.C.2. which states that when a system, subsystem, train, component or device is determined to be inoperable because its onsite power source is inoperable. . . it may be considered operable if its offsite power source is available and its redundant equipment is operable.

Based on this conclusion, the facility was erroneously assessed as being in a seven-day LCO rather than 24 hour.

3. Corrective Steps Which Have Been Taken and Results Achieved

The deficient pumps were sequentially removed from service for maintenance. All pumps were restored to fully operable status within 13 hours after identification of the problem. Live time training was held with all licensed personnel on the event.

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

Standard Practice BF 12.20 is formulated to assist operating personnel in interpretation of definition 1.C.2 of the Technical Specifications. Use of this Standard Practice is being incorporated into the operator and shift technical advisor retraining program.

5. Date When Full Compliance Will Be Achieved

Full compliance was achieved August 29, 1984.

Item 2 (259, 260/84-26-04)

Technical Specification 4.5.C.4 requires that when it is determined that one of the RHRSW pumps supplying standby cooling is inoperable at a time when operability is required, the operable RHRSW pump on the same header and its associated diesel generator and the Residual Heat Removal (RHR) heat exchanger header and associated essential control valves shall be demonstrated to be operable immediately. Plant Surveillance Instruction 4.5.C., RHRSW System and Emergency Equipment Cooling Water System Valve Operability Test (Common), states to perform Section 4.5.C.1 (Valve 23-57 only) to demonstrate operability.

Contrary to the above, this requirement was not met in that when the B1, B2, and D1 RHRSW pumps were declared inoperable on July 20, 1984, the associated essential control valves (valve 23-57) were not demonstrated to be operable immediately and were never tested while the pumps were inoperable. Unit 1 was operating at 100% power and unit 2 at 55% power.

This is a Severity Level IV violation (Supplement I) applicable to units 1 and 2.

1. Admission or Denial of the Alleged Violation

TVA admits to the violation as stated.

2. Reasons For the Violations

Due to a personnel error and a poorly written procedure, valve FCV 23-57 for units 1 and 2 was not tested when RHRSW pumps supplying standby cooling were determined to be inoperable.

3. Corrective Steps Which Have Been Taken and Results Achieved

Live time training was conducted for operators concerning RHRSW operability requirements. The Surveillance Instruction was also clarified.

4. Corrective Steps Which Have Been Taken and Results Achieved

The training will avoid future violations.

5. Date When Full Compliance Will Be Achieved

Full compliance has been achieved.

Item 3 (259, 260/84-26-05)

Technical Specification 3.7.E.1 requires that both Control Room Emergency Ventilation (CREV) pressurization systems and the diesel generators required for their operation shall be operable at all times when any reactor vessel contains irradiated fuel. Technical Specification 3.7.E.3 states that from and after the date that one of the CREV is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding 7 days.

Contrary to the above, this requirement was not met in that on July 25, 1984, the 'B' CREV system suction automatic damper was found disconnected. At the same time the diesel generator 'A' which supplies power to the redundant 'A' CREV system, was out of service for maintenance. Units 1 and 2 were at power during this time. The CREV 'B' system was last known to be operable during surveillance testing on July 2, 1984.

This is a Severity Level IV violation (Supplement I) applies to units 1 and 2.

1. Admission or Denial of the Alleged Violation

TVA admits the alleged violation as stated.

2. Reasons For the Violations

The damper (FCO-31-152) had become disconnected after a set screw failed to remain tight enough to secure the linkage. The reason the set screw loosened could not be determined. At 1243 hours on July 25, 1984, CREV 'B' damper was found inoperable due to the damper's linkage being disconnected. At 1425 the same day, the linkage was replaced and SI 4.7.E-5 completed. TS 3.7.E.3 states that from and after the date that one of the CREV is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding 7 days. TS 3.8.E.4 states that if TS 3.7.E.3 cannot be met, reactor shutdown shall be initiated and all reactors shall be in cold shutdown within 24 hours for reactor operations and refueling operation shall be terminated within 2 hours. The event caused the plant to enter the 24 hour LCO permitted by TS 3.7.E.4 above for less than 2 hours.

3. Corrective Steps Which Have Been Taken and Results Achieved

The damper linkage for CREV train 'B' was replaced with a threaded rod and lock nuts in addition to the set screw.

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

The damper linkage for CREV train 'A' was replaced with a threaded rod and lock nuts in addition to the set screw to prevent this from happening in the future. Test procedures which require manipulation of the damper linkage have been revised to include double verification that the linkage was correctly connected after testing is performed.

5. Date When Full Compliance Will Be Achieved

Full compliance was achieved on September 2, 1984, when both linkages were modified as stated above.

Item 4 (260/84-26-01)

10 CFR 50, Appendix B, Criterion V requires that activities affecting quality shall be accomplished in accordance with prescribed procedures. Browns Ferry Standard Practice 14.25 implements the plant tag clearance procedures to be adhered to during plant operations.

Contrary to the above, the requirement was not met in that on July 9, 1984, it was found that clearance 84-412 was incorrectly placed such that the hold order tag was valve HCV 2-2-1260 (demineralized water to torus level instrumentation) was hung on the incorrect valve and not placed on HCV 2-2-1260 as required by the clearance order. Additionally, the clearance order for valve 2-2-1260 had been second party verified incorrectly such that the second party verification was not effective in noting the error.

This Severity Level IV violation (Supplement I) applicable to unit 2.

1. Admission or Denial of the Alleged Violation

TVA admits to the violation but with the following clarifications as stated in reasons for the violation.

2. Reasons for the Violation

The violation occurred due to inadequate drawings and valve identification when the hold order was established. Clearance 84-412 was incorrectly placed. No second party verification was required when the clearance was initially issued.

3. Corrective Steps Which Have Been Taken and Results Achieved

The hold order clearance was reestablished correctly with second party verification and drawing changes initiated to show proper valve configurations. Standard Practice BF 14.25 was revised to require second party signoff on the condensate storage and supply system as well as all safety-related systems. Live time training was conducted to all operation personnel on the revision to Standard Practice BF 14.25. Also, the Standard Practice was changed to address proper clearance procedures to be followed for situations involving unmarked valves.

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

Live time training was conducted from July 25, 1984, to October 5, 1984, to prevent further violations.

5. Date When Full Compliance Will Be Achieved

Full compliance was achieved October 5, 1984, when the Standard Practice BF 14.25 was revised and all involved personnel trained on the revised material.

Item 5 (259, 260, 296/84-26-03)

Technical Specification 6.3.A.1 requires that detailed written procedures including applicable checkoff lists shall be prepared, approved, and adhered to for normal startup, operation and shutdown of the reactor and of all systems and components involving nuclear safety of the facility.

Contrary to the above, this requirement was not met in that Standard Practice 12.20 (BF 12.20), Actions Required by Technical Specification Definition 1.C.2-LCO, was not followed and form BF 126 not checked to clarify the applicable limiting condition for operation. For example:

- a. Form BF 126 was not checked when residual heat removal service water pumps were declared inoperable on July 20, 1984, while a diesel generator was inoperable. Unit 1 was operating at 100% power and unit 2 at 55% power.
- b. A review of plant conditions and available records for the past few months revealed that form BF 126 was never completed at times when a diesel generator was declared inoperable as indicated below:

<u>Diesel Generator</u>	<u>Time</u>	<u>Date</u>
B	6:15 p.m.	6/16/84
D	5:50 a.m.	6/18/84
3EA	1:15 a.m.	6/08/84
B	11:40 p.m.	5/30/84
C	8:20 a.m.	5/28/84

A form dated November 2, 1983, for the 'C' diesel was not signed by the shift engineer or the operations supervisor as required.

This is a Severity Level IV violation (Supplement I) applicable to all three units.

1. Admission or Denial of the Alleged Violation

TVA admits to the violation as stated.

2. Reasons For the Violation

The violation occurred due to the failure to properly use Standard Practice form BF 126 to check operability of redundant equipment in a forward and reverse flow path. This was due to inadequate training on the content and usage of Standard Practice BF 12.20.

3. Corrective Steps Which Have Been Taken and Results Achieved

Live time training was conducted for all licensee individuals concerning RHRSW operability and Standard Practice BF 12.20 and the use of BF 126.

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

Live time training was conducted from July 26, 1984, to August 29, 1984, to prevent reoccurrence.

5. Date When Full Compliance Will Be Achieved

Full compliance was achieved August 29, 1984, when the training was completed.

ENCLOSURE 2  
RESPONSE TO NOTICE OF DEVIATION

Item 1 (259/84-26-06)

In Reportable Occurrence Report BFRO-50-259/83068 RI (RHR pump motor failure) dated May 25, 1984, it was stated that a follow-up report to address the failure mode and recurrence control would be issued by July 16, 1984.

Contrary to the above, the follow-up report was not issued until July 24, 1984, after the inspector informed the licensee that the report was not issued. Discussions with plant personnel revealed that an administrative error resulted in the report not being issued. The report had not been adequately tracked to ensure the final report was issued.

This deviation is applicable to unit 1.

1. Admission or Denial of the Alleged Violation (or Finding)

TVA admits the alleged deviation as stated.

2. Reasons For the Violations (or Finding) if Admitted

The reason for the deviation was miscommunication between scheduler and schedulee. Compliance scheduled the item as due July 16, 1984, and gave notice to the cognizant section as track item #1411 two weeks before July 16, 1984. The item failed to be caught on the overdue printout by the responsible Compliance Engineer.

3. Date When Full Compliance Will Be Achieved

Personnel involved were counseled regarding proper tracking procedures and full compliance was achieved on July 24, 1984.