

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

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

Report Nos: 50-259/98-09, 50-260/98-09, 50-296/98-09

Licensee: Tennessee Valley Authority

Facility: Browns Ferry Nuclear Plant, Units 1, 2, & 3

Location: Corner of Shaw and Browns Ferry Roads
Athens, AL 35611

Dates: December 27, 1998 - February 6, 1999

Inspectors: W. Smith, Senior Resident Inspector
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Reactor Projects Branch 6
Division of Reactor Projects

Enclosure 2

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EXECUTIVE SUMMARY

Browns Ferry Nuclear Plant, Units 1, 2, and 3 NRC Inspection Report 50-259/98-09, 50-260/98-09, 50-296/98-09

This integrated inspection included aspects of licensee operations, maintenance, engineering, and plant support. The report covers a 6-week period of resident inspection.

Operations

- The operators continued to demonstrate good professionalism, conservatism, and communications in control of the plant (Section O1.1).

Maintenance

- Work activities observed during the inspection period were performed in a professional manner. Good self-checking and engineering support were noted during implementation of a temporary alteration that bypassed a failed rod position indication switch. The temporary alteration package and engineering drawings were actively checked to ensure that the work was properly performed (Section M1.1).
- Surveillance testing was performed satisfactorily during this inspection period. The licensee's response to a failed hydraulic valve operator during high pressure coolant injection system testing was prompt and well-executed (Section M1.2).
- Incomplete communications between Operations and Maintenance personnel resulted in the shutdown board 3EB battery not being promptly declared inoperable. Maintenance personnel failed to follow the procedure which required that they immediately notify the unit supervisor at the time of discovery. The inspectors concluded that the lack of detailed questioning on the part of the Unit Supervisor was a contributing factor (Section M1.3).
- The licensee determined that performance of a deficient surveillance procedure resulted in both trains of the control room emergency ventilation (CREV) system being inoperable. The operators demonstrated a good questioning perspective by identifying the procedure inadequacy and its effect on the plant (Section M3.1).

Engineering

- Procedures were not established to perform logic system functional testing of the CREV system low air flow trip circuitry. The licensee identified additional examples of CREV system testing inadequacies (Section E1.1).

Plant Support

- The licensee continued to demonstrate good radiation controls (Section R1.1).
- Plant Security continued to be well-implemented (Section S1.1).



Report Details

Summary of Plant Status

Unit 1 remained in a long-term lay-up condition with the reactor defueled.

Unit 2 operated at or near full power with the exception of scheduled brief reductions in power to adjust control rods and perform routine testing.

Unit 3 operated at or near full power with the exception of scheduled brief reductions in power. One power reduction was to perform turbine valve testing; another power reduction was to perform control rod scram time testing, control rod adjustments, and balance of plant maintenance. In addition, on January 10, 1999, power was reduced due to a feedwater heater isolation. The cause was a high heater level which resulted from a pressure perturbation while performing a turbine combined intercept valve test.

I. Operations

O1 Conduct of Operations

O1.1 General Comments (71707)

The inspectors toured accessible portions of the plant and noted that scaffolds were being erected in preparation for the Unit 2 outage. The inspectors found no cases where the scaffold structure interfered with the operation of safety-related equipment. The licensee was maintaining vigilance over the scaffolds to ensure there were no seismic or physical interferences between the scaffolds and operable equipment. Plant material condition and housekeeping was adequate. The inspectors found no significant problems.

Based on periodic inspection tours of the control rooms, the inspectors found that shift personnel acted professionally and with emphasis on safety. Three-way communication between watchstanders was, in general, crisp and utilized as appropriate. Operator performance was good during the minor power reductions for control rod adjustments, turbine testing, and scram timing tests.

The inspector attended a Saturday evening turnover which was conducted in a structured and professional manner. The inspector also observed a control room operator swap reactor zone fans; the operator was very knowledgeable of the task and attentive to the correct equipment response.

In addition, on January 15, 1999, the inspector toured the radwaste tunnel. General housekeeping was good. The inspector noted a small leak on an auxiliary boiler steam expansion joint in the tunnel. The licensee determined that the cause of the leak was a crack in the joint and work order 99-000903-000 was promptly initiated. This attention to non-safety-related equipment was an indication of the licensee's commitment to an overall well-performing plant.



O8 Miscellaneous Operations Issues (92901)

- O8.1** (Closed) Apparent Violation EEI 50-260,296/98-08-01: Inadequate Instrument Checks and Observations Procedure. In NRC Inspection Report 50-259,260,296/98-08, three examples of procedure inadequacies were identified during a review of the licensee's implementing procedure for frequently performed Technical Specification (TS) surveillance requirements. These requirements were contained in the Procedure 2/3-SR-2, Instrument Checks and Observations, Revision 7.

The licensee's methodology for calculating unidentified reactor coolant system leakage resulted in a leak rate that was averaged over the previous 24-hour period versus 12 hours, as required by the TSs. Procedural steps for performing checks on the 2-out-of-4 voter channels of the average power range monitors were not established in plant procedures. The applicability for performing reactor vessel water level narrow range instrumentation checks was not adequate to cover the TS-required surveillance when the plant was in Modes 4 and 5. These procedural inadequacies represented an apparent violation of TS 5.4.1.a, which requires written procedures to be established, implemented, and maintained for TS-required surveillances. The issue remained open for a reasonable time to allow the licensee to develop corrective actions and pending receipt and analysis of the Licensee Event Report (LER) required to be submitted for the missed TS surveillances.

The licensee submitted LER 50-260/1998-004, dated December 31, 1998, as a result of the first two examples of the apparent violation. The inspector reviewed the causes and corrective actions and considered that this information was already adequately addressed on the docket.

The licensee determined that the incorrect applicability for performing checks on the reactor water level narrow range instrumentation did not meet the reportability requirements of 10 CFR 50.73 because the required checks were conservatively performed by operators during the recent Unit 3 refueling outage while in Modes 4 and 5. This was the only occasion when Modes 4 and 5 had been entered since implementing the Improved Technical Specifications (ITS). The inspector reviewed the licensee's corrective actions for this example as documented in Problem Evaluation Report (PER) 98-014727-000.

The licensee revised Procedure 2/3-SR-2 to properly reflect that reactor water level narrow range instrumentation channel checks are required in Modes 4 and 5. The licensee performed a review of Procedure 2/3-SR-2 to ensure that other similar errors did not exist. In addition, a review of surveillances required by the Technical Requirements Manual and TSs was performed to ensure that applicability of modes was properly reflected in Procedure 2/3-SR-2. Procedure writers also received training on the potential to miss required readings due to improper formatting and the importance of the procedure review process to prevent these types of errors.



This issue is identified as Violation VIO 50-260,296/98-09-01, Inadequate Instrument Checks and Observations Procedure. The NRC has concluded that the information regarding the reason for the violation, and the corrective actions taken and planned to correct the violation and prevent recurrence were adequately addressed on the docket in LER 50-260/1998-004 and in this report. This apparent violation is closed.

- O8.2 (Closed) Licensee Event Report LER 50-260/1998-004-00: Surveillance Requirement Intent Not Adequately Implemented. This issue was discussed in NRC Inspection Report 50-259,260,296/98-08 and Section O8.1 of this report. No new issues were identified in the LER. This LER is closed.
- O8.3 (Closed) Licensee Event Report LER 50-296/1998-004-00: Primary Containment Allowable Leak Rate Exceeded. This LER documented a failure of a reactor building closed cooling water system primary containment isolation valve during local leak rate testing which exceeded the maximum allowable containment leak rate. The licensee disassembled and inspected the valve. No problems were revealed. The valve was successfully retested. This LER is closed.
- O8.4 (Closed) Licensee Event Report LER 50-296/1998-007-00: Unplanned ESF Following the Loss of 4kV Unit Board 3B. This issue was documented in detail in NRC Inspection Report 50-259,260,296/98-08, Section O1.2. No new issues were revealed by the LER. This LER is closed.

II. Maintenance

M1 Conduct of Maintenance

M1.1 General Maintenance Comments (62707)

The inspectors observed portions of the following work activities:

- WO-99-001365-000, Control Room Emergency Ventilation (CREV) System Simulated High Heater Discharge Temperature and Low Relative Humidity Heater Differential Temperature Test
- WO-99-001733, Implement Temporary Alteration (3-99-001-085) to Disable Control Rod Position Indication Switch S46 on Unit 3 Control Rod 22-47
- Unit 3 Containment Hydrogen and Oxygen Analyzer A Pressure Control Valve Replacement and Instrumentation Calibration
- Unit 3 Diesel Generator B Start Circuit No. 1 Lockout Relay Replacement
- Unit 1 Refueling Zone Secondary Containment Channel B Initializing Relay Set Screw Replacement

Observed work practices during the inspection period were performed in a professional manner. Workers were knowledgeable of the equipment and assigned tasks as demonstrated by responses to the inspectors' questions. Proper radiological work practices were observed during the inspection period.



Good self-checking and engineering support were noted during the performance of WO 99-001733, which bypassed a failed rod position indication switch. The temporary alteration and engineering drawings were actively checked to ensure that the work was properly performed.

M1.2 Surveillance Observations

a. Inspection Scope (61726, 71707)

The inspector observed portions of the following surveillance tests:

- 3-SR-3.5.1.7, HPCI Main and Booster Pump Set Developed Head and Flow Rate Test at Rated Reactor Pressure
- 0-SR-3.8.4.2(D), Shutdown Board D Battery Service Test
- 0-SR-3.7.3.2(B VFTP), Control Room Emergency Ventilation Unit B Flow Rate and Filter Testing Program
- 3-SR-3.1.4.1, Scram Insertion Times

b. Observations and Findings

In general, the observed surveillance tests were performed in a controlled and professional manner. Additional comments follow:

During the high pressure coolant injection (HPCI) run, the licensee noted an oil leak from the bottom of the HPCI stop valve hydraulic cylinder. The leak was apparently caused by a broken bolt on the bottom of the cylinder. The operators requested assistance from maintenance and stopped the surveillance. The inspector questioned several items with the maintenance superintendent and engineering personnel and noted that they were clearly focused and had considered the inspector's concerns. The cause was immediately pursued and repair options were being considered. The licensee responded to the event in a controlled and deliberate manner.

On a sampling basis, the inspector verified that the physical battery connections were consistent with the procedure during the shutdown board D battery service test. The inspector reviewed an associated test deficiency and resolution. No problems were noted. The inspector also verified that the specific TSs for the DC sources and distribution system were entered.

c. Conclusions

Surveillance testing was performed satisfactorily during the inspection period. The licensee's response to a failed hydraulic valve operator during HPCI system testing was prompt and well-executed.

M1.3 Shutdown Board 3EB Battery Low Temperature

a. Inspection Scope (71707, 62707)

On January 6, 1999, the licensee identified that a surveillance in progress had been stopped earlier during the previous shift when an acceptance criteria step could not be met. The inspectors reviewed the details surrounding the problem and assessed the licensee's actions.

b. Observations and Findings

During the Plan-of-the-Day meeting on January 6, 1999, plant management was notified that a TS-required surveillance procedure had been stopped due to temperature problems, and the problems would be resolved on the day shift. Licensee management questioned the temperature problems and pursued the issue. Procedure 3-SR-3.8.6.2(3EB), Quarterly Check for Shutdown Board 3EB Battery, was performed in part during the midnight shift. The licensee determined that acceptance criteria steps to measure temperature had been performed on several cells. The average temperature did not meet the acceptance criteria minimum; however, this was not clearly communicated to control room personnel. Incomplete communications between Operations and Maintenance personnel caused the failure to promptly declare the shutdown board 3EB battery inoperable, as required by TS 3.8.6. The allowed outage time permitted by TS 3.8.4 (7 days) was not exceeded and, therefore, the safety consequences were minimal. The inspector discussed this incident with licensee management and the involved unit supervisor (US) and determined that the lack of detailed questioning on the part of the US was a contributing factor.

Procedure 3-SR-3.8.6.2(3EB), Section 6.0, stated that responses which fail to meet the acceptance criteria stated in Section 6.0 shall constitute unsatisfactory surveillance procedure results and require immediate notification of the US at the time of the failure. The US was notified that the procedure was stopped, but was not specifically informed that an acceptance criteria step was not met. Failure to comply with Section 6.0 of the above procedure was a violation of TS 5.4.1. This is an apparent violation and is identified as EEI 50-296/98-09-02, Failure to Follow Surveillance Procedure, pending review of the licensee's corrective actions. The licensee initiated PER 99-000186-000.

c. Conclusions

Incomplete communications between Operations and Maintenance personnel caused the failure to promptly declare the shutdown board 3EB battery inoperable. Maintenance personnel failed to follow the procedure which required that they immediately notify the US at the time of the failure. The inspectors concluded that the lack of detailed questioning on the part of the US was a contributing factor.



M3 Maintenance Procedures and Documentation**M3.1 Control Room Emergency Ventilation Flow Rate and Filter Test Surveillance****a. Inspection Scope (61726, 37551, 71707)**

The inspector reviewed the licensee's actions when performance of a surveillance procedure was determined to have resulted in both trains of the CREV system being inoperable.

b. Observations and Findings

The CREV system consists of two redundant trains. The system is designed such that an initiation signal would be sent to both trains; however, only one train (i.e., the preferred train) would start immediately. The non-preferred train would start automatically after a brief time delay if flow was not sensed in the preferred train. The preferred train was determined by the position of the primary unit selector switch (0-XSW-31-7214).

On January 14, 1999, the licensee was performing Procedure 0-SR-3.7.3.2 (B VFTP), Revision 2, Control Room Emergency Ventilation Unit B Flow Rate and Filter Testing Program. At the time, the B train of the CREV system was declared inoperable following replacement of the charcoal adsorber elements. The procedure directed starting the B train by placing the primary unit selector switch in the B position and placing a false initiation signal on the start circuitry. Due to delays which were encountered in completing the surveillance procedure, operators backed out of the surveillance procedure and secured the B train. The operators placed the primary unit selector switch in the A position (i.e., normal standby readiness lineup) in accordance with plant operating procedures. The operators questioned the operability of the A train while the switch was in the B position. At the operators' request, site engineering initiated a technical operability evaluation (TOE).

The TOE concluded that the A train would not have automatically started on an actual initiation signal. Because the B train was selected as the preferred train, the A train would remain in standby and would start only if flow was not sensed in the B train on an initiation signal. The licensee initiated PER 99-000804-000.

The licensee determined that TS 3.0.3 was applicable because both trains of the CREV system were inoperable during the time period that the primary unit selector switch was in the B position. This was because the B train had not been tested for operability following maintenance and the A train would only start if no flow was sensed in the B train after an initiation signal. This condition existed for approximately 11 hours. TS 3.0.3 requires the plant to be in Mode 2 in 7 hours, but the plant remained in Mode 1. Based on satisfactory results of post-maintenance testing, the licensee later determined that the B train would have performed its design function. The licensee determined that an LER was required because the plant was in a condition prohibited by TS 3.0.3.



The surveillance procedure for performing CREV system flow rate and filter testing was inadequate in that the procedure resulted in both trains of the CREV system being inoperable. This represents an apparent violation of TS 5.4.1. This issue will remain open pending receipt and analysis of the LER required to be submitted to the NRC in accordance with 10 CFR 50.73. This issue is identified as Apparent Violation EEI 50-260,296/98-09-03, Surveillance Procedure Results in Both Trains of CREV Being Inoperable.

c. Conclusions

The licensee determined that performance of a surveillance procedure resulted in both trains of the CREV system being inoperable due to plant conditions and an inadequate procedure. The operators demonstrated a good questioning perspective by identifying the procedure inadequacy and its effect on the plant.

M8 Miscellaneous Maintenance Issues (92902)

M8.1 (Closed) Licensee Event Report LER 50-296/1995-002-00: Diesel Generator Auto Start Due to Personnel Error. This event was discussed in NRC Inspection Report 50-259,260,296/95-38, Section 5.b. No new issues were identified in the LER. This LER is closed.

III. Engineering

E1 Engineering Support Of Facilities and Equipment

E1.1 Control Room Emergency Ventilation System Logic Testing

a. Inspection Scope (37551, 61726)

The inspectors reviewed CREV system design features and the licensee's logic system functional test (LSFT) procedures to verify TS surveillance requirements were met.

b. Observations and Findings

As discussed in Section M3.1, the CREV system consists of two redundant trains. Only one train would start immediately following an initiation signal. The non-preferred train operation would be delayed from starting by a timer and flow switch arrangement. Following the time delay, the non-preferred train would start automatically only if flow is not sensed in the preferred train, indicating failure of that train.

The inspector did not identify any CREV system logic test procedures that addressed testing of the low air flow trip circuitry. On January 20, 1999, the inspector questioned the licensee to determine whether the low air flow trip circuitry was tested by other plant procedures. The licensee confirmed that logic testing of the low air flow trip circuitry was not covered by plant procedures. The design feature was tested following system installation in 1993. Prior to implementing the ITS in July 1998, the TS did not require an



LSFT on the CREV system. ITS Surveillance Requirements 3.3.7.1.4 and 3.3.7.1.6 implemented LSFT requirements for CREV system instrumentation. The licensee initiated PER 99-001227-000.

Procedure 0-SR-3.3.7.1.4, Control Room Emergency Ventilation Logic System Functional Test - Radiation Monitors, implemented TS Surveillance Requirement 3.3.7.1.4. Although this procedure had already been performed in October 1998, the licensee determined that the required surveillance frequency for testing the low air flow trip circuitry had not been exceeded. The licensee satisfactorily performed a work order (WO-99-001226) to test the degraded flow trip of the A and B trains of the CREV system. The inspector reviewed the work order and determined that the methodology adequately tested the required circuitry.

Licensee extent of condition reviews found additional trip features for the CREV system trains that were not tested by plant procedures. The licensee satisfactorily performed a work order (WO 99-001365-000) to test the trip features. The inspector observed the performance of the work order and reviewed the test methodology. The inspector determined that the work order adequately tested for proper operation of the trip features in question.

The inspector reviewed the licensee's commitment for NRC Generic Letter (GL) 96-01, Testing of Safety-Related Logic Circuits. In a letter dated April 18, 1996, the licensee committed to implement the recommendations of GL 96-01 in conjunction with the conversion to the ITS. The inspector concluded that review of logic circuits for the CREV system was within the licensee's review scope for GL 96-01.

Procedures were not established to perform logic system functional testing of the CREV system low air flow trip circuitry. This issue represents an apparent violation of NRC requirements and will remain open for a reasonable time to allow the licensee to develop corrective actions. This issue is applicable to Units 2 and 3 only because the CREV system has not been required to support Unit 1 plant conditions. This is identified as Apparent Violation EEI 50-260,296/98-09-04, Failure to Establish Procedures to Properly Test CREV System Logic.

c. Conclusions

Procedures were not established to perform logic system functional testing of the CREV system low air flow trip circuitry. The licensee identified additional examples of CREV system testing inadequacies.

E8 Miscellaneous Engineering Issues (92903, 71707)

- E8.1 (Closed) Licensee Event Report LER 50-296/1998-006-00: Main Steam Safety/Relief Valves Exceeded the Technical Specifications Set Point Tolerance Due to Pilot Valve Disc/Seat Bonding. The licensee found that 5 of the 13 main steam safety/relief valves (SRVs) exhibited lift settings in excess of the TS set point tolerance of ± 3 percent. The cause was attributed to corrosion bonding at the pilot valve disc/seat interface.



Although the test results were in excess of the TS set point tolerance, the licensee found that Unit 3 was within the reload specific analysis for Cycle 8 operation. Based on this information and previous evaluations, the SRV drift would not have resulted in exceeding any safety limit during any abnormal operating transient.

There have been several LERs written previously concerning SRV set point drift due to pilot valve disc/seat corrosion bonding on two stage Target Rock valves. This issue continues to be an industry problem and is being evaluated by the Boiling Water Reactor Owner's Group (BWROG) SRV Drift Fix Development Committee and the valve manufacturer. The licensee continues to participate in the BWROG evaluation for a permanent solution to the problem. In addition, the licensee implemented a modification during the Unit 3 Cycle 8 refueling outage which electrically actuates the SRVs through the use of a pressure switch. The pressure switch actuation minimizes the effects of SRV set point drift. The modification has also been implemented on Unit 2. This LER is closed.

E8.2 (Closed) Licensee Event Report LER 50-259/1998-003, Revisions 00 and 01:

Containment Atmospheric Dilution Nitrogen Supply Does Not Meet Design Basis. On June 16, 1998, the licensee reported a non-conservative calculation for the amount of nitrogen required to meet the seven-day design basis supply in the containment atmospheric dilution (CAD) tanks. The licensee identified this during a review for the Thermal Power Uprate Program. It appeared that the amount of nitrogen required by the TS would not be sufficient for seven days of post-loss-of-coolant-accident (LOCA) operation, as required by the design basis.

Immediate corrective actions were implemented to maintain the tank levels above 95% to ensure the design basis requirements were met. The licensee submitted LER 50-259/1998-003-00 on July 16, 1998. This condition had existed since original CAD system design. PER 98-006718-000 was initiated to address the calculation issue. The licensee performed corrective actions which included revising the calculation to correct the methodology for determining the amount of nitrogen required for storage in the tanks, determining a maximum allowable boil-off rate that bounds TS requirements, determining that no TS change was required, and initiating a Final Safety Analysis Report change request.

At the time that this issue was identified, the licensee also recognized that the boil-off rate for the two tanks was relatively high due to degraded vacuum in the insulation space of the tanks. The TS minimum allowed volume of 2500 gallons was determined to equate to a 4- to 5-day supply based on the current boil-off rates. PER 98-006995-000 was initiated to address the degraded vacuum space. The licensee took prompt actions to repair the tanks and restore the vacuum to an acceptable value.

The licensee submitted a revision to the LER on October 28, 1998. The revised LER (50-259/1998-003-01) stated that due to the excessive boil-off rate which was caused by insufficient vacuum being maintained in the insulation space of the storage tanks, a 7-day supply was not available under all circumstances in the past. The inspector determined that the safety significance was minimal, because replenishment facilities

could deliver liquid nitrogen to the site within one day. However, failure to meet the design basis requirement for 7-days of nitrogen caused both trains of the CAD system to be inoperable. Failure to maintain the design configuration of the CAD tanks was a violation of 10 CFR 50, Appendix B, Criterion III, Design Control, in that the design basis was not correctly translated into procedures and instructions. This non-repetitive, licensee-identified and corrected violation is being treated as a non-cited violation consistent with Section VII.B.1 of the NRC Enforcement Policy and is identified as non-cited violation NCV 50-260,296/98-09-05, Failure to Maintain Proper Controls Over CAD Design.

The inspector questioned the system engineer about the use of vacuum readings to predict degradation of the tank insulation. Procedures provided direction to the operators that when the CAD tank insulation space exceeded 25 microns, a work request should be initiated to address the degraded insulation space and Technical Support should be notified to address the nitrogen boil-off rate. The licensee indicated that Engineering was trending the boil-off; however, the licensee agreed that a more formal approach to trending boil-off was appropriate. Technical Instruction 0-TI-384, CAD Tank Boil-Off Determination, was issued, effective January 27, 1999. The inspector reviewed the issued procedure and found a few minor discrepancies. Revision 1 to the procedure adequately resolved the minor problems identified by the inspector. Both Revisions 00 and 01 of this LER are closed.

IV. Plant Support

R1 Radiological Protection and Chemistry Control

R1.1 General Comments (71750)

During the maintenance and surveillance observations discussed above, the inspectors noted that radiological controls and work practices were appropriately implemented. Also, during the plant tours conducted by the inspectors, the locks for locked high radiation areas were checked and no problems were found.

S1 Conduct of Security and Safeguards Activities

S1.1 General Comments (71750)

On a daily basis, the inspectors evaluated the performance of security officers as they executed the processing in of plant personnel and visitors through the Primary Access Point. The officers were thorough and attentive to their tasks. Security personnel exhibited teamwork while implementing compensatory measures to maintain security of the protected area perimeter during inclement weather.



V. Management Meetings

X1 Exit Meeting Summary

The resident inspectors presented inspection findings and results to licensee management on February 12, 1999. The licensee acknowledged the findings presented. The licensee did not identify any of the materials reviewed during this inspection as proprietary.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

T. Abney, Licensing Manager
 J. Brazell, Site Security Manager
 R. Coleman, Radiological Control Manager
 J. Corey, Radiation Protection and Chemistry Manager
 R. Greenman, Site Support Manager
 J. Johnson, Site Quality Assurance Manager
 R. Jones, Plant Manager
 J. Ledgerwood, Maintenance Superintendent
 G. Little, Operations Manager
 R. Moll, System Engineering Manager
 W. Nurnberger, Chemistry Superintendent
 D. Olive, Operations Superintendent
 R. Ryan, Site Engineering Manager
 D. Sanchez, Training Manager
 J. Schlessel, Maintenance Manager
 J. Shaw, Design Engineering Manager
 B. Shriver, Assistant Plant Manager
 K. Singer, Site Vice President

INSPECTION PROCEDURES USED

IP 37551	Engineering
IP 61726	Surveillance Observations
IP 62707	Maintenance Observations
IP 71707	Plant Operations
IP 71750	Plant Support Activities
IP 92901	Follow-up-Plant Operations
IP 92902	Follow-up-Maintenance
IP 92903	Follow-up-Engineering

ITEMS OPENED AND CLOSED

Opened

50-260,296/98-09-01	VIO	Inadequate Instrument Checks and Observations Procedure (Section O8.1).
50-296/98-09-02	EEL	Failure to Follow Surveillance Procedure (Section M1.3).
50-260,296/98-09-03	EEL	Surveillance Procedure Results in Both Trains of CREV Being Inoperable (Section M3.1).
50-260,296/98-09-04	EEL	Failure to Establish Procedures to Properly Test CREV System Logic (Section E1.1).

Closed

50-260,296/98-08-01	EEL	Inadequate Instrument Checks and Observations Procedure (Section O8.1).
50-260/1998-004-00	LER	Surveillance Requirement Intent Not Adequately Implemented (Section O8.2).
50-296/1998-004-00	LER	Primary Containment Allowable Leak Rate Exceeded (Section O8.3).
50-296/1998-007-00	LER	Unplanned ESF Following the Loss of 4kV Unit Board 3B (Section O8.4).
50-296/1995-002-00	LER	Diesel Generator Auto Start Due to Personnel Error (Section M8.1).
50-296/1998-006-00	LER	Main Steam Safety/Relief Valves Exceeded the Technical Specifications Set Point Tolerance Due to Pilot Valve Disc/Seat Bonding (Section E8.1).
50-259/1998-003-00 & -01	LER	Containment Atmospheric Dilution Nitrogen Supply Does Not Meet Design Basis (Section E8.2).

Opened and Closed

50-260,296/98-09-05	NCV	Failure to Maintain Proper Controls Over CAD Design (Section E8.2).
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