



UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA STREET, N.W.
 ATLANTA, GEORGIA 30303

Report No.: 50-348/84-32 and 50-364/84-32

Licensee: Alabama Power Company
 600 North 18th Street
 Birmingham, AL 35291

Docket Nos.: 50-348 and 50-364

License Nos.: NPF-2 and NPF-8

Facility Name: Farley 1 and 2

Inspection Conducted: December 11, 1984 - January 10, 1985

Inspection at Farley site near Dothan, Alabama

Inspectors: W. H. Ruland for 1/31/85
 W. H. Bradford Date Signed

W. H. Ruland 1/31/85
 W. H. Ruland Date Signed

Approved by: F. S. Cantrell 1/31/85
 F. S. Cantrell, Section Chief Date Signed
 Division of Reactor Projects

SUMMARY

Scope: This routine, announced inspection entailed 140 inspector-hours on site in the areas of licensee action on previous enforcement matters, monthly surveillance observation, monthly maintenance observation, operational safety verification, independent inspection effort, licensee event report follow-up, action on previously identified items, and onsite followup of events at operating power reactors.

Results: One violation: Inadequate surveillance procedure for chlorine detectors.

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REPORT DETAILS

1. Licensee Employees Contacted

J. D. Woodard, Plant Manager
D. N. Morey, Assistant Plant Manager
W. D. Shipman, Assistant Plant Manager
R. D. Hill, Operations Superintendent
C. D. Nesbitt, Technical Superintendent
R. G. Berryhill, Systems Performance and Planning Superintendent
L. A. Ward, Maintenance Superintendent
L. W. Enfinger, Administrative Superintendent
W. C. Carr, Assistant Operations Superintendent
J. E. Odom, Operations Sector Supervisor
B. W. Vanlandingham, Operations Sector Supervisor
T. H. Esteve, Planning Supervisor
J. B. Hudspeth, Document Control Supervisor
L. K. Jones, Material Supervisor
R. H. Marlow, Technical Supervisor
L. M. Stinson, Plant Modification Supervisor
W. G. Ware, Supervisor, Safety Audit Engineering Review

Other licensee employees contacted included technicians, operations personnel, maintenance and I&C personnel, security force members, and office personnel.

2. Exit Interview (30703)

The inspection scope and findings were summarized during management interviews throughout the report period and on January 11, 1985, with the plant manager and selected members of his staff. The inspection findings were discussed in detail.

3. Licensee Action on Previous Enforcement Matters (92702)

(Closed) Failure to Control Torque Wrench in Spent Fuel Pool Areas
(348/84-23-01)

(Closed) Failure to Control Contractor Services in Spent Fuel Pool
(348/84-23-02).

Based on the licensee's response dated November 27, 1984, and selected inspection of the licensee's corrective action, the above items are closed.

4. Monthly Surveillance Observation (61726)

The inspectors observed and reviewed Technical Specification required surveillance testing and verified that testing was performed in accordance with adequate procedures; that test instrumentation was calibrated; that

limiting conditions were met; that test results met acceptance criteria and were reviewed by personnel other than the individual directing the test; that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel; and that personnel conducting the tests were qualified.

The inspector witnessed/reviewed portions of the following test activities:

FNP-1/2-STP-1.0	Operations daily and shift surveillance requirements
FNP-2-UOP-2.2	Shutdown of unit from hot standby to cold shutdown.
FNP-1-STP-22.11	Auxiliary feedwater pumps A & B LOSP test.
FNP-2-STP-627	LLRT of containment penetrations.
FNP-0-FHP-1.0	Controlling procedure for refueling.
FNP-ARP-R3	Joseph M. Farley Nuclear Plant Unit No. 2 Cycle III-IV, Refueling Procedure.
FNP-1-STP-80.2	1C diesel generator load rejection test.
FNP-1-STP-9.0	RCS leakage test.
FNP-1-STP-33.0	SSPS train B operability test.

Within the areas inspected, no violations or deviations were identified.

5. Monthly Maintenance Observation (62703)

Station maintenance activities of safety-related systems and components were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides, industry codes and standards, and were in conformance with technical specifications.

The following items were considered during the review: limiting conditions for operations were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials were properly certified; radiological controls were implemented; and fire prevention controls were implemented.

Work requests were reviewed to determine the status of outstanding jobs to assure that priority was assigned to safety-related equipment maintenance which may affect system performance. Portions of the following maintenance activities were observed/reviewed:

- Unit 2 LCV-460 repair.
- Diesel generator jacket water cooling pump repair.
- Certain control room instrument maintenance.
- Certain radiation monitoring instrument work in the contro. room and in various parts of the plant.
- Unit 2 containment personnel air lock modification.
- PCN B84-2519, Auxiliary feedwater checkvalve temperature monitoring system installation.

Within the areas inspected, no violations or deviations were identified.

6. Operational Safety Verification (71707)

The inspectors observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the report period. The inspectors verified the operability of selected emergency systems, reviewed tagout records, and verified proper return to service of affected components. Tours of the auxiliary, diesel, and turbine buildings were conducted to observe plant equipment conditions, including fluid leaks and excessive vibrations.

The inspectors verified compliance with selected Limiting Condition for Operations (LCO) and results of selected surveillance tests. The verifications were accomplished by direct observation of monitoring instrumentation, valve positions, switch positions and review of completed logs, records, and chemistry results. The licensee's compliance with LCO action statements were reviewed as they happened.

The following systems and components were observed/verified operational:

- Station electrical boards in the control room and various electrical boards throughout the plant for proper electrical alignment.
- Certain accessible hydraulic snubbers.
- Accessible portions of service water and component cooling water systems.
- Units 1 and 2 suction and discharge piping and valves on auxiliary feedwater system.
- Diesel generators and support systems.
- Certain accessible portions of CVCS piping and valves to and from the charging/high head safety injection pumps.
- Certain portions of RHR and containment spray systems.
- Portions of various other systems (safety-related and non-safety-related).
- Disconnects for certain safety injection valve motor operators.

On December 18, 1984, the inspector found a cigarette butt inside the A train control room recirculation filtration unit just before the high efficiency filter. The cigarette butt had been inside the unit for an unknown time. The inspectors discussed this issue with the licensee during the exit meeting. The licensee agreed to re-evaluate the designation of smoking areas throughout the plant. This is an Inspector Follow-up Item: Smoking Area Re-evaluation (348/364/84-32-02).

On December 18, 1984, at about 1:40 p.m., the inspector noted a discrepancy in the rotometer readings for the shared chlorine detectors. The A and B train chloride detectors had indicated flowrates of 150 and 80 cc/min, respectively. The rotometer float for the A train detector was installed upside down. The technical manual for the chlorine detector, in the Set Flow section, required that the flow through the detector be adjusted to 400-450 cc/min. Flow adjustments were not required by the applicable surveillance procedure, FNP-0-STP-218.2, Chlorine Analyzer Calibration and Functional Test. The chlorine detectors, with their alarm/trip setpoints, are required to be operable by Technical Specification 3.3.3.6 (Units 1 and 2). The chlorine detectors would still have alarmed at the same setpoint; however, the response time would have been slower with the reduced flowrate.

Conclusion of the inspectors:

The surveillance procedure for the chlorine detectors was inadequate. No calibration of detector flowrate was required, contrary to recommendations in the vendor's technical manual. This is a violation: Inadequate Surveillance Procedure for CL Detectors (348/364/84-32-01).

7. Independent Inspection Effort (92706)

The inspectors routinely attended meetings with certain licensee management and observed various shift turnovers between shift supervisors, shift foreman, and licensed operators. These meetings and discussions provided a daily status of plant operating, maintenance, and testing activities in progress, as well as discussions of significant problems.

Within the areas inspected, no violations or deviations were identified.

8. Licensee Event Report Followup (92700)

a. LER 348/83-09 Overtemperature-Delta-Temperature Inoperable

On August 4, 1984, at 5:45 p.m., nuclear instrumentation channel NI-43 was adjusted to reflect newly determined values for output currents corresponding to 100% power.

On August 5, 1984, at 8:14 a.m., NI-43 channel calibration procedure data was reviewed and found that the input potentiometers to the Overtemperature-Delta-Temperature circuit had not been adjusted.

Calculations showed that the incorrect potentiometer settings could have produced Overtemperature-Delta-Temperature trip setpoints less conservative Technical Specification requirements.

On August 5, 1984, at 9:01 a.m., NI-43 bistables were tripped.

On August 5, 1984, at 11:35 a.m., NI-43 potentiometer settings were changed and Overemperature-Delta-Temperature circuit declared operable.

Technical Specification action statements were met in that Table 3.3.1, statement (7) Overtemperature-Delta-Temperature required: With the number of operable channels one less than the total number of channels (3), startup and/or power operation may proceed until performance of the next required channel functional test provided the inoperable channel is placed in the tripped condition within one hour. The Technical Specification requirements were met in this case.

The license states that this event was caused by procedural inadequacy in that different procedures are provided for adjusting NI currents and for Overtemperature-Delta-Temperature calibration. To prevent recurrence of this problem, the procedure for adjusting NI currents will be revised to include steps for adjustment of the Overtemperature-Delta-Temperature pots.

The procedures for Unit 1 were changed.

b. LER-364/84-11 Overtemperature-Delta-Temperature (OTΔT) circuits.

On October 23, 1984, FNP-2-STP-227.8, Nuclear Instrumentation System (NIS) Power Range Channel N43 Calibration and Functional Test, was completed.

On October 23, 1984, the results of STP 227.8 were reviewed and potentiometer settings for the inputs from N43 to the loop 3 OTΔT circuit were found to not meet the requirements of the Technical Specifications.

Investigation revealed that none of the input potentiometers from N41, N42, and N43 to OTΔT channels 1, 2, and 3 had been readjusted following incore-excore cross calibration in January 1984.

The licensee concluded that N41 had one potentiometer which exceeded Technical Specifications limits due to drift; N42 potentiometer settings met Technical Specification requirements; the potentiometer settings for N43 exceeded Technical Specification requirements. This was due to procedural inadequacies and personnel error.

A similar incident had occurred on unit 1 in August 1984 and was reported on LER 348/84-14. At the time the licensee revised unit 2 quarterly calibration procedures to incorporate steps for checking these potentiometer settings. The licensee state that supervisory personnel failed to have all unit 2 potentiometers checked following discovery of the similar problem in unit 1. This resulted in failure to recognize that N43 exceeded Technical Specification requirements on October 10, 1984.

Limited conditions for operation may have been exceeded on channel N43 since the licensee had previous knowledge of the procedure discrepancy on August 5, 1984. Had unit 2 OTΔT potentiometers been checked at that time, channel N43 could have been placed in the tripped condition

within 1 hour accordance with the requirements of the Technical Specifications, as stated above.

The licensee has initiated corrective action to ensure that the latest gain settings are incorporated following incore-excore cross calibration.

This item is an unresolved Item pending further evaluation by the inspectors: OT&T Out Of Calibration (364/84-32-03).

9. Action on Previously Identified Items (92701)

(Closed) Training on Protection of Cable Trays (348/84-10-01). The licensee has incorporated the above training into the annual radiation worker retraining program.

Within the areas inspected, no violations or deviations were identified.

10. Onsite Follow-up of Events (93702)

On December 10, 1984, at 7:32 p.m., unit 2 was manually tripped by the operator upon loss of both main turbine driven feed pumps. The main feed-water pumps tripped on low suction pressure. The low suction pressure was caused by malfunction of the 2A heater drain tank level control system.

The inspectors reviewed the circumstances involved in the incident and, where appropriate, the action taken by licensee management in response to the incident. The licensee's management activities appeared to be both timely and adequate.

Within the areas inspected, no violations or deviations were identified.