



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

Report Nos.: 50-348/84-22 and 50-364/84-22

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: August 16 - September 10, 1984

Inspectors:	<u><i>Ross Butcher for</i></u>	<u>9/24/84</u>
	W. H. Bradford, Senior Resident Inspector	Date Signed
	<u><i>Ross Butcher for</i></u>	<u>9/24/84</u>
	W. H. Ruland, Resident Inspector	Date Signed
Approved by:	<u><i>F. S. Cantrell</i></u>	<u>9/24/84</u>
	F. S. Cantrell, Section Chief	Date Signed
	Division of Reactor Projects	

SUMMARY

Scope: This routine inspection entailed 154 inspector-hours on site in the areas of monthly surveillance observation, monthly maintenance observation, operational safety verification, independent inspection effort, Unit 2 outage, Unit 1 spent fuel storage racks, and action on previously identified items.

Results: No violations or deviations were identified.

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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. S. 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
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, operation personnel, maintenance and I&C personnel, security force members, and office personnel.

2. Exit Interview

The inspection scope and findings were summarized during management interviews throughout the report period and on September 7 and 11, 1984, with the plant manager and selected members of his staff. The licensee acknowledged the findings and took no exceptions.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Monthly Surveillance Observation (61726)

The inspector 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-STP-11.6 - RHR valves inservice test
- FNP-1-2-STP-1 - Operations daily and shift surveillance requirements. Modes 1, 2, 3, and 4; and Unit 2 for Modes 5 and 6.
- FNP-2-ETP-4134 - Steam generator 2B helium leak test.
- FNP-0-STP-80.7 - Diesel generator IC 24-hour load test
- FNP-2-UOP-2.2 - Shutdown of unit from hot standby to cold shutdown.
- FNP-1-STP-19.1 - Reactor cavity dilution and hydrogen mixing system. Train A 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. The following maintenance activities were observed/reviewed:

- 1-B Diesel generator repair
- 2-B Diesel generator air start compressor repair
- 1-B Waste gas compressor repair

Unit 1 turbine driven auxiliary feedwater pump steam supply automatic level drain valve, QZ N12LV3608, actuator removal.

Within the areas inspected, there were no violations or deviations 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 Limited 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 components cooling water systems.
- Units 1 and 2 suction and discharging piping and valves on auxiliary feed water 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 nonsafetyrelated).
- The inspectors reviewed various maintenance work requests to determine that they were completed properly and were in conformance with applicable administrative procedures.

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

7. Independent Inspection Effort (92706)

- a. The inspectors routinely attended meetings with certain licensee management and observed various shift turnovers between shift supervisors, shift foremen, and licensed operators. These meetings and discussions provided a daily status of plant operating and testing

activities in progress, as well as discussion of significant problems or incidents.

- b. The licensee has initiated a housekeeping and plant inspection program. This program requires that every area of the plant be inspected by a first-line supervisor by August 31, 1984. Specific guidance for the inspection included fire doors, fire barriers, lighting, paint, communication equipment, cleanliness, equipment status and condition, valve tagging, equipment tagging, and any item in the plant which requires maintenance.

The inspector reviewed portions of the inspection documentation. The inspections appeared to be comprehensive.

- c. The inspectors interviewed personnel and reviewed drawings and procedures related to the reactor cavity seal and the steam generator nozzle dams. Further review will be conducted prior to the next refueling outage.
- d. The inspectors reviewed selected Farley incident reports to determine compliance with the new Licensee Event Report (LER) rule, 10 CFR 50.73. One event, isolation of both Residual Heat Removal (RHR) trains, may have required the submission of a report.

Both trains of RHR Heat Exchanger (Hx) to reactor coolant system cold leg isolation valves (MOV-8888A&B) were shut for five hours and 43 minutes. The licensee simultaneously prepared both RHR trains for cooldown with $T_{avg} = 380^{\circ}F$. FNP-1-SOP-7.0 requires the operator to place the RHR train(s) in recirculation prior to placing RHR in operation for boron concentration determination. The cold leg isolation valves, which are not automatically actuated by an ECCS signal, were shut as part of the recirculation line-up. A note in SOP-7.0 implied that both trains of RHR could be prepared for cooldown simultaneously. No temperature pressurization existed. Technical Specification 3.5.2 requires that two independent Emergency Core Cooling System (ECCS) subsystems shall be operable with an operable RHR pump, RHR heat exchanger, and an operable flow path. No action statement covers the condition of no operable flow paths. Thus, the licensee's actions were governed by the applicability statement 3.0.3. The licensee immediately aligned the RHR to normal once the abnormal line-up was discovered.

The event may be reportable under 10 CFR 50.73(a)(2)(i) and/or (v). The licensee's Plant Operations Review Committee (PORC) will reconsider the reportability of the event in light of the inspector's questions. Also, the Nuclear Engineering and Technical Support group will re-evaluate the reporting requirement of 10 CFR 50.73(a)(2)(i).

Pending the licensee's re-evaluations, this item is Unresolved* (348/84-22-01). Resolution should occur by November 10, 1984.

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

8. Unit 2 Outage

The licensee began a forced outage on August 31, 1984, to inspect and repair 2B steam generator. On August 31, 1984 Westinghouse informed the licensee that they had conducted an additional review of the data from the eddy current inspection performed during the refueling outage of October 25, 1983 on the 2B steam generator and identified two additional U-tubes in steam generator 2B that exceeded the plugging limit. The Technical Specification action statement for specification 3.4.6 requires that with one or more steam generator(s) inoperable, restore the inoperable steam generator(s) to operable status (plug tubes) prior to increasing Tavg above 200°F. Since the licensee could not comply with the action statement, action was governed by the applicability requirement 3.0.3. This required the licensee to be in hot standby seven hours after notification by Westinghouse (5:40 p.m.).

The licensee requested, via telephone, a 2½ hour extension to be in hot shutdown due to power demands on the grid. A 500Kv line had been overloaded because both Hatch units were off line and Unit 2 was reducing power. Region II, with the concurrence of NRR, verbally granted the requested extension. The licensee reached hot standby at 7:10 p.m.

The licensee plugged the 2 tubes in steam generator 2B that had exceeded the plugging limit. A leaking tube in steam generator 2A was also plugged. Eddy current inspection was performed on steam generator 2B and near the plugged tube in 2A. Unit 2 remained in Mode 5 through the end of the report period. Unit startup is scheduled for Sept. 14, 1984.

The inspectors had no further questions.

9. Unit 1 Spent Fuel Storage Racks (50095)

The licensee has begun to change out Unit 1 spent fuel storage racks with new high density spent fuel storage racks. This will increase Unit 1 spent fuel storage to 1407 fuel assemblies. This work is being accomplished under PCN-81948.

The new racks were fabricated by PAR Systems, St. Paul, Minn. and consist of the following:

- Free standing fuel rack modules - free to move on pool liner floor during seismic event.
- Modules are composed of poison canisters with a bottom grid.

*Unresolved items are matters about which more information is required to determine whether they are acceptable or involve violations or deviations.

- Except for neutron absorber (vented Boraflex) and threaded foot (17-4 PH Alloy) all rack components are 304 stainless steel.

The inspectors observed portions of this work to determine the following:

- Removal of old racks and installation of new racks was preplanned and in accordance with approved procedure.
- Health physics coverage was preplanned and in accordance with approved procedure.
- Radiation levels had been predetermined in the under water work areas.
- The work was controlled and coordinated.
- The personnel involved were qualified.

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

10. Action on Previously Identified Items (92701)

Manual operator for valve Q1N12V001B (348/84-20-04). The manual jacking device did not interfere with the operations of the valve when identified by the inspector. However, licensed operators prevented any subsequent valve movement by incorrect operation of the jacking device during follow-up of the inspector's concerns. The licensee identified the problem during a surveillance test procedure the following day. The licensee has initiated a retraining program on manual valve operation. This item is closed.