UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

Report Nos. 50-348/81-31 and 50-364/81-34

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

Facility Name: Farley Nuclear Plant

Docket Nos. 50-348 and 50-364

License Nos. NPF-2 and NPF-8

Inspection at Farley site near Dothan, Alabama and licensee requested management meeting at the NRC Region II office, Atlanta, Georgia

Inspector: John F. Rogge, for 4/12/82
T. A. Peebles Date Signed

Approved by: Dwight H. Brownlee 4/12/82
V. L. Brownlee, Section Chief, Division of Resident and Reactor Project Inspection Date Signed

SUMMARY

Inspection on December 26 - January 4, 1982 and management meeting on January 26, 1982

Areas Inspected

This special announced inspection involved 36 inspector-hours on site in the area of control of valve line-ups and twenty hours during the management meeting on January 26, 1982.

Results

Of the one area inspected, one violation was found (Inadequate procedure - paragraph 5).

DETAILS

1. Persons Contacted

Licensee Employees

**R. P. McDonald, Vice President, Nuclear Generation
**O. D. Kingsley, Manager, Nuclear Engineering and Services
**R. L. George, Superintendent of Nuclear Licensing and Design
**D. E. Mansfield, Startup Superintendent
***W. G. Hairston, Plant Manager
*J. D.Woodard, Assistant Plant Manager
***D. N. Morey, Operations Superintendent
*R. S. Hill, Operations Supervisor
*W. D. Shipman, Maintenance Superintendent
*C. Nesbitt, Technical Superintendent
L. Williams, Training Superintendent
R. G. Berryhill, Systems Performance and Planning Superintendent
L. A. Ward, Planning Supervisor
M. W. Mitchell, Health Physics Supervisor
J. Odom, Operations Sector Supervisor
R. Bayne, Chemistry Supervisor
T. H. Esteve, Operations Section Supervisor

Other licensee employees contacted included 4 technicians, 24 operators, 6 mechanics and 3 office personnel.

Contract Personnel

L. E. Conway, Westinghouse
W. S. Broson, Westinghouse
K. Ruben, Westinghouse
N. M. Howard, Betchel

*Attended the site exit interview
**Attended the Management meeting on January 26, 1982
***Attended both side and management meetings

2. Exit Interview

The inspection scope and findings were summarized on January 4 and 26, 1981 with those persons indicated in paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Inspection of Control of Valve Line-ups

On December 26, 1981, an operator observed that the manual isolation valve from the spray additive tank was locked in the closed position which disabled the spray additive system. A shift foreman was notified and the valve was opened and re-locked. The licensee then began an investigation to determine the cause. A valve line-up of the containment spray system was performed on December 26 with no discrepancies found.

a. Corrective Actions Inspected

On December 28, a valve verification of accessible locked valves was accomplished for the safeguards systems. On December 29, the licensee verified valve line-ups in accessible areas on the RHR system and the diesels. On December 30, the licensee finished valve check lists on high head safety injection; post LOCA depressurization; auxiliary feed water and penetration filtration systems, in accessible areas. No valve line-up discrepancies were found. The inspector witnessed portions of all of the valve line-ups and independently verified valve positions throughout the period of December 26, thru December 31 with no valve line-up discrepancies found.

On December 30, the inspector reviewed the results of the licensee's security review and agreed there were no substantive findings.

b. Conclusions of the Resident Inspector

The spray additive system was not operable when the reactor was in mode one in that on December 26, 1981, the manual isolation valve from the spray additive tank was found locked closed which disabled both trains of spray addition. The time period that this system was inoperable is not known.

The last documented manipulation of the valve was September 24 per surveillance procedure FNP-2-STP-16.7 which did not require verification of the as-left valve position.

The resident inspector verified the valve as being locked open on his walk downs of the containment spray systems on October 13, November 12 and November 23.

Locked valve positions are not required to be periodically checked by technical specifications and are not verified except when manipulated. Consequently operators do not lock at locked valve positions during routine operations.

Locked valve key control is specified by procedure (FNP-0-SOP-0) General Instructions to operations Personnel. This procedure was not adequate in that;

(1) Strict valve key control was nonexistent as evidenced by valve key usage not being consistently logged and the key cabinets were not controlled.

(2) A master key to Unit 2 locked valves was available on the unit two shift supervisor's key ring which was not rigidly controlled.

This is a violation (Violation 50-348/81-31-01 and 50-364/81-34-01)

c. Significance of Valve Being Closed.

The Final Safety Analysis Report Chapters 6 and 15 relate to the spray additive system. During a Loss of Coolant Accident the addition of sodium hydroxide to the containment spray is to mitigate the corrosion of the mechanical equipment in the containment and to enhance the removal of iodine from the containment atmosphere. Therefore, a system designed to mitigate the effects of a serious safety event has been impaired.

d. Management Meeting of January 26, 1982

A meeting was held in Region II on January 26, 1982, between Alabama Power Company (APCO) and NRC II. The meeting was requested by APCO to review the containment spray system spray additive isolation. The licensee presented evaluations concerning site boundary doses resulting from the worst case postulated LOCA with the containment spray system spray additive tank not available.

The calculation case and resultant two-hour thyroid dose at the site boundary indicates a dose of 320 rem utilizing the standard FSAR analysis with no spray addition but actual measured containment leakage rates. When utilizing the Standard Review Plan Analysis with no spray additive but actual measured containment leakage rates, with credit taken for operator action at 30 minutes to initiate additive injection the resulting dose is 170 rem.

Additionally, the licensee concluded that based on actual site meteorological data; the 10 CFR 100 site boundary dose limit would not have been exceeded had the worst postulated LOCA occurred when spray additive was not available. Their position is predicated upon the actual Farley Unit 2 containment leakage rates but is not dependent upon timely operator action to correct the spray additive deficiency.

Region II concurs with the licensee that operator action within 30 minutes is appropriate in that there is containment spray addition flow indication in the control room which is required to be checked by the emergency procedures and the manual valve is readily accessible during accident conditions.