



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

Report Nos.: 50-335/84-34 and 50-389/84-40

Licensee: Florida Power and Light Company
 9250 West Flagler Street
 Miami, FL 33102

Docket Nos.: 50-335 and 50-389

License Nos.: DPR-67 and NPF-16

Facility Name: St. Lucie 1 and 2

Inspection Conducted: December 16, 1984 - January 19, 1985

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| Inspectors: | <u>Kenneth M Jensen for</u> | <u>31 Jan 85</u> |
| | C. D. Feierabend, Senior Resident Inspector | Date Signed |
| | <u>Kenneth M Jensen for</u> | <u>31 Jan 85</u> |
| | H. E. Bibb, Resident Inspector | Date Signed |
| Approved by: | <u>S. A. Elrod</u> | <u>1 Feb 85</u> |
| | S. A. Elrod, Section Chief | Date Signed |
| | Division of Reactor Projects | |

SUMMARY

Scope: This routine resident inspection involved 172 resident inspector-hours onsite in the areas of plant operation, surveillance, observation, maintenance observation, IE Bulletins, IE Circulars, reactor trips, actions on previously identified items and cold weather preparation.

Results: No violations or deviations were identified during this inspection period.

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REPORT DETAILS

1. Licensee Employees Contacted

C. M. Wethy, Plant Manager
J. H. Barrow, Operations Superintendent
T. A. Dillard, Maintenance Superintendent
C. Burton, Acting Operations Supervisor
N. G. Roos, Quality Control Supervisor
R. J. Frechette, Chemistry Supervisor
C. F. Leppla, Instrument & Control Supervisor
R. R. Jennings, Technical Department Supervisor
C. A. Pell, Reactor Engineering Supervisor
H. F. Buchanan, Health Physics Supervisor
J. G. West, Security Supervisor
J. Barrow, Fire Prevention Coordinator

Other licensee employees contacted included nuclear plant supervisors, assistant nuclear plant supervisors, construction craftsmen, technicians and office personnel.

2. Exit Interview

The resident inspectors conducted interim interviews with licensee management during the inspection period and held an exit interview at the conclusion of the inspection. The inspector discussed the scope of the inspection and his findings with the licensee.

Persons indicated with an asterisk (*) in paragraph 1 above attended one or more of the interviews.

3. Unresolved Items

Unresolved items were not identified during this inspection.

4. General

Both units operated at power throughout the inspection period except for the shutdowns described in paragraph 10.

NRC consultant Gary Forster was on site January 7 and 8, obtaining information for input to a computer code for calculating plant heat balance.

5. Operational Safety Verification

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the report period. The inspector verified the operability of selected emergency systems

reviewed tagout records and verified proper return to service of affected components. Tours of the reactor, auxiliary and turbine buildings were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector, by observation and direct interview, verified that the physical security plan was being implemented in accordance with the station security plan.

The inspector conducted a hand-over-hand walkdown of the operating valve alignment for the Unit 1 Component Cooling Water System in accordance with OP 1-0310020, Rev. 18, Component Cooling Water Normal Operation. One minor discrepancy was noted in the procedure - valve V-14101, CCW makeup from fire protection system, was specified "Closed" but should be "Locked Closed" as identified in Administrative Procedure 1-0010123, Rev. 43, administrative control of valves, locks and switches. The valve was closed and locked. The procedural discrepancy was identified to the licensee for correction.

6. Maintenance Observation

Station maintenance activities of selected safety-related systems and components were observed/reviewed to ascertain that they were conducted in accordance with requirements. The following items were considered during this review: the limiting conditions for operations (LCO) were met, activities were accomplished using approved procedures, 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 used were properly certified; and radiological controls were implemented as required. Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety-related equipment maintenance which may affect system performance.

7. Surveillance Observation

During the inspection period, the inspector verified plant operations in compliance with at least sixteen different technical specifications (TS) requirements. Typical of these were confirmation of compliance with the TS for reactor coolant chemistry, refueling water tank level, containment pressure, control room ventilation and AC and DC electrical sources. The inspector verified that testing was performed in accordance with adequate procedures, test instrumentation was calibrated, LCO were met, removal and restoration of the affected components were accomplished, test results met requirements and were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel. Several scheduled surveillances by plant personnel were observed by the inspector and no problems were noted.

8. IE Circulars

(Closed Unit 2) IE Circular 79-12 Potential Diesel Generator Turbo Charger Problem.

This problem was identified as applicable to Unit 2 and was addressed in the modifications completed during the first refueling outage.

9. IE Bulletins

(Open Unit 2) IEB 79-24 Frozen Lines.

The licensee has completed installation of insulation on the affected lines, however the associated plant change modification (PC/M) 128/284 has not yet been closed.

10. Reactor Trips

a. Unit 2

At 11:54 p.m. on December 18 Unit 2 was at 50% power for cleaning of condensate strainers. The "A" condensate and main feedwater (MFW) pumps were running and the "B" pumps were secured. Operators were preparing to put the "B" condensate pump back on line. Upon opening the "B" pump casing vent and strainer vent to the condenser, a large slug of air was sucked into the "A" condensate pump casing and was fed to the "A" main feedwater pump suction, tripping the MFW pump on low suction pressure. All three condensate pump strainer and casing vents tie to a common header, back to the main condenser, and their respective isolation valves are normally open when at power. The "B" MFW pump auto started and its isolation valve began to drive open, but the associated isolation valve breaker tripped open on overcurrent before the valve was open. An attempt was made to restart the "A" MFW pump, but the reactor tripped on low steam generator level before this could be done.

The unit was brought back critical on December 19 and was holding at 50% power for secondary chemistry when a slow loss of condenser vacuum was noticed. The leak was located at a cracked pipe in a condensate pump recirculation line and the unit began to decrease power in order to fix the leak. At about 100 MWE, the recirculation line separated, causing a turbine trip from loss of vacuum and resulting reactor trip from loss of load.

b. Unit 1

At 10:24 a.m. on December 19, 1984, Unit 1 was at 100% power and performing maintenance on the "B" diesel generator (D/G). The D/G breaker was being racked out for inspection when its closing spring

actuated (the cause is under review), closing the breaker and putting the D/G on a live vital bus as a motor. The electrical system began a sequence of separations ultimately resulting in loss of the "B" main feedwater pump and a reactor trip on low steam generator level. The transient caused several minor problems which extended the time required to recover and come back to power. The unit returned to power at 4:22 pm on December 21.

11. Licensee Action on Previously Identified Inspector Followup Items (IFI)

- a. (Closed Unit 1) IFI 335/80-36-01 Followup of Long Term Corrective Action for Main Steam Isolation Valve (MSIV) Bypass Valve Modification.

Inspector followup determined that the licensee had initiated a design change to specify a different material for the valve stem, and has procured the new stem. The licensee plans to replace the stems upon failure. The inspector discussed the status with plant technical and Quality, Assurance personnel. The licensee concurred that PC/M 172-80 should reflect the current status of the valves, and changed the scope of the PC/M to show "replaced upon failure", PC/M 172-80 will remain open until both the valves have been changed out.

- b. (Closed Unit 1) IFI 335/81-16-03 Off Normal Procedures to Lead Operators to Emergency Plan When Appropriate.

The inspector reviewed licensee off normal operating procedure No. 0120031, Excessive Reactor Coolant System Leakage, Revision 8, and confirmed that operators were led to the Emergency Plan Implementing Procedure (EPIP) 3100021E as necessary.

- c. (Closed Unit 2) IFI 389-82/34-02 Followup Effect of Errors in Final Safety Analysis Report (FSAR) Table 13.1 Revision 7.

FSAR Amendment 14 deleted the table and now states that the licensee organization is outlined in Plant Technical Specification 6.0, Administrative Controls. This eliminates the necessity to periodically amend the FSAR to keep information current.

- d. (Closed - Unit 2) IFI 389-82/72-05 Results From Capability Test FE-55, SR-89/90.

This item was reviewed during a subsequent inspection (Report No. 389/84-34) and will be followed as new item No. IFI 389/84-34-03.

- e. (Closed - Unit 2) IFI 389/84-37-03 Engineered Safety Feature (ESF) Integrated Test Results Evaluation.

The licensee evaluated the reporting criteria of NUREG-1022 and determined that the three components which did not start during the ESF integrated test did not meet the reporting requirements due to the

pre-startup nature of the testing. The inspector reviewed the licensee's evaluation and concurred in their finding.

- f. (Closed - Unit 2) IFI 389/83-69-03 Possible Interior Corrosion. This item is closed based on continuing daily tours by the resident inspector which indicate an on-going effort by the licensee to monitor and correct small leaks as they develop.

12. Cold Weather Preparations

The inspector confirmed that the licensee had taken appropriate actions to protect important and safety related instruments and sensing lines from freezing.