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

Report Nos.: 50-335/84-15 and 50-389/84-17

Licensee: Florida Power and Light Company
9250 West Flagler Street
Miami, FL 33101

Docket Nos.: 50-335 and 50-389

License Nos.: DPR-67 and NPF-16

Facility Name: St. Lucie Units 1 and 2

Inspection Date: May 13 - June 9, 1984

Inspection at St. Lucie site near Ft. Pierce, Florida

Inspectors: Kenneth M Jenison for
C. D. Feierabend — 28 June 84 Date Signed

Kenneth M Jenison for
H. E. Bibb — 28 June 84 Date Signed

Approved by: S A Elrod
S. A. Elrod, Section Chief
Division of Reactor Projects — 29 June 84 Date Signed

SUMMARY

Scope

This routine resident inspection involved 170 resident inspector-hours on site in the areas of plant operation, surveillance observation, maintenance observation, I.E. Circulars, Licensee Event Reports, calibration, and previously identified items.

Results

No items of noncompliance or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Lincsee Employees

C. M. Wethy, Plant Manager
J. H. Barrow, Operations Superintendent
T. A. Dillard, Maintenance Superintendent
D. A. Sager, Operations Supervisor
N. G. Roos, Quality Control Supervisor
R. J. Frechette, Chemistry Supervisor
C. F. Leppla, Instrument and Control Supervisor
R. R. Jennings, Technical Department Supervisor
C. A. Pell, Reactor Engineering Supervisor
H. F. Buchanan, Health Physics Supervisor
J. Barrow, Fire Prevention Coordinator
R. Storke, Nuclear Plant Supervisor
L. W. Pearce, Nuclear Plant Supervisor
M. Altermatt, Nuclear Plant Supervisor
K. C. Wiecek, Nuclear Plant Supervisor
F. G. Davis, Nuclear Plant Supervisor
G. Regal, Assistant Plant Superintendent-Electrical
C. Wilson, Assistant Plant Superintendent-Mechanical

Other licensee employees contacted included technicians, operators, shift technical advisors, security force members, and office personnel

2. Exit Interview

The inspectors attended entrance and exit interviews conducted by Region II inspectors, K. Davenport, A. Tillman, J. Wray, P. Stoddart, and B. Crowley.

The inspectors conducted interim interviews during the inspection period and conducted an exit interview at the conclusion of the inspection. The inspector discussed the scope of the inspection and stated that no violations or deviations were identified.

3. Licensee Action on Previous Enforcement Matters

a. (Closed - Unit 1) Violation 335/82-36-01: Use of Unqualified Gauges on Diesel Generator Soak-Back Oil Pump Discharge. Subsequent inspections have confirmed that adequate administrative measures are in place to prevent inadvertent use of the gauges.

b. (Closed - Unit 1) Unresolved Item 81-02-14: Failure to Maintain Records of the Operating Cycles for Technical Specification (TS), Table 5.9.1. The inspector reviewed licensee administrative procedure No. 0010134, Rev. 1, which requires notification of the technical staff, technical staff review and evaluation and documentation.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. General Status

Unit 1 was back on line May 16 after replacement of a reactor coolant pump seal. Unit 2 continued full power operation throughout the inspection period.

Region II based inspectors completed inspections in the areas of security, health physics, radioactive waste management and effluent treatment, and power ascension testing and inservice inspection during this reporting period.

6. 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.

No violations or deviations were identified in this area.

7. Annual Maintenance Observation (62700)

The annual maintenance inspection procedure was conducted during this monthly inspection period to determine whether maintenance activities on safety-related systems and components were conducted in accordance with approved procedures, regulatory guides, industry codes or standards and in conformance with TS requirements.

The following plant procedures and work orders were reviewed for technical adequacy, fire protection, cleanliness, inspection hold points, proper approval, testing, radiological hazards, properly qualified parts, quality control records, use of qualified personnel, and proper restoration to service:

Procedures

AP-0010431, Revision 4, Preventive Maintenance Program
AP-0010432, Revision 24, Plant Work Orders

AP-0010437, Revision 14, Schedule of Mechanical Maintenance Surveillance Requirements
M-008, Revision 7, Reactor Coolant Pump Seal Removal
M-0018, Revision 10, Mechanical Maintenance Safety-Related Preventive Maintenance Program

Plant Work Orders (Unit 1)

0349 1A ICW Pump - Excessive Vibration
1025 1A MSIV (I-HCV-08-1A) - Repack
1057 1C AFW Pump Discharge Valve (1-V-9139) - Five Year Preventive Maintenance Inspection
1069 1C AFW Pump Throttle Valve (1-MV-08-3) - Five Year Preventive Maintenance Inspection
1070 1C AFW Pump and Governor Valve - Five Year Preventive Maintenance Inspection
1947 1B Diesel Generator Airline Strainer - Clean and Inspect
2081 1B Charging Pump Lube Oil Change - Routine Preventive Maintenance
3540 Containment Personnel Airlock - Inspect, Repair, Test
3559 Safety Injection Tank Isolation Valves Limitorque Operators - Preventive Maintenance
3604 Safety Relief Valve V-14329, Containment Cooler Return Line - Repair

Completed copies of the above work orders were reviewed for compliance with the above listed attributes.

No violations or deviations were identified in this area.

8. Monthly 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. The inspector personally observed portions of work performed on Unit 1 charging pump accumulators and a Unit 1 condensate pump.

No violations or deviations were identified in this area.

9. Surveillance Observation

During the inspection period, the inspector verified plant operations in compliance with at least sixteen different TS requirements. Typical of

these were confirmation of compliance with the TS for reactor coolant chemistry, refueling water tank, 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, tests 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. The inspector personally observed portions of the following surveillances:

I&C 1-1400050, Revision 27 - Reactor Protection System - Monthly Functional Test

I&C 2-1400052, Revision 5 - Engineered Safeguards Actuation System Functional Test

10. Calibration (56700)

The inspector conducted the annual calibration inspection procedure to ascertain whether the calibration of components and equipment associated with safety-related systems and/or functions is in conformance with the requirements of the TS and approved guides and standards.

Utilizing the licensee's calibration program as described in the references, the inspector verified that selected instruments and measuring and test equipment (M&TE) had received proper calibration according to the following criteria:

- For completed calibrations, documentation was complete, acceptance criteria met, proper revision used, and calibration conducted by qualified individuals
- For calibration procedures, reviews are as required by TS, controls are established to meet LCO, equipment is returned to service, calibration equipment is traceable, and acceptance values are within required limits
- For M&TE, equipment is controlled by site procedures, calibration frequency is maintained, storage of equipment is proper, and accuracy is traceable to the National Bureau of Standards or other independent testing organization.

No violations or deviations were identified in this area. However, a recent inspection conducted by Region II based inspectors did identify a violation related to the licensee's calibration program. This is described in Inspection Report 335/84-17 and 389/84-14.

11. Licensee Actions on Previously Identified Items

a. (Closed - Unit 1) 335/RI-82-01, Power Source for Low Range Pressurizer Pressure from Inverter.

The inspector confirmed that licensee PCM 82-072-1 had been completed, changing the power source to the inverter.

b. (Closed - Unit 1) IFI 335/80-27-01, Install Suction Stabilizers on Each Charging Pump.

The inspector confirmed that license PCM 76-138-1 had been completed, installing the suction stabilizers.

c. (Closed - Unit 1) IFI 335/82-03-04, Identification of Frequency of Calibration of Installed Safety-Related Instrumentation. Review of I&C Procedure 1-1400064, Revision 22, installed plant instrumentation calibration, verified that the periodicity of calibration (including allowable extension time) has been defined in the procedure.

d. (Closed - Units 1 and 2) IFI 335/82-41-02 and 389/82-36-02. Barton Model 763 and 764 Electronic Transmitter Thermal Non-Repeatability. This item is closed based on the inspector's review of Ebasco letter to FP&L Serial P-O-SL-84-029 dated January 9, 1984, which recommended no modification to St. Lucie Unit 1 transmitters as the present accuracy is acceptable for their intended function. St. Lucie Unit 2 transmitters were field modified by the vendor in February 1983, prior to the recent study.

e. (Closed - Unit 1) IFI 335/81-08-36, Facility Review Group (FRG) Review of All Technical Specification Violations Identified by Audits.

The inspector reviewed licensee administrative procedure No. 0010520, Rev. 11, which requires FRG review of all TS violations.

f. (Closed - Unit 1) IFI 335/81-25-01, Licensee to Evaluate Integrated Engineering Safeguards Functional (ESF) Test.

The inspectors observed satisfactory completion of the most recent Unit 1 ESF test prior to restart.

g. (Closed - Unit 1) IFI 335/80-36-02, Emergency Diesel Generator Timing Relay Drift.

Integrated ESF test demonstrated satisfactory timing relay performance.

h. (Closed - Unit 1) IFI 335/81-08-02, Training Program for General Employees

(Closed - Unit 1) IFI 335/81-08-07, On-The-Job Training.

(Closed - Unit 1) IFI 335/81-08-11, Procedure for Training Non-Operating Staff.

Licensee training was found to be satisfactory in these areas during a recent training inspection (Report No. 335/84-09).

i. (Closed - Unit 1) IFI 335/81-08-31, Storage of Material.

A recent inspection of receipt, storage, and handling of equipment and materials was satisfactory. (Report No. 335/84-09)

j. (Closed - Unit 1) IFI 335/82-03-05, Adequacy of Five-Year Recalibration Period for Electrical Panel Meters. The licensee reviewed records of the last recalibration and found only about 15 meters requiring adjustment out of about 250 meters checked. This appears to be adequate justification to maintain the five-year periodicity.

k. (Closed - Units 1 and 2) IFI 335/83-23-01 and 389/83-47-04 - 10 CFR 50.59, Review of New Procedures.

The inspector reviewed Revision 25 of licensee procedure QI 5-PR/PSL/1 and confirmed that the prescribed procedure change process included requirements of 10 CFR 50.59.

12. Licensee Event Reports Review

The following LERs were reviewed to verify that reporting requirements had been met, causes had been identified, corrective actions appeared appropriate, generic applicability had been considered, and the LER forms were completed. Additionally, for those reports identified by asterisk, a more detailed review was performed to verify that the licensee had reviewed the events, corrective action had been taken, no unreviewed safety questions were involved, and violations of regulations or TS conditions had been identified.

a. Unit 2 (50-389)

LER NO.	SUBJECT
*83-29	Auxiliary Feedwater Pump Overspeed Trip See LER 84-04 below.
83-30	Spurious Initiation of Timing for Reactor Coolant Pump Trip.
83-68	Fire Doors Found Open.
83-69	Control Element Assembly Dropped.

83-70	Feedwater Isolation Valve Inoperable.
83-71	Leaks on 2B Charging Pump Discharge Valve.
83-72	Equalizing Valve Flange Bolts Loose.
*83-73	Outer Door on Escape Hatch Opened, Seal Test Not Completed Within 72 Hours.
83-74	Plant Data Processing Computer and Its Backup Failed.
83-75	Fire Doors Open.
83-76	Fire Detection System Computer Failed.
*83-77	2B Diesel Generator Failed to Start.
84-01	Turbine/Reactor Trip - Generator Ground.
*84-02	Mode Changes with Inoperable Equipment.
*84-03	Turbine/Reactor Trip-High Steam Generator Water Level.
*84-04	Reactor Trip - Low Steam Generator Water Level.

This event identified two problems requiring corrective action.

(1) The 2C Auxiliary Feedwater Pump tripped due to transients on a power supply for the overspeed trip. This apparently was the cause for LER 83-29 AFW pump overspeed trip.

(2) A main steam safety valve did not fully close because of a missing cotter pin. This was described further in IE Information Notice No. 84-33.

b. Unit 1 (50-335)

LER NO.	SUBJECT
83-24	Nuclear Instrumentation Fission Chamber Failures.

The licensee replaced all four detectors prior to restart of the reactor. The licensee plans to update the LER when additional information is received from the vendor.

*83-28 Missed surveillance.

12. IE Circulars

(Closed - Unit 2) IEC 79-22, Stroke Times for Power Operated Relief Valves (PORVs)

The inspector reviewed licensee inservice inspection procedures and confirmed that the tests include measuring stroke time for the PORVs, Units 1 and 2.

13. Regional Office Review

The following items were evaluated by the Reactor Safety, Radiation Safety and Safeguards, and Reactor Projects regional staff. Based on this review and the results of the latest Resident and Region based inspection activities in the affected functional areas, the following items (unresolved, UNR; inspector followup, IFI; violations, SL±) were determined to require no additional specific NRC followup and are closed:

Unit 1

IFI 80-35-04	Licensee evaluated need for formal TP for NPS in accordance with ANS 3.1 dated December 79 (82110; 82290).
UNR 82-22-02	Proper operational personnel not informed when work activities were being performed.
IFI 82-45-01	Followup on possible damage of flamastic to stainless steel.
IFI 81-07-01	Licensee to provide power receptcles for NRC vehicle.
IFI 81-07-04	Licensee to investigate techniques to improve accuracy of radioiodine measurements.
IFI 80-20-03	Revised response IEB 79-02 to address factors of safety and analysis of plates with complex bolting patterns (83380).
IFI 81-31-01	Failure to follow pipe HGR inspector procedure (8210).
SL5 81-31-02	Maintenance of corroding pipe hangers.
IFI 82-24-01	Training and examination of temporary QC inspectors.
IFI 82-21-01	Evaluation of restraint design.

IFI 81-CI-08	Foundation Materials (8201).
UNR 81-02-08	Failure to ensure QA program implementation by audit of objective evidence.
IFI 81-08-07	PAB 80-4 Weakness: paragraph 3.8.(2).(R): Failure to develop a program to document and account for on-the-job training.
IFI 81-08-18	PAB 80-4: paragraph 5.b.(25). HQ followup: Questions of using commercial grade items in safety grade equipment.
IFI 81-08-19	PAB 80-4 Weakness: paragraph 5.8.(23) and (28), 9.B.1(f): Evaluation of equipment problems and failures not reportable to NRC Not always documented.
IFI 81-08-20	PAB 81-04 Weakness: paragraph 5.B.1.(22), 6.8.(9): No routine failure or personnel error trending program.
IFI 81-08-23	PAB 80-4 Weakness: paragraph 6.B.(12) & (13): Corporate program for handling of NRC requirement reports and potentially reportable items.
IFI 81-08-34	PAB 80-4: paragraph 8.B.(17): 10 CFR 21 reports sent to plant Vice Corporate Office. Generic problem. IE:HQ will evaluate.

Unit 2

IFI 82-45-02	Corrective action on cable tray over-fill.
IFI 82-46-01	Review accessibility of impulse lines drains and vents.
IFI 82-47-02	Labeled fire doors not provided for battery rooms 2A and 2B in the auxiliary building (83050; 83170).
IFI 82-57-02	Failure to correct finding 2 of audit CQA PSL-82-02 in a timely manner.
IFI 82-57-03	ISI program pumps and valves development.
IFI 82-75-01	Updating FSAR system descriptions.
IFI 82-75-07	Fume Hood air velocities.
IFI 82-05-01	Reevaluate emergency director concept following activation of TSC.
IFI 81-17-01	Qualifications of personnel in the test program not specified in FSAR.

IFI 82-72-02	Evaluation of collection efficiency of charcoal cartridges for organic radioiodine (TEDA-USEOF).
IFI 77-10-01	Hangers and restraints reference FPL Ltr L-77-371 dated 12-8-77 See inspection report 50-335/77-10.
IFI 81-CI-05	Self-aligning rod end bushings for pipe supports.
IFI 82-13-08	Under-sensitive inspections using rol-band clad calibration blocks.
IFI 82-52-01	Installation records.