



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

Report Nos. 50-335/82-15 and 50-389/82-21

Licensee: Florida Power and Light Company
 9250 West Flagler Street
 Miami, FL 33152

Facility Name: St. Lucie Unit 1 and 2

Docket Nos. 50-335 and 50-389

License Nos. DPR-67 and CPPR-144

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

Inspectors:	<u><i>M. B. Shymlock for</i></u>	<u><i>June 10, 1982</i></u>
	S. A. Elrod	Date Signed
	<u><i>M. B. Shymlock for</i></u>	<u><i>June 10, 1982</i></u>
	H. E. Bibb	Date Signed
Approved by:	<u><i>C. Julian</i></u>	<u><i>June 11/82</i></u>
	C. A. Julian, Section Chief, Division of Project and Resident Programs	Date Signed

SUMMARY

Inspection on April 11 - May 14, 1982

Areas Inspected

This routine, inspection involved 199 resident inspector-hours on site in the areas of Plant Operations, Surveillance, Maintenance, Procedures, Bulletins, Reactor Coolant System Leakage, Fire in radiation controlled area, and Licensee action on previous inspection findings and inspector followup items.

Results

Of the nine areas inspected, no violations or deviations were identified in 8 areas; one apparent violation was found in one area (Inadequate Procedure - Paragraph 5).

DETAILS

1. Persons Contacted

Licensee Employees

- *C. M. Wethy, Plant Manager
- J. H. Barrow, Operations Superintendent
- J. E. Bowers, 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
- P. L. Fincher, Training 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
- O. D. Hayes, Nuclear Plant Supervisor
- L. W. Pearce, Nuclear Plant Supervisor
- N. D. West, Nuclear Plant Supervisor
- C. L. Burton, Nuclear Plant Supervisor
- M. B. Vincent, Assistant Plant Superintendent - Electrical
- T. A. Dillard, Assistant Plant Superintendent - Mechanical
- *A. W. Bailey, Quality Assurance Supervisor
- *B. J. Escue, Site Manager
- *N. T. Weems, Assistant Manager QA -PSL
- E. W. Sherman, QA Engineer
- *G. E. Crowell, Site Engineering Supervisor
- G. J. Boissy, Startup Superintendent

Other licensee employees contacted included construction craftsmen, technicians, operators, mechanics, security force members and office personnel.

Other Organizations

Ebasco, Mr. George Wood

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on May 14, 1982, with those persons indicated in paragraph 1 above. For Unit 2, the applicant confirmed that previously conducted hydrostatic tests were to be evaluated for possible damage caused to adjacent portions of systems not protected by safety valves.

3. Licensee Action on Previous Inspection Findings

(Closed-Unit 1) Unresolved Item 335/81-18-04 "Operation of Equipment with Quality Control Hold Tags Attached."

Subsequent investigation showed that a system to control "hold" material existed but that the mechanism for conditional release wasn't clearly visible. The inspector reviewed QI 10-PR/PSL-1 Revision 6, QI 14-PR/PSL-1 Revision 5, and QI 16 PR/PSL-1 Revision 9. The process for conditional release of "hold" material is now clearer.

4. Unresolved Items

Unresolved items were not identified during this inspection.

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 observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. The inspector walked down the accessible portions of containment spray system to verify operability. During the walkdown, the inspector noted a valve with a lock and chain draped around the valve bonnet but not locked through the hand wheel as required by Administrative Procedure 0010123, Administrative Control of Valves, Locks and Switches. The position of the valves listed in this procedure is verified once per quarter. However, when a plant equipment clearance is issued to reposition one of these valves to accomplish needed repair (as was the case with this valve, V-7166; opened to drain a header to repair an adjacent valve bonnet leak), there is not written, positive means to assure that the valve is repositioned and "locked" closed. Operating Procedure 0010122, In-Plant equipment Clearance Orders addresses itself to assuring that the valve is returned to its correct position, but does not mention verifying that locks and chains are rehung where required. This constitutes a violation (50-335/82-15-01) of failure to implement the procedure for locking safety-related valves in their required position.

6. Surveillance Observation

During the inspection period, the inspector verified plant operations compliance with at least sixteen different technical specification requirements. Systems observed included refueling water tank, containment spray, diesel generators, reactor coolant system leakage, chemistry, pressure/temperature limits, and others.

The inspector reviewed operating procedure 0120051, Rev. 6, Reactor Coolant System Flow Verification by Calorimetrics, for completeness, technical accuracy, approval, etc. Final flow calculation was found to agree with the previous determination within 0.5%. The inspector verified that testing was performed in accordance with adequate procedures, test instrumentation was calibrated, limiting conditions for operation were met, removal and restoration of the affected components were properly 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.

No violations or deviations were identified in this area.

7. Maintenance Observation

- a. Station maintenance activities of safety-related systems and components listed below 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 operation 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 following maintenance activities were observed/reviewed:

On Tuesday, April 20, 1982 the inspector reviewed Plant Work Order No. 7054, which performed work on Pressure Indicator 2208. A gage that senses pressure on the "B" boric acid pump discharge. The sensing line was plugged and the gage indicated no pressure. A heat lamp was placed on the sensing line for one hour and then the 1A and 1B boric acid pumps were run to verify unplugging of the sensing line. Discussions with plant I&C personnel indicate this to be a continuing problem. The main piping is heat traced up to an isolation diaphragm, but the capillary tube from the diaphragm to the gage is exposed and not heat traced.

On Tuesday, April 20, 1982, the inspector conducted an in depth review of Plant Work Order No. 2733 which performed work on the "B" charging pump. No inadequacies were observed.

No violations or deviations were identified in this area.

8. IE Bulletins/Circulars/Information Notices

The following IE Bulletins were reviewed to determine whether they have been received and reviewed by appropriate management, responses, where necessary, were accurate and complete, and that action taken, if required, was complete.

- a. (Closed-Unit 2) IE Bulletin 77-01 - Pnuematic Time Delay Relay Set Point Drift - closed based on review of applicant investigation which shows that the subject relays are not used at St. Lucie Unit 2. Agastat series 7000 relays are used.
- b. (Closed - Unit 2) IE Bulletin 77-02 - Potential Failure Mechanisms in certain Westinghouse "AR" relays with latch attachments. Closed based on applicant investigation which shows that the only AR type relay is used in the turbine seal-oil pump motor starter. That relay is a non-latch model.
- c. (Reopened - Unit 2) IE Bulletin 77-04 - PH of containment sump water following LOCA. Previously closed in report 389/78-04 - reopened pending review by applicant and inspector.
- d. (Reopened - Unit 2) IE Bulletin 77-05/77-05A - Electrical Connector Assemblies. Previously closed in report 389/78-04-reopened pending review by the applicant and inspector.
- e. (Closed - Unit 2) IE Bulletin 77-06, Potential Problems with Containment Electrical Penetration Assemblies. This bulletin was sent to operating plants. A similar bulletin, IEB 77-07, was sent to construction plants. IEB 77-06 is closed as "not applicable."
- f. (Reopened - Unit 2) IE Bulletin 77-08 - Assurance of Safety and Safeguards During an Emergency - previously closed in 389/78-04. Reopened pending security inspection.
- g. (Reopened - Unit 2) IE Bulletin 78-05 - Malfunction of Circuit Breaker Auxiliary Contact Mechanism. Previously closed in 389/79-09. Reopened pending futher applicant reviewed.
- h. (Reopened - Unit 2) IE Bulletin 78-07 - Protection Provided by Air Line Respirators and Supplied Air Hoods. Previously inspected in 389/78-10. Reopened pending health physics inspection.

- i. (Reopened - Unit 2) IE Bulletin 78-08 - Radiation from Fuel Element Transfer Tubes. Previously inspected in 389/78-10. Reopened pending health physics inspection.
- j. (Closed - Unit 2) IE Bulletin 78-10 Bergen - Patterson Shock Suppressor Accumulator Spring Coils. Closed based on FPL investigation and documentation in a memo to file that the subject shock suppressors are not used at St. Lucie Unit 2.
- k. (Closed - Unit 2) IE Bulletin 79-04 Incorrect Weights for Swing Check Valves Manufactured by Velan Engineering Corp. Closed based on review of the applicants reverification that Velan valves are not used at the St. Lucie 2 site. This vendor was removed from the bidders list in 1980. This is an update of inspection report 389/79-09.
- l. (Closed - Unit 2) IE Bulletin 79-25 Failures of Westinghouse BFD relays in Safety-Related Systems. Closed based on the applicant confirming that subject relays were not used and that none are ordered for stores as unit 2 spares. This is an update of inspection report 389/80-03.
- m. (Closed - Unit 2) IE Bulletin 79-27 Loss of Non-Class 1E Instrumentation and Control Power System Bus During Power Operation. Administratively closed because it is specifically addressed in the FSAR at question 420.1. This also incorporates IE Circular 79-02 and Information Notice 79-29.
- n. (Closed) - Units 1 and 2) IE Bulletin (IEB) 81-02 and Supplement 1. Failure of Gate Type Valves to Close Against Differential Pressure.

(Unit 1) The IEB and Supplement are closed based on review of licensee responses and consultation with the Region II cognizant inspector. Licensee responses L-81-204 of May 14, 1981, L-81-432 of October 5, 1981 and L-81-515 of December 7, 1981 show that St. Lucie 1 has one subject valve, however analysis showed that no corrective action was needed.

(Unit 2) The IEB and Supplement are closed based on review of correspondence, procedures and documentation in conjunction with interviews with the responsible engineer who supervised repairs.

Literature reviewed included FPL response L-81-289 of July 14, 1981; 10 CFR 50.55(e) 389/81-002 final report L-81-480 dated November 16, 1981; Nonconformance report 3109 ME dated February 15, 1982; Inspection report ME 820644 with attached valve repair procedure; Westinghouse trip report no. Engineering 81-147.

The licensee and contractors have modified the operators for some twenty eight valves. Control wiring diagrams were changed for those valves requiring position limit rather than torque limit. The

technical manual for the valves has yet to be changed to show the new settings, however the NSSS vendor was aware of this need and was pursuing the change. Construction Deficiency Report 50.55(e) 389/81-002 is also closed.

- o. (Closed - Units 1 and 2) IE Bulletin 82-01 and 82-01 Revision 1. Alteration of Radiographs of Welds in Piping Sub-assemblies. This IEB was sent to St. Lucie for information. This inspector discussed the IEB with other Region II inspectors who had been personally involved with interpretation of radiographs at St. Lucie. Such alterations did not appear to be a problem at St. Lucie.
- p. (Closed - Unit 2) IE Circular 79-02 Failure of 120V Vital Power Supplies. This is an update of inspection report 79-12. This IEC was re-reviewed by the applicant as part of the response to FSAR question 420.1 (IE Bulletin 79-27). This circular is administratively closed based on inclusion in the FSAR.
- q. (Closed - Unit 2) IE Circular 81-06 - Potential Deficiency Affecting Certain Foxboro 10-50 MA Transmitters. - Closed based on applicants findings that they do not use 10-50 MA transmitter systems.
- r. (Closed - Unit 2) IE Information Notice 79-29 Loss of Non-Safety-Related RCS Instrumentation During Operation. Administratively closed because it is included in IEB 79-27.

9. Reactor Coolant System Unidentified Leakage above 1 GPM

The operators observed the reactor cavity in-leakage to increase rapidly about 2:15 p.m. on April 24. Confirming indications included sump level and containment particulate alarms at the alert and high levels. The operators conducted a containment entry and found a leak blowing steam at the location of the pressurizer cubicle. The clouds of steam stopped when spray control valve 1100F was isolated locally. A leak rate calculation confirmed the stopping of the leak. The licensee stated the intention to investigate the problem during an upcoming scheduled outage.

The inspector reviewed this event for both technical and procedural aspects including reporting criteria, procedure adherence, and plant alignment after the event.

No violations or deviation were identified during this event.

10. Fire In Radiation Controlled Area

On April 21, 1982 a small fire was found and extinguished in the radioactive waste drumming room. The inspector attended the critique that same afternoon.

Workmen dismantling a concrete block wall had been cutting rebar with an oxy-acetylene torch. Apparently a piece of hot rebar fell on a piece of polyethylene bagging material, igniting it after a couple of minutes. Workmen had left the area for a break.

The fire was noticed by a HP supervisor who immediately reported it. The fire brigade responded and the fire was extinguished within 5 minutes of notification. There were no injuries, no permanent damage, no release of radioactive materials, and no exposure of personnel. All involved were given whole body counts.

No violations or deviations were identified during this event.

11. Hydrostatic Test Procedures - Unit 2

During this inspection period the inspector reviewed SQP-14 Revision 8, Integrity Testing; Quality Instruction QI 10.78, Revision 1 - Integrity Testing Inspection and interviewed supervising personnel in this area. It was ascertained that SQP-14 did not specify that connected piping and equipment adjacent to but outside hydrostatic test boundaries must be protected from overpressurization. SQP-14 did not require any documentation of this protection. QI 10.78 did not require any inspection of such protection.

At the request of the inspector, Construction Test memo CT-027-82 was issued to clarify SQP 14. The applicant has committed to establish a program to evaluate the some 1200 previous Hydrostatic Tests to demonstrate there was no damage to adjacent portions of systems. At the conclusion of this inspection, the detailed process had not been defined. This will be followed up by the inspector (389/82-21-01).

12. Licensee Action on Previously Identified Items

- a. (Closed - Unit 1) Inspector Followup Item 335/82-05-01. The inspector reviewed Rev. 18 of Operating Procedure 0410021, Safety Injection Tank Normal Operation and noted that four valves, previously identified as "locked closed" had been changed to "closed." These valves have been determined to not require strict administrative control.
- b. (Closed) IFI 335/77-19-01 - Conflicting maximum valve closure times included in Technical Specifications (TS). This item originated from Licensee Event Report 77-38 and resulting TS change request L-79-44. License amendment No. 49 resolves this issue. The inspector had no further questions at this time.
- c. (Closed) IFI 335/80-35-06 - Procedures for review of logs and check lists. This item was reviewed during inspection 82-03 but not specifically addressed in the inspection report. The resident inspectors as well as these involved in 82-03 have not identified review of logs and checklists as an area with performance problems. The inspector had no further questions at this time.