



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
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61 FORSYTH STREET SW SUITE 23T85  
ATLANTA, GEORGIA 30303-8931

March 9, 2000

Florida Power and Light Company  
ATTN: Mr. T. F. Plunkett  
President - Nuclear Division  
P. O. Box 14000  
Juno Beach, FL 33408-0420

SUBJECT: NRC INTEGRATED INSPECTION REPORT 50-335/00-01, 50-389/00-01

Dear Mr. Plunkett:

On February 12, 2000, the NRC completed an inspection at your St. Lucie 1 and 2 reactor facilities. The enclosed report presents the results of that inspection.

During the inspection period, safety-conscious plant operations were observed. Within the scope of the inspection, violations or deviations were not identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be placed in the NRC Public Document Room (PDR).

Sincerely,

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Leonard D. Wert, Chief  
Reactor Projects Branch 3  
Division of Reactor Projects

Docket Nos. 50-335, 50-389  
License Nos. DPR-67, NPF-16

Enclosure: Inspection Report 50-335/00-01, 50-389/00-01

cc w/encl: (See page 2)

FPL

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cc w/encl:  
Rajiv S. Kundalkar  
Plant Vice President  
St. Lucie Nuclear Plant  
6351 South Ocean Drive  
Jensen Beach, FL 34957

Douglas Anderson  
County Administrator  
St. Lucie County  
2300 Virginia Avenue  
Ft. Pierce, FL 34982

R. G. West  
Plant General Manager  
St. Lucie Nuclear Plant  
Electronic Mail Distribution

E. J. Weinkam  
Licensing Manager  
St. Lucie Nuclear Plant  
Electronic Mail Distribution

John Gianfrancesco, Manager  
Administrative Support & Special Projects  
Florida Power & Light Company  
Electronic Mail Distribution

Mark Dryden  
Administrative Support & Special Projects  
Florida Power & Light Company  
Electronic Mail Distribution

J. A. Stall  
Vice President - Nuclear Engineering  
Florida Power & Light Company  
Electronic Mail Distribution

M. S. Ross, Attorney  
Florida Power & Light Company  
Electronic Mail Distribution

William A. Passetti  
Bureau of Radiation Control  
Department of Health  
Electronic Mail Distribution

Joe Myers, Director  
Division of Emergency Preparedness  
Department of Community Affairs  
Electronic Mail Distribution

J. Kammel  
Radiological Emergency  
Planning Administrator  
Department of Public Safety  
Electronic Mail Distribution

Distribution w/encl:  
 K. Jabbour, NRR  
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E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 50-335, 50-389  
License Nos: DPR-67, NPF-16

Report Nos: 50-335/00-01, 50-389/00-01

Licensee: Florida Power & Light (FPL)

Facility: St. Lucie Nuclear Plant, Units 1 & 2

Location: 6351 South Ocean Drive  
Jensen Beach, FL 34957

Dates: January 2 - February 12, 2000

Inspectors: T. Ross, Senior Resident Inspector  
D. Lanyi, Resident Inspector  
G. Warnick, Resident Inspector

Approved by: L. Wert, Chief  
Reactor Projects Branch 3  
Division of Reactor Projects

Enclosure

## EXECUTIVE SUMMARY

### St. Lucie Nuclear Plant, Units 1 & 2 NRC Inspection Report 50-335/00-01, 50-389/00-01

This integrated inspection included aspects of licensee operations, engineering, maintenance, and plant support. The report covers a 6-week period of resident inspection.

#### Operations

- Operator responses to alarms and equipment issues were generally prompt, and there was a high level of awareness of plant conditions. Communications were thorough (Section O1.1).

#### Maintenance

- Maintenance and testing were performed consistent with established work control processes, procedures, and instructions. (Section M1.1)

#### Engineering

- Maintenance Rule implementation addressing the Unit 2 Reactor Protection System (a)(1) category recovery was appropriate (Section E1.1).

#### Plant Support

- The licensee's program to control locked high and very high radiation areas was well implemented. Locked areas were verified daily and keys were appropriately controlled (Section R1.1).

## Report Details

### Summary of Plant Status

Both units operated at essentially full power for the entire report period.

## I. Operations

### **O1 Conduct of Operations**

#### **O1.1 Routine Conduct of Operations Reviews (71707)**

Using Inspection Procedure 71707, the inspectors performed routine reviews of plant operations which included plant tours, shift turnovers, log reviews, response to emergent problems, implementation and interpretation of Technical Specifications, daily meetings, and control room observations. The inspectors noted operator response to annunciator alarms and equipment issues was generally prompt. The operating crew demonstrated a high level of awareness of existing plant conditions and ongoing plant activities.

Operations shift turnover meetings were thorough. Good communications and interactions were observed during the meetings. A questioning attitude was noted on the part of non-licensed operators while discussing plant operation and status issues.

The inspectors observed several non-licensed operators perform their plant tours. The non-licensed operators routinely identified deficiencies and communicated them to the control room. On several occasions, the inspectors questioned the operators on the status of plant equipment, specifically tagged equipment. The operators were knowledgeable of the status of the equipment and overall plant status.

### **O2 Operational Status of Facilities and Equipment**

#### **O2.1 General Tours and Inspections of Safety Systems (71707)**

General tours of safety-related areas were performed by the inspectors to observe the physical condition of plant equipment and structures. In addition, the inspectors conducted specific walkdowns of selected, risk significant safety systems - Unit 1 boration flowpath; both units' vital 125 volt direct current distribution systems, and the Unit 2 Low Pressure Safety Injection System. These systems were verified to be properly aligned and maintained. Several minor deficiencies were noted by the inspectors. The licensee immediately corrected the deficiencies or placed them in their corrective action program.

### **O8 Miscellaneous Operations Issues (92901)**

O8.1 (Closed) Licensee Event Report 50-335/98-002-01: Containment Isolation Signal Bistable in Bypass Results in a Condition Prohibited by Technical Specification. This revision to the Licensee Event Report corrected a typographical error regarding the date of a mode change. The issue was previously discussed in Inspection Report 50-335,389/98-12. No other new information about the event was reported. This item is closed.

## II. Maintenance

### **M1 Conduct of Maintenance**

#### M1.1 Maintenance Work Order and Surveillance Observations (61726, 62707)

The inspectors observed portions of the following maintenance and surveillance activities, including Plant Work Orders (PWO), Operations Procedures (OP), Operations Support Procedures (OSP), and Mechanical Maintenance Procedures (MMP):

- OP 1/2 - 0700050 Auxiliary Feedwater Periodic Test
- OP 2-0410050 High Pressure Safety Injection / Low Pressure Safety Injection Periodic Test
- OP 2-0420050 Containment Spray and Iodine Removal System - Periodic Test
- 1-OSP-100.15 Remote Shutdown Monitoring Monthly Channel Check
- MMP-01.08 Reactor Vessel Surveillance Capsule Preparation for Shipment
- OP 1610020 Receipt and Handling of New Fuel and Control Element Assemblies
- Various PWOs Unit 2 Emergency Core Cooling System Critical Maintenance Management Outage
- OP 2-2200050A 2A Emergency Diesel Generator Periodic Test

The inspectors observed that the maintenance and testing were performed consistent with established work control processes, procedures and instructions. Maintenance supervision and Engineering were closely involved in the work activities. Briefings conducted prior to the initiation of work activities were satisfactorily completed in accordance with Operations procedural guidance. The tasks were performed by knowledgeable workers who actively used applicable work packages and procedures. The inspectors observed that work activities were properly documented.

## III. Engineering

### **E1 Conduct of Engineering**

#### E1.1 Maintenance Rule Aspects of the Unit 2 Reactor Protection System (37551)

The inspector reviewed the work history, applicable condition reports, and system status reports for the Unit 2 Reactor Protection System. Additionally, the inspector spoke with Engineering personnel about the system. Over the last few months, the Unit 2 Reactor Protection System has experienced multiple unrelated failures and significant out of service time. During the last quarter of 1999, three of the four channels exceeded their allowed maintenance rule unavailability goals. The licensee appropriately placed this system into the (a)(1) category of the maintenance rule. The inspector reviewed the recovery plan to address the issues that contributed to the unreliability of the system and found the plan to be reasonable.

**E8 Miscellaneous Engineering Issues (92903)**

- E8.1 (Closed) Licensee Event Report 50-335/1999-008: As Found Cycle 15 Pressurizer Safety Valve Setpoint Outside Technical Specification Limits. This Licensee Event Report described the discovery that two of the three pressurizer safety valves exceeded their Technical Specification setpoints after removal from the plant during the last Unit 1 refueling outage for in-service testing required by Technical Specification 4.4.3. The as found settings for two of the removed safety valves were 3.0 percent high and 4.0 percent low, which were outside the Technical Specification tolerance limit of +/- 1.0 percent. The licensee performed a cause determination and implemented corrective actions for the adverse conditions according to American Society of Mechanical Engineers code requirements. The cause of the failed tests were setpoint drift and mishandling of the valves during removal or transportation. The inspector reviewed the licensee's cause determination and safety analyses and concluded that the licensee's actions, as stated in the Licensee Event Report, were reasonable and complied with Technical Specification requirements. This item is closed.

**IV. Plant Support****R1 Radiological Protection and Chemistry Controls****R1.1 Locked High Radiation Controls (71750)**

The inspector reviewed the licensee's program to control locked high and very high radiation areas, and verified that the licensee was complying with this program. Overall, the program was well implemented. All locked areas were being verified daily, and keys were being appropriately controlled.

**P4 Staff Knowledge and Performance in EP****P4.1 Emergency Preparedness Drill (71750)**

The inspector participated and observed an Emergency Preparedness drill conducted by the licensee on January 26. Generally, the licensee's performance met all of their goals. The inspector observed several emergency response organization performance issues, one of which involved a lack of operator attention to important annunciator alarms in the simulator. These issues were also identified by the licensee and incorporated as critique items. Inspection Report 50-335,389/99-08 contained similar observations regarding operator performance during the previous drill. None of the issues would have caused significant delays in protecting the plant from damage or ensuring public safety. The inspector verified that the licensee had also placed these deficiencies into the corrective action program.

**S2 Status of Security Facilities and Equipment****S2.1 Protected Area Fence Walkdown (71750)**

The inspector performed a routine walkdown of the protected area security fence. The areas observed were found to be in good condition and free of openings in excess of regulatory guidelines. Isolation zones were free of obstructions. Lighting levels were adequate.

## V. Management Meetings and Other Areas

### **X1 Exit Meeting Summary**

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on February 14, 2000. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

### PARTIAL LIST OF PERSONS CONTACTED

#### Licensee

C. Bible, Site Engineering Manager  
 W. Bladow, Maintenance Manager  
 R. De La Espriella, Site Quality Manager  
 W. Guldemon, Operations Manager  
 R. Kundalkar, St. Lucie Plant Vice President  
 C. Ladd, Operations Supervisor  
 W. Lindsey, Training Manager  
 A. Stall, Engineering Vice President  
 E. Weinkam, Licensing Manager  
 R. West, St. Lucie Plant General Manager

Other licensee employees contacted included office, operations, engineering, maintenance, chemistry/radiation, and corporate personnel.

### INSPECTION PROCEDURES USED

IP 37551: Onsite Engineering  
 IP 61726: Surveillance Observations  
 IP 62707: Maintenance Observations  
 IP 71707: Plant Operations  
 IP 71750: Plant Support Activities  
 IP 81700: Physical Security Program for Power Reactors  
 IP 92901: Followup - Plant Operations  
 IP 92903: Followup - Engineering

### ITEMS CLOSED

#### Closed

50-335/98-002-01	LER	Containment Isolation Signal Bistable in Bypass Results in a Condition Prohibited by Technical Specification. (Section O8.1)
50-335/99-008-00	LER	As Found Cycle 15 Pressurizer Safety Valve Setpoint Outside Technical Specification Limits. (Section E8.1)