



FLORIDA POWER & LIGHT COMPANY

July 27, 1977

L-77-238

*Central file*

*50-250  
251*

Mr. Norman C. Moseley, Director, Region II  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
230 Peachtree Street, N.W., Suite 1217  
Atlanta, GA 30303

Dear Mr. Moseley:

Re: RII:MVS  
50-250/77-12  
50-251/77-12

Florida Power & Light Company has reviewed the subject inspection report. There is no proprietary information in the report.

Very truly yours,

*J A De Mastry*  
*fol* Robert E. Uhrig  
Vice President

REU/MAS:pg

Attachment

cc: Robert Lowenstein, Esquire

*B*





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
230 PEACHTREE STREET, N.W. SUITE 1217  
ATLANTA, GEORGIA 30303

JUL 13 1977

In Reply Refer To:  
RII:MVS  
50-250/77-12  
50-251/77-12

Florida Power and Light Company  
Attn: Dr. R. E. Uhrig, Vice President  
of Nuclear and General  
Engineering

P. O. Box 013100  
9250 West Flagler Street  
Miami, Florida 33101

Gentlemen:

This refers to the inspection conducted by Mr. M. V. Sinkule of this office on June 13-17, 1977, of activities authorized by NRC Operating License Nos. DPR-31 and DPR-41 for the Turkey Point No. 3 and 4 facilities, and to the discussion of our findings held with Mr. H. E. Yaeger at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the attached inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were disclosed.

We have examined actions you have taken with regard to previously identified inspection findings. These are discussed in the attached inspection report.

The results of the inspection pertaining to the postulated fuel handling accident discussed in paragraph 11 of the attached report has been referred to NRC Headquarters for review.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the attached inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you believe to be proprietary, it is necessary that you submit a written application to this office requesting that such information be withheld from public

JUL 13 1977

Florida Power and Light Company -2-

disclosure. If no proprietary information is identified, a written statement to that effect should be submitted. If an application is submitted, it must fully identify the bases for which information is claimed to be proprietary. The application should be prepared so that information sought to be withheld is incorporated in a separate paper and referenced in the application since the application will be placed in the Public Document Room. Your application, or written statement, should be submitted to us within 20 days. If we are not contacted as specified, the attached report and this letter may then be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Very truly yours,

*F. J. Long*  
F. J. Long, Chief  
Reactor Operations and Nuclear  
Support Branch

Attachment:

RII Inspection Report Nos.  
50-250/77-12  
50-251/77-12



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
230 PEACHTREE STREET, N.W. SUITE 1217  
ATLANTA, GEORGIA 30303

Report Nos.: 50-250/77-12 and 50-251/77-12

Docket Nos.: 50-250 and 50-251

License Nos.: DPR-31 and DPR-41

Category: C/C

Licensee: Florida Power and Light Company  
P. O. Box 013100  
9250 West Flagler Street  
Miami, Florida 33101

Facility Name: Turkey Point Units 3 and 4

Inspection at: Turkey Point Site, 9 miles east of Florida City,  
Florida and FP&L General Office in Miami, Florida

Inspection conducted: June 13-17, 1977

Inspector: Marvin V. Sinkule

Reviewed by: R. C. Lewis  
R. C. Lewis, Chief  
Reactor Projects Section No. 2  
Reactor Operations and Nuclear Support Branch

7/8/77  
Date

Inspection Summary

Inspection on June 13-17, 1977: (Report Nos. 50-250/77-12; 50-251/77-12)

Areas Inspected: Routine, announced inspection of Unit 4 refueling maintenance; Unit 4 plant operations; Unit 4 pump and valve surveillance program; Unit 3 and Unit 4 reportable occurrences; followup noncompliance items: followup outstanding items; and followup of evaluations of a postulated fuel handling accident analysis. The inspection involved 31 inspector-hours by one NRC inspector.

Results: Of the seven areas inspected, no items of noncompliance were identified.

DETAILS I

Prepared by:

M. V. Sinkule  
M. V. Sinkule, Reactor Inspector  
Reactor Projects Section No. 2  
Reactor Operations and Nuclear  
Support Branch

7/8/77  
Date

Dates of Inspection: June 13-17, 1977

Reviewed by:

R. C. Lewis  
R. C. Lewis, Chief  
Reactor Projects Section No. 2  
Reactor Operations and Nuclear  
Support Branch

7/8/77  
Date

1. Persons Contacted

- J. R. Bensen, Manager, Power Resources, Nuclear, General Office (GO)
- \*H. E. Yaeger, Plant Manager
- \*J. K. Hayes, Plant Superintendent, Nuclear
- \*P. J. White, Plant Superintendent, Maintenance
- \*D. W. Jones, QC Supervisor
- \*M. A. Schoppman, Power Resources Specialist, Licensing (GO)
- \*W. R. Williams, Jr., Assistant Superintendent, Electrical Maintenance
- \*B. C. Kilpatrick, Assistant Superintendent, Mechanical Maintenance
- \*H. M. Ainsworth, Assistant Superintendent, Mechanical Maintenance
- \*J. E. Moore, Superintendent, Nuclear Operations
- \*G. Gotch, Power Resources Specialist (GO)
- \*A. E. Siebe, Assistant Manager of QA-Operatons (GO)
- \*R. J. Spooner, QA Operations Supervisor
- G. E. Liebler, Power Resources Supervisor, Nuclear (GO)
- G. D. Whittier, Senior Licensing Engineer (GO)
- D. W. Haase, Technical Department Supervisor
- A. P. Janelle, Plant Coordinator
- R. E. Dawson, Reactor Engineer

The inspector also talked to and interviewed several other licensee employees, including members of the technical staff.

\*Denotes those attending the exit interview on June 16, 1977

2. Licensee Action on Previous Inspection Findings

(Open) (50-250/77-3 and 50-251/77-3; Item I.A.2) The inspector verified that the corrective action to prevent recurrence had been completed as discussed in FP&L letter of April 18, 1977, and that the event was reviewed and evaluated by the licensee by discussions

with plant personnel and review of records. Specifically the inspector reviewed the following records:

Plant Nuclear Safety Committee (PNSC) meeting minutes dated  
May 25, 1977

Corporate Nuclear Review Board (CNRB) meeting minutes dated  
April 26, 1977

Operating Procedure 16002.5 dated May 25, 1977

Operating Procedure 16002.6 dated May 2, 1977

O.P. 16002.6 incorporates a note on step 4.28 to clarify what changes can be made to the refueling procedure without changing the intent of the procedure. The inspector had informed the licensee during the exit interview that the resolution of this item was complete, however, additional consideration indicates that more review is required. This information was transmitted to the licensee by telephone June 17, 1977.

3. Unresolved Items

77-12/I:1 Implementing Procedures for Valve and Pump Program

The licensee's surveillance program does not insure that the requirements of 10 CFR 50.55a(g) will be met. (paragraph 9)

77-12/I:2 Missing Explosive Plug from 4B Steam Generator

Verification that the entire plug is present in the steam generator tube is not conclusive. (paragraph 10)

4. Exit Interview

A meeting was held on June 16, 1977, with H. E. Yaeger, Plant Manager, and members of his staff (attendees denoted by an asterisk in paragraph 1). Additional discussions were held with H. E. Yaeger by telephone on June 20 and 27, 1977. The scope and results of the inspection concerning the items listed below were discussed.

Missing Steam Generator Tube Plug-paragraph 10  
Main Steam Non Return Valve-paragraph 13  
Implementation of Pump and Valve Program-paragraph 9

Reportable Occurrences - paragraph 8  
Refueling Maintenance - paragraph 6  
Testing of systems prior to startup - paragraph 7  
Followup of noncompliance item - paragraph 2

Discussions were held with G. E. Liebler, Power Resources Supervisor, concerning the postulated fuel handling accident in the containment on June 17, 1977, at the General Office in Miami and by telephone on June 27 and 30, 1977.

5. Other Significant Findings

- a. Plant Status Unit 3 operated at approximately 100 percent during the inspection except for a short outage caused by a problem in the secondary system on June 14, 1977.

Unit 4 was shutdown for refueling during the inspection.

- b. Reportable Occurrence The licensee reported to the inspector onsite on June 16, 1977, that a pin hole leak was discovered in the "B" emergency diesel cooling system radiator on June 10, 1977, during periodic maintenance of the system. This event will be discussed in a FP&L reportable occurrence which is due to be submitted to the NRC by July 8, 1977.

6. Refueling Maintenance (Unit 4)

The inspector reviewed records of three maintenance activities to verify that the procedures used to control the maintenance work have provisions for administrative approvals for removing the system from service and returning it to service; hold points for inspection and signoffs by other licensee personnel; testing following maintenance; assuring that systems are aligned for normal service; removal of jumpers which may be required for maintenance; and reporting deficiencies to management.

The review included the following records:

Maintenance Procedure (MP) 0707.10, Reactor Trip and Generator Output Breakers, Inspection and Maintenance

Administrative Procedure (AP) 103.4, In Plant Equipment Clearance

AP 0190.19, Control of Maintenance on Safety Related Systems.

MP 9407.1, 4160 Switchgear, Periodic Maintenance



MP 3207.1, Residual Heat Removal Pump-Seal Replacement

Plant Work Orders associated with the three maintenance activities

Personnel Qualification Records

In addition to the records review the inspector visited the job site of the Residual Heat Removal (RHR) Pump-Seal Replacement on June 14, 1977. No work was in progress, however, cleanliness controls appeared to be effective. The job site of the periodic maintenance on the 4160 volt breakers was visited on June 16, 1977, and the inspector witnessed a portion of the maintenance and verified that the maintenance was being performed in accordance with MP 9407.1 on the 4C primary coolant pump breaker.

The records review of MP 3207.1, indicated that testing was required, however, the exact testing requirements were not specified. This item is addressed as unresolved item 76-15/2 in IE Report 50-250/76-15 and 50-251/76-15, Details III, and will be followed at a later date.

MP 9407.1, 4160 Switchgear Procedure, did not have signoff provisions for QC Inspections. Craftsman assigned to the job indicated that QC personnel were periodically monitoring the job on a random basis. The assistant maintenance superintendent stated that all electrical maintenance procedures were currently being reviewed to determine the need for additional QC hold points. No items of noncompliance were identified.

7. Review of Plant Operation - Unit 4

The inspector verified by review of records and discussions with plant personnel that plans exist to test the following systems prior to startup:

Reactor Coolant System  
Nuclear Instrumentation System  
Auxiliary Feedwater System  
Control Rod System  
RHR System

The following procedures were reviewed:

OP 16001.2, Surveillance Check Lists, page 10 of "Periodic check-off sheets and Technical Specification Surveillance Requirements for Core Refueling."

OP 0202.1 - Steps 5.13 and 8.51 of "Reactor Startup, Cold Conditions to Hot Shutdown Conditions."

In addition, various startup procedures were reviewed to ascertain whether procedures require adherence to the Technical Specifications as they pertain to startup testing and power operation prerequisites. The following procedures were reviewed:

OP 0202.1, Reactor Startup, Cold Conditions to Hot Shutdown Conditions  
OP 0202.2, Unit Startup, Hot Shutdown to Power Operations  
OP 0204.3, Initial Criticality After Refueling  
OP 0204.5, Startup Sequence after Refueling

No items of noncompliance were identified.

8. Reportable Occurrences

Three reportable occurrences, two for Unit 3 and one for Unit 4, were reviewed to ascertain that:

(1) reporting requirements delineated in TS 6.9.2 were met; (2) corrective action was taken as required by Criterion XVI of Appendix B to 10 CFR 50; (3) the licensee reviewed and evaluated the event as required by TS 6.5; (4) the review and evaluation of the event included an assessment of generic implications, personnel error and procedural adequacy as required by TS 6.8 and Appendix B to 10 CFR 50.

(a) RO 250-77-5 and 251-77-3

These events actually involve one problem, however, it applies to both unit 3 and unit 4 and pertains to a discrepancy in Technical Specification (TS) Figure 2.1-1, "Reactor Core Thermal and Hydraulic Safety Limits." The PNSC had reviewed the occurrence on May 2, 1977, and the CNRB reviewed the occurrence on April 26, 1977. The discrepancy did not involve the changing of any of the Limiting Safety Settings prescribed in the Technical Specifications. FP&L has prepared a TS change which had been approved by the PNSC on June 13, 1977, however, the change had not yet been submitted to the NRC for approval. No items of noncompliance were identified.

(b) RO 250-77-4

This event involved failure of the "B" emergency diesel to come up to the required speed within 15 seconds. This event was reviewed by the PNSC on May 2, 1977. The inspector reviewed the plant work order which was used to repair the system subsequent to evaluation and tests on the fuel system on

April 8, 1977. The corrective action to prevent recurrence involved replacing a section of the fuel system piping with piping that which utilizes a wedge type fitting instead of the flared fittings. The inspector verified that the licensee had considered the generic applicability within the facility. This was accomplished by discussion with the maintenance supervisor responsible for implementing a change of all fuel system piping on both diesels. The licensee also believes that the condition that caused this occurrence is the same condition that caused the occurrence which was discussed in RO 250-77-3. No noncompliance items were identified.

9. Unit 4 Valve and Pump Program

On November 22, 1976, NRR issued a letter to FP&L outlining guidance to be followed in implementing the requirements of 10 CFR 50.55a (g) which became effective on Unit 4 on January 7, 1977 and will become effective on Unit 3 on August 14, 1979. On February 25, 1977, FP&L submitted the proposed Valve Test, Pump Test, and ISI program for Unit 4 to the NRC including a request for a Technical Specification change. On April 28, 1977, FP&L requested an exemption from the requirements of 10 CFR 50.55a(g) 4(v) and from the Technical Specifications revised in accordance with 10 CFR 50.55a(g)(5)(ii) for 6 months subsequent to the NRC's review of the proposed inservice examination and testing program. On May 25, 1977, NRR denied this request and stated that the most conservative aspects of either the Technical Specifications or 10 CFR 50.55a(g) should be implemented.

The inspector reviewed the current valve testing and pump testing program to verify that the conservative aspects of 10 CFR 50.55a(g) and the Technical Specifications have been implemented. The licensee has developed procedures for the testing of pumps. These procedures have been developed to implement the requirements of the program submitted to NRR on February 25, 1977. These procedures are in draft form and are currently being reviewed by the licensee. The licensee is currently reviewing the valve program to determine what code requirements may apply during the current refueling outage. During the exit interview the licensee was informed that the more conservative aspects of the 10 CFR 50.55a(g) and the current Technical Specifications apply prior to approval of the Technical Specification Revision and that this item is considered unresolved pending establishment of procedures and schedules to insure that the applicable requirements are satisfied. Further review is required to determine if the applicable requirements are currently being met.

10. Steam Generator Tube Plug - Unit 4

The licensee had notified RII On May 23, 1977, that a steam generator tube plug was missing from the 4B steam generator, cold leg side. Subsequently, the licensee had taken video tapes of the inside of the tube to verify that the plug was in the tube. The inspector viewed these tapes which indicate that the plug end is visible, however, the clarity of the video tape was not good. The licensee has taken measurements of the obstruction in the tube and find it approximately 3 inches below the sixth support plate. Neither the measurements or the video tapes establish that the entire plug is in the tube. The inspector informed the licensee during the exit interview that if the entire plug could not be verified a 10 CFR 50.59 evaluation would be required to determine whether or not an unreviewed safety question exists. The licensee informed the inspector by telephone on June 20, 1977, that additional techniques were being employed to verify that the entire plug was in the tube and that an evaluation has been initiated to satisfy the 10 CFR 50.59 requirements. This item is considered unresolved.

11. Postulated Fuel Handling Accident Inside Containment

Westinghouse (W) notified FP&L by letter dated September 21, 1976, that a postulated fuel handling accident inside the containment may result in site boundary doses in excess of exposure guidelines set forth in 10 CFR 100. A licensee representative acknowledged that the letter was received and that an unofficial evaluation was conducted, however, the records were not retained and were not available to the inspector for review. The licensee representative stated that the decision not to conduct a full scale analysis of the fuel handling accident inside the containment was based on the fact that the accident is addressed in FSAR Section 14.2.1. In addition, the licensee representative felt that information presented to the NRC in a letter dated June 23, 1976, concerning a cask drop accident, could be utilized in analyzing the releases from the fuel handling accident in the containment.

The inspector reviewed the two referenced documents and page 50 of the NRC Safety Evaluation dated March 23, 1972, for Turkey Point 3 and 4 and has no further questions.

On January 18, 1977, NRC issued a letter to FP&L and requested that the licensee provide a detailed evaluation of the potential consequences of a fuel assembly drop in the containment. FP&L conducted the analysis and responded to the NRC in a letter dated March 21, 1977, which indicates that the results of the analysis of a postulated

fuel handling accident in the containment is well below the limits of 10 CFR 100. This submittal is currently being reviewed by NRR.

12. Steam Generator Tube Removal - Unit 4

The licensee committed to pull a "leaky dented tube," in a letter to the NRC dated April 29, 1977, if possible. If not, an alternative tube will be pulled. The inspector verified by a review of records that two tubes were pulled R42-C53 and R2-C49 from the 4C steam generator. No noncompliance items were identified.

13. Steam Line Non Return Valve - Unit 4

IE Report 50-250/77-7 and 50-251/77-7 discusses an event relating to the nut and lock wire which secures the disc to the rotating arm which were not in place when the valve was disassembled. The licensee representative stated that the nut was found in the steam bypass line to the condenser. He also stated that records did not indicate whether or not the lock wire had initially been installed and that if it had been it was probably in the main condenser and that the search for it had been abandoned.

The inspector reviewed FP&L Plant Change and Modification Procedure No. 76-14 which was being used for reassembly of the Unit 4 valves. Step V of that procedure has a QA hold point to verify the cleanliness of the steam lines subsequent to reassembly of the valve. A licensee representative stated that the hold point would be expanded to include correct assembly of the valve. The inspector had no further questions.