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

Report No. 50-335/80-08

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

Facility: St. Lucie Unit 1

Docket No. 50-335

License No. DPR-67

Inspection at St. Lucie Site, near Hutchinson Island, Florida

Inspector: C. A. Julian — Date Signed: 4/15/80

Approved by: C. M. Upright, Acting Section Chief, RONS Branch — Date Signed: 4/15/80

SUMMARY

Inspection on April 1-3, 1980

Areas Inspected

This routine, unannounced inspection involved 24 inspector hours on site in the areas of preparation for refueling and refueling activities in preparation for fuel cycle four.

Results

Of the 2 areas inspected, no items of noncompliance or deviations were identified in one area; one item of noncompliance was found in the other area (Infraction: Failure to have a flux monitor indication audible in containment during core alterations, see paragraph 6 below).

DETAILS

1. Persons Contacted

   Licensee Employees

   *C. M. Wethy, Plant Manager
   *J. H. Barrow, Operations Superintendent
   *A. M. Anderson, Q. A. Engineer
   *J. E. Bowers, Maintenance Superintendent
   *T. Essinger, Q. A. Assistant Manager
   *R. R. Jennings, Technical Staff Supervisor
   *L. W. Pearce, Nuclear Plant Supervisor
   *N. G. Roos, Q. C. Engineer
   *R. K. Ryall, Reactor Engineering Supervisor
   *G. M. Vaux, Q. C. Supervisor
   *C. A. Wells, Operations Supervisor
   C. L. Burton, Nuclear Plant Supervisor
   A. W. Marvin, Nuclear Plant Supervisor

   Other licensee employees contacted included numerous technicians, security force members, and office personnel.

   *Attended exit interview

2. Exit Interview

   The inspection scope and findings were summarized on April 3, 1980, with those persons indicated in Paragraph 1 above. The inspector discussed with licensee representatives the item of noncompliance described in paragraph 6 below. Licensee representatives acknowledged their understanding of the item of noncompliance.

3. Licensee Action on Previous Inspection Findings

   Not inspected.

4. Unresolved Items

   Unresolved items were not identified during this inspection.

5. Preparation for Refueling

   The inspector reviewed the documented results of the receipt and inspection of new fuel assemblies during February and March of 1980. Eighty-nine new

fuel assemblies for use in fuel cycle 4 were inspected using procedure OP-1610020, Receipt and Handling of New Fuel. The inspection documentation appeared satisfactory.

No deviations or items of noncompliance were identified in this area.

6. Observation of Refueling Activities

The inspector observed activities in progress in the control room, containment, and spent fuel building during the refueling evolution in preparation for fuel cycle 4. The inspector verified that properly reviewed and approved procedures were in use. Completed portions of the following procedures were examined.

OP-1600022 Rev. 6, Unit No. 1 Refueling Operation
OP-1600023 Rev. 6, Refueling Sequencing Guidelines
OP-0010125, Shift Surveillance Checks
OP-1630024 Rev. 11, Refueling Machine Operation
OP-1630021 Rev. 0, New Fuel Elevator Operation
OP-1630022 Rev. 6, Spent Fuel Handling Machine Operation
OP-1630023 Rev. 3, Fuel Transfer System Operation
OP-0110022 Rev. 6, Coupling and Uncoupling of CEA Extension Shafts

The following discrepancy was noted.

Technical specification 3.9.2 requires that during refueling operations, as a minimum, two wide range logarithmic neutron flux monitors shall be in operation, each with continuous visual indication in the control room and one with audible indication in the containment. During the inspection the inspector noted that flux monitor indication was not audible in the containment at the refueling cavity. After investigations the licensee determined that the audible indication was functioning but that even at maximum volume it could not be heard in containment over ventilation fan noise. The inspector discussed the matter with licensee management and with the NRC Regional Office via telephone. The licensee halted core alterations as required by the action statement of technical specification 3.9.2. As a temporary measure to meet the technical specification, the licensee arranged to provide audible indication of a flux monitor channel on the headset communication link between the control room and the containment. Refueling operations were then resumed. Later the same day an additional amplifier was placed in service in the containment which allowed the audible indication to be heard at the refueling cavity.

The inspector stated that the original condition in which the neutron flux indication could not be heard by personnel at the refueling cavity did not meet the intent of the technical specification. This is an item of noncompliance (335/80-08-01).

7. Resolution of Previous Open Items

(Open) Open Item 50-335/79-26-01: This item involved the method of calibration of the reactimeter used during startup testing. Licensee representatives stated that procedure OP-0110052 Zero Power Physics Tests After Reload, had been revised to incorporate calibration of the reactimeter with negative reactivity input signals. The licensee has not yet determined if the six group delayed neutron constants supplied by Combustion Engineering (CE) specifically for cycle 4 testing will fall within the input span of the reactimeter. This will be determined prior to the beginning of cycle 4 startup testing. If these constants are not within the input span of the reactimeter, licensee representatives stated that calculations will be performed by CE to generate correction factors for reactimeter output that are specific for each control rod group whose reactivity worth is to be measured. The inspector stated that the methods and results of cycle 4 control rod calibrations will be examined during a future inspection.

(Closed) 50-335/79-26-02: During cycle 3 power ascension testing the licensee discovered that four strings of in-core detectors had been apparently incorrectly connected due to "cable switching". During the current outage the licensee confirmed that the cables had been switched as supposed. The cables have been relabeled to prevent recurrence of this problem.

8. Additional Inspection Activities

The inspector discussed with plant personnel the methods used to determine reactor coolant system boron concentration. Boron analysis procedures were reviewed and a standard boron analysis observed. No deviations or items of noncompliance were identified in this area.