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

Report No.: 50-389/83-07

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

Docket No.: 50-389

License No.: CPPR-144

Facility Name: St. Lucie 2

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

Inspector: _____ 2/8/83
C. M. Hosey Date Signed

Approved by: _____ 2/8/83
K. P. Barr, Section Chief Date Signed
Operational Programs Branch
Division of Engineering and Operational Programs

SUMMARY

Inspection on January 17-21, 1983

Areas Inspected

This routine, unannounced inspection involved 34 inspector-hours on site in the areas of preoperational test program for radwaste systems, licensee action on bulletins, circulars, notices and inspector followup items and receipt of startup sources.

Results

Of the four areas inspected, no violations or deviations were identified.

## REPORT DETAILS

1. Persons Contacted

Licensee Employees

*C. M. Wethy, Plant Manager
*H. F. Buchanan, Health Physics Supervisor
R. J. Frechette, Chemistry Supervisor
*H. M. Mercer, Health Physics
*B. W. Kelsey, Chemistry
*N. G. Roos, Quality Control Supervisor
T. Deplonty, Instrument and Control
M. Lankford, Reactor Engineering
R. Vaeth, Area Stores Supervisor
N. Motley, Startup Engineer
W. Yates, Startup Engineer
L. L. Large, Health Physics
M. Olin, Health Physics

Other licensee employees contacted included five construction craftsmen, three technicians and three office personnel.

Other Organizations

W. H. Snedaker, Jr., Applied Physicist, EBASCO
G. E. Grace, Licensing Engineer, EBASCO

NRC Resident Inspectors

S. A. Elrod, Senior Resident Inspector
H. E. Bibb, Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on January 21, 1983, with those persons indicated in paragraph 1 above.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Licensee Action on Previous Inspector Identified Items

a. (Open) 82-38-01, Area Radiation Monitor Installation. All thirty-six area radiation monitors have been installed, including remote readout and alarm panels when applicable. However, detectors for RM-26-15, -20, -23, -24 and -37 have not been installed, and only the new fuel storage and spent fuel pool monitors have been tested, source checked and made fully operational. This item will remain open pending completion of the preoperational tests and source checks on all monitors.

b. (Open) 82-70-01, Process and Effluent Monitoring System. The inspector reviewed the current status of process and effluent radiation monitors. The following is the status at the time of the inspection:

| MONITOR | | STATUS |
|---|---|---|
| RS-26-5 | Steam Generator Blowdown | Installation complete, energized, initial checks performed |
| RS-26-6 | Steam Generator Blowdown | Installation complete, energized, initial checks performed |
| RS-26-18 | Waste Gas Discharge | Installation complete, energized, initial checks performed |
| RS-26-4 | Waste Liquid Discharge | Installation complete, energized, initial checks performed |
| RS-26-11 | Condensor Air Ejector | Installation complete, not tested |
| RS-26-12 | Fuel Handling Bldg. Stack | Preoperational testing in progress |
| RS-26-13 | Plant Vent Stack | Installation in progress |
| RS-26-14 | Plant Vent Stack | Installation in progress |
| RS-26-67 | Laundry Room | Not on site, backfit |
| RS-26-25 | Containment Atmosphere | Installation complete, energized, initial checks complete |

| | | |
|---|---|---|
| RS-26-26 | Containment Atmosphere | Installation complete, energized, initial checks complete |
| RS-26-69 | ECCS Area Exhaust A | Installation complete, energized |
| RS-26-70 | ECCS Area Exhaust B | Installation complete, enegized |
| RS-26-90 | Plant Vent Stack (wide range) | Installation complete, energized |
| RS-26-71 | Main Steam #1 | Installation in progress |
| RS-26-72 | Main Steam #2 | Installation in progress |
| RS-26-1 | A Component Cooling Water | Preoperational testing, need source check |
| RS-26-2 | B Component Cooling Water | Preoperational testing, need source check |
| RS-26-3 | CVCS Letdown | Installation complete |
| RS-26-7 | Boric Acid and Waste Evap Condensate | Installation complete, energize, initial check complete |
| RS-26-15 | Mobile Unit 2 | Not on site, backfit |
| RS-26-16 | Mobile Unit 1 | Not on site, backfit |
| RS-26-73 | Main Steam Line Background | Installation in progress |

The inspector stated that the status of radiation monitor installation and testing will be reviewed during subsequent inspections.

c. (Open) 82-70-02, CVS Letdown Monitor Sample Lines. A licensee representative stated that the licensee is making preparation to shield the sample line. He also stated that when the post-TMI action items are completed (post accident sampling) the CVCS letdown monitor will probably not be used. However, shielding will be completed. The inspector stated that this item will be reviewed during subsequent inspections.

d. (Open) 82-70-03, Liquid and Gaseous Effluent Monitor Downstream of Isolation Valves. The inspector reviewed a preliminary copy of a study performed by the licensee's construction contractor and discussed the

conclusions reached in the report with contractor and licensee representatives. This study indicated that the monitor would alarm and the isolation valve close in sufficient time to prevent an above Technical Specification liquid release. The inspector stated that background count rate on the monitor and the normal concentration of radioactivity in the discharge pipe used in the study appeared to be unrealistically low and that the conclusion reached may not be valid. A licensee representative stated that the study would be reviewed and appropriate corrections to assumptions used would be made. The inspector stated that this item will be reviewed during a subsequent inspection.

e. (Open) 82-75-02, Filter Testing Procedure. The inspector reviewed Preoperational Test Procedure No. 2-2000098, Revision 0, which was submitted to the Preoperational Test Review Group (PTRG). The inspector noted that the procedure uses the testing requirements and acceptance criteria specified in ANSI Standard N510-1980. FSAR Chapter 6 and 9 discusses the testing requirements for engineered safety feature (ESF) air filtration systems and Non-ESF system respectively. ESF filtration system are to be tested in accordance with Regulatory Guide 1.52. Non-ESF system are to be tested in accordance with Regulatory Guide 1.140. Both Regulatory Guides reference the testing methods and acceptance criteria of ANSI N510-1976. The inspector stated that FSAR and Technical Specifications should reflect the actual revision of the ANSI Standard being used for in-place filter testing, since significant difference exist in the two revisions. This item will be reviewed during subsequent inspections.

f. (Open) 82-75-03, Deluge System Modification and Calculations. A licensee representative stated that Design Item Report M-351 had been submitted to modify the ECCS Area Ventilation filter deluge system piping to permit the hookup of water hoses without entering the filter housing. The inspector stated that this item will be reviewed during subsequent inspections.

g. (Closed) 82-75-05, HP Staffing. The inspector reviewed the licensee's health physics staffing for two-unit operation and the provisions for increased technician staffing in the event Unit 2 startup coincide with the Unit 1 refueling outage. The licensee is actively recruiting to fill six technician/radiation protection man vacancies as well as vacancies which will result from the promotion of technicians when the licensee establishes HP shift supervisors after Unit 2 goes critical. The licensee will supplement the permanent plant HP staff with experienced contract technicians. Although the permanent plant HP staff is smaller than the staff found at most two-unit plants, the licensee should be able to handle the simultaneous startup of Unit 2 and refueling of Unit 1 with the use contract technicians. The inspector had no further questions.

h. (Closed) 82-72-04, Reduce Potential Dose Rate From RCS Heat Exchanger. The licensee has installed a solid concrete block wall in front of the RCS heat exchanger in the RCS sample room. The inspector had no further questions.

6. Licensee Action on Bulletins, Circulars and Information Notices

a. Circular 77-14, Separation of Contaminated Water Systems From Non-contaminated Plant System. This circular was reviewed as a part of the licensee's review of Bulletin 80-10. The licensee identified a cross connect of the primary water tank with a non-radioactive system at the demineralized water fill line. Check valves are installed to prevent black flow into the demineralized water system. In addition the demineralized water system is routinely sampled for radioactivity. The inspector had no further questions.

b. Circular 76-03, Personnel Radiation Exposure in Reactor Cavities. Because of the design of this plant, radiation exposures of the magnitude discussed in the circular are not possible. A licensee representative stated that normal radiation levels in the "keyway" below the reactor vessel are 200-500 mrem/hour. Access to the area is administratively controlled, in addition to the physical barrier in the form of blowout panels, which are not easily removed. The inspector had no further questions.

c. Bulletin 78-08, Radiation Levels From Fuel Element Transfer Tubes. A licensee representative stated that radiation streaming at the seal between the containment and the fuel building had been encountered during the first refueling of Unit 1. Shielding had been installed to reduce the radiation levels from the fuel transfer tube to acceptable levels. Similar modifications have been specified for Unit 2. The licensee representative also stated that radiation surveys will be performed to determine the effectiveness of the shielding during the first refueling of Unit 2. The inspector stated that the survey results will be reviewed during a subsequent inspection (83-07-01).

d. Bulletin 80-10, Contamination of Nonradiation System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment. The inspector reviewed the licensee response to this bulletin as it applies to Unit 2. The licensee's internal correspondence indicated nonradioactive systems that interface or have potential to interface radioactive system are either routinely or continuously sampled, or are physically isolated (i.e., check valves) from the radioactive system. The inspector had no further questions.

7. Preoperational Test

The inspector reviewed the following preoperational test procedures:

2-0510080, Rev 0, Liquid Waste System
2-0420082, Rev 1, Iodine Removal System
2-1110080, Rev 0, Gas and Liquid Radiation Monitors
2-0510084, Rev 0, Waste Condensate 2A and 2B, Tanks and Control Functions
2-0510082, Rev 0, Laundry Drain Pumps 2A and 2B

The inspector had no further questions.

8. Receipt of Neutron Source

10 CFR 20.205 require the licensee to perform radiation and contamination surveys on packages containing radioactive material in excess of Type A quantities as soon as practicable after receipt. On January 7, 1983, the licensee received two Plutonium-Berylluim neutron startup source (MRC PuBe-494 and MRC PuBe-493). The sources were delivered to warehouse G-2 by a Georgia Highway Express, Inc., truck (Invoice No. 6.001216-1). The sources were received by the licensee on Material Receiving Report No. 71243. Health Physics performed the required radiation and contamination surveys on January 7, 1983. Radiation and contamination levels were within acceptable limits. The sources were transferred to the fuel handling building on January 7th for storage. The inspector reviewed the records for the receipt, survey and storage of the sources and had no further questions.

9. Iodine Monitoring

The inspector also discussed an event at another facility wherein a continuous iodine stack monitor gave erroneous readings due to the detection of noble gases. St. Lucie routinely uses charcoal absorbers in the continuous iodine vent monitors; however, the plant chemist stated that they are aware of the charcoal absorption of noble gases if high activity levels occur, and silver zeolite absorbers are available if needed for that purpose. The inspector had no further questions.