



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

JUN 05 1984

Report Nos.: 50-335/84-19 and 50-389/84-20

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

Docket Nos.: 50-335 and 50-389

License Nos.: DPR-67 and NPF-16

Facility Name: St. Lucie 1 and 2

Inspection Dates: May 14-18, 1984

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

Inspector:

Philip G. Stoddart
Philip G. Stoddart

5/31/84

Date Signed

Accompanying Personnel: John Wray

Approved by:

D. Montgomery
D. Montgomery, Section Chief
Emergency Preparedness and Radiological
Safeguard Branch
Division of Radiation Safety and Safeguards

1 June 1984

Date Signed

SUMMARY

Areas Inspected: This routine, unannounced inspection involved 32 inspector hours onsite in the areas of radioactive waste management, radioactive effluent treatment, process and effluent radiological instrumentation and chemistry.

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

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REPORT DETAILS

1. Persons Contacted

- *C. M. Wethy, St. Lucie Plant Manager
- *H. F. Buchanan, Health Physics Supervisor
- *H. M. Mercer, Health Physicist
- *J. J. Walls, Quality Control Engineer
- *W. F. McGavic, Quality Assurance Engineer
- R. J. Frechette, Chemistry Supervisor
- B. Kelsey, Chemist
- R. F. Cox, Chemist

The inspectors also interviewed several other licensee employees and members of the security organization.

NRC Resident Inspectors

- *C. Feierabend, Senior Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on May 18, 1984, with those persons indicated in Paragraph 1 above.

3. Radioactive Liquid and Gaseous Effluent Releases (84723B, 84724B)

The inspector examined selected radioactive liquid effluent release records for the period of October 1, 1983 to the present. Based on review of these records and on discussions with licensee representatives, the inspector determined that the licensee was in compliance with Technical Specification, Section 3/4.11 requirements for release rates, sampling and analysis of liquid radwaste, specific release points, limits on radioactivity contained in tanks, and analyses for specific radionuclides.

The inspector examined selected gaseous release records, gaseous waste logs, and other licensee records for the period of October 1, 1983, to the present. Based on the records reviewed and on discussions with licensee representatives, the inspector determined that the licensee was in compliance with Technical Specification Sections 3/4.11.2.1, 3/4.11.2.6, and 3/4.11.2.4, specifying noble gas and iodine release rates, maximum activity in decay tanks, discharges of gaseous waste through the plant vent, and the sampling and analysis of radioactive materials in radioactive gaseous effluents.

The inspector verified from selected records of liquid and gaseous releases made during the period of October 1, 1983 through March 1984, that the records required by Technical Specification 6.10 were maintained in terms of frequency and content.

The inspector reviewed the licensee's "Semi-Annual Radioactive Effluent Release Report, July 1, 1983 through December 31, 1983." No discrepancies were observed. The report met the requirements of Technical Specification Section 6.9.1.10 and was consistent with the guidance in Regulatory Guide 1.21.

4. Radioactive Effluent Control Monitoring Instrumentation (84723B, 84724B)

Technical Specification Table 4.3-3 Unit 1 (Table 4.3-8 Unit 2) requires all radioactive liquid effluent radiation monitors to be calibrated at least every 18 months to a NBS-traceable source, functionally tested quarterly, and the instrument operability verified prior to making a release. Technical Specification Table 4.3-3 Unit 1 (Table 4.3-9 Unit 2) requires that all radioactive gaseous effluent monitors must be calibrated at least every 18 months to a NBS-traceable source, functionally tested quarterly, and the instrument operability checked at least daily. The inspector reviewed records and procedures for the calibration and testing of the radioactive liquid and gaseous effluent monitors and verified that the requirements of the Technical Specifications were being met.

No violations or deviations were identified.

5. Reactor Coolant Chemistry (84723B, 84724B)

Technical Specification Table 3.4-1 Unit 1 (Table 3.4-2 Unit 2) specifies the maximum coolant concentration limits for dissolved oxygen, chloride, and fluoride when the coolant temperature is above 250°F. Sampling frequencies are specified in Technical Specification Table 4.4-3 Unit 1 (Table 4.4-3 Unit 2). The inspector reviewed plant chemistry records for the period January 1, 1984 to the present and verified that the required tests were performed at the specified frequencies and that the test results were within the specified limits.

Technical Specification Section 3.4.8 specifies the limit for specific activity in the reactor coolant system. Technical Specification Table 4.4-4 specifies the sampling and analysis frequencies for gross radioactivity determinations. Technical Specification Table 4.4.4 also specifies the sampling frequencies for isotopic analysis for dose-equivalent iodine-131 determination and isotopic concentrations of I-131, I-133, and I-135. The inspector reviewed plant chemistry records for the period January 1, 1984 through March 31, 1984, and verified that the required tests had been performed at the specified frequencies and that the results were within the specified limits. The inspector noted that for the period reviewed, dose-equivalent iodine did not exceed one microcurie per gram.

The inspector discussed general reactor water quality with licensee representatives. It was noted that Unit 1 had been shutdown since prior to July 1983, and therefore, no recent operational experience had been obtained relative to the 0.1 to 0.4 $\mu\text{Ci/gm}$ average dose-equivalent iodine seen during the last operational cycle. At the time of the inspection, Unit 1 was starting up following completion of the thermal shield removal task.

No violations or deviations were identified.

6. Gaseous Effluent Treatment Systems (84724B)

Technical Specification Section 3.7.7, 3.7.8, and 3.9.12 (the latter is applicable to Unit 1 only) list the testing and surveillance requirements for the Control Room Emergency Habitability, ECCS Area Ventilation and Fuel Building Ventilation air treatment systems. The inspector examined records of charcoal adsorber sample efficiency tests, of HEPA filter and charcoal adsorber in-place leak tests, and of operability tests and determined that the results of the tests and frequencies of tests and analyses satisfied the Technical Specification requirements.

The inspector noted that the Unit 1 air treatment systems had been sampled and leak-tested in March 1984 in anticipation of Unit 1 startup in order to provide assurance that Technical Specification time limits on these tests would not be exceeded prior to the next Unit 1 refueling outage. The inspector had no further questions.

No violations or deviations were noted.

7. Licensee Audits (84723B, 84724B)

The inspector discussed the licensee's audit program relative to radioactive waste management, effluent treatment, and radiological effluent instrumentation with licensee representatives. A comprehensive audit including these areas had recently been completed; however, the results had not received the appropriate corporate level review and were not available at the time of the inspection.

The inspector was able to review QA Audit Report QSL-CPS-84-310, which was performed relative to Technical Specification Appendix A, Section 3/4.6, "Containment Systems." This audit was performed March 1-30, 1984, and was principally concerned with a licensee contractor's performance of tests on ESF HEPA filter systems and charcoal adsorber systems. No problems were identified in these areas. The inspector had no further questions.

No violations or deviations were identified.

8. Procedure Reviews (84723B, 84724B)

The following plant procedures were reviewed during the inspection. All were relevant to activities having to do with plant chemistry, radioactive waste treatment or processing, radiological process or effluent instrumentation, or Technical Specification requirements.

<u>Procedure Number</u>	<u>Revision Number</u>	<u>Date of Issue</u>	<u>Title</u>
C-70	15	05/15/84	Processing Aerated Liquid Waste
C-72	19	09/02/83	Processing Gaseous Waste
C-74	3	09/22/83	Particulate and Iodine Filter Testing
1-C-75	1	02/25/83	Operation of the Letdown Process Monitor
C-77	4	11/22/83	Correlation of Process Monitor Reading to Specific Activity
1-C-80	7	03/11/83	Determination of Hydrogen Gas in Containment - Unit 1
2-C-80	1	07/27/83	Determination of Hydrogen Gas in Containment - Unit 2
C-81-A	3	03/11/83	High Activity in Reactor Coolant System
C-81-B	5	03/11/83	High Activity in Component Cooling Water
C-81-C	5	03/15/83	High Activity in a Steam Generator
C-90-A	1	09/13/83	Calibration of SGBTF Radiation Monitoring Systems - Liquid
C-90-B	2	12/27/83	Calibration of SGBTF Radiation Monitoring System - Ventilation
C-91	1	12/19/83	Training of Chemistry Department Personnel
C-110	2	12/02/83	Collecting Initial Set of Post Accident Samples and Guidelines for Establishing Post Accident Water and Gas Inventory Control
C-111	1	03/29/83	Establishing Remote Analysis Laboratory, Counting Laboratory, and Counting Procedures for Accident Samples
1-C-112	0	06/17/82	Operation and Calibration of Milton Roy PASS
2-C-113	1	05/24/83	Operation of the CE Post Accident Sampling System
1-C-62	9	12/27/83	Process Monitoring System Operation
2-C-62-A	1	06/20/83	General Atomic Particulate, Iodine and Gas Process Monitor Operation
2-C-62-B	2	01/10/84	General Atomic Single Stage Gaseous Process Monitor Operation
2-C-62-C	2	01/19/84	General Atomic Single Stage Liquid Process Monitor Operation
2-C-62-D	1	05/18/83	General Atomic Wide Range Gas Process Monitor Operation
2-C-62-F	0	10/12/82	Remote Operation of General Atomic Process Monitor System
1-C-63	6	09/28/83	Calibration of the Condenser Air Ejector Process Monitor

1-C-64	7	09/13/83	Calibration of the Liquid Waste Discharge Radiation Monitor
1-C-65	6	09/12/83	Calibration of the Gaseous Radwaste Monitor
1-C-66	10	01/09/84	Technical Specification Calibration of the Plant Vent, Fuel Building Exhaust, ECCS, and Steam Line Monitors
2-C-66-A	1	04/06/84	Technical Specification Calibration of the General Atomic Gas, Liquid, and Steam Line Process Monitors
2-C-66-B	1	04/04/84	Calibration of the General Atomic Gas, Liquid, and Steam Line Process Monitors (Non-Technical Specification)
1-C-67	7	09/22/83	Calibration of the Containment Process Monitor
1-C-68	5	03/13/83	Calibration of the Component Cooling Water Radiation Monitors
1-C-69	6	11/03/83	Calibration of the Steam Generator Blowdown Radiation Monitors

All of the above procedures addressed their specific areas in sufficient detail to permit plant personnel to perform the tasks or functions covered by the purpose and scope of the procedures. The technical content of the procedures appeared to be adequate. Changes or revisions to procedures had been reviewed and approved by appropriate plant staff and management prior to issue. The inspector had no further questions in this area.

No violations or deviations were noted.