



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

DEC 10 1982

Report Nos. 50-335/82-39 and 50-389/82-59

Licensee: Florida Power and Light Company

Facility Name: St. Lucie Plant

Docket Nos. 50-335 and 50-389

License Nos. DPR-67 and CPPR-144

Inspection at St. Lucie Plant site near Jensen Beach, Florida

Inspector: A. L. Cunningham 12/00/82
 A. L. Cunningham Date Signed

Approved by: D. M. Montgomery 12/9/82
 D. M. Montgomery, Chief Date Signed
 Independent Measurements and
 Environmental Protection Section
 Division of Emergency Preparedness
 and Operational Support

SUMMARY

Inspection on November 16-19, 1982

Areas Inspected

This routine, unannounced inspection involved 32 inspector-hours on site in the areas of radiological environmental monitoring including: management controls; status review of monitoring programs; review and evaluation of radiological environmental monitoring and surveillance reports; review of previous Unit 2 inspection findings; review of Unit 2 preoperational radiological monitoring; review of interlaboratory comparison program; status review and inspection of licensee/NRC collocated TLD's for direct radiation monitoring.

Results

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

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *C. M. Wethy, Plant Manager - Unit 1
- *P. Carrier, Licensing Engineering
- H. Buchanan, Health Physics Supervisor
- *A. W. Bailey, QA Operations Supervisor
- N. G. Roos, QC Engineer
- *B. J. Escue, Unit 2 Site Manager
- *P. G. Bailey, Health Physicist
- *J. Vessely, Director, Nuclear Affairs

Other Organizations

- *J. C. Orłowski, Consultant - Combustion Engineering
- *R. W. Zaist, EBASCO Project Superintendent
- *G. E. Grace, EBASCO Licensing Engineer
- J. K. Harris, Chemist, State of Florida DHR

NRC Resident Inspector

- *S. A. Elrod
- *H. E. Bibb

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on November 19, 1982, with those persons indicated in paragraph 1 above.

3. Licensee Action on Previous Enforcement Matters

(Closed) Violation (50-389/79-20-01) Daily Review of Environmental Monitoring Requirements. Inspection disclosed that adequate corrective action was implemented to assure required completion of daily review of site environmental monitoring activities. There were no further questions regarding this item.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Management Controls

- a. Management and administrative controls defined in Section 5.0 of the Environmental Technical Specifications were reviewed by the inspector regarding the following items: (1) organizational and management

responsibility for the radiological environmental monitoring program; (2) environmental monitoring procedures; (3) quality assurance, including periodic audits and analytical quality control.

- b. The inspector conducted a detailed review, including discussions with cognizant licensee and vendor representatives, regarding respective organizational changes to determine the adequacy of specific management responsibility for assuring implementation of the radiological environmental monitoring program defined in Technical Specification 3.2, Table 3.2-1. Inspection disclosed that no significant management changes were made within FP&L or its vendor organization (State of Florida Department of Health and Rehabilitative Services) regarding implementation of the subject program. Inspection further disclosed that the current organizational structures and specific management assignments should assure continued implementation of the program in accordance with license requirements. There were no questions regarding this item.
- c. Environmental Technical Specification 5.5.1 requires that detailed written procedures, including applicable check lists and instructions, shall be prepared and followed for activities involved in carrying out the radiological environmental technical specifications. Further, procedures shall include sampling, data recording and storage, instrument calibration, measurements and analyses, and actions to be taken when limits are exceeded. Inspection was limited to review of radiological environmental monitoring, sampling, and radiochemical analytical procedural revisions implemented subsequent to the previous inspections conducted at St. Lucie and Turkey Point facilities (IE Inspection Report Nos. 50-335/81-19, 50-389/81-15, 50-250/82-25 and 50-251/82-25, respectively). Radiological environmental monitoring programs at both facilities are conducted by the State of Florida Division of Health and Rehabilitative Services; therefore, procedures addressing monitoring, surveillance and sampling parameters, and sample analyses - including quality assurance and quality control of analytical measurements, are common to both of the above facilities. Inspection disclosed that no revisions to the referenced procedures were implemented subsequent to the above cited 1982 Turkey Point facility inspection addressing the radiological environmental monitoring program. It should be noted that the licensee vendor's generic environmental monitoring and analytical procedures are applicable to the proposed radiological environmental monitoring program defined in Section 3/4.12 of the Draft Appendix A Technical Specifications submitted for St. Lucie Unit 2 (50-389). The inspector had no questions regarding this item.
- d. Appendix B Technical Specification 5.3 provides for an audit, at least once per year, of conformance of the radiological environmental monitoring program with applicable Technical Specification requirements. The subject Specification further requires that vendor operations shall be audited once per year. The licensee routinely include the environmental program requirements for Turkey Point and St. Lucie Plant facilities within the scope of their annual audit. Additionally, the licensee's annual audit and review address the vendor's quality assurance

program including analytical quality control, verification of environmental sampling and surveillance, and conformance of environmental sampling, surveillance, and sample analyses with approved procedures. Inspection disclosed that no additional audits or reviews were conducted subsequent to those listed in paragraph 5.d. of Turkey Point facility Inspection Report Nos. 50-250/82-25 and 50-251/82-25. As indicated in the above referenced report, licensee quality assurance audits of the environmental program, including vendor operations, disclosed no significant findings. The referenced inspection further confirmed that all audits were consistent with Technical Specification requirements. There were no further questions regarding this item.

6. Quality Control of Analytical Measurements

Since the licensee has contracted with the Florida Department of Health and Rehabilitative Services to analyze radiological environmental samples, the inspector conducted a detailed review of the Department's quality assurance/quality control program and procedures. Inspection also included discussions with a cognizant vendor representative. Inspection disclosed that the analytical quality control program consisted of periodic determination of instrument counting efficiencies and background measurements, duplicate analyses, recount analyses, spiked sample analyses, environmental TLD's, and interlaboratory comparisons. The inspector had no questions regarding this item.

7. Review of State/NRC Split-Sampling Program

As part of the NRC inspection program, the Florida Department of Health and Rehabilitative Services splits selected environmental samples from the environs of the St. Lucie plant with NRC:RII to provide an additional quality control check on routine radiochemical analyses. Sample fractions assigned to NRC are analyzed by the Department of Energy's Radiological and Environmental Science Laboratory in Idaho Falls, Idaho. Environmental samples selected included air particulates, food crops, discharge area sediment, discharge canal water and fish. The inspector reviewed split-sample analytical data on samples collected during the period January 1, 1981, through December 31, 1981. Inspection disclosed that the comparative data were in close agreement and were consistent with the limits and requirements defined in the licensee's Technical Specifications. There were no questions regarding this item.

8. Unit 2 Radiological Preoperational Environmental Monitoring

- a. The preoperational radiological monitoring program is defined in Section 6.1.5 and Tables 6.1.2 and 6.1.3 of the St. Lucie Unit 2 Environmental Report, Operating License Stage. The preoperational monitoring program of Unit 1, and subsequently for Unit 2, began in January 1971. Following startup and commercial operation of Unit 1, in 1975, the program evolved into the current operational radiological monitoring program for Unit 1. The detailed review and inspection of the current radiological environmental monitoring program is discussed in paragraph 9 of this report. Inspection disclosed that the preoperational monitoring program has been implemented and completed as required. Inspection further disclosed that the proposed operational

radiological environmental monitoring program required by Unit 2 Draft Technical Specifications (TS-3/4.12 - Radiological Environmental Monitoring) will be implemented. Sampling and surveillance stations and equipment have been installed and are operational under the current radiological monitoring program for Unit 1. The proposed Unit 2 operational radiological environmental monitoring program is consistent with the program defined in Unit 1 Environmental Technical Specification 3.2, and guidance in the recommended Standardized Environmental Technical Specifications.

- b. Section 3/4.12 of Unit 2 Draft Technical Specifications (Radiological Environmental Monitoring) was reviewed by the inspector and discussed with cognizant licensee representatives. As cited above, the proposed operational monitoring program appears to be consistent with Unit 2 operational monitoring program.

9. Implementation of Unit 1 Radiological Environmental Monitoring Program

- a. Appendix B Technical Specification 3.2 (Tables 3.2-1 and 3.2-2) defines the radiological environmental monitoring program requirements. The inspector conducted a detailed review of the monitoring program to verify the implementation thereof, and to assess its compliance with program conditions defined in the above Specification. The review included the following: (1) inspection of monitoring and sampling stations including availability, maintenance, and calibration of monitoring and sampling equipment; (2) review of the Annual Radiological Environmental Monitoring Report for the period ending December 31, 1981, and quarterly reports (for 1982, reports) routinely submitted to the licensee by the vendor summarizing radiological environmental surveillance data (the inspector's review emphasized identification of missing data, obvious mistakes and anomalous measurements, observed trends or biases in the data presented, and implementation of corrective action for anomalous results identified); (3) written procedures for assuring implementation of each program parameter as discussed in paragraph 5.c. above; (4) verification of placement of licensee/NRC collocated TLDs deployed under the NRC Direct Radiation Network Program.
- b. Inspection of monitoring and sampling stations listed in Tables 3.2-1 and 3.2-2 of the referenced Specification included the following: (1) all air particulate and associated radioiodine, soil, and TLD monitoring stations; (2) milk sampling stations. The inspector accompanied the DHRS Public Health Physicist during recovery/deployment of air particulate filters and radioiodine cartridges, observed the collection of milk samples at stations H-03 (Meadowbrook Dairy) and H-40 (Dan Smith Dairy). Inspection disclosed that all air particulate monitoring components requiring periodic calibration were routinely calibrated at six month intervals and were posted with calibration stickers. Inspection also disclosed that an adequate supply of air particulate monitoring replacement equipment and spare parts were maintained to minimize periodic interruptions of required continuous monitoring. The location of all monitoring and sampling stations inspected were consistent with those locations cited in the referenced Specification and the respective

monitoring and sampling procedures. There were no questions regarding this item.

- c. Inspection also included verification of direct radiation monitoring stations with colocated NRC/licensee TLD's deployed under the NRC TLD direct radiation monitoring network program. Inspection disclosed that placement of the TLD's was consistent with the location and description of the five colocated stations defined in the network monitoring program.
- d. Inspection of the Annual Radiological Environmental Monitoring Report for the period ending December 31, 1981, and the supplement submitted thereto, disclosed that the reports were consistent, both in content and format, with the requirements defined in Appendix B Technical Specification 5.6.1.b, Table 5.6.1-A. The report was submitted within ninety days after January 1, 1982 and included required summaries, interpretations, and statistical evaluation of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies, operational controls and previous environmental surveillance reports. The Annual Report included results of the land use census as required.
- e. Inspection also included a review of selected quarterly radiological environmental surveillance data summaries routinely submitted by the vendor to the licensee. The quarterly reports provide the radiological data summarized in the Semiannual Effluent Reports and the Annual Radiological Environmental Monitoring Report referenced in paragraph 9d, above. The inspector requested copies of reports for the final quarter of 1981, and the three quarters of 1982. Inspection disclosed that the subject reports were available only for the first and third quarters of 1982. The inspector informed licensee representatives that the subject data and reports are quality records and logs to be retained for the life of the plant (Appendix B Technical Specification 5.7.1.b). The inspector was informed that copies of all such data and reports are routinely stored at the licensee's General Office and are readily retrievable therefrom. Licensee representatives agreed, however, to retrieve all such data and reports, and to index and retain same within the plant site quality assurance records vault. This item will be reviewed during a subsequent inspection (50-335/82-35-01).