

Central File
50-335

August 20, 1976
L-76-301

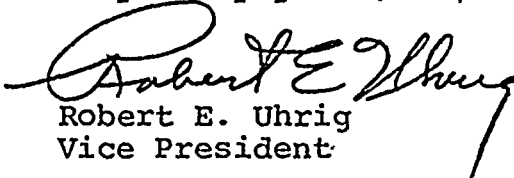
Norman C. Moseley, Regional Director
Office of Inspection and Enforcement - Region II
U. S. Nuclear Regulatory Commission
230 Peachtree Street, N. W., Suite 818
Atlanta, Georgia 30303

Dear Mr. Moseley:

Re: IE:II:MSK
50-335/76-9

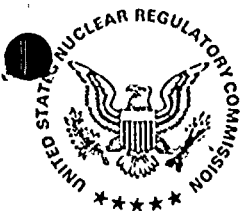
Florida Power & Light Company has reviewed the subject inspection report and has determined that it contains no proprietary information.

Very truly yours,


Robert E. Uhrig
Vice President

REU/NR/hlc

cc: Jack R. Newman, Esq.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

AUG 3 1976

In Reply Refer To:
IE:II:MSK
50-335/76-9

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

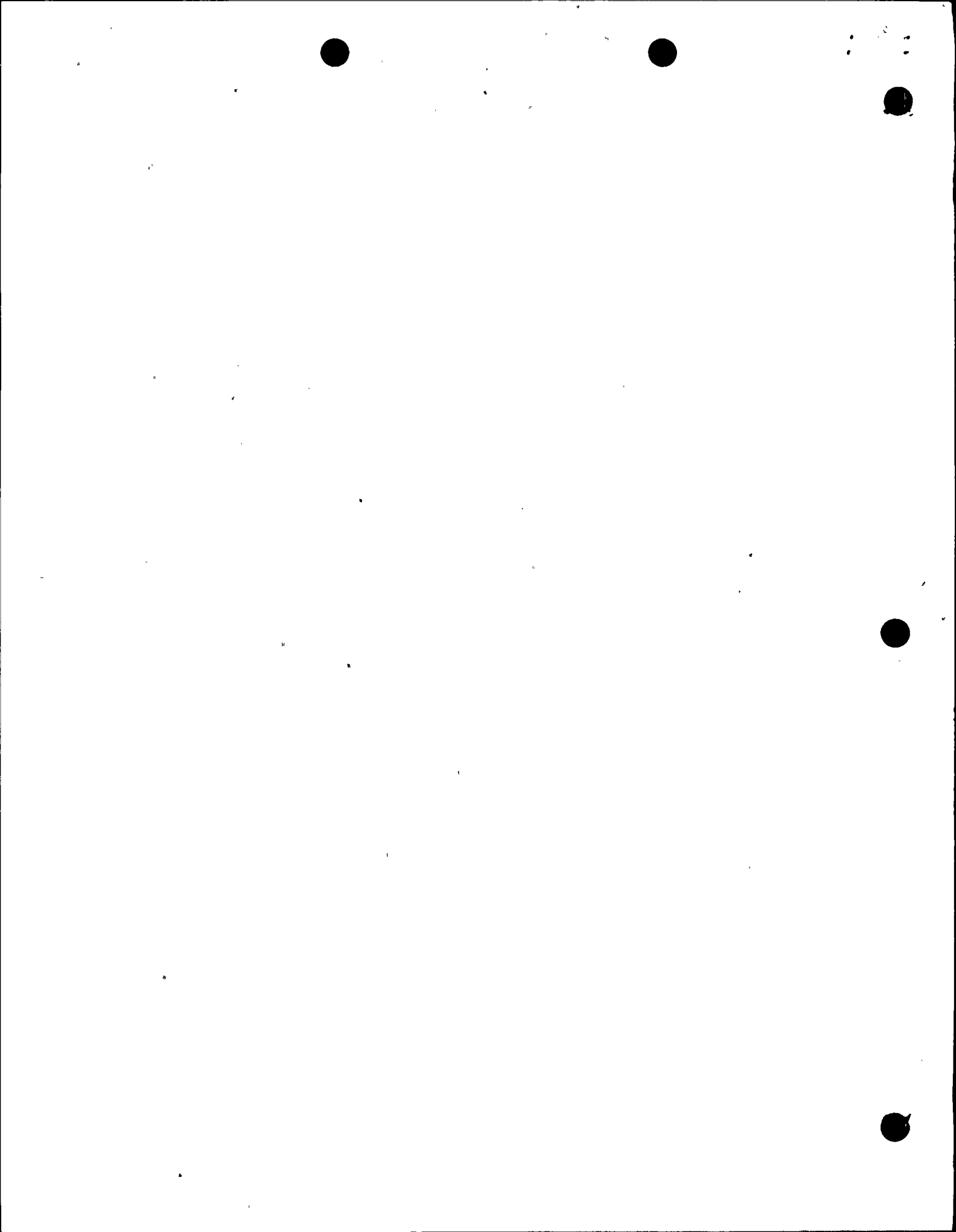
Gentlemen:

This refers to the inspection conducted by Mr. G. L. Troup of this office on June 14-18, 1976, of activities authorized by NRC Operating License No. DPR-67 for the St. Lucie 1 facility, and to the discussion of our findings held with Mr. K. N. Harris at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examination 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.

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 enclosed 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 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



AUG 3 1976

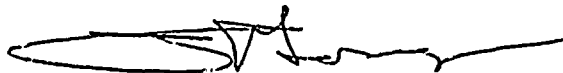
Florida Power and Light Company

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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 enclosed 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, Chief
Reactor Operations and
Nuclear Support Branch

Enclosure:

IE Inspection Report No.
50-335/76-9



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

IE Inspection Report No. 50-335/76-9

Licensee: Florida Power and Light Company
P. O. Box 013100
Miami, Florida 33101

Facility Name: St. Lucie 1
Docket No.: 50-335
License No.: DPR-67
Category: B2

Location: Hutchinson Island, Florida

Type of License: CE, PWR, 2560 Mwt

Type of Inspection: Routine, Unannounced

Dates of Inspection: June 14-18, 1976

Dates of Previous Inspection: May 25-28 and June 1-4, 1976

Inspector-in-Charge: G. L. Troup, Radiation Specialist
Radiation Support Section
Fuel Facility and Materials Support Branch

Accompanying Inspectors: None

Other Accompanying Personnel: None

Principal Inspector: M. S. Kidd 7-19-76
M. S. Kidd, Reactor Inspector
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch
Date

Reviewed By: R. C. Lewis 8/2/76
R. C. Lewis, Chief
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch
Date



SUMMARY OF FINDINGS

I. Enforcement Items

None

II. Licensee Action on Previously Identified Enforcement Matters

Not applicable.

III. New Unresolved Items

None

IV. Status of Previously Reported Unresolved Items

Not inspected.

V. Unusual Occurrences

None

VI. Other Significant Findings

None

VII. Management Interview

At the conclusion of the inspection, a management interview was held on June 18, 1976, with K. N. Harris, Plant Manager, and members of the plant staff. Items discussed included the scope of the inspection, areas and procedures inspected and the inspector's observations. (Details I)

DETAILS I

Prepared by: *G. L. Troup*

G. L. Troup, Radiation Specialist
Radiation Support Section
Fuel Facility and Materials
Safety Branch

7/28/76
Date

Dates of Inspection: June 14-18, 1976

Reviewed by: *A. F. Gibson*

A. F. Gibson, Chief
Radiation Support Section
Fuel Facility and Materials
Safety Branch

7/28/76
Date

1. Individuals Contacted

K. N. Harris - Plant Manager
J. H. Barrow - Operations Supervisor
J. C. Ritchie - Health Physics Supervisor
C. A. Moore - Chemistry Supervisor
J. E. Bowers - Maintenance Superintendent
A. J. Collier - Instrument and Control Supervisor
D. L. Newberry - Instrument and Control Engineer
G. M. Vaux - Quality Control Supervisor
D. R. Kornowski - Mechanical Startup Supervisor
R. J. Elder - Mechanical Startup Engineer
4 health physics technicians
3 chemistry technicians

2. Startup Tests and Surveys

- a. FSAR Table 14.1-2, Post Loading Testing Summary, lists those tests to be performed following fuel loading, the power levels at which the tests are to be conducted, and test objectives. Included in these tests are the chemical and radiochemical analysis and radiation survey and shielding effectiveness tests.
- b. The inspector reviewed the applicable test procedure 3400081 for chemical and radiochemical analyses and procedure 3300081 for radiation survey and the results completed so far. Included in the review were power levels at which tests or surveys were performed, accomplishment of required tests or surveys, conformance with stated acceptance criteria, and review and approval of completed tests. The inspector verified that all required tests and surveys were performed at the required power levels, and that each set of test or survey results was

reviewed as required by the applicable procedure. Final approval of the procedures will not be accomplished until all tests or surveys are completed. The records also showed that three additional radiation surveys had been performed in addition to those required by procedure 3300081.

- c. The results of the radiation surveys (procedure 3300081) did not meet the stated acceptance criteria of the procedure as the radiation levels from neutron radiation in the reactor building were greater than the design levels specified in Section 12.1 of the FSAR. This condition occurred at both 20% and 50% power. Licensee management informed the inspector that a modification to the shielding around the reactor was being developed by FP&L engineering and that the modification would be submitted to the NRC for approval prior to accomplishment. As the survey at 20% power did not meet the acceptance criteria, the inspector inquired into what reviews or approvals had been made of the results. Facility Review Group (FRG) Minutes 76-104 of May 12, 1976, stated that the 20% power test results had been reviewed and that the FRG had recommended proceeding on to the 50% power test plateau. This action was approved by the plant manager.
- d. The results of the radiation surveys also indicated that a modification is necessary in the chemical and volume control system letdown line from the reactor coolant system to provide a delay for the decay of shortlived radionuclides and reduce radiation levels in the vicinity of the line. Licensee management stated that this modification is being developed by FP&L engineering and will be submitted to the NRC for approval prior to accomplishment. No time period for the accomplishment of the modification has been set.
- e. The results of the chemical and radiochemical tests (procedure 3400081) appeared to meet the acceptance criteria of the procedure. At 50% power, one parameter (lithium concentration in the reactor coolant) was outside of the specified range. This parameter was recommended by the nuclear steam system supplier and is not a Technical Specification requirement. The data sheet at 50% power had been noted concerning this item and a deviation was entered in the procedures. A licensee representative informed the inspector that the lithium concentration had been increased during the early phases of plant operational for corrosion control and that if it were effective in reducing corrosion that normal operating procedures would be revised to reflect the increased concentration of lithium.



3. Technical Specifications Surveillance Requirements

a. Reactor Coolant System Chemistry

Technical Specifications sections 3.4.7 and 3.4.8 specify the limits for reactor coolant system chemistry and specific activity. Surveillance requirements for these parameters are specified in Technical Specifications sections 4.4.7 and 4.4.8, respectively. The inspector reviewed the daily chemistry records for period of May 7-15 and May 30 - June 16 and verified that samples were collected and analyzed at the required frequency and that the results were within the specified limits. Additionally, the inspector independently calculated the values for dose equivalent iodine-131 for the reactor coolant system on three different days; calculated values agreed with those calculated by the licensee. The inspector had no further questions.

b. Plant Systems Specific Activity

Technical Specifications section 3.7.1.4 specifies the limits for specific activity in the secondary coolant system. Surveillance requirements are specified in Technical Specifications section 4.7.1.4. The inspector reviewed the daily chemistry records for the period May 7 - June 14 and verified that secondary coolant samples were collected and analyzed at the required frequency and that the results were within the specified limits. The inspector had no further questions on this matter.

4. Technical Specifications Radioactive Effluent Limits

a. Liquid Effluents

Environmental Technical Specifications section 2.4.1 and 2.4.2 specify the limits for liquid effluents and the requirements for sampling and monitoring, respectively. The inspector reviewed six of the eleven discharge permits completed at the time of the inspection and verified that they conformed to the requirements for concentration, cumulative totals for the amount of radioactivity, operability of the effluent monitor and required analyses prior to discharge. The inspector also reviewed the completed permits to determine that the releases had been authorized prior to release and had been reviewed after completion. The inspector reviewed the calibration records for the liquid effluent monitor and the tests of the automatic isolation valve to verify that the required tests had been performed quarterly, as required. Records for

April - June 1976 indicated that both the calibration and functional check had been performed monthly, and had been reviewed and approved. The inspector had no further questions.

b. Gaseous Effluents

Environmental Technical Specifications section 2.4.3. and 2.4.4 specify the limits for gaseous effluents and the requirements for sampling and monitoring, respectively. The inspector reviewed ten of twenty-two discharge permits and verified that they conformed to the requirements for cumulative totals for amount of radioactivity, operability of the effluent monitor, required analyses prior to discharge, proper authorization prior to release and review upon completion of discharge. The inspector also independently performed the calculations required to verify that the release rates conformed to requirements of the Environmental Technical Specifications. The inspector also reviewed the calibration records for the gaseous effluent monitor and the plant vent monitor, and the tests of the gaseous effluent isolation valve to verify that the tests had been performed quarterly, as required. Records for April - June 1976 indicated that both tests had been performed monthly, and had been reviewed and approved. The inspector had no further questions.

5. Radiological Work Practices

- a. During the inspection, the inspector observed the transfer and shipment of radioactive resin and also observed general work practices in the Reactor Auxiliary Building and the Reactor Building. Several minor discrepancies in work practices were observed but these were identified and corrected by licensee representatives when they occurred.
- b. Spent resins from chemical and volume control system (CVCS) demineralizers were transferred to a cask for offsite shipment and disposal. The inspector verified that the transfer was done using an approved procedure, that a radiation work permit had been established for the job and that health physics coverage of the job was provided. The inspector observed that the work site had been posted, exclusion areas established and controls established during the transfer in accordance with good health physics practices. The inspector had no further questions.
- c. During tours of the radiation control area (RCA), the inspector noted evidence that workers may have been smoking in the RCA,

which is prohibited by plant health physics procedures. Licensee management stated that this condition had been noted during the outage in progress and was the subject of continuing emphasis to personnel and was being checked by plant personnel to stop such occurrences.

6. Steam Generator Blowdown System (SGBS) Test Program

- a. Section 10.4.7 of the FSAR describes the steam generator blowdown system which is being installed on a backfit basis and which will replace the existing system. FSAR Table 14.1-1, Tests Prior to Fuel Loading, describes the testing of the steam generator blowdown system in terms of a functional test which was applicable to the currently installed system. As the new system includes processing equipment (e.g. filter and demineralizers) and consists of several sub-systems, the existing test program description does not adequately cover preoperational testing for the new system.
- b. A licensee representative informed the inspector that a draft program had been prepared for the new SGBS to test the components and subsystems which comprise the SGBS. At present, the program is preliminary and has not been reviewed by the facility review group. The inspector reviewed the draft program and compared it against the program of Regulatory Guide 1.68, Appendix A, Section A. Several minor comments on the scope and details of the program were made by the inspector and accepted by a licensee representative. The licensee representative stated that these comments would be considered in the preparation of the final program.
- c. The total program was discussed with licensee management who acknowledged that the inspector's comments would be considered in the preparation of the final test program.

