

UNITED STATES NUCLEAR REGULATORY COMMISSION REGION II 101 MARIETTA STREET, N.W. ATLANTA, GEORGIA 30323

Report Nos.: 50-250/93-15 and 50-251/93-15

Licensee: Florida Power and Light Company 9250 West Flagler Street Miami, FL 33102

Docket Nos.: 50-250 and 50-251 License Nos.: DPR-31 and DPR-41

Facility Name: Turkey Point 3 and 4

Inspection Conducted: May 17-21, 1993

Inspector: Reactor Inspector 600 Approved by: Chief Peebles, **Operations** Branch Division of Reactor Safety

Date Signed

Date Signed

SUMMARY

Scope:

This inspection was conducted in the area of complex surveillances. The inspection included a review of selected procedures and representative records, and interviews with personnel.

Results:

The inspector concluded that the safeguards test discrepancies were minor and were well dispositioned, and that the results of both of the safeguards tests were satisfactory.

Two strengths were identified: Safety analysis of two Agastat relays (paragraph 2) and pump reference value worksheet control (paragraph 2).

No violations or deviations were identified.

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REPORT DETAILS

1. Persons Contacted

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- *H. Johnson, Operations Supervisor
- *J. Knorr, Licensing Engineer
- *R. Kundalkar, Engineering Manager
- *P. Kuschinsky, Lead Electrical Engineer
- J. Mack, ISI Engineer
- L. Pearce, Plant General Manager
- *T. Plunkett, Site Vice President
- *E. Weinkam, Licensing Manager

Other licensee employees contacted included instructors, engineers, mechanics, technicians, operators, and office personnel.

NRC Representatives

- *R. Butcher, Senior Resident Inspector
- L. Trocine, Resident Inspector

*Attended Exit Interview

A listing of abbreviations and acronyms used in this report is contained in Paragraph 4.

2. Complex Surveillance

The inspector reviewed the following documentation to ensure that the safety related RHR, CS and HHSI pumps for both units were capable of delivering the required flows during an accident:

O-OSP-062.2, Safety Injection System Inservice Test, dated July 11, 1991, and performed on April 6, 1993.

3-OSP-050.2, Residual Heat Removal System Inservice Test, dated June 25, 1992, and performed on May 4, 1993.

4-OSP-050.2, Residual Heat Removal System Inservice Test, dated March 16, 1993, and performed on April 14, 1993.

3-OSP-068.2, Containment Spray System Inservice Test, dated June 16, 1992, and performed on March 17, 1993.

Updated Final Safety Analysis Report, Sections 6.1 and 6.2.

FPL letter L-89-358, dated October 3, 1989, "Guidance On Developing Acceptable Inservice Testing Programs".

Westinghouse Nuclear Technology Systems Division, Table 6 HHSI Pump Minimum ECCS Curve used to calculate the minimum HHSI performance used in FPLs FSAR LOCA analysis , calculation RFS-F-1340. Report Details

1

Technical Specification, Sections 4.5.2 b.3, 4.5.2 c and 4.6.2.1 b.

The results of the review indicated that new accident analysis were performed by Westinghouse that used pump performance curves for the RHR pumps that had been degraded by 12 percent and HHSI pumps that were degraded by 5 percent. The inspector reviewed the pump reference value worksheets to determine the reference test data for the pumps and the acceptance criteria. These sheets are in a controlled book and are considered a strength in documenting and controlling data. The inspector also reviewed trending data for all of the pumps. The inspector found that all the pumps were capable of performing and delivering the required flow during an accident.

The inspector reviewed the results of Train A Engineering Safeguards Integrated Test 4-OSP-203.1 dated May 11, 1993, and performed on May 15, 1993, and Train B Engineering Safeguards Integrated Test 4-OSP-203.2 dated May 13, 1993, and performed on May 17 and 18, 1993. The inspector also reviewed the test exception reports for both tests which included a safety evaluation report JPN-PTN-SEEP-93-015, Acceptable Upper and Lower Time Delay Limits for ECC4A and ECF4A Agastat Load Sequencing Relays dated May 19, 1993. The sequencing time delay circuitry for the Emergency Containment Cooling Fan 4A and Emergency Containment Filter Fan 4A are provided with Agastat electropneumatic timing relays which act as a backup following certain single failures. This backup is needed in the event of an SI signal and certain single failure to assure operation of two ECCs and two ECFs. It assures that the 4A fans which have the ability to be operated from two power sources will transfer to the opposite power supply if the single failure is the failure of the bus they are aligned to. During the Engineering Safeguards Integrated Test, the two Agastat relays associated with ECC4A and ECF4A failed to meet the test acceptance criteria. The safety analysis justifies leaving them as is. The review by the inspector indicated that the licensee determined the effect on the EDG loading, containment integrity, LOCA evaluation and radiological consequences on offsite dose. The safety evaluation was very thorough and went into great detail on evaluating the results. The inspector felt that the thoroughness of the safety evaluation was a strength. The inspector concluded that the TERs were minor and were well dispositioned and that the results of both of the safeguards tests were satisfactory.

3. Exit Interview (30703)

The inspection scope and findings were summarized on May 21, 1993, with those persons indicated in paragraph 1. The inspectors described the areas inspected and discussed in detail the inspection findings. No proprietary material is contained in this report. No dissenting comments were received from the licensee. Report Details

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4. Abbreviations and Acronyms

CS	Containment Spray
ECC	Emergency Containment Cooler
ECCS	Emergency Core Cooling System
ECF	Emergency Containment Filter
FPL	Florida Power and Light
FSAR	Final Safety Analysis Report
HHSI	High Head Safety Injection
LOCA	Loss of Coolant Accident
RHR	Residual Heat Removal
SI	Safety Injection
TERs	Test Exception Reports