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

Report Nos. 50-250/79-15 and 50-251/79-15

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

Facility Name: Turkey Point Units 3 and 4

Docket Nos. 50-250 and 50-251

License Nos. DPR-31 and DPR-41

Inspection at Turkey Point Site near Florida City, Florida

Inspector: E. H. Verdery for — 6/15/79 Date Signed

Approved by: R. C. Lewis, Chief, RONS Branch — 6/15/79 Date Signed

SUMMARY

Inspection on May 15-17, 1979

Areas Inspected

This routine, unannounced inspection involved 24 inspector-hours onsite in the areas of safety reviews restoration of plant systems following refueling; followup on reportable events, open items, noncompliance, bulletins and circulars; and onsite assessment of operating procedures and examination of licensed operators related to the Three Mile Island Incident.

Results

Of the eight areas inspected, no apparent items of noncompliance or deviations were identified in any areas.

## DETAILS

1. Persons Contacted

Licensee Employees

H. E. Yaeger, Plant Manager
*J. K. Hays, Plant Superintendent, Nuclear
*J. E. Moore, Operations Superintendent, Nuclear
*V. B. Wager, Operations Supervisor, Nuclear
*D. W. Jones, QC Supervisor
*D. W. Haase, Technical Department Supervisor
*W. A. Klein, Engineer, Technical Department
*W. C. Miller, Nuclear Training Instructor
*H. M. Ainsworth, Mechanical Maintenance
*R. J. Spooner, QAO Supervisor

Other licensee employees contacted included ten operators and three office personnel.

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on May 17, 1979 with those persons indicated in Paragraph 1 above. The inspector expressed a concern with regard to the length of time that an operator could remain on shift assigned to duties involving the control of the reactor. The inspector requested the licensee to commit to limiting the maximum time on shift to 12 hours. Licensee representatives indicated, that due to the union contract, they could not commit to any such limitation. Additionally, the inspector related several other comments and recommendations made by the operators during interviews conducted by the inspector.

3. Licensee Action on Previous Inspection Findings

Noncompliance

(Closed) Infraction (250/251/78-27-01) Failure to formally implement housekeeping program. The inspector reviewed the licensee's administrative procedure on housekeeping and special instruction assigning specific responsibilities for plant housekeeping and had no further questions. The inspector toured various areas of the facility and noted that plant cleanliness conditions continue to improve

(Closed) Infraction (250/251/78-27-02) Failure to conduct QC Surveillance of housekeeping. The inspector verified that the subject surveillances had been initiated in accordance with approved QC procedures and had no further questions.

(Closed) Infraction (250/251/78-02-02) Failure to maintain adequate operating logs and records. This item of noncompliance was originally identified in Inspection Report 250/251/78-02, however based on the licensee's denial of noncompliance it was reinspected during the inspection documented in Inspection Report 250/251/78-27. Noncompliance was reaffirmed during that inspection. The inspector reviewed the implementation of the licensee's revised logkeeping procedures included in Administrative Procedure, 0103.2 Duties and Responsibilities of Operators on Shift, dated January 30, 1979. The inspector determined that the licensee has provided additional guidance to the operations personnel and, based upon a review of operating logs and records for the period May 1-15, 1979, the inspector had no further questions.

(Open) Infraction (250/251/78-30-01) Failure to follow procedure for Boric Acid System valve alignment. The inspector questioned the licensee with regard to a revised procedure being developed to correct this item of noncompliance. The licensee indicated that this procedure had been written and reviewed by the PNSC but not promulgated as of the exit interview. However, a Special Instruction had been issued addressing this issue and was acceptable as an interim measure.

4. Unresolved Items

(Closed) 250/251/77-25-06, Calibration of Smoke Detectors. The inspector reviewed the licensee's procedure for calibration of smoke detectors which have been installed in accordance with the revised fire protection systems at Turkey Point. These smoke detectors are now required to be calibrated in accordance with Technical Specifications. This item is considered resolved.

5. Implementation of IE Bulletin 79-06A

A. Onsite Assessment of Operating Procedures

(1) The inspector determined that partial actuation of the Safety Injection System (SIS) is not required at Turkey Point to control pressurizer level during routine operational events. The SI pumps installed at this facility are "intermediate head" pumps with a discharge pressure of approximately 1400 psig. No routine operational events would be expected to reduce primary system pressure to a value where these SI pumps would provide any makeup flow.

(2) The inspector determined by review of Special Instructions issued May 3, 1979 and interviews with licensed operators, that the requirements of item 7C of IEB 79-06A have been implemented and are understood. The inspector was informed by the licensee that the guidance given in item 7C of the subject IEB directly conflicts with the recommendations of the NSSS vendor. The inspector stated that the licensee should vigorously pursue resolutions of these differences with the Office of Nuclear

Reactor Regulation. In the interim, the inspector stated that the intent of item 7C was to ensure that Reactor Coolant Pumps are not secured as long as they are providing forced coolant circulation and they are the only reliable source of reactor decay heat removal.

(3) The inspector verified by interviews with six licensed operators, that they were aware of and understood the requirements to (1) maintain SI pumps in operation until the primary system was at least 50 degrees Farenheit subcooled and (2) to restart SI pumps at anytime when 50 degrees Farenheit subcooling could not be maintained.

(4) The inspector determined by discussions with licensee personnel that there are currently no procedures in effect at Turkey Point for feeding a dry steam generator.

B. Examination of Licensed Operators

The inspector interviewed six licensed operators, on three different shifts, to evaluate their understanding of the operational errors and system misalignments associated with the Three Mile Island Incident, as they would apply at the Turkey Point facility. The following observations were made:

(a) Several operators could not properly evaluate the indications he might see if the plant were in a voided condition and the reactor coolant pumps were secured. Conversely, these same operators did not have an adequate understanding of what the core differential temperature should be if natural coolant circulation had been established.

(b) One Nuclear Watch Engineer did not have an adequate understanding of saturation temperature and pressure relationships. When questioned, this individual indicated that primary system pressure at the Safety Injection Actuation setpoint would be below saturation conditions.

(c) Several Nuclear Control Center Operators (NCCO) did not appear to understand the requirement to block the Containment Sump Pump and discharge valves prior to resetting Phase A Containment Isolation.

These observations were discussed with licensee management at the exit interview and the licensee agreed to address these areas in future training sessions.

6. Review and Audits

The inspector reviewed the following PNSC minutes to determine if the requirements of Technical Specifications had been met:

PNSC Minutes 78-65 through 78-71 and 79-01 through 79-02.

Two items of licensee identified noncompliance were discussed and corrective actions taken were adequate to prevent recurrence.

7. Full Length Control Rod Malfunction

During a review of operating logs and records on May 15, 1979, the inspector noted an event which occurred on May 4, 1979, during a reactor start up of Unit 3. The event involved the apparent misalignment of control rod P-10 in Control Group B. According to NCCO Chronological Logbook entries on May 4, 1979 reactor startup was commenced at 8:35 a.m. At 9:00 a.m. the operators noted that Rod P-10 was 100 steps below the Group B position. In accordance with OP 1608.1, Full Length Control Rod Malfunction, the definition of a rod out of alignment is 12 steps from the group position.

The inspector discussed this apparent violation of operating procedures and was informed that the probable cause of this misalignment was a rod drop which had been a frequent occurrence at Turkey Point during the early operating history of the plant. Subsequent modifications to the rod control circuitry had alleviated this as a frequent problem The inspector expressed his concern that little or no troubleshooting of this problem had been conducted prior to recovering rod P-10 to the Group B position.

This occurrence will be investigated during subsequent inspections (250/79-15-01).

8. Followup on Reportable Events

The following events were reviewed to ascertain that:

a. reporting requirements were met;

b. corrective action was taken as required by Appendix B to 10 CFR Part 50;

c. the event was reviewed and evaluated; and

d. the facility was operated within the requirements of 10 CFR 50.59 and the Technical Specification subsequent to the event.

50-250/79-04, "Failure of 3B SI Pump."

50-250/79-05, "MSIV 3A Failure to Close Within Required Time Interval."

50-250/79-10, "Excessive Leakage on Inner Air Lock Door During ILRT."

50-250/79-08, "Rupture of 'C' CVCS Holdup Tank."

50-250/79-09, "RWST Leakage From Temporary Level Indication Line."

50-251/79-01, "4A Basis Acid Transfer Pump Failure."

50-251/79-06, "RCS Leak Rate in Excess of Technical Specification Requirements"

The following event was closed out based upon a review in the Regional Office.

50-251/79-05, "R-11 and R-12 Monitor Out of Service."

No items of noncompliance or deviation were identified.

9. Followup of Licensee Actions for IE Bulletins and Circulars

The inspector reviewed the following IE Bulletins and Circular to evaluate the licensee's response and applicable corrective actions.

(Closed) Bulletin 79-09, Failure of GE Type AK-Z Circuit Breaker in in Safety Related Systems. The inspector verified that the subject breaker are not in use at Turkey Point in safety-related systems.

(Closed) Bulletin 79-07, Seismic Stress Analysis of Safety-Related Piping. The licensee had conducted an investigation of this problem in response to a request from the NRC prior to the issuance of this IEB. The seismic analysis for Turkey Point was performed using the absolute summation method.

(Closed) Circular 79-02, "Failure of 120 Volt Vital AC Power Supplies." The inspector discussed the subject circular with the licensee and determined that the Turkey Point design does not include inverter static switches which are required to transfer on low incoming voltage.

(Open) Circular 79-04, "Loose Locking Nut on Limitorque Valve Operators." The inspector determined that this problem is applicable to Turkey Point and that the licensee had implemented a inspection program to correct any loose locking nuts. As of the date of this inspection no problems had been identified.

(Open) Circular 79-05, "Moisture Leakage in Standard Wire Conductors." The licensee intends to address this issue as part of his investigation and response to IEB 79-01 on Environmental Qualification of Safety Related Electrical Equipment.

10. Followup on Open Items

(Closed) 77-01-01 Modifications on 4160 Volt Breakers. The inspector determined through discussions with licensee personnel that all deficient 4160 volt breakers operating mechanisms would be refurbished by the end of the current refueling outage on Unit 4.

(Closed) 77-22-01 Implementation of Maintenance Training Program. The inspector verified that the licensee had implemented a formal training program for Electrical, Mechanical and Instrumentation and Control personnel. Training Instructions have been developed and are maintained at the Department Head level of each group. Additionally, each maintenance group member has an individual training record and formal lectures have been initiated as of January, 1979.