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

Report Nos: 50-250/83-20 and 50-251/83-20

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

Docket Nos: 50-250 and 50-251

License Nos: DPR-31 and DPR-41

Facility Name: Turkey Point 3 and 4

Inspection at Turkey Point site near Homestead, Florida

Inspector: _____ 6/15/83
C. M. Hosey Date Signed

Approved by: _____ 6/17/83
K. P. Barr, Section Chief Date Signed
Operational Programs Branch
Division of Engineering and Operational Programs

SUMMARY

Inspection on May 17 - 20, 1983

Areas Inspected

This routine, unannounced inspection involved 26 inspector-hours on site in the areas of radioactive effluent releases, reactor coolant quality, testing of filter systems, calibration and functionally testing effluent release monitors and review of TMI Action Item II.B.2, plant modifications for vital area access.

Results

In the five areas inspected, no violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

H. E. Yaeger, Site Manager
*J. K. Hays, Plant Manager-Nuclear
*P. W. Hughes, Health Physics Supervisor
B. A. Abrisham, Systems Performance Supervisor
C. K. Baker, Assistant Superintendent - Projects
E. Hayes, I&C Support Supervisor
*J. S. Wade, Jr., Chemistry Supervisor
*E. R. LaPierre, Radiochemist

Other licensee employees contacted included three technicians, three operators and two office personnel.

NRC Resident Inspector

*J. Agles, Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on May 20, 1983, with those persons indicated in paragraph 1 above.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Radioactive Effluent Releases

Technical Specification 3.9 specifies the requirements related to release rates, sampling and analysis, dilution flow and operability of radiation monitors in the effluent stream. The inspector selectively reviewed liquid and gaseous effluent release records for April and May 1983 and discussed the records with licensee representatives. Plant Procedure 5523.1, Waste Disposal System-Gas Decay Tank, Controlled Release to Atmosphere, states under the precautions section that a release should not be initiated if the wind speed is less than 10 mph. During the review of waste gas tank releases, the inspector noted the initiation of releases under release permits 83-25 and 83-24 began with the wind speed below 10 mph. The inspector stated that the wind speed was specified in the procedure to insure adequate dispersion of the released gas.

However the low radioactivity concentrations in the gas probably would have made it unnecessary to specify a particular wind speed limit. The inspector stated that the licensee should evaluate the recommended wind speed in the procedure and either change the procedure to require that the speed be greater than an established value before any release is initiated or before a release of a particular magnitude is initiated. (83-20-01).

The licensee uses changes in pressure in the waste gas decay tanks to determine the volume of waste gases released. The inspector reviewed the records for the latest calibration performed on the pressure gauges for waste gas decay tanks (WGDT) Nos. 1, 2 and 6. The licensee could not locate the records for the remaining three WGDT pressure gauges prior to the close of the inspection. However, a licensee representative stated that he was sure the calibrations had been performed and it was only a matter of finding the records. He also stated that the gages will be added to a periodic maintenance program by the end of summer and the gauges will then be calibrated every two years. The inspector stated that the records should be located or the gauges retested and that the calibration records for the remaining three gauges would be reviewed during a subsequent inspection. (83-20-02).

Technical Specification 6.9.4 requires the licensee to submit a Semiannual Radioactive Effluent Release Report, summarizing the gaseous, liquid and solid waste released off-site. The inspector reviewed the report for the period of July 1982 through December 1982, submitted to the NRC on March 1, 1983. The inspector selectively reviewed the supporting data for the report.

No violations or deviations were identified.

6. Reactor Coolant Quality

Technical Specification 3.1.4 specifies the total specific activity of the reactor coolant and the maximum concentration of radioiodine in the reactor coolant. Technical Specification 3.1.5 specifies the maximum concentration of oxygen, chlorides and flurides in reactor coolant. Technical specifications 3.1.4 and 3.1.5 also include specific action statements if the limits are exceeded. The inspector selectively reviewed the results of daily reactor coolant samples for Unit 3 and 4 for March and April 1983.

No violations or deviations were identified.

7. Testing of Filter Systems

Technical Specifications 4.7 specifies operating test and performance test for the emergency containment filter system, post accident containment vent system and the control room ventilation (emergency internal cleanup) system. The operation test includes pressure drop and flow test, auto initiation (when required) and minimum run times for each month. The performance test include, in-place DOP testing of the high efficiency particulate air filters, testing of the charcoal filters with halogeneated hydrocarbons, and a determination of the iodine removal efficiency of the charcoal.

The inspector reviewed the following completed procedures for performance test completed by the station in April, 1983.

Operating Procedure 4704.3 Emergency Containment Filter System - Performance Test

Operating Procedure 5504.1 Post Accident Containment Vent System Filter - Performance Test

Operating Procedure 10304.1 Control Room Emergency Ventilation Filter System - Performance Test

Filter testing is performed by the licensee. The inspector reviewed the calibration records for filter test equipment and discussed the performance of the test with licensee representatives.

The inspector selectively reviewed procedure 4104.2, Engineered Safeguards and Emergency Power System - Integrated Test, completed in 1983. Auto-initiation of the control room emergency ventilation system and the emergency containment filter system is tested using this procedure.

The inspector selectively reviewed the records of the control room emergency ventilation system 15 minute run test peformed on a monthly basis in accordance with Operating Procedure 10304.3.

No violations or deviations were identified.

8. Effluent Radiation Monitors

The inspector selectively reviewed the records of the calibration of the Unit 3 containment ventilation system radiation monitors (R-11 and R-12), the plant vent monitor (R-14), the liquid release monitor (R-18) and the steam generator blow down monitor (R-19) which were performed in 1983. The inspector also selectively reviewed the monthly functional test for the above listed monitors. The licensee performs the functional test in accordance with Operating Procedure 11104.1, Process Radiation Monitoring System - Periodic Test.

No violations or deviations were identified.

9. Plant Modification for Vital Area Access

NUREG 0737, Item II.B.2 directed that all licensees perform a design review of plant shielding and to provide for adequate post accident access to vital areas by design changes, increased temporary permanent shielding, or post accident procedural controls. FP&L performed the required review and described their activities in letters to the NRC dated January 11, 1980, January 7, 1982 and April 27, 1982.

During the inspection, the inspector verified that the assumptions and methodology employed by the licensee in their shielding design review were consistent with the requirements. Source terms were based on source term requirements contained in NUREG 0737. Systems assumed to contain high levels of radioactivity as a result of a postulated accident were determined and found to be consistent with system functions. Vital areas requiring access were identified and dose rates in various plant areas and vital areas were calculated. The shielding review concluded that several modifications were necessary to insure vital area access, including continuous occupancy of the control room. The inspector accompanied by a licensee representative verified that the modifications had been made.

Dose rates calculated in the Technical Support Center indicated that continuous occupancy following an accident is possible and no additional shielding is required.

The inspector reviewed Emergency Operating Procedure 2000I (E-1), Loss of Reactor Coolant to determine if procedural requirements could be performed in the main control room or if procedural steps required an operator to leave the control room to operate a valve or breaker. During the review of the procedure the inspector noted that Table E-1.1 specified that an operator verify that the safety injection sectionalizing recirculation isolation valves 892A and 892B are closed. BECHTEL Drawing 5177-119-5K-M-1, Post Accident Radiation Zone Map, El 18'-0" indicates that dose rates in the room where the valves are located would range from 5000 - 50,000 R/hr. A licensee representative stated that the levels would not be this high until the licensee began recirculation of containment sump water to the reactor coolant system. The inspector noted that the step to verify the status of the valves was after recirculation was established. The licensee reviewed the sequence of the steps in the procedure and determined that the two valves are on the plant's locked valve list as "locked closed," which should make the verification unnecessary. A licensee representative stated that the procedure would be revised to eliminate the verification step for the valves after recirculation had been initiated. The inspector stated he would review the revised procedure during a subsequent inspection (83-20-03). The inspector accompanied by a licensee representative walked down the procedural steps. Based on the area dose rate maps, the inspector verified that personnel could safely enter the required vital areas, perform their task, and receive less exposure than the limit specified in NUREG 0737 and GDC-19.

Special plant shielding required for the post accident sampling system (TMI Action Item II.B.3) will be reviewed during a subsequent inspection.

10. Posting, Labeling and Control

The inspector reviewed the licensee's posting and control of radiation areas, high radiation areas, airborne radioactivity areas, contamination areas, radioactive material areas, and the labeling of radioactive material during tours of the plant.

No violations or deviations were identified.