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

Report No. 50-251/80-36

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

Facility Name: Turkey Point

Docket No. 50-251

License no. DPR-41

Inspection at Turkey Point site near Homestead, Florida

Inspector: H. F. Whitener (for) 2/6/81
E. H. Brooks Date Signed

Approved by: R.C. Lewis for 2/6/81
D. Quick, Section Chief, RONS Branch Date Signed

SUMMARY

Inspection on December 29-31, 1980

Areas Inspected

This routine, announced inspection involved 20 inspector-hours on site in the areas of containment integrated leakage rate testing.

Results

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

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DETAILS

1. Persons Contacted

Licensee Employees

*J. K. Hayes, Plant Superintendent
D. Haase, Technical Department Supervisor
R. Gouldy, Plant Engineer
B. Abrishami, Plant Engineer

Other Organizations

Stone and Webster

B. C. Kuechler
R. I. Parry

NRC Resident Inspector

A. Ignatonis
W. Marsh

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on December 31, 1980 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Containment Integrated Leakage Rate Test (CILRT) - Unit 4

The inspector reviewed the licensee's Containment Integrated Leakage Rate Test Procedure 13100.2 dated December 18, 1980. The procedure includes the valve lineup and verification sheets, valve lineup schematics, and instrumentation and control instrument list. The inspector observed the pressurization phase of the CILRT, inspected the installation of compressors, and reviewed the valve lineup verification data sheets.

Containment pressurization was initiated at 0600 hours on 12/30/80. Pressurization was stopped at approximately 25 psig to survey containment for leaks. Minor leaks were identified at vents or drains at penetrations 7, 47, 9, 10, 52, 64A and 64B. No attempts were made to adjust valves or

isolate the leaks. Pressurization was then continued until 2105 hours on 12/30/80 at which time containment pressure reached 68.7 psia and the compressors were secured and vented. The containment was allowed to stabilize until 0140 hours on 12/31/80. At this point the change in containment average temperature did not exceed 0.5 degrees F per hour over a two hour period. Leakage rate testing (data collection) started at 0520 hours on 12/31/80.

Using the absolute test method mass point analysis, calculated leakage decreased from 0.166299 to 0.102597 weight percent per 24 hours over a 6 hour period. The leakage rate acceptance limit for Turkey Point unit 4 is 0.1875 (.75La). At 1120 hours on 12/31/80 a leak occured causing the calculated leakage rate to increase to above the acceptance limit. A survey team was dispatched to search for the cause of the increased leakage. Automatic valve CV-4668A at penetration 52 was discovered to be leaking via the valve bonnet. The valve was in the open position as required and verified on the valve lineup sheets. However, the correct valve position was indicated as closed on the valve lineup schematics.

The licensee concluded that leakage occured due to failure of the diaphragm seal which was inadvertantly exposed to the containment pressure with the valve in the open position. During a LOCA this valve would be closed automatically to act as the containment boundary thereby isolating the diaphragm seal from containment pressure. Considering that the leak occured under conservative circumstances the licensee considered it acceptable to close the valve by automatic actuation. Data collection was again started at 1900 hours on 12/31/80, continued for 24 hours and included the controlled leakage verification test. The containment was brought to atmospheric pressure on 1330 hours on 1/2/81.

Calculated leakage at the end of the testing period was 0.030 weight percent per 24 hours as compared to the acceptance limit of 0.1875 weight percent per 24 hours.

A CILRT summary technical report will be submitted to the Commssion in approximately 3 months.