

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

Report Nos.: 50-250/84-11 and 50-251/84-11 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 at Turkey Point site near Homestead, Florida Inspectors: Peebles, Senior Resident Inspector (March 12-16, 1984) Weise Accompanying Personnel: D. R. Brewer Approved by: Elrod, Section Chief Division of Reactor Projects

SUMMARY

Inspection on March 1 - April 6, 1984

Areas Inspected

This routine, unannounced inspection involved 267 inspector-hours on site, including 46 hours of backshift, in the areas of previous enforcement items, IE Bulletins, annual and monthly surveillance, annual and monthly maintenance, operational safety, emergency safety features walkdown, refueling, independent inspection and exit interview.

Results

Of the eight areas inspected, no violations or deviations were identified in five areas; two violations were found in two areas (failure to establish a procedure, paragraph 6; and failure to implement a procedure, paragraph 8); and one example of a previous violation (failure to follow a procedure, paragraph 7.).

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# REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*K. N. Harris, Manager, Operations
- XH. E. Yaeger, Site Manager
- X\*C. J. Baker, Plant Manager Nuclear
- X\*J. P. Mendietta, Maintenance Superintendent Nuclear
- X\*D. W. Haase, Operations Superintendent Nuclear
- X\*J. P. Lowman, Assistant Superintendent Mechanical Maintenance Nuclear
  - L. L. Thomas, Assistant Superintendent Mechanical Maintenance
  - J. Kenney, Primary Maintenance Supervisor
  - P. Bannister, Secondary Maintenance Supervisor
  - W. R. Williams, Assistant Superintendent Electrical Maintenance Nuclear
  - J. W. Kappes, Instrumentation and Control Supervisor
  - T. A. Finn, Operations Supervisor
  - A. W. Byrnes, Auxiliary Supervisor
  - W. Miller, Training Supervisor
  - XV. A. Kaminskas, Reactor Engineering Supervisor
  - J. S. Wade, Chemistry Supervisor
  - P. W. Hughes, Health Physics Supervisor
  - J. H. Hopkins, Rad Waste Supervisor
- X\*M. J. Crisler, Quality Control Supervisor
- K. N. York, Document Control Supervisor
- XJ. A. Labarraque, Technical Department Supervisor
- XJ. Arias, Regulations and Compliance Lead Engineer
- K. Jones, Operations QA Supervisor
- X\*D. Grandage, Plant Engineering Supervisor
- \*W. Bladow, Acting QA Operations Supervisor
- XJ. E. Moaba, Section Supervisor Licensing
- XJ. Ferrare, QA Engineer
- W. R. Lightfoot, System Performance Coordinator
- R. E. Garrett, Plant Security Supervisor
- XD. W. Jones, Licensing Technical Engineer

Other licensee employees contacted included construction craftsmen, technicians, operators, mechanics, electricians, and security force members.

\*Attended exit interview

## 2. Exit Interview

The inspection scope and findings were summarized during management interviews held throughout the reporting period with the nuclear plant manager and selected members of his staff. An exit meeting was held on April 6, 1984, with the persons noted with an "\*". The licensee acknowledged the inspection findings. Methods for tracking regulatory items and the closing of them were discussed. An agreement to actively pursue the closing of all open items was reached.

An exit meeting was conducted March 16, 1984, with the persons noted above with an "X". The inspection findings were acknowledged.

3. Licensee Action on Previous Enforcement Matters

(Open) UNR 250/83-40-01, Inadequate Procedure for RHR: The inspector reviewed the Cold Shutdown Procedure which was revised to include the operation of the RHR system. However, the normal system line-ups are in other procedures. The inspector has not reviewed the abnormal operating procedure to see if sufficient information is available to avert the temperature transient problem which highlighted these deficient procedures.

(Open) 250/84-04-07, Deviation on Inadequate Independent Inspection: The licensee completed a scoping document to establish the systems and components required to be independently verified. The commitment had been made to complete this by April 6, 1984, and it was completed. However, this item remains open as several more revisions must be done to make this a working document.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. IE Bulletin Followup (92703)

The inspector discussed the requirements of numerous pending IE Bulletins with the licensee. Based on an analysis of licensee supplied information and documentation the inspector closed all action items related to the following bulletins.

(Closed) IE Bulletin 79-03. The inspector determined that IE Bulletin 79-03 was superceded by IE Bulletin 79-03A which was closed in inspection report 50-250/81-10 and 50-251/81-10.

(Closed) IE Bulletin 79-06A. An examination of correspondence between the licensee and the Chief, Operating Reactors Branch #1, (Varga-Uhrig) dated July 7, 1980, revealed that IE Bulletins 79-06A and 79-06A, Revision 1, are closed. Due to administrative error the Bulletins have not, until now, been listed as closed.

(Closed) IF Bulletin 79-23. This bulletin was issued as a result of problems encountered at the Turkey Point Plant during testing of the emergency diesel generators. LER 250-79-20, closed in inspection report 50-250/80-10 and 50-251/80-10, fully documents corrective actions associated with the problem. The inspector reviewed the corrective actions and is satisfied that the requirements and action items identified in IE Bulletin 79-23 are complete.

The inspector discussed several other outstanding IE Bulletins with the licensee. While some action has been taken on each of the below listed IE Bulletins, sufficient documentation of completion of required actions has not yet been presented to the inspector. A concerted effort is being made to obtain additional documentation and the following bulletins will be addressed in the next inspection report.

(Open) IE Bulletin 79-18. Licensee response L-79-269, dated September 4, 1979, refers to a Plant Change/Modification (PC/M) designed to meet the requirements of the bulletins. The PC/M has been completed but no followup evaluation has been presented to certify that audibility of alarms has improved to meet the standards set forth in Bulletin 79-18. Recent tours of the plant indicate that audibility of announcements and alarms is question-able in certain high noise areas. The licensee is gathering additional information about the PC/M and its effectiveness. Supplemental information will be included in the next resident report.

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> (Open) IE Bulletin 79-27. An investigation of the intent of this bulletin is in progress, as is an analysis of the adequacy of licensee responses made in letters L-80-71, dated March 3, 1980, and L-80-173, dated June 6, 1980. The preparation of emergency protectives designed to achieve a cold shutdown condition upon loss of power to instrumentation and control systems may not be complete. Supplemental information is being obtained and will be documented in the next report.

> (Open) IE Bulletin 80-09. Licensee response to this bulletin was via letter L-80-201, dated June 23, 1980. The letter leaves the existence of affected Hydramotor operators open to question. The licensee is determining if the field inspection proposed in the letter was actually accomplished and if so, will submit a summary of findings.

(Open) IF Bulletin 80-12. Licensee response to this bulletin was via letter L-80-180, dated June 11, 1980. The response is incomplete because it does not describe changes made to procedures as a result of the reviews and analyses required by the bulletin. The response does not include a description of the facility safeguards against decay heat removal degradation. In addition, the inspectors are not yet satisfied with the adequacy of the normal and off-normal procedures for operating the residual heat removal system. Areas of concern are being discussed with the line e and supplemental information will be supplied in the next inspection response.

(Open) IE Bulletin 80-20. Licensee long term corrective action for failure of type W-2 spring switches involved replacement of the switches. Inspectors are currently reviewing PC/M 81-82 to verify that all required switches have been replaced.

The inspectors noted other long standing IE Bulletins which have not been closed and whose status is in question. An aggressive program has been implemented to ascertain the current status of these bulletins and updates on licensee progress will be made in subsequent inspection reports.

6. Monthly and Annual Surveillance Observation (61726/61708)

The inspectors observed Technical Specification required surveillance testing and verified that testing was performed in accordance with adequate procedures; that test instrumentation was calibrated; that limiting conditions for operation were met; that test results met acceptance criteria requirements and were reviewed by personnel other than the individual directing the test; and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel; and that system restoration was adequate. For completed tests, the inspector verified that testing frequencies were met and tests were performed by qualified individuals.

The inspector witnessed/reviewed portions of the following test activities:

Auxiliary Feedwater Pump - Special Test Auxiliary Feedwater Pump - Periodic Test Containment Spray - Periodic Test Pressurizer Level Loop Calibration Steam Generator Level Loop Calibration

The following testing was reviewed:

TS Table 4.1-2 (5) biweekly TS 4.8.1 monthly TS Table 4.1-2 (9) partial TS Table 4.1-1 (1a) daily TS 4.7 TS 4.9

During review of main steam isolation valve testing, the inspector determined that the licensee does not require testing of the steam line isolation push buttons on the vertical control board. While TS do not specifically require such testing, this testing appears necessary to ensure full safeguards system operability.

The licensee is rewriting the test procedure and will test the entire system prior to Unit 4 startup and Unit 3 will be tested at the next opportunity (IFI 250/84-11-04; 251/84-11-02).

Inservice Testing of the auxiliary feedwater pumps was observed.

Inservice Inspection/Ultrasonic Testing of the "A" Steam Generator Feedwater Nozzle was observed on March 27 and initial crack indications were noted. The documentation was observed being taken by qualified personnel.

#### HEPA and Charcoal Filter Testing (61726/61700)

a. Emergency Containment Filter System (ECFS)

The inspector reviewed surveillance procedure OP 4704.3 conducted December 2, 1983, for the three ECFS filter units on Unit 3. Results were reviewed for system visual inspections, air flow and pressure drop measurements, HEPA and charcoal filter leakage testing, radioactive iodine penetration and retention testing, purchase order specifications, and certificate of compliance. Discussions were held with cognizant licensee personnel. The licensee uses a single sample point near the HEPA filter surface and a sample rake at the fan discharge. Uniform mixture test data for the upstream sample point was also reviewed. This data was taken and evaluated in September 1978. The licensee's test evaluation indicated that the system was designed prior to the establishment of ANSI N510 and could not pass the aerosol uniformity test of ANSI N510 - 1975 The failure of the uniformity test was resolved in the evaluation by selecting the point of lowest aerosol concentration for the upstream sampling point. Based on the above review, the inspector had the following findings:

- (1) Use of a single sample point upstream of the HEPA filter was shown to be non-representative in the 1978 uniform mixture testing. ANSI N510-1975 requires that a multiple sample point approach be used when the uniform mixture test fails. Additionally, the licensee's use of the point of lowest concentration is not proceduralized in OP 4704.3 and testing in December 1983 did not utilize this area as the sample point.
- (2) OP 4704.3 does not specify sample injection and test point locations and methodologies to ensure consistent filter system testing.

Failure to complete adequate surveillance testing is a violation (50-250,251/84-11-02). Additionally, due to inspector concerns over potential freon loading of the charcoal absorbers, the licensee purged the ECFS units for about one day. Subsequently, the inspector determined that freon loading was not a valid technical issue.

b. Control Room Ventilation System (CRVS)

The inspector reviewed surveillance procedure OP 10304.1 conducted April 14, 1983. Results were reviewed for system visual inspections, air flow and pressure drop measurements, HEPA and charcoal filter leakage testing, and certificates of compliance. Discussions were held with cognizant licensee personnel. The licensee uses single upstream and downstream sample points. A uniform aerosol mixture test has not been conducted on this system. Based on the above reviews, the inspector had the following findings:

- Use of single sample poir s without having conducted a uniform mixture test to validate the reliability of the data is contrary to ANSI N510-1975 methodology.
- (2) OP 10304.1 does not specify sample injection and test point locations and methodologies to ensure consistent filter system testing.

Failure to complete adequate surveillance testing for control room filters is a further example of violation (50-250,251/84-11-02)

7. Monthly and Refueling Maintenance Observations

Station maintenance activities of safety-related systems and components were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides, and industry codes or standards and in conformance with Technical Specifications.

The following items were considered during this review: Limiting conditions for operations were met while components or systems were removed for service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and fire prevention controls were implemented.

The following maintenance activities were observed/reviewed:

Unit 4 Snubber Inspection Component Cooling Water Pump Repair Unit 4 Flexure Head Inspection (which showed one broken) Roof Leak Repair Over Electrical Penetration Rooms

The inspector reviewed licensee documents and held discussions with cognizant operations and maintenance personnel concerning "A" EDG preventive and corrective maintenance conducted on March 8, 1984. The inspector reviewed clearances 3-22 and 3-24 and post-maintenance surveillance tests OP 4304.1 and OP 4304.2. The inspector had the following findings:

a. OP 4304.1 was conducted to return "A" EDG to service after preventive maintenance and to satisfy the biweekly surveillance test requirement of Technical Specification 4.8.1. One requirement of this testing is that the EDG accelerate to reach certain parameters within fifteen seconds. This data was not recorded on the data sheet for comparison to the acceptance criteria, although the step performance sign-off was initialed. The Plant Supervisor - Nuclear review of this test did not identify this deficiency. b. OP 4304.2 was performed on "A" EDG later on March 8 after corrective maintenance on the air start regulator. This test is an abbreviated 2-½ minute test to verify EDG start after minor maintenance. This test was successfully performed and recorded acceptable start time data to resolve the EDG operability question of paragraph a. above. The OP 4304.2 data sheet requires recording the reason for the test. This information was not recorded, and the Plant Supervisor - Nuclear review did not identify this deficiency.

Failure to follow surveillance test procedures and failure to conduct adequate review of completed surveillance tests as noted above are further examples of failure of management controls as described in report 250,251/84-04 (250/84-11-03). Discussions with the Operations Supervisor indicated that the licensee corrective action was to annotate the testing document with the deficiency resolution, councel those individuals involved, and make a general entry in the Operations Supervisor information books to disseminate emphasis on attention to detail during procedural performance and review. These corrective actions appear adequate.

8. Operational Safety Verification

The inspectors observed control room operators, reviewed applicable logs, conducted discussions with control room operators, observed shift turnovers, and confirmed operability of instrumentation. The inspectors verified the operability of selected emergency systems, reviewed tagout records, verified compliance with Technical Specification LCOs, and verified proper return to service of affected components.

The inspectors, by observation and direct interviews, verified that the physical security plan was being implemented in accordance with the station security plan.

The inspectors verified that maintenance work orders had been submitted as required and that followup and prioritization of work was ongoing.

The inspectors observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection control.

Tours of the Unit 4 containment, auxiliary, diesel, and turbine buildings were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations.

The inspectors walked down accessible portions of the following safetyrelated systems on Units 3 and 4 to verify operability and proper valve alignment:

Residual Heat Removal System High Pressure Safety Injection System Emergency Diesel Generators and associated systems Auxiliary Feedwater Various plant tours were conducted by the inspectors. Attention was focused on the operability of safety-related equipment in the following areas: cable spreading rooms; rod control equipment rooms; switchgear rooms; diesel generator and day tank rooms; Unit 4 containment; and the auxiliary building. During the tours, particular emphasis was placed on the examination of clearance tags recently issued as a result of the Unit 4 refueling outage. Clearance tags were examined to verify that they were placed on the appropriate equipment, items were completely filled out, were signed and dated, and correctly indicated the desired component position. Certain clearance tags were examined to ascertain whether the required independent verification had been properly performed. Numerous discrepancies, itemized below, were noted concerning the various clearances examined. The failure to properly fill out and hang clearance tags constitutes a failure to comply with the requirements of Administrative Procedure (AP) 0103.4 entitled "In-Plant Equipment Clearance Orders" and is a violation (250,251/84-11-01).

- a. March 26, 1984. During a tour of the auxiliary building, the inspector found tags from two different clearances (#3-140 and #3-22) hanging on breaker #40748 for main steam bypass valve MOV-4-1401. One tag (#5) required the breaker to be open. The other tag (#42) required the breaker to be shut. Investigation revealed that tag #42 of clearance #3-140 was improperly filled out in that the desired position of the breaker, as per the clearance sheet, was "open." It is significant to note that clearance #3-140 was independently verified to be correctly hung and that the independent verification effort did not identify that tag #42 was incorrectly filled out.
- b. March 27, 1984. While inspecting Unit 4 containment, tags 1 and 2 of clearance #3-235 were found to be hanging on the wrong valves. Valves 4-10-664 and 4-10-665 were tagged shut with the clearance tag for the opposite valve. The two valves are located adjacent to each other. The clearance tag for valve 4-10-664 was hanging on valve 4-10-665 (and vice versa) and this discrepancy was not discovered by the independent verification effort, which had been signed off as complete. Valves 4-10-664 and 4-10-665 are the supply and return valves for component cooling water to "B" CRDM cooler.
- c. March 27, 1984. While inspecting Unit 4 containment, numerous clearance tags were found hanging on various vent and drain valves. The tags were not filled out, signed or dated and were being used during hydrostatic testing as an informal way to indicate that repositioning the valve should adversely affect the test. Use of the tags in such an informal manner undermines the clearance concept, sets a poor example for the other craftsmen and is contrary to the requirements of AP-103.4.
- d. March 28, 1984. A series of tags were found hanging on various reactor coolant pump seal water isolation valves. Three of the tags were not signed as required.

- e. April 2, 1984. One of the tags associated with clearance #3-63, hanging on the breaker for the 4C reactor coolant pump oil lift pump did not specify the required breaker position. This section of the tag had been left blank.
- f. April 4, 1984. Breaker #31523 for MOV-1501 (Ammertap) was tagged open by tag #3 of clearance 10-104. The breaker was found to be shut.
- g. April 4, 1984. Tag #1 of clearance #1-029 was attached to breaker #51423 (Ammertap). The tag had no signature or date.
- h. April 4, 1984. Tag #2 of clearance #3-59 was hung on valve 4-20-43 near the 4A main feed pump. The tag was not signed.

Each discrepancy was promptly corrected by licensee personnel after the inspectors made them aware of the problem. The licensee assigned personnel to inspect the clearance tags hanging on equipment in Unit 4 containment in an effort to identify and correct additional clearance tag problems.

An equipment identification program has been initiated to identify components which do not have the proper equipment number attached and to affix the proper tag. It is expected that this program will be ongoing and will address all components of significance on the site.

On March 28, 1984, the resident inspectors conducted a general area inspection inside the bioshield of Unit 4 containment. During the inspection the inspectors crossed through an area under the fuel transfer canal and exited from behind a posted airborne hazard sign. Subsequent examination of licensee surveys showed that this should have been a posted airborne contamination area; however, an air sample taken did not show levels above MPC. The existence and adequacy of the posting is the entrance to the area was of concern. The inspectors obtained whole body dose counts which verified that they did not receive any measurable increase in body burden as a result of the incident. The incident was reviewed with the licensee and regional management.

9. Engineered Safety Features Walkdown (71710)

The inspectors verified the operability of the Residual Heat Removal System on Unit 4 and the Auxiliary Feedwater System on Unit 3 by performing a complete walkdown of the accessible portions of the systems. The following specifics were reviewed/observed as appropriate: that the licensee's system lineup procedures match plant drawings and the as-built configuration; that equipment conditions and items that might degrade performance (hangers and supports are operable, housekeeping, etc.) were identified; with assistance from licensee personnel, that the interior of the breakers and electrical or instrumentation cabinets were inspected for debris, loose material, jumpers, evidence of rodents, etc.; that instrumentation was properly valved in and functioning and calibration dates were appropriate; that valves were in proper position, power was available, and valves were locked as appropriate; and local and remote position indication was compared. No violations or deviations were identified.

10. Refueling Activities (60710)

The inspector verified that prior to the handling of fuel in the core, all surveillance testing required by the technical specifications and licensee's procedures had been completed; verified that the activities were performed in accordance with the Technical Specifications and approved procedures; verified that containment integrity was maintained as required by Technical Specifications; verified that good housekeeping was maintained in the refueling area; and verified that staffing during refueling was in accordance with Technical Specifications and approved procedures.

The inspector reviewed surveillance procedure OP 16204.1, Manipulator Crane and RCC Change Fixture Periodic Test and reviewed FSAR Section 9.5 to verify that the manipulator crane checkout procedure included all safety features described in the FSAR. The inspector also held discussions with the cognizant refueling equipment coordinator. The inspector found that the procedure tested all features except the 2100 lb underload circuit in the hoist down circuit. The licensee revised the procedure during the inspection and the inspector found the revision satisfactory.

The defueling progressed slowly because, after the first element was removed, licensee management decided that refurbishment of the fuel transfer system was required.

No violations or deviations were identified.

11. Independent Inspection Effort (92706)

The inspectors routinely attended meetings with licensee management and shift turnovers between shift supervisors, shift foremen, and licensed operators during the reporting period. These meetings and discussions provided a daily status of plant operating and testing activities in progress as well as discussion of significant problems or incidents.

The March 23 runback of Unit 3 was reviewed and it was noted that the unit and operating staff performed well. The runback was due to water entering the NI-44 cable in the electrical penetration room. Corrective action was taken promptly.

The March 29 event where "D" MCC swapped supplies was reviewed. The control room DC lighting did not respond properly. Monthly surveillance of the DC lighting has been initiated.

No violations or deviations were identified.