

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

Report Nos. 50-250/81-16 and 50-251/81-16

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

Facility Name: Turkey Point

Docket Nos. 50-250 and 50-251

License Nos. DPR-31 and DPR-41

Inspection at Turkey Point site near Homestead, Florida

Inspectors: Ignationis, Senior Resident Inspector Marsh, Resident Inspector anci Approved by: H. C. Dance, Section Chief, Division of Resident and Reactor Project Inspection

Date aned Signed Date

SUMMARY

Inspection on May 26 - June 25, 1981

Areas Inspected

This routine inspection involved 188 resident inspector-hours on site in the areas of (1) followup on IE Bulletins; (2) followup on licensee event reports (3) licensee's program review of receipt, storage, and handling of safety-related items; (4) post implementation review of NUREG-0737 items; (5) use of two-way communication radios in Safeguards Equipment rooms; (6) verification of action taken in response to Order concerning primary coolant system pressure isolation valves; (7) followup on containment venting and purging operations; (8) plant operations; and (9) plant tours.

Results

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Of the nine areas inspected, no violations or deviations were identified in seven areas; two violations were found in two areas (Violation - failure to follow administrative procedure on receipt, storage and handling of safety-related equipment - paragraph 7; Violation - failure to implement provisions of procedure regarding issuance of a Radiation Work Permit - paragraph 13.)

DETAILS

1. Persons Contacted

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- Licensee Employees
- H. E. Yaeger, Site Manager
- *J. K. Hays, Plant Manager Nuclear
- *J. E. Moore, Operations Superintendent Nuclear
- *D. W. Hasse, Technical Department Supervisor
- *J. P. Lawman, I&C Department Supervisor
- *D. W. Jones, QC Supervisor
- B. A. Abrisham, Systems Test Engineer
- V. B. Wager, Operations Supervisor
- J. C. Galaguero, Licensing Engineer
- *R. E. Tucker, Q. Engineer
- *S. M. Feith, QA Supervisor
- *J .J. Sullivan, QC Mechanical Engineer

Other licensee employees contacted included construction craftsmen, technicians, operators, security free members, and office personnel.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on June 26, 1981, with those persons indicated in Paragraph 1 above. The Plant Manager acknow-ledged the stated violations.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Followup on IE Bulletins

The following Bulletins were reviewed to determine whether they had been received and reviewed by appropriate management; responses, where necessary, were accurate and complete; and that, if required, action was taken and was complete and appropriate.

a. (Closed) IEB 81-02, Failure of gate type valves to Close Against Differential Pressure. Licensee confirmed in his response that Turkey Point had been correctly omitted from the bulletin list of plants that had obtained W-EMD or BW-NVD valves (L-81-204 dated May 14, 1981). The inspector verified that the PORV block valves are made by Velan, and spot checked the plant valve index for the subject valve types with negative results.

b. (Closed) IEB 81-03, Flow blockage of Cooling Water to Safety System Components by Corbicula SP. (Asiatic Clam) and Mytilus SP. (Mussel). The licensee noted in his response (L-81-231 dated May 28, 1981) that the Asiatic Clam is primarily a fresh water cresture and not suited to the salt water cooling system at Turkey Point. The licensee further noted that the Mytilus cannot exist in prolonged exposures to temperatures greater than about 66°F. It is unlikely that the cooling canals at Turkey Point cool down to that temperature more than a few days each winter. Summer canal temperatures range 95°-105°F. The inspector has observed various heat exchangers throughout the plant during routine cleaning and has not observed clam or mussel fouling of any type.

6. Licensee Event Report (LER) Followup

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The following LER's were reviewed and closed. The inspector verified that reporting requirements had been met, causes had been identified, corrective actions appeared appropriate, generic applicability had been considered, and the LER forms were complete. Additionally, for those reports identified by asterisk, a more detailed review was performed to verify that the licensee had reviewed the event, corrective action had been taken, no unreviewed safety questions were involved, and violations of regulations or Technical Specification conditions had been identified.

- *250-81-09 Incomplete Tripping of All Bistables Associated with N-43 Channel
- 250-81-10 "3A" Component Cooling Water Pump Breaker in Trip Mode
- 250-81-11 Non-intact Electrical Penetration Fire Barriers
- *251-81-07 Component Cooling Water Leakage at Inlet of Excess Letdown Heat Exchanger

With regard to LER 250-81-09, procedural inadequacy was the cause of not having all bistables associated with N-43 power range channel while performing low power physics testing. Operating Procedure 0204.3 was revised as corrective action. The inspector reviewed the revision and had no further questions.

With regard to LER 251-81-07, Component Cooling Water leakage at the inlet of the excess letdown heat exchanger and its subsequent isolation would not have affected operability status of the safety-related function of the Component Cooling Water System. 7. Receipt, Storage, and Handling of Safety-Related Items

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On June 24 and 25, 1981, the inspector inspected the licensee's storage facilities for parts, materials, and components which included a tour of the new storage building, the I&C component storage locker, and Mechanical Maintenance QC component storage area. The inspector verified that the controlled materials (requiring traceability) were stored in a segregated manner from non-quality items; parts or material requiring receipt inspection and those that have already been inspected were tagged accordingly; and, that the stores personnel maintained a proper material receiving inspection log.

During the tour, the inspector selected eight safety-related items attached with QC tags for the purpose of ascertaining traceability of the item to its appropriate records including purchase order, certification record, receipt record, and issue record. The specific items selected were:

- a. Wide-range containment with level transmitters, Construction Work Order Number C-88B.
- Subcooled Margin Monitor RTDs, Construction Work Order Numbers C-97 and C-98.
- c. Two 1-inch Stainless Steel Globe Valves, and one 1¹/₂-inch Stop Check Valve, Construction Work Order Number C-95.
- d. Blind Flange for 1-inch pipe, rated 150 lbs., Construction Work Order Number C-95.
- e. Insert, 1-inch by 3/4 inch Stainless Steel, rated 3,000 lbs. Construction Work Order Number C-95.
- f. Three Pacific Scientific Company (PSC) mechanical snubbers, Purchase Order 65255-28204.
- g. Rear bracket for the PSC mechanical snubbers, Purchase Order 65255-08588P.
- h. Two 3/4-inch T-78 Globe Valves.

For the items inspected above, the inspector verified traceability of six items. Items (f) and (h) were untraceable. The information presented on the QC tags attached to items (f) and (h) was found to be incomplete and erroneous.

Licensee Administrative Procedure 0190.72, Receipt Inspection, Identification, and Control of Nuclear Safety-Related and Fire Protection Parts Materials, and Components, requires tagging of controlled material using Form 5521 (QC Tag) once receipt inspection activities have been completed and the controlled materials have been found to be acceptable. Furthermore, the QC tag is there for the purpose of retaining traceability data back to the purchase order by batch, lot, or serial number and remain attached to the controlled material until installation in the plant system.

The QC tags attached to item (h) -- two 3/4-inch T-78 Globe Valves provided no purchase order number, nor date received, date issued, and QC inspectors initials. The QC tags attached to item (f) -- the PSC mechanical snubbers provided an untraceable purchase order number. It appears that personnel responsible in tagging the controlled materials have been careless in completing the information required on the QC tags. The information required to be filled in on the QC Tag appears to be self-evident and needs no additional instructions. Therefore, A.P. 0190.72 was not followed. This constitutes a violation of 10 CFR 50, Appendix B, Criterion V and the accepted licensee QA Program Technical Quality Requirement Number 5 in that the instructions provided in 0190.71 were not followed. (250/81-16-02 and 251/81-16-02)

8. Post Implementation Review of NUREG-0737 Items

During this reporting period, the inspectors completed followup inspections of three TMI related requirements. Those requirements were stated in NUREG-0737:

Item I.A.1.3 Shift Manning: Part 1 of this requirement for the control of overtime for operating staff was found to be acceptable. The licensee responded to the NRC's overtime restrictions in their letter December 26, 1980, to the Director of Division of LIcensing. The licensee took exception to imposing overtime restrictions for plant personnel other than licensed operators who perform safety-related functions. The NRC does not have specific overtime criteria for non licensed personnel. Licensee conformance and exceptions to the interim criteria are discussed below. The required implementation dates for having an administrative procedure on limited overtime was November 1, 1980. The licensee has complied with these dates.

 The licensee Administrative Procedure 0103.2 defines overtime restrictions for licensed operators and delineates the four main overtime restrictions which are in agreement with NUREG-0737 requirements.

We have reviewed the licensee's overtime restrictions and its compliance with NRC requirments stated in the NUREG-0737 document. As already mentioned earlier the licensee took exception to imposing overtime restrictions on personnel other than licensed operators who perform safety functions. Our acceptance of this licensee position is based on our finding that while we do not have a written policy on overtime restrictions on unlicensed personnel there is a general agreement between the NRC and the licensee on working hous criteria applied to licensed operators.

With regard to the requirement of having a reactor operator periodically relieved of primary duties at the control board when working in excess of 8 continuous hours, no written agreement is provided in the licensee's procedure. However, with the number of RO's currently assigned this in the control room this requirement is easily achieveable and is actually performed in the control room. Furthermore the licensee has agreed to add this requirement to the Administrative Procedure.

The overtime restriction on RO's and SRO's when working more than 12 hours on other duties than normal shift assignment in the control room, and then not being able to return to their regular shift duty in the control room without at least a 12 hour break preceding such an assignment is not specified in the Administrative Procedure. However, a letter has been issued to the Turkey Point Units 3 and 4 reactor operation personnel including licensed and unlicensed operators from the Operations Supervisor. The letter informed them that they may work in maintenance (all other departments) on their second day of rest and there shall be at least 12 hours between the time the operator stops work in maintenance and the time he is scheduled to report back to work on his operating schedule. Implementation of this letter meets the requirement.

Item I.C.5 Procedures for Feedback of Operating Experience to Plant Staff: The operating experience feedback program established December 21, 1980, at Turkey Point is defined by the Corporate Power Resources Department instruction 3148, "Feedback of operating Experience to Plant Staff" and Turkey Point Administrative Procedure 0103.5, "Operating Experience Feedback". These procedures establish a Program Administrative on the corporate staff who is in overall charge of the program. The Quality Assurance department conducts periodic audits, to assure the feedback functions are working effectively.

The inspectors review established that of the seven requirements for a program of feedback of operational staff, four were deemed to have been fully met, and three were found to be deficient in some aspects of the administrative controls required. The licensee (Plant Manager) committed to strengthen the administrative controls by modifying Administrative Procedure 0103.5 by September 1, 1981, as follows:

- a. Modify paragraph 3.2.2 to state that procedural changes, plant modifications, etc. resulting from action on feedback information will be accomplished using the plant's existing administrative procedures as appropriate to the individual circumstance.
- b. Modify paragraph 5.2.2.1 to explain what action shall be taken for priority items and the steps necessary to ensure affected personnel are informed and understand the item.
- c. Establish within the procedure specific administrative direction to the Technical Department Supervisor for the routing of feedback information to the plant staff for action and/or information.
- d. Establish within the procedure the form and administrative mechanics of the staff log.

These items will be reviewed on a subsequent inspection.

<u>Item I.C.6</u> Procedures for Verifying Correct Performance of Operating Activities: Of the five requirements for verification of operating activities, the licensee fully met three. Administrative Procedure 0103.1, Implant and Equipment Clearance orders, provided the details and authority that addressed requirements 1, 2 and 4. Two of the requirements (numbers three and five) had not been fully implemented. The licensee committed by August 31, 1981 to strengthen his administrative controls in these areas of independent verification by letter L-81-248 dated June 12, 1981 (250, 251/81-16-04).

9. Use of Hand-held Communication Radios in Safeguards Equipment Rooms

The inspector conducted an informal survey to determine licensee's position on the use of hand-held radio transceivers and the susceptability of any safety-related equipment to radio frequency electromagnetic interference. It was determined that many such radios are used continually on site. The licensee has an informal rule that no such radio may be keyed in the rear vicinity of the protection or safeguard panels in the control room. Low power (2 watt) radios may otherwise be used anywhere on site. High power (5 watt) radios may be used anywhere on site except for the control room, cable spreading room, and static inverter room. The high power radios are known to cause spurious process radiation monitor alarms when keyed in the control room; additionally, it is suspected that they may have been responsible for a spurious reactor trip several years ago.

10. Order for License Modification Concerning Primary Coolant System Pressure Isolation Valves

An NRC Order was issued on April 20, 1981, requiring the licensee to implement revised Technical Specifications pertaining to periodic surveillance of reactor coolant pressure isolation valves. The inspector has verified that the actions required by this Order have been satisfactorily completed and that the results of the tests and inspections were suitably documented by the licensee.

Records show that within the past 12 months preceding the date of the Order, the licensee performed leakage testing on the affected valves required by the Order. Testing of Unit 3 Reactor Coolant System (RCS) check valves was performed last on April 16, 1981, per licensee Operating Procedure 1004.5, Reactor Coolant Pressure Isolation Valve Leakage Testing. Unit 4 RCS check valves were tested last on January 10, 1981, per Temporary Procedure 991. The RCS pressure isolation valves tested in both units per the two specified procedures were the same as those delineated in the revised Technical Specifications attached to the Order. The acceptance criteria used for maximum allowable leakage was consistent with that required by the Order. All valves tested have met the acceptance criteria.

The frequency of testing, test conditions, and acceptable leakage rates are within the guidance given in Section 2.2 of the Franklin Research Technical Evaluation Report which was attached to the Order.

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Based on the review of licersee's documentation, the inspector concluded that an acceptable leak rate test on the required RCS check valves had been performed, 0.P. 1004.5 incorporates all the requirements of the Order, and that the revised Technical Specifications attached to the Order had been implemented in a timely manner.

11. Containment Venting and Purging

The inspector verified the licensee's implementation of the interim commitments on containment purging and venting during reactor operations. The licensee's commitment of limited purging of both unit containments to a maximum of 200 hours per year and at a limited valve opening up to 50 degrees maximum has been accepted by NRC.

Subsequently, the containment purge valve manufacturer, the Henry Pratt Company, had determined that the 48-inch and 54-inch valve disc openings should be limited to 35 and 30 degrees, respectively. The licensee implemented these modifications on Unit 3 in October 1980, and on Unit 4 in January 1981. To limit purge valve opening the modification consisted of an air supply adjustment. Furthermore, the 48-inch valves were adjusted to limit disc opening to 33 degrees instead of 35 degrees. This was done in order to balance the inlet and outlet containment purge air flows. The licensee plans to incorporate additional modifications which include installation of mechanical stops for the purge valves.

The inspector also reviewed the number of hours that both units have undergone containment purging operations within the past two years. Cumulative hours of purging for the time frame of July 1, 1979 to June 30, 1980 and July 1, 1980 to June 12, 1981, were approximately 49 hours and 51 hours, respectively. The number of hours of containment purging and venting used are well within the limits of the licensee's commitment.

It should be noted during the prolonged outage of Unit 3, while the fuel has been removed, in order to maintain negative pressure in the containment the purge valves have been and will be maintained in an open position.

12. Plant Operations

The inspector kept informed on a daily basis of the overall plant status and any significant safety matters related to plant operations. Discussions were held with plant management and various members of the operations staff on a regular basis. Selected portions of daily operating logs and operating data sheets were reveiwed daily during the report period.

The inspector conducted various plant tours and made frequent visits to the control room. Observations included witnessing work activities in progress, status of operating and standby safety systems, confirming valve positions, instrument readings, and recording, annunciator alarms, housekeeping, radiation area controls, and vital area controls. Informal discussions were held with operators and other personnel on work activities in progress and status of safety-related equipment or systems.

On June 10, 1981, the inspector observed portions of spent resin transfer operations to a shielded shipping cask. The spent resin transfer was performed per Operating Procedure 5333.1, Waste Disposal System -Transferring Spent Resin Storage Tank to Shielded Shipping Cask. The inspector verified that the procedure was followed, operations were performed by qualified personnel, Health Physics coverage was provided, and that system restoration was correctly accomplished following completion of the operation. No violations were identified within the areas inspected.

During the time frame of June 8 through June 10, 1981, the inspector observed maintenance activities on Unit 4 "A" Intake Cooling Water Pump motor removal and replacement. The inspector verified that the Plant Work Orders originating from the Electrical and Mechanical Maintanance departments were properly prepared and the maintenance procedures were used. The following procedures were applied: (1) Maintenance Procedure 0707.27, 4160 Volt Motor Grounding and Tesing with use of Manufacturer's Ground and Test Device; (2) Maintenance Procedure 3407.4, Intake Cooling Water Cump Motor -Overhaul and Maintenance; and (3) Administrative Procedure 0190.28,

Mechanical Test Control (Post Maintenance). The latter procedure provides -instruction in ensuring that the pump undergoes an Inservice Inspection test upon completion of maintenance. No violations we identified within the areas inspected.

13. Plant Tours

During a tour of the facility about 0700, June 3, 1981, the inspector noted that the liquid release line to the Unit 3 discharge structure had been partially removed. One end of the line had been sealed with a welded plate. The other end of the line was open, unbagged, and une sted. The inspector brought the condition of the internally contaminated quid release line to the attention of the health physics supervisor who immediately assigned a health physics technician to provide direct coverage of the balance of the work in removing the remainder of the line to ensure that proper health physics procedures were used to remove and account for the rest of the piping. The licensee was able to account for all of the piping which had been previously removed, cut up in sections, and stored inside the Radio-logically Controlled Area. A swipe of the inside surface of the open end of the pipe read 20,000 dpm.

Licensee operating procedure 11550.1, "Health Physics Procedure HP-1" requires that either a Radiation Work Permit or direct coverage by a health physics technician be provided for work on equipment contaminated in excess of 10,000 dpm/100 cm² or work assignments which have the potential for increasing surface contamination levels to exceed 10,000 dpm/100cm². Direct coverage had been assigned for the liquid release line removal; however, a difference in the shift relief time. for health physics and construction personnel produces a two hour gap when no health physics technician was present. The gap in health physics coverage appears to have been the direct result of inadequacy of health physics supervisor shift turnover procedures to note direct coverage assignments due to the lack of a Radiation Work Permit. This incident constitutes a violation of Technical Specification 6.8.1 in that the provisions of operating procedure 11550.1 were not implemented (250/81-16-01).

On June 5, 1981, the intractor performed a complete walkdown of the Auxiliary Feedwater System used for Units 3 and 4. This included verification of correct valve position, proper alignment of power supply and breakers that must actuate upon initiation signal, valves are locked as appropriate, and that auxiliary equipment such as the Nitrogen system was in an operable condition. No violations were identified within the areas inspected.