



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

APR 17 1989

Report Nos.: 50-250/89-08 and 50-251/89-08

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 Conducted: March 13-17, 1989

Inspector:

A. L. Cunningham

4-17-89
Date Signed

Accompanying Personnel: G. F. Martin
K. C. McBride

Approved by:

W. H. Rankin
W. H. Rankin, Chief
Emergency Preparedness Section
Emergency Preparedness and Radiological Protection Branch
Division of Radiation Safety and Safeguards

4-17-89
Date Signed

SUMMARY

Scope

This special, announced inspection was in initial followup of Emergency Response Facility Appraisal (ERFA) findings identified during the appraisal conducted February 22-25, 1988 (Inspection Report No. 50-250, 251/88-01). Inspection included a detailed review, evaluation, and discussion of the licensee's response to ERFA open items. Additionally, inspection included a status review of all outstanding nonappraisal emergency preparedness findings and a detailed evaluation of the licensee identified item (LIV) regarding notification of the Notice of Unusual Event (NOUE) declared and promptly terminated on March 9, 1989. The evaluation of the NOUE (RCS leak rate exceeding 1 gpm), disclosed a violation addressing the failure to notify offsite agencies within the required 15 minute time regime. A Notice of Violation (NOV) was not issued based upon the licensee's completion of prompt corrective action; therefore, no licensee response is required (Paragraph 4). A review of licensee corrective actions attending a similar event of January 7, 1989, was also reviewed.

Results

Inspection disclosed that corrective actions for the violations identified during the ERFA were satisfactorily completed and are therefore closed.

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Inspection further disclosed that corrective actions were satisfactorily completed for 13 appraisal open items. Three appraisal open items (50-250, 251/88-01-03, 88-01-05, and 88-01-12) remained outstanding based on required completion of additional corrective action (Paragraph 3).

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *J. Anderson, Regulatory Compliance Supervisor
- *J. Arias, Jr., Assistant to Plant Manager
- P. Bailey, Corporate Health Physicist
- R. Earl, Quality Control Supervisor
- *S. Franzone, Lead Engineer
- *D. Haase, Supervisor, Safety Evaluation Group
- *S. Hale, Engineering Project Manager
- *R. Hart, Regulatory and Compliance Supervisor
- *G. LaGarde, Emergency Preparedness Coordinator
- *E. Lyons, Compliance Engineer
- *J. Maisler, Emergency Planning Manager
- *J. Odom, Site Vice President
- L. Pearce, Operations Superintendent
- W. Pinn, Acting I&C Digital Field Supervisor
- *G. Richardson, Data Acquisition Systems Specialist
- L. Sayers, Assistant Administrative Supervisor
- R. Stevens, Manager, Plant Licensing
- *A. Taylor, Emergency Preparedness Support

NRC Resident Inspector

*R. Butcher

*Attended exit interview

2. Licensee Action on ERF Appraisal Enforcement Items (92702)

This section addresses the status of the licensee's response to the violations listed in Appendix A of the ERFA Report dated April 12, 1988 (50-250, 251/88-01). The responses were evaluated and discussed with cognizant licensee representatives prior to and during the exit interview.

- a. (Closed) Violation 50-250, 251/88-01-04: Failure of licensee to establish, implement, and maintain a written software procedure and/or administrative policy to control the computer based dose calculation model. Inspection disclosed that the licensee developed and implemented a configuration control procedure for dose calculation (FPL No. JNS-HP 5.0 dated September 23, 1988). Inspection also disclosed that the licensee committed to implement the following:

- (1) Each software revision including source code, change requirements, and supporting documentation will be stored on magnetic media or hard copy for future reference.
 - (2) Verification of correctness of each revision made to satisfy change requirements will be finalized via acceptance testing.
 - (3) The source code description manual will be updated for each software revision to establish change traceability.
- b. (Closed) Violation 50-250, 251/88-01-07: As a consequence of the licensee's failure to promulgate the change in delta-T range, dose assessment could be inaccurate and result in significantly nonconservative dose estimates up to a factor of 150. Additionally, the method used for obtaining 15 minute averaged meteorological data was not sufficiently accurate to be used in dose projection and assessment calculations.

Inspection disclosed that Emergency Plan Implementing Procedure (EPIP) 2012 - "Offsite Dose Calculations" was revised and approved July 29, 1988, to include methods for averaging meteorological data. The meteorological system was modified to provide 15 minute averaged data. The system acceptance/turnover document dated September 27, 1988, verified review and completion of this task. Training Brief No. 235, dated September 20, 1988, was issued to inform personnel of the changes to the procedure and the meteorological system. The training brief stated that the only data requiring manual averaging is that obtained from backup sources such as Homestead AFB.

The Control Room strip chart recorders were modified (by PC/M 88-129) to provide a delta T scale of -5 to 15 consistent with the instrument signal received from the meteorological sensor. The recorder scale plate indication was changed to reflect the new scale values. The system acceptance/turnover document dated September 27, 1988, verified completion on this task. Routine inspection of the Control Room strip chart recorders verified that all indicated changes were implemented. Additionally a tag (No. 0-88-036) was posted adjacent to the recorders to indicate that readings were not 15 minute averages.

3. Licensee Action ERF Appraisal Open Items (92701)

This section addresses the status of the licensee's response to the Appraisal Open Item listed in Appendix B to the ERFA Report dated April 22, 1988 (50-250, 251/88-01). The responses were reviewed, evaluated, and fully discussed with cognizant licensee representatives prior to and during the inspection exit interview. All open items were identified as Inspector Followup Items (IFIs).

- a. (Closed) IFI 50-250, 251/88-01-01: Determination of reliability of ERDADS data used for dose assessment calculations under proposed

upgraded ERDADS prior to integration of dose assessment code into ERDADS. The licensee developed and implemented a plant maintenance instruction (MI-103-003, Revision (Rev.) 1, dated October 20, 1988), to establish reliability of ERDADS data used for dose assessment. This instruction provides for weekly parameter deviation determinations for wind speed, wind direction, data temperature, ambient temperature, dewpoint, rainfall, total solar radiation, and Sigma Theta calibration. Tower, ERDADS, and recorder readings provide the data sources for deviation calculation. The instruction also lists allowable deviations and required approvals. If deviations exceed allowable limits, then a Nuclear Plant Work Order is issued to identify and correct facility data instrumentation. If the problem identified cannot be corrected within seven days, a special report is submitted to the NRC stating the cause of the malfunction and plans for restoring the channel(s).

- b. (Closed) IFI 50-250, 251/88-01-02: Evaluation of effect of containment and system shine and plant shine on plant vent monitoring system (SPING-4) during accident conditions.

Review of the Eberline Technical Manual for the SPING 3A Vent Monitoring System (Control No. V000260C) indicated that the iodine, particulate, and noble gas channels were equipped with automatic background subtraction systems. These systems functioned to reduce the effects of containment and system shine on the SPING monitoring system.

- c. (Open) IFI 50-250, 251/88-01-03: Evaluation of the accessibility of the sampling station used to take samples for source term development after an accident.

Inspection disclosed that previous licensee studies provided some accident condition dose rate information for buildings and areas surrounding containment. To provide habitability information specific to the sampling station locations, a Request for Engineering Assistance per administrative procedure 0190.84, "Sampling Station Accessibility Under Accident Conditions," dated August 12, 1988, was submitted. The projected completion date for corrective action is contingent upon completion of additional licensee evaluation and was not determined.

- d. (Open) IFI 50-250, 251/88-01-05: Completion of validation and verification documentation for the dose assessment computer code.

Inspection disclosed that completion of validation and verification documentation for the dose assessment computer code was in progress. The documentation will consist of a code specification and description, and a new or revised user's manual. Draft versions of the dose assessment software code description, and the IBM PC version code specification were developed. The projected completion date for the assigned corrective tasks was June, 1989.



- e. (Closed) 50-250, 251/88-01-06: Performance of a comparison with the NRC and state models following computer code correction, validation, and verification and a determination and documentation of all significant differences.

The subject open item was evaluated, discussed with the licensee and closed during a previous Emergency Preparedness inspection (50-250, 251/88-12).

- f. (Closed) IFI 50-250, 251/88-01-08: ERDADS provide no concise display of containment isolation status. While all isolation valve positions appeared to be entered into system, there was no rapid method, on a single screen to assess their collective status.

Inspection disclosed that the NRC concluded in the Supplemental Safety Evaluation issued November 27, 1985, that the Turkey Point Plant SPDS Implementation Plan including the item defined above, was acceptable.

- g. (Closed) IFI 50-250, 251/88-01-90: Display of numerous erroneous ERDADS values, e.g., condensate pump off while actually operating; containment radiation at $5.6 \text{ E}+7 \text{ mR/hr}$; operator aid displays alarm in orange and red colors; Unit 4 RCP off at 27% power; and ARM(s) indicated out of scan or display of spurious data.

The above cited ERDADS parameters were checked for further indications of erroneous values. Inspection disclosed that they were correctly displayed. Additional parameters including power range percent, RCS, and pressurizer were checked for Control Room instrumentation agreement with ERDADS. No indication of spurious differences was evident.

The new ERDADS uses Critical Safety Function Monitor (CFSM) in lieu of former Operator Aid Displays. CFSM acceptance was documented in FPL procedure FPL-012-OTN, dated August 30, 1988.

- h. (Closed) IFI 50-250, 251/88-01-10: Addition of TSC emergency backup lighting and automatic transfer switch to the preventive maintenance program.

Inspection disclosed that the batteries for the TSC emergency backup lighting were added to test procedures O-SME-104.1, "Self Contained, Battery Powered, Emergency Lighting Monthly Performance Test," dated February 8, 1989. Testing of the automatic power transfer switch was added to procedure O-OSP-301.2, "Technical Support Center (TSC) Emergency Ventilation System Operational Test," dated November 8, 1988.

- i. (Closed) IFI 50-250, 251/88-01-11: Assurance that EPIP references supporting plant procedures are documented therein.



Inspection disclosed that EIPs contained appropriate references as required. Particular emphasis was directed to procedures recently revised. Essentially, most EIPs were revised during calendar year 1988. Attention was directed to adding appropriate references where required.

- j. (Open) IFI 50-250, 251/88-01-12: Installation of DP indicator so that positive pressure with the TSC can be verified during emergency ventilation system operation.

Inspection disclosed that a Plant Change and Modification Request No. 88-151 (TSC Differential Pressure Indicator) was submitted. The request was approved March 1, 1989, and required parts were ordered. The projected completion date for installation of the differential pressure indicator was April 30, 1989.

- k. (Closed) IFI 50-250, 251/88-01-13: Inclusion of Procedure 0-OSP-301.1, "TSC Emergency Ventilation System Operational Test," in preventive maintenance program.

Inspection disclosed that procedure 0-OSP-301.2 (TSC Emergency Ventilation System Operational Test) was factored into the preventive maintenance program by requiring its implementation as a part of scheduled surveillances defined in procedure 0-OSP-200.1, "Schedule of Plant Checks and Surveillances."

- l. (Closed) IFI 50-250, 251/88-01-14: Provision of acceptance criteria for various penetration tests in Procedure 0-OSP-301.1, "TSC Emergency Ventilation System Filter Performance Test," placement of subject procedure in the preventive maintenance program.

Inspection disclosed that the licensee included 0-OSP-301.1 as an integrally scheduled requirement in the preventive maintenance program defined in Procedure 0-OSP-200.1.

- m. (Closed) IFI 50-250, 251/88-01-15: Updating and providing procedural documentation for the ERDADS system. Inspection disclosed that ERDADS and its respective documentation was replaced. The new ERDADS was accepted and approved August 30, 1988, per procedure FPL-012-PTN. Review of associated supportive documentation disclosed that the functions, and descriptions of use of same, were adequately and clearly presented.

- n. (Closed) IFI 50-250, 251/88-01-16: Reduction of ERDADS system lockup unavailability and performance of load tests to identify problem sources.

Inspection disclosed that ERDADS load testing results were documented in FPL-012-PTN. Typically, real-time displays were generated within five seconds and historical data retrieval supported displays took approximately 30 seconds. Inspection also disclosed that full load

testing was reported by the licensee and was conducted with 12 terminals concurrently processing requests with no indications of system response time degradation. Plant personnel interviewed reported that system lockup has not been a problem with the new ERDADS.

- o. (Closed) IFI 50-250, 251/88-01-17: Tracking of availability of all computer systems supporting ERF functions and improvements made in availability where appropriate.

Inspection disclosed that the ERDADS computer in the control building provided availability logs and problem reporting logs for review and evaluation. Inspection also disclosed that availability of ERDADS exceeded 99%, since January, 1989.

4. Notification and Communications (92702)

Inspection included a detailed review and evaluation of the NOUE declared on March 9, 1989. Unit 4 declared and terminated an Unusual Event after finding a vent valve in the open position while performing a fill and vent of the units primary system. The NOUE was declared and terminated after determining that the primary leak rate may have exceeded 10 gpm. Classification of the Unusual Event was consistent with the Emergency Action Level (EAL) defined in Table 1 of Section 3 of emergency procedure RP-20101 and was appropriately implemented in accordance with procedures EP-20101 and AP-01103.12.

Consistent with Section 4.2.1 of the Plant Radiological Emergency Plan (REP), the Emergency Coordinator is tasked with the responsibility to make initial notification within 15 minutes of declaring an emergency to the State of Florida Division of Emergency Management via the Hot-Ring-Down Telephone System to the State Warning Point Duty Officer in Tallahassee, Florida. Contrary to the subject requirement and the Unit 4 Control Room STA log, the initial notification was made within 28 minutes of the event and completed within 34 minutes of the event. Failure to complete the initial notification within the assigned 15 minute time regime was also identified by cognizant licensee representatives.

Inspection disclosed, however, that the licensee planned and promptly implemented required corrective actions to preclude recurrence of this item. Corrective actions, including the following, were completed prior to the conclusion of the inspection: (1) enhanced training by thorough briefing of each of the Control Room Shifts on Emergency Classification and declaration of same, and prompt notification of offsite agencies and completion of same within 15 minutes of the Emergency Classification declaration; (2) detailed briefing of all Plant Supervisors-Nuclear addressing emergency classification, declaration, and offsite notification. (3) examination of all Plant Supervisors-Nuclear addressing Emergency Classification. The examination consisted of sample scenarios including classification, emergency event declaration, and completion of notification. The inspector attended two Control Room Shift briefings.

All briefings and attendance at same were documented and filed for reference. Similarly, written examinations of Shift Supervisors and individual test scores were documented.

Consistent with the NRC revised Enforcement Policy, a Notice of Violation was not issued regarding the subject apparent enforcement matter based upon the following: (1) the licensee initiated prompt and appropriate corrective action prior to conclusion of the inspection, and (2) the finding was determined to be an isolated Severity Level V violation.

Violation 50-250, 251/88-09-01: Failure to Notify the State of an NOUE within the 15 minute time regime required by Section 4.2.1 of the Plant REP. This item is closed.

The violation was discussed with the NRC Senior Resident Inspector and cognizant licensee representatives prior to and during the inspection exit interview convened on March 17, 1989. The violation was also discussed with a cognizant licensee management representative, via telephone, on March 23, 1989, regarding its classification as a licensee identified violation (LIV), and closure of same.

5. Exit Interview

The inspection scope and results were summarized on March 17, 1989, with those persons indicated in Paragraph 1. The inspector described the areas evaluated and discussed in detail the inspection results addressing the status of ERF appraisal open items and the LIV listed below. The inspector also contacted the licensee via telephone on March 23, 1989, and discussed the status of the subject violation as licensee identified, and that a NOV addressing same would not be issued (Paragraph 4). No dissenting comments were expressed by the licensee. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspector during this inspection.

<u>Item</u>	<u>Type</u>	<u>Description</u>
89-08-01	Licensee Identified Violation (Closed)	Failure to notify State of a NOUE within 15 minutes of declaring same per Section 4.2.1 of plant REP.