



UNITED STATES  
 NUCLEAR REGULATORY COMMISSION  
 REGION II  
 101 MARIETTA STREET, N.W.  
 ATLANTA, GEORGIA 30323

SEP 07 1990

Report Nos.: 50-250/90-28 and 50-251/90-28

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 Plant, Units 3 and 4

Inspection Conducted: August 6-10, 1990

Inspector: James L. Kreh 9-7-90  
 J. L. Kreh Date Signed

Approved by: William H. Rankin 9-7-90  
 W. H. Rankin, Chief Date Signed  
 Emergency Preparedness Section  
 Emergency Preparedness and Radiological  
 Protection Branch  
 Division of Radiation Safety and Safeguards

SUMMARY

Scope:

This routine, unannounced inspection was conducted to assess the operational readiness of the site emergency preparedness program, and included review of the following programmatic elements: (1) Emergency Plan and associated implementing procedures; (2) facilities, equipment, instrumentation, and supplies; (3) organization and management control; (4) training; and (5) audits, critiques, and corrective actions.

Results:

The site emergency preparedness program appeared to be capably administered and strongly supported by licensee management. A recent change in program supervision was beginning to yield positive results in terms of initiatives and improvements in emergency preparedness. Required exercise critiques and program audits were comprehensive, and a system was in place for tracking the correction of problems. An interview with a designated interim Emergency Coordinator (Plant Supervisor-Nuclear) indicated that emergency response training was effective. In the area inspected, one noncited violation was identified for failure to properly maintain controlled copies of the Emergency Plan Implementing Procedures (Paragraph 2).



## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*G. Casto, Acting Emergency Planning Manager (Corporate)
- \*K. Harris, Site Vice President
- \*J. Kirkpatrick, Emergency Preparedness Supervisor
- \*R. Mende, Operations Supervisor
  - G. Murphy, Plant Supervisor-Nuclear
- \*L. Pearce, Plant Manager
- \*D. Powell, Licensing Superintendent
  - C. Rossi, Acting Supervisor, Regulatory Compliance
  - T. Wogan, Plant Supervisor-Nuclear

Other licensee employees contacted during this inspection included engineers, operators, security force members, technicians, and administrative personnel.

#### Nuclear Regulatory Commission

- R. Butcher, Senior Resident Inspector
- \*L. Trocine, Project Engineer, Region II

\*Attended exit interview

### 2. Emergency Plan and Implementing Procedures (82701)

Pursuant to 10 CFR 50.47(b)(16), 10 CFR 50.54(q), and Appendix E to 10 CFR Part 50, this area was inspected to determine whether significant changes were made in the licensee's emergency preparedness program since the last unannounced inspection (February 1990), to assess the impact of any such changes on the overall state of emergency preparedness at the facility, and to determine whether the licensee's actions in response to actual emergencies were in accordance with the Radiological Emergency Plan (REP) and its implementing procedures.

The inspector reviewed the licensee's program for making changes to the Emergency Plan Implementing Procedures (EPIPs). The inspector verified that changes to these documents were reviewed and approved by licensee management. A review of records showed that all EPIP changes since February 1990 were submitted to the NRC within 30 days of the effective date, as required. No revision to the REP was issued since the last inspection; the current REP was Revision 19, approved November 14, 1989.

During the inspector's tour of the licensee's emergency response facilities (discussed further in Paragraph 3), several discrepancies were identified in two controlled copies of the EPIPs, as follows:



- ° At the Operational Support Center (OSC), controlled copy number 30 of the EIPs (in Health Physics Storage Locker No. 4) contained an Emergency Response Directory dated March 31, 1990, whereas the current required quarterly revision was dated June 29, 1990. (At the same location, the inspector found the same outdated version of the Emergency Response Directory in the OSC Phone Numbers Manual, although this was not a controlled document.)
- ° At the Technical Support Center (TSC), the Emergency Coordinator's copy of the EIPs (controlled document number 24) was missing EIP-20105, "Emergency Response Facilities." Erroneously positioned in place of EIP-20105 was the current revision of EIP-20125, "Onsite Emergency Organization," dated April 24, 1990. A superseded version of EIP-20125, dated November 9, 1989, was still in the manual in correct sequence (the manual lacked the convenience of tabs for locating procedures). It should be noted that a current revision of the missing procedure was available elsewhere in the TSC.

The noted discrepancies in controlled copies of the EIPs represented a violation of Technical Specification (TS) 6.8.1. The licensee immediately initiated corrective action by eradicating the controlled-copy nonconformities in question. This NRC-identified violation is not being cited because criteria specified in Section V.A of the NRC Enforcement Policy (Appendix C to 10 CFR Part 2) were satisfied.

(Closed) Noncited Violation (NCV) 50-250, 251/90-28-01: Failure to adequately maintain controlled copies of the EIPs.

The inspector reviewed documentation of all declared emergencies which had occurred since July 1, 1989. There were three such declarations, all at the Notification of Unusual Event (NOUE) level, and the response to each was problematic in some way. The information reviewed by the inspector is summarized below.

<u>Date of Event</u>	<u>Description of Event</u>	<u>Emergency Response Problems</u>
8/29/89	Fire protection compensatory measures not implemented within the time limit specified by TS 3.14.5.b.	The declaration was later determined to have been spurious because the areas in question (RHR pump/heat exchanger rooms) were exempt from continuous fire-watch requirements.
12/1/89	Fire protection compensatory measures not implemented within the time limit specified by TS 3.14.5.b.	The declaration was not made until December 18, 1989 after detailed review and belated receipt of relevant information.

4/11/90	Hydrogen explosion and fire at Unit 2 turbine-generator (fossil-fueled unit)	Inadequate information transmittal in notifications to State and local agencies (identified by licensee's QA audit).
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The significance of the 17-day delay in classifying the December 1, 1989 incident as a NOUE was largely mitigated by the fact that the applicable emergency action level (EAL) was conservatively inconsistent with NRC guidance. NUREG-0654 lists "Loss of...fire protection system function requiring shutdown by technical specification" as an initiating condition for an NOUE, but the licensee's then-current EAL (in Section 20 of Table 1, EPIP-20101, dated May 5, 1989) addressed nonimplementation of fire protection compensatory measures without the qualifying condition of a shutdown required by TS. The licensee subsequently revised the referenced EAL to conform with NRC guidance; as a result, the December 1, 1989 event would not be classified as an emergency using the current version of EPIP-20101, dated February 2, 1990. However, the inspector reminded licensee management during the exit interview that the failure to promptly and properly classify an event which satisfies an EAL would normally be considered a violation, and that only because of the extenuating circumstances described herein was the NRC not taking enforcement action in connection with this incident.

During the February 1990 emergency preparedness inspection, licensee management committed to providing a clarification of the message to be used by the Shift Technician when calling emergency response personnel. The inspector confirmed the fulfillment of this commitment, accomplished through inclusion of a callout message in the "Shift Technician Call List" found in Section 3 of the Emergency Response Directory.

One violation and no deviations were identified.

### 3. Emergency Facilities, Equipment, Instrumentation, and Supplies (82701)

Pursuant to 10 CFR 50.47(b)(8) and (9), 10 CFR 50.54(q), and Section IV.E of Appendix E to 10 CFR Part 50, this area was inspected to determine whether the licensee's emergency response facilities and other essential emergency equipment, instrumentation, and supplies were maintained in a state of operational readiness, and to assess the impact of any changes in this area upon the emergency preparedness program.

The inspector toured selected emergency response facilities (ERFs), including the Control Room, TSC, and OSC. All facilities and emergency equipment therein appeared to be maintained in an appropriate state of readiness. According to observations by the inspector and statements by licensee representatives, no significant ERF changes were made since the last inspection.



The inspector held discussions with licensee representatives concerning the audibility of the site evacuation siren in that portion of the owner-controlled area outside the Protected Area. A potential problem in this regard was identified to the inspector by the Senior Resident Inspector. The licensee was aware of this situation, having received comments regarding siren audibility from personnel at the Training Building, Units 1 and 2, and other outlying areas relative to the nuclear plant site. Licensee investigation of this potential improvement item was planned, and permanent corrective action was expected to be implemented as a result. Interim compensatory measures were in place, as verified by the inspector's review of Security Force Instruction 6307(EP), revised April 25, 1990. This matter was discussed with licensee management during the exit interview.

Based upon ERF walk-downs, review of applicable portions of the REP, inspection of completed surveillance procedures, and statements by licensee representatives, the inspector concluded that no degradation of ERF capabilities had occurred since February 1990.

No violations or deviations were identified.

4. Organization and Management Control (82701)

Pursuant to 10 CFR 50.47(b)(1) and (16) and Section IV.A of Appendix E to 10 CFR Part 50, this area was inspected to determine the effects of any changes in the licensee's emergency response organization and/or management control systems on the emergency preparedness program, and to verify that such changes were properly factored into the REP and EIPs.

The organization and management of the emergency preparedness program were reviewed and discussed with licensee representatives. The three members of the Emergency Preparedness (EP) Department were all new to the program since the February 1990 inspection, including the EP Supervisor, appointed in March 1990. This individual had a strong background in this field, having worked for six years as an EP contractor at several nuclear power plants in NRC Regions I and III (but now a licensee employee). The other two members of the EP Department were contract personnel with experience in the EP area. The position of EP Supervisor was "elevated" such that he now reports to the Operations Superintendent (who reports to the Plant Manager), eliminating one level of management in the reporting chain for the EP Supervisor. Based on discussions with licensee representatives and the inspector's knowledge of the EP program gained from several previous inspections, it was concluded that the changes discussed above were positive, that the licensee had allocated sufficient staff resources to improve as well as maintain the EP program, and that the program was strongly supported by the Plant Manager and the Site Vice President.

The inspector reviewed EPIP-20119, "Duties of the Emergency Planning Organization," revised November 7, 1989. This procedure specified annual drills to test the off-hour capability to augment the site emergency response organization, but only every five years was actual callout to



take place; otherwise, the annual drills were to involve only notification of the emergency response organization and confirmation of personnel availability. The last augmentation drill, which did involve actual callout, was conducted on June 29, 1989, and resulted in the TSC and OSC being activated 77 minutes after the order was given to activate at 4:00 a.m. This result did not meet the 60-minute goal specified in the REP. The inspector discussed with licensee representatives the frequency of callout drills. A licensee representative said that this was under evaluation.

The licensee's management control program for the Alert and Notification System (ANS) was reviewed. According to documentation and discussions with licensee representatives, the system consisted of 41 fixed electronic sirens with public-address capability which were located throughout the populated areas of the 10-mile emergency planning zone. The sirens were maintained by the General Engineering group based at the licensee's corporate office. A permanent, full-time contractor performed individual siren tests biweekly to verify both rotation and sound production. In addition, officials in Dade County conducted a monthly full-cycle test of their portion of the ANS. The licensee's records showed that availability of the sirens, as calculated on a 12-month rolling average, was between 96 and 99 percent throughout the period June 1989 to June 1990.

No violations or deviations were identified.

5. Training (82701)

Pursuant to 10 CFR 50.47(b)(2) and (15) and Section IV.F of Appendix E to 10 CFR Part 50, this area was inspected to determine whether the licensee's key emergency response personnel were properly trained and understood their emergency responsibilities.

In an effort to gauge the effectiveness of the emergency response training program, the inspector conducted an interview (approximately 60 minutes) with one Plant Supervisor-Nuclear (PSN), the position designated as interim Emergency Coordinator (until relieved by the Plant Manager or alternate). The interview examined the PSN's general knowledge of emergency response methodology as well as his specific understanding of such matters as emergency classification, onsite and offsite protective actions, notification, and nondelegable responsibilities of the Emergency Coordinator. The interviewee was given sets of hypothetical emergency conditions and was asked to talk through the response he would give as Emergency Coordinator under such conditions. The interviewee demonstrated a good understanding of the general concepts as well as the specifics of the emergency response program. No significant problems were identified during this interview.

The inspector was informed that the emergency response aspects of simulator training were to be significantly enhanced beginning in September 1990. This will entail much more extensive implementation of



the EIPs than was presently performed during simulator drills, including the use of communications cells to fully receive and respond to the required offsite notifications. Another ongoing licensee initiative was the development of task listings for inclusion in EP training of nonlicensed personnel. The training material currently used was derived almost wholly from the requirements of the EIPs. The results of these planned changes in training will be reviewed during future inspections.

No violations or deviations were identified.

6. Independent Reviews/Audits (82701)

Pursuant to 10 CFR 50.47(b)(14) and (16) and 10 CFR 50.54(t), this area was inspected to determine whether the licensee had performed an independent review or audit of the emergency preparedness program, and whether the licensee had a corrective action system for deficiencies and weaknesses identified during exercises and drills.

Records of the most recent audits conducted by the licensee's Quality Assurance (QA) Department in accordance with 10 CFR 50.54(t) were reviewed during the February 1990 inspection (see Paragraph 6 of NRC Inspection Report Nos. 50-250, 50-251/90-03). That review identified a need for a more detailed evaluation of the interface with offsite agencies, specifically with respect to the adequacy of offsite notification. Licensee management committed at that time to assigning responsibility for the referenced evaluation. A special QA audit was conducted to address this commitment; the results were documented in Audit Report No. QAS-EMP-90-2, dated July 27, 1990. That audit identified one "concern" and one "finding" (the latter is discussed further in Paragraph 2, above). The subject commitment was judged to have been satisfied, and the QA Department's checklist for the annual EP audit was revised to include an augmented interface evaluation.

The licensee's program for follow-up action on findings from audits, drills, exercises, and NRC inspections was reviewed. A computerized tracking system called the Emergency Preparedness Action Scheduling System (EPASS) had been recently developed by the Emergency Planning Supervisor. A separate system was used for tracking recurring (i.e., monthly, quarterly, etc.) EP tasks. These systems were functioning effectively, with appropriate corrective actions being implemented in a timely manner based on established priorities and deadlines.

No violations or deviations were identified.

7. NRC Information Notices (92701)

The inspector determined that the following NRC Information Notices (INs) were received by the licensee, reviewed for applicability, and distributed to cognizant personnel, and that corrective actions, as appropriate, were completed or scheduled.



- IN 89-19: Health Physics Network
- IN 89-72: Failure of Licensed Senior Operators to Classify  
Emergency Events Properly
- IN 89-89: Event Notification Worksheets
- IN 90-08: Kr-85 Hazards from Decayed Fuel
- IN 90-34: Response to False Siren Activations

#### 8. Action on Previous Inspection Findings (92701)

(Closed) 50-250, 251/88-01-03: Evaluation of the radiological accessibility of Post-Accident Sampling System.(PASS) stations.

A detailed study was performed to address this item. Recommended access routes for various post-accident sampling activities were developed, along with estimated doses associated with use of those routes. The results of the study were to be incorporated into EPIP-20111, "Reentry."

#### 9. Exit Interview

The inspection scope and results were summarized on August 10, 1990, with those persons indicated in Paragraph 1. The inspector described the areas inspected and discussed in detail the inspection results listed below. In addition, three issues (detailed in Paragraphs 2, 3, and 4) were discussed with the licensee regarding emergency preparedness program improvements. Although no commitments were requested, licensee management indicated that the subject issues were under consideration. A previous finding was reviewed and closed, as discussed in Paragraph 8. Proprietary information is not contained in this report. Dissenting comments were not received from the licensee.

#### Item Number

#### Category, Description, and Reference

50-250,50-251/90-28-01

NCV: Failure to adequately maintain controlled copies of the EIPs (Paragraph 2).