



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

DEC 18 1989

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

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 Units 3 and 4

Inspection Conducted: November 28 - December 1, 1989

Inspector: E. D. Testa  
E. D. Testa

12/14/89  
Date Signed

Accompanying Personnel: K. Clark  
L. Cohen  
W. Rankin  
R. Schin  
M. Stein

Approved by: W. H. Rankin by E. D. Testa  
W. H. Rankin, Chief  
Emergency Preparedness Section  
Emergency Preparedness and Radiological  
Protection Branch  
Division of Radiation Safety and Safeguards

12/18/89  
Date Signed

SUMMARY

Scope:

This routine, announced inspection involved observation and evaluation of the annual radiological emergency preparedness exercise.

Results:

In the areas inspected, violations or deviations were not identified.

One exercise weakness was identified for failure to make the declaration of the General Emergency by procedure (Paragraph 6).

Security personnel assigned to repair and reentry teams were not respiratory qualified.

The effectiveness of the Technical Support Group was limited by untimely communications with other segments of the Technical Support Center staff.

Notwithstanding, the findings listed above, within the scope of the observed exercise, the licensee fully demonstrated the capability of implementing its Emergency Plan and procedures to provide for the health and safety of the public in a radiological emergency.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*J. Berg, Chemistry Project Supervisor
- \*D. Boyle, Electrical Maintenance Supervisor
- \*M. Bumgarner, Coordinator - Media Area
- \*M. Burke, Health Physics Engineer
- \*G. Casto, Acting Emergency Planning Coordinator
- \*D. Chaney, Director, Juno Licensing
- \*V. Chilson, Principal Engineer
- \*J. Cross, Plant Manager
- \*J. Danek, Corporate Health Physicist
- \*R. Englmeier, Director, Quality Assurance
- \*D. Gaudraulth, Health Physics Technician
- \*M. Gilmore, Nuclear Energy Specialist
- \*J. Goldberg, Executive Vice President, Nuclear Energy
- \*S. Hale, Engineering Project Manager
- \*K. Harris, Site Vice President - Turkey Point
- \*J. Hays, Manager, Nuclear Energy Services
- \*M. Laca, Quality Assurance Engineer
- \*J. Maisler, Emergency Preparedness Manager
- \*F. Marcusson, Security System Supervisor
- \*G. Marsh, Reactor Supervisor
- \*R. Moschner, Staff Security Coordinator
- \*M. Mullins, Quality Assurance Auditor
- \*G. Patrissi, Quality Assurance Auditor
- \*K. Payne, ALARA Supervisor
- \*R. Pickin, Radiation Protection Manager
- \*L. Pugh, Plant Supervisor II
- \*J. Ruby, Budget and Cost Control Supervisor
- \*S. Shaw, Manager, Media Communications
- \*A. Taylor, Emergency Preparedness Technician
- \*T. Veenstra, Supervisor for Nuclear Information
- \*W. Vollmar, Secondary Operations Supervisor/Chemistry
- \*J. Walls, Quality Assurance Auditor

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

#### Other Organizations

- \*J. Kirkpatrick, CYGNA Corporation
- \*H. Story, Health Physics Consultant, SOTEGT Company

## Nuclear Regulatory Commission

R. Butcher, Senior Resident Inspector  
G. Edison, Senior Project Manager Licensing  
S. Hoffman, Backup Project Manager  
T. McElhinney, Resident Inspector  
G. Schriebli, Resident Inspector

### \*Attended exit interview

#### 2. Licensee Action on Previous Enforcement Matter

No previous emergency preparedness enforcement matters remained outstanding.

#### 3. Exercise Scenario (82301)

The scenario for the emergency exercise was reviewed to assure that provisions were made to test the integrated capability and a major portion of the basic elements defined in the licensee's Emergency Plan and organization pursuant to 10 CFR 50.47(b)(14), Paragraph IV.F of Appendix E to 10 CFR 50, and specific guidance promulgated in Section II.N of NUREG-0654.

The scenario was reviewed and discussed with licensee representatives in advance of the scheduled exercise date. In addition to the main scenario there were seven miniscenarios which included: 1) Containment Air Bleed Valve closure verification; 2) Start-up Transformer failure; 3) 3B Aux Feedwater Pump repair; 4) Post Accident Sample System (PASS) sample; 5) Emergency Diesel Generator Repairs; 6) Intake Cooling Water header strainer repair; and 7) Contaminated Injury. The final exercise data and message packets were distributed during a pre-exercise licensee briefing held November 29, 1989.

The scenario developed for this exercise was detailed and exercised the onsite emergency organization. The exercise was conducted from approximately 8:00 a.m. to 3:00 p.m. on November 30, 1989. The exercise also involved full participation by Dade and Monroe Counties and limited response by the State of Florida.

The controllers provided adequate guidance throughout the exercise. The inspector observed no undue interaction between the controllers and the players.

A simulated medical emergency occurred in the vicinity of Intake Cooling Water valve 3-307. While work was being performed on this valve, a worker slipped and struck their leg against the corner of a pipe support. The victim suffered a simple fracture of the fibula. The First Aid/Decon Team responded and performed appropriate first aid, extracted the victim, controlled the simulated contamination, and transported the victim to Baptist Hospital using an onsite First Aid Vehicle.

Violations or deviations were not identified.

4. Assignment of Responsibility (82301)

This area was observed to assure that primary responsibilities for emergency response by the licensee were specifically established, and that adequate staff was available to respond to an emergency pursuant to 10 CFR 50.47(b)(1), Paragraph IV.A of Appendix E to 10 CFR 50, and specific guidance promulgated in Section II.A of NUREG-0654.

The inspector observed that specific emergency assignments were made for the licensee's onsite emergency response organization, and that adequate staff was available to respond to the simulated emergency. The initial response organization was augmented by designated licensee representatives. Because of the scenario scope and conditions, long term or continuous staffing of the emergency response organization was not required. Discussions with licensee representatives indicated that sufficient technical staff were available to provide for continuous staffing of the augmented emergency organization, if needed.

The inspector also observed activation, staffing, and operation of the emergency organization in the Technical Support Center (TSC), the Operations Support Center (OSC), the Emergency Operations Facility (EOF), and the Emergency News Center (ENC). At each response center, the required staffing and assignment of responsibility was consistent with the licensee's approved procedure.

Violations or deviations were not identified.

5. Onsite Emergency Organization (82301)

The licensee's onsite emergency organization was observed to assure that the following requirements were implemented pursuant to 10 CFR 50.47(b)(2), Paragraph IV.A of Appendix E to 10 CFR 50, and specific guidance promulgated in Section II.B of NUREG-0654:

- (1) unambiguous definition of responsibilities for emergency response;
- (2) provision of adequate staffing to assure initial facility accident response in key functional areas at all times; and
- (3) specification of onsite and offsite support organizational interactions.

The inspector observed that the initial onsite emergency organization was adequately defined, and that staff was available to fill key functional positions within the organization. Argumentation of the initial emergency response organizations was accomplished through mobilization of additional day-shift personnel. The Plant Supervisor Nuclear (PSN) assigned to the exercise assumed the duties of Emergency Coordinator (EC) promptly upon initiation of the simulated emergency, and directed the response until formally relieved by the Plant Manager.

Violations or deviations were not observed.

6. Emergency Classification System (82301)

This area was observed to assure that a standard emergency classification and action level scheme was in use by the nuclear facility licensee pursuant to 10 CFR 50.47(b)(4), Paragraph IV.C of Appendix E to 10 CFR 50, specific guidance promulgated in Section II.D of NUREG-0654, and guidance recommended in NRC Information Notice 83-28.

An Emergency Classification Table from Emergency Procedure 20101 was used to promptly identify and properly classify the simulated reactor coolant system leakage.

The Alert classification was timely and by procedure. The declaration was made based on a simulated Reactor Coolant System leakage greater than 50 gallons per minute (GPM) and within available charging pump capacity.

The Site Area Emergency Classification was made based on a simulated Loss of Coolant Accident (LOCA) greater than 50 GPM and greater than available charging pump capacity with no indication of Steam Generator tube failure. The classification was timely and by procedure.

The General Emergency classification was made based on a simulated LOCA greater than 50 GPM and greater than available charging pump capacity and loss of containment integrity with a release path open to the environment. Emergency Plan Implementing Procedure 20101 revision dated November 7, 1989, in Section 4.1 states that "The EC can delegate his responsibilities to his subordinates with the exception of classification, the decision to notify State and local authorities and the issuing of Protective Action Recommendations." The EC at the time of the General Emergency recognized the simulated conditions were present for the classification; however, the classification was made in the form of a recommendation to the Recovery Manager (RM) in the EOF rather than a declaration. Because of the already existing working relationship between the EC and RM, the recommendation was taken as a declaration and activities associated with a General Emergency classification proceed correctly and in a timely manner. The failure of the EC to correctly declare by procedure the General Emergency classification was identified as an exercise weakness. The licensee committed to provide training and demonstrate corrective actions during the next annual exercise.

Exercise Weakness 50-250, 251/89-50-01; Failure to properly make a correct declaration of the General Emergency Classification by procedure.

Violations or deviations were not identified.

7. Notification Methods and Procedures (82301)

This area was observed to assure that procedures were established for notification of State and local response organizations and emergency personnel by the licensee, and that the content of initial and followup messages to response organizations were established. This area was

further observed to assure that means to provide early notification to the populace within the plume exposure pathway were established pursuant to 10 CFR 50.47(b)(5), Paragraph IV.D of Appendix E to 10 CFR 50, and specific guidance promulgated in Section II.E of NUREG-0654.

An inspector observed that notification methods and procedures were established and available for use in providing information regarding the simulated emergency condition to Federal, State, and local response organizations, and to alert the licensee's augmented emergency response organization.

An inspector observed that notification made by the licensee at the Alert, Site Area Emergency and General Emergency were timely and complete. At the Alert classification during the initial notification the communicator errantly provided the State and local officials real time meteorological information rather than the exercise scenario data. This was quickly recognized and corrected within 20 minutes and had no deleterious effect on the exercise.

Violations or deviations were not identified.

#### 8. Emergency Communications (82301)

This area was observed to assure that provisions existed for prompt communications among principal response organizations and emergency personnel pursuant to 10 CFR 50.47(b)(6), Paragraph IV.E of Appendix E to 10 CFR 50, and specific guidance promulgated in Section II.F of NUREG-0654.

The inspector observed communication within and among the licensee's emergency response facilities (Control Room, TSC, EOF, and OSC) and between the offsite environmental monitoring teams and the TSC. The OSC maintained effective communication with nine repair and reentry teams during the emergency exercise. Adequate onsite communications were observed and no problems were observed in communications between the TSC and the field monitoring teams.

Violations or deviations were not identified.

#### 9. Emergency Facilities and Equipment (82301)

This area was observed to assure that adequate emergency facilities and equipment to support an emergency response were provided and maintained pursuant to 10 CFR 50.47(b)(8), Paragraph IV.E of Appendix E to 10 CFR 50, and specific guidance promulgated in Section II.H of NUREG-0654.

The inspector observed activation, staffing, and operation of the emergency response facilities and observed the use of equipment at the facilities. Emergency response facilities used by the licensee during the exercise included the Control Room, OSC, TSC, EOF, and the ENC. An

inspector observed that frequent and timely status updates were provided by the emergency facility's manager.

- a. Control Room - The inspector observed that following review and analysis of the sequence of accident events, Control Room operations personnel acted promptly to initiate required response to the simulated emergency. Emergency procedures were available and followed.
- b. Technical Support Center - The TSC was activated and promptly staffed following notification by the Shift Supervisor of the simulated emergency conditions. The facility staff appeared to be cognizant of their emergency duties, authorities, and responsibilities. The facility was provided with adequate equipment for support of the assigned staff. Briefings of the TSC staff were frequent and consistent with the changes in plant status and related emergency conditions. Accountability was accomplished within 30 minutes which is within the accepted time guidance.

The effectiveness of the Technical Support Group (TSG) was limited by untimely communications with other segments of the TSC staff. The TSG operated in a reactive rather than a proactive or aggressive posture. Examples of this included:

- o At approximately 11:40 a.m., the TSG was directed to evaluate the impact of not performing those items on attachment C of EOP E-0 that required entering a high radiation area. At approximately 12:53 p.m., the TSG Supervisor stated that the wrong breakers had been assessed.
- o At approximately 1:05 p.m., a reactor engineer from the group requested that the chemistry supervisor obtain PASS samples from the containment sump and atmosphere. Results from a PASS sample of containment atmosphere had been available since approximately 12 noon.
- o At approximately 1:14 p.m., the TSG submitted a request for a containment sump and an atmosphere sample to use for failed fuel estimation. PASS sample data, as noted above, were already available.
- o At approximately 2:05 p.m., the TSG recommended shutting valve MPASS-3-005 to isolate the release path if the air bleed line were the source of leakage. MPASS-3-005 was thought by key TSC staff to have been closed at approximately 10:30 a.m.

The lack of the effectiveness of the TSG was identified by an inspector. This will be tracked as an inspector followup item (IFI). The licensee agreed to review the effectiveness of the communication of the TSG and other TSC staff.



IFI 50-250, 251/89-50-02: Failure to provide effective communications between the TSG and other segments of the TSC staff.

- c. Operations Support Center - The inspector observed that following a request for activation, personnel acted promptly to staff the facility. The new OSC facility location provides adequate communication capabilities and its larger size and space utilization was a positive improvement over the previous OSC facility. Several repair and reentry teams that were dispatched by the OSC had security guards as a member. Some of the teams, because of the simulated emergency conditions, were required to wear respiratory protection.

An inspector observed that security personnel were not qualified to wear respirators. This will be tracked as an IFI. The licensee committed to review the respiratory qualification of security personnel and develop a site policy.

IFI 50-250, 251/89-50-03: Failure to provide respiratory qualified security personnel for repair and reentry teams.

- d. Emergency Operations Facility - The EOF was activated at the Site Area Emergency classification. The EOF personnel were prestaged to allow for a more expeditious activation and allow for a longer manning of this facility. The facility staff were familiar with their emergency duties, authorities and emergency responsibilities. The EOF was provided with adequate equipment to support the assigned staff.

Violations or deviations were not identified.

#### 10. Accident Assessment (82301)

This area was observed to assure that adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition were in use as required by 10 CFR 50.47(b)(9), Paragraph IV.B of Appendix E to 10 CFR 50, and specific guidance promulgated in NUREG-0654, Section II.I.

The accident assessment program included an engineering assessment of plant status, damage caused by the simulated events, and an assessment of the radiological hazard to onsite and offsite personnel resulting from the accident.

Onsite and offsite radiological environmental monitoring teams were dispatched to determine the level of radioactivity in those areas within the influence of the simulated plume. Radiological effluent data were received and reviewed in the TSC.

Violations or deviations were not identified.



11. Public Education and Information (82301)

This area was observed to assure that information concerning the simulated emergency was made available for dissemination to the public pursuant to 10 CFR 50.47(b)(7), Paragraph IV.D of Appendix E to 10 CFR 50, and specific guidance promulgated in Section II.G of NUREG-0654.

An inspector observed that the ENC was established and appeared adequately equipped. News releases appeared to be timely and well coordinated.

No violations or deviations were identified.

12. Exercise Critique (82301)

The licensee's critique of the emergency exercise was observed to determine that shortcomings identified as part of the exercise, were brought to the attention of management and documented for corrective action pursuant to 10 CFR 50.47(b)(14), Paragraph IV.F Of Appendix E to 10 CFR 50, and specific guidance promulgated in Section II.N of NUREG-0654.

The licensee conducted a series of post-exercise critiques on November 30, and December 1, 1989. Critiques were held with players, controllers, and management. The management critique was attended by exercise controllers, observers, and NRC representatives. Findings identified during the exercise and plans for corrective action were discussed. Licensee action on identified findings will be reviewed during subsequent inspections. The licensee's critique was detailed, and addressed both substantive deficiencies, and planned improvement items. The conduct of the critique was consistent with regulatory requirements and guidelines cited above.

Violations or deviations were not identified.

13. Federal Evaluation Team Report

The report by the Federal Evaluation Team (Regional Assistant Committee and Federal Emergency Management Agency, Region IV staff) concerning the activities of offsite agencies during the exercise will be forwarded by separate correspondence.

14. Action on Previous Inspector Findings (92701)

(Closed) IFI 50-250, 251/89-34-02: Relocate HPN phone at EOF from NRC conference room to the Health Physics Dose Assessment Area. Inspection of the physical location of the HPN phone revealed that it had been relocated to the Health Physics Dose Assessment Area.

(Open) IFI 50-250, 251/88-01-03: Evaluate the accessibility of the sampling station used to take samples for source term development after an accident. The inspector reviewed the recently issued project control document dated November 22, 1989, that indicated that this item was in the



very early stages of evaluation. This item will be reviewed during a future inspection.

(Open) IFI 50-250, 251/89-02-02: Implementing a program for periodically testing the capability to augment the emergency response organization during off hours. The inspector reviewed Section 8.5 of the Emergency Plan Implementing Procedure 20119, dated November 7, 1989, "Duties of the Emergency Planning Organization." This item will be reviewed during a future inspection when additional augmentation data are available.

#### 15. Exit Interview

The inspection scope and findings were summarized on December 1, 1989, with those persons indicated in Paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection results listed below. Proprietary information is not contained in this report. Dissenting comments were not received from the licensee.

<u>Item Number</u>	<u>Description and Reference</u>
50-250, 251/89-50-01	Exercise Weakness - Failure to properly make a correct declaration of the General Emergency Classification by procedure (Paragraph 6).
50-250, 251/89-50-02	IFI - Failure to provide respiratory qualified security personnel for repair and reentry teams (Paragraph 9).
50-250, 251/ 89-50-03	IFI - Failure to provide effective communications between the TSG and other segments of the TSC staff (Paragraph 9).