



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30303

JUL 09 1984

Report Nos.: 50-250/84-19 and 50-251/84-19

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

Docket Nos.: 50-250 and 50-251

License Nos.: DPR-31 and DPR-41

Facility Name: Turkey Point 3 and 4

Inspection Dates: June 4-8, 1984

Inspection at Turkey Point site near Homestead, Florida

Inspector: R. R. Marston
R. R. Marston

7/6/84
Date Signed

Accompanying Personnel: A. L. Smith

Approved by: W. E. Cline
W. E. Cline, Chief
Emergency Preparedness Section
Division of Radiation Safety and Safeguards

7/6/84
Date Signed

SUMMARY

Areas Inspected

This routine unannounced inspection involved 73 inspector-hours on site in the areas of emergency preparedness.

Results

Of the areas inspected, no violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *K. N. Harris, VP-PTP
- *C. J. Baker, Plant Manager - Nuclear
- *K. L. Jones, QA Manager
- *D. D. Grandege, Operations Superintendent
- J. E. Crockford, Operations Supervisor - Nuclear (Acting)
- W. C. Miller, Nuclear Training Supervisor
- C. A. Coker, Plant Supervisor - Nuclear
- K. S. Metzger, Plant Supervisor - Nuclear
- *J. A. Labarraque, Technical Department Supervisor (Acting)
- *D. Tomasewski, Technical Department Operations Supervisor (Acting)
- J. S. Wade, Chemistry Supervisor - Nuclear
- *G. Casto, Emergency Planning Coordinator
- E. R. LaPierre, Radiochemist
- *R. Mende, Reactor Engineering
- *W. Bledow, PTP QA
- *M. Crisler, PTP QC
- D. Meils, Assistant Radiochemist

Other licensee employees contacted included 2 technicians and several office personnel.

NRC Resident Inspector

T. Peebles

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on June 8, 1984, with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

(Closed) Violation (250, 251/84-01-01): Train Nuclear Plant Supervisors in making protective action recommendations based on plant status. This item was addressed in paragraph 1 of the Notice of Violation dated February 29, 1984. An inspector verified that training had been provided as stated in the licensee's letter of March 30, 1984. (Details, paragraph 8).

(Closed) Violation (250, 251/84-01-02): Revise Emergency Plan Implementing Procedures to provide for generating protective action recommendations consistent with Federal guidance. This item was addressed in the Notice of Violation dated February 29, 1984. An inspector verified that appropriate EIPs had been amended as stated in the licensee's letter of March 30, 1984. (Details, paragraph 6).

(Closed) Violation (250, 251/84-01-03): Revise EIPs to assign responsibility for dose assessment to Radiochemistry, revise EIPs to make them more useable for dose assessment, and train chemistry technicians in dose assessment using EIP 20126. An inspector verified that corrective action had been completed and appeared adequate. (Details, paragraph 9).

(Closed) Unresolved item (250, 251/79-30-01): Develop procedure for determining source term for releases from the Unit 3 Spent Fuel Pool area using the existing vent monitor. Emergency Procedure 20126 now has a procedure for determining a source term based on the Unit 3 Spent Fuel Pool monitor readings. (Details, paragraph 10)

The inspectors also reviewed actions taken by the licensee on emergency preparedness improvement items and inspector followup items. The status of these items is discussed in the details of this report.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Emergency Detection and Classification (82201)

The licensee's Emergency Plan and Implementing Procedures were reviewed to verify that staff and responsibility are assigned by the licensee to assess accidents and make protective action recommendations.

A review of the EALs in the licensee's Emergency Procedure 20101, "Duties of Emergency Coordinator," was conducted. It appeared that the EALs listed were consistent with those identified in NUREG-0654, Rev. 1, Appendix 1. The EALs also appeared to be based on specific parameter values available in the Control Room, and appeared to be consistent in range, units and conversion factors with appropriate control room instruments.

It appeared that the emergency event classification system is effective for prompt and correct classification by the licensee. Documentation was reviewed which showed that an annual review of the licensee's EALs is conducted with State and local officials responsible for offsite activation and protective action decision-making.

The inspector interviewed the assigned Plant Supervisors - Nuclear (Shift Supervisors) on the day and evening shifts and an acting Operational Supervisor to determine their knowledge of their responsibility and authority and their ability to promptly classify events and initiate protective action recommendations to offsite agencies. The individuals were able to promptly and accurately classify hypothetical accident situations presented to them. They also appeared to understand the relationship between post-TMI core damage indicators and core status, and to understand their authority and responsibility when acting as plant Emergency Coordinator.

Emergency Procedure 20101 has been revised to include the emergency classifications formerly found in Emergency Procedure 20103, which has been rescinded.

6. Protective Action Decisionmaking (82202)

On interviewing the Plant Supervisors - Nuclear on their duties when acting as Emergency Coordinator (paragraph 5), the inspector determined that they appeared to understand Emergency Procedure 20101, "Duties of Emergency Coordinator," which specified the authority and responsibility of the Emergency Coordinator to make protective action decisions which included:

- . Individuals to contact and method of contact
- . Understanding of authority and responsibility
- . Familiarity with offsite contacts
- . Transfer of authority as augmentation personnel arrive at designated locations
- . Delegation of functions
- . Understanding authority and responsibilities of other licensee emergency response staff.

When presented with the hypothetical accident situations discussed in paragraph 5, the supervisors interviewed were able to determine appropriate protective actions. They also understood the requirement for timeliness of protective action recommendations and the recommendations required when containment conditions indicated high levels of activity with no ongoing release.

Through review of documentation and discussion with the Emergency Planning Coordinator, the inspector determined that offsite individuals involved in emergency response are provided annual training by the licensee which includes protective action decisionmaking, communications, a general understanding of reactor operations, core conditions, and offsite consequences; and effectiveness of protective measures.

In addition, Emergency Procedures 20101, "Duties of Emergency Coordinator", and 20126, "Offsite Dose Calculations," have been revised to provide for protective action recommendations in accordance with Federal guidance as set forth in NUREG-0654 and as discussed in OIE Information Notice 83-28.

Based on the above findings, the previously identified violation in this area (250, 251/84-01-02) is closed.

7. Notifications and Communications (82203)

The inspector reviewed the Notification Message format in Emergency Procedure 20101 and verified that the contents complied with the criteria specified in NUREG-0654, II.E.3. and 4. The Emergency Procedure specifies notification procedures which are consistent with emergency classification and EAL schemes, and mentions existence of a means to verify emergency messages.

Emergency Procedure 20101, in general, provides for alerting, activating, and notifying appropriate emergency response personnel of the onsite and offsite emergency organizations, securing local support, corporate support, and Federal, State and local organizations. In addition, Emergency Procedure 20104, "Emergency Roster", provides for activating the Corporate emergency organization and Emergency Procedure 20105, "Activation of The On-site Support Centers," provides for activation of the onsite organization. The public notification system is described in Section 5.2.8 of the Plant Radiological Emergency Plan (REP). The system is more fully described in the Florida State REP. The system consists of 33 electronic sirens with an additional public address capability. The public would be instructed to turn to Emergency Broadcast System (EBS) stations for instructions. Police and fire vehicles, aircraft, and boats with PA systems would be used as a back up alerting system. The system was installed and is maintained by FP&L, and is operated by the counties.

Communications capabilities of the Control Room, Technical Support Center (TSC), and Operations Support Center (OSC) were reviewed by the inspector and were found to be as specified in the REP.

Emergency Procedure 20113, "Maintaining Emergency Preparedness - Emergency Exercises, Drills, Tests, and Evaluations," provides for periodic communications drills.

The objectives for the June 1983 Exercise specified that communications would be tested and the controller notes identified communications activities and problems.

Emergency Procedures 20112 and 20119 provide for periodic tests of communications. Control Room communications tests are recorded in the Control Room log and TSC monthly communications are recorded on a form included in Emergency Procedure 20112 and filed in Document Control. The inspector examined these records for the period from April 1983 through May 1984 and found no discrepancies.

8. Training (82206)

The inspector reviewed the licensee's emergency training program including lesson plans, drills, overall training records and testing, and records of key emergency response personnel.

The Turkey Point nuclear emergency training program is presently divided up by departments. Reactor Engineering, Health Physics, Chemistry, Technical, and Operations each maintains their own emergency training records. The Emergency Planning Coordinator interfaces with each of these departments on their emergency plan training. Guidance and approval of emergency training is under the jurisdiction of the Operations Superintendent and the Plant Manager - Nuclear. Details of emergency response training are found in Emergency Procedure 20119, "Duties of the Emergency Planning Coordinator," paragraph 5.3. FP&L corporate provides their own emergency response training.

Lesson plans and tests for classification of emergencies, protective action decisionmaking and notification were reviewed for the Plant Supervisors - Nuclear who had been interviewed by the inspector. The training had been completed in May 1984. The inspector determined that the emergency response training program for the onsite organization and offsite support groups at Turkey Point Nuclear Plant appeared to be adequate through a review of the training records and interviews conducted with Plant Supervisors - Nuclear on their Emergency Coordinator duties and Chemists on their dose assessment duties.

The inspector determined that a formalized tracking system for emergency response training and retraining is not included in the emergency response training procedures. The inspector stated that this was an inspector followup item (250, 251/84-19-01). The licensee agreed to develop a formal emergency response training tracking program and implement it by July 31, 1984.

The inspector's review of the training records and the performance of the Plant Supervisors - Nuclear on the problems presented during the interviews demonstrated that these personnel appeared to be adequately trained in making protective action recommendations in accordance with Federal guidance.

Based on the above findings, the previously identified violation in this area (250, 251/84-01-01) is closed.

9. Dose Assessment (82207)

The inspector discussed the dose assessment program with licensee representatives, reviewed Emergency Procedure 20126, "Off-Site Dose Calculations," and presented dose assessment problems to Plant Chemists and Technicians.

A licensee representative stated that since the plant stack is relatively short, all releases are considered to be ground level releases. The assessment procedure provides for the monitored pathways and includes default values for those situations where data may not be available.

Emergency Procedure 20126 is a manual calculation method which is closely paralleled by the computer method. A licensee representative stated that Emergency Procedure 20126 would probably be used in the early stages of an accident, then the computer would be used as more data become available.

The licensee is in the process of switching computer systems. The new computer is operational and used for training, but uses the St. Lucie dose assessment program. A licensee representative stated that the system is expected to be operational with the Turkey Point program within two months.

A licensee representative stated that during exercises, dose assessment personnel incorporated field measurements into dose projections. The inspector noted, however, that Emergency Procedure 20126 had no provisions for doing this. The inspector stated that this was an inspector followup

item (250, 251/84-19-02). The licensee agreed to make provisions for consideration of field measurements in the dose assessment procedures by July 31, 1984.

The inspector reviewed the training records for the Chemistry Department and verified that 13 Chemists had current training on the dose assessment procedure. In addition, the inspector presented dose assessment problems to four Chemistry personnel; one individual using the computer and the other three using EP 20126. All produced satisfactory results.

Emergency Procedure 20126 has been revised to make it easy to use and to assign responsibility for dose assessment to the Chemistry Department.

Based on the above findings, the Violation identified in this area (250, 251/84-01-03) is closed.

10. Inspector Followup (92701)

(Closed) Unresolved Item (UNR) 250, 251/79-30-01: Develop procedures for determining source term for releases from the Unit 3 Spent Fuel Pool area using the existing vent monitor. Emergency Procedure 20126 now has a procedure for determining a source term based on the Unit 3 Spent Fuel Pool monitor readings.

(Closed) Inspector Followup Item (IFI) 250, 251/81-24-02: An opportunity to attend seminars and meetings held by various industry groups should be included in the training program for site emergency planners. The Emergency Planning Coordinator provided documentation showing his attendance at professional workshops and seminars.

(Closed) IFI 250, 251/81-24-08: In the emergency response training program, an approved, formal lesson plan should be developed for each lesson. The inspector verified that lesson plans were available for several of the emergency training programs.

(Closed) IFI 250, 251/81-24-16: Specific instructions should be provided for those personnel who are required to report to the IEOF. The inspector verified that these instructions are included in Offsite Emergency Procedure 12.12, "Activation and Use of the EOF (Turkey Point)."

(Closed) IFI 250, 251/81-24-17: Obtain, install and test remote sampling equipment for effluent, primary coolant, and containment air sampling analysis. The inspector reviewed IE Inspection Reports 250, 251/83-31 and 250, 251/84-13. The 1983 report reviewed post-accident effluent monitoring and post-accident sampling, and the 1984 report reviewed post-accident sampling. These reports showed that the systems were in place and operational and were adequate to meet the criteria of NUREG-0737.

(Closed) IFI 250, 251/81-24-21: Provide an alternate offsite assembly area. The licensee determined that an alternate offsite assembly area was not necessary. A licensee representative stated that health physics technicians would lead the evacuees along either the primary or alternate evacuation

route. If hazardous radiological conditions were encountered, the assembly area would be set up wherever it was safe.

(Closed) IFI 250, 251/81-24-26 and 250, 251/82-13-12: Make provisions for collection and disposal of liquid waste at the primary offsite assembly area. Licensee representatives stated that a portable holding tank is available which could be used at any offsite assembly area chosen. Individuals would be decontaminated while standing in steel drums, then the contaminated water would be pumped into the holding tank.

(Closed) IFI 250, 251/81-24-28: More definitive plans should be developed for the expanded support facilities. The licensee's response stated that addition of expanded support facilities is the responsibility of the Recovery Manager and that the need for expanded facilities would not be immediate, so more definitive plans to obtain additional resources would not be added to the REP.

(Closed) IFI 250, 251/81-24-32: Licensee committed to purchase, installation and testing of high range containment monitors which meet the criteria of NUREG-0737. A licensee representative stated that high range containment monitors meeting the criteria of NUREG-0737 are installed and operational in both units. The inspector noted the indicators for these units installed in the Control Rooms.

(Closed) IFI 250, 251/81-24-37: The meteorological recorder in the Control Room should be relocated so as to be easily read and interpreted. The inspector verified that the meteorological recorder in the Control Room has been relocated so as to be easily read and interpreted.

(Closed) IFI 250, 251/81-24-41: A location and appropriate emergency equipment and supplies should be designated for reserve stockage. A licensee representative stated that reserve stockage of emergency supplies and equipment would come from plant stores or St. Lucie Nuclear Plant.

(Closed) IFI 250, 251/81-24-59: The whole body emergency exposure dose for lifesaving action listed in the Plan and various procedures should be consistent. IFI 250, 251/81-24-60: Guidelines that include thyroid doses in emergency exposure doses should be established. The inspector verified that emergency exposure guidance for both whole body and thyroid is consistent between the REP and Procedure HP-91 and is consistent with Federal guidance.

(Closed) IFI 250, 251/81-24-67: Discrepancies in the coordination and administration of the onsite drill program should be corrected. The REP, Section 5.2 and Emergency Procedure 20115, Section 5.2 provide for coordinated administration of the onsite drill program.

(Closed) IFI 250, 251/81-24-70: Emergency Procedures should be reviewed at least annually to incorporate changes resulting from drills or changes in the facility or environs. Emergency Procedure 20119, Section 8.4, provides for a review at least annually.

(Closed) IFI 250, 251/82-13-11: Make key available for lockers holding kits for offsite monitoring teams. The inspector noted that keys for the lockers were maintained near the lockers.

(Closed) IFI 250 251/82-13-14: Hospital personnel need additional training in contamination control. The inspector reviewed documentation which showed that hospital personnel had received health physics training which had included contamination control in May 1983.

(Closed) IFI 250, 251/82-11-01: Install automatic dialing system and perform three call-in drills. The inspector noted the automatic dialing system installed in the Control Room and Technical Support Center, and reviewed documentation which showed that four call-in drills had been performed. IFI in this area (250, 251/82-11-01) is closed.

(Closed) IFI 250, 251/82-11-02: Revise REP to reflect current status of the Emergency News Center. The inspector verified that Section 2.4.6 of the REP reflects the current status of the Emergency News Center.

(Closed) IFI 250, 251/82-11-04: Determines the need for SCBAs at the TSC to be used by personnel who may have to leave the facility. The inspector verified that six SCBA units were available at the TSC.

(Closed) IFI 250, 251/82-11-05: Improve maintenance on meteorological recorders in the Control Room so that the pens do not run dry. IFI 250, 251/82-11-06: Revise the REP so that it accurately reflects the meteorological data display system in the Control Room. The inspector checked the meteorological data recorders on each of several trips to the Control Room and noted that the pens were recording properly. The inspector also verified that Section 5.1.3 of the REP described the existing meteorological data recording system in the Control Room.

(Closed) IFI 250, 251/83-23-01: Stress mitigation of core damage during annual training and retraining of operations personnel. The inspector reviewed training records for operations personnel, including a lesson plan dated November 1983, and determined that subjects directly and indirectly related to mitigating core damage were covered for several hours.