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

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Report Nos.: 50-250/86-01 and 50-251/86-01

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: January 21-24, 1985

Inspector: A. L. Cunningham 02/13/86
A. L. Cunningham Date Signed

Accompanying Personnel: G. Asprer, L. K. Cohen, J. D. Jamison, J. L. Kreh, C. A. Sakenas, G. A. Stoetzel, G. Wehmann, and J. M. Will, Jr.

Approved by: T. R. Decker 2/13/86
T. R. Decker, Section Chief Date Signed
Emergency Preparedness Section
Division of Radiation Safety and Safeguards

SUMMARY

Scope: This routine, unannounced inspection entailed 264 inspector-hours onsite during normal duty hours, in the area of the annual Emergency Preparedness Exercise.

Results: No violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*C. O. Woody, Group Vice President
*C. J. Baker, Plant Manager
*D. Grandage, Operations Superintendent
*J. K. Hayes, Director, Nuclear Licensing
*K. L. Jones, Technical Department Supervisor
*T. A. Coleman, Health Physics Administrative Supervisor
*W. C. Schimkus, Plant Supervisor - Nuclear
*H. N. Paduano, Manager, Nuclear Energy Services
*J. L. Danek, Corporate Health Physics
*M. W. Klein, Corporate Communications
*J. Maisler, Acting Emergency Preparedness Supervisor
*G. Casto, Turkey Point Emergency Planning Coordinator

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

Other Organizations

*T. Webster, Impell
*W. Blanc, Florida Emergency Management
*L. Pugh, Assistant Plant Coordinator (Plant - St. Lucie)

NRC Resident Inspectors

*D. R. Brewer

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on January 24, 1986, with those persons indicated in paragraph 1 above. The inspector described the areas observed and discussed in detail the inspection findings. No dissenting comments were received from the licensee.

The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspector during this inspection.

3. Licensee Action on Previous Enforcement Matters

This subject was not addressed during the inspection.

4. 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 criteria defined in Section II.N of NUREG-0654, Revision 1.

The scenario was reviewed in advance of the scheduled exercise date and was discussed in detail with licensee representatives on January 13 and 21, 1986. While no major scenario problems were identified, several inconsistencies became apparent during the exercise. The inconsistencies, however, failed to detract from the overall performance of the licensee's emergency organization.

The scenario developed for this exercise was detailed, and fully exercised the onsite emergency organizations. The scenario provided sufficient information to the State and local government agencies consistent with their participation in the exercise.

The licensee made a large commitment to training and personnel through the use of controllers, evaluators, and required personnel participating in the exercise. The controllers provided adequate guidance throughout the exercise; however, some minor prompting was noted by the inspectors. This item was discussed during the exercise critique.

No violations or deviations were identified.

6. Drill Scenario (82301)

The scenario for the medical emergency drill was reviewed to assure that provisions were made to test specific functions in the licensee's emergency plan pursuant to 10 CFR 50.47(b)(14), paragraph IV.F of Appendix E to 10 CFR 50, and specific criteria defined in Section II.N of NUREG-0654.

The scenario developed for the drill was explicit, and adequately exercised the participating licensee organization and offsite local emergency agencies. The scenario provided sufficient information to the local support agencies consistent with the scope of their participation in the drill.

The licensee and offsite support agencies made a significant commitment to training and personnel by use of controllers, evaluators, and specialists participating in the drill. The controllers provided adequate guidance throughout the drill. It was noted however, that security was not provided at the emergency entrance and the area contiguous to the emergency treatment room of the receiving hospital to control entry therein, and preclude over-crowding at or near the emergency entrance and treatment area. This item was discussed with licensee representatives who acknowledged the finding. This item will be reviewed during subsequent exercises.

Inspector Followup Item: IFI 50-250/86-01-01, 50-251/86-01-01: Posting of security at designated medical emergency facility entrance and emergency treatment area as part of the medical emergency drill preparation.

No violations or deviations were identified.

7. 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 criteria defined in Section II.A of NUREG-0654, Revision 1.

The inspectors observed that specific emergency assignments were made for the licensee's 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; however, 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 was available to provide for continuous staffing of the augmented emergency organization if needed.

The subject exercise was protracted over a two day period. On day-2, the Technical Support Center (TSC) was partially staffed to support selected activities of the Emergency Operations Facility (EOF). The latter facility was fully staffed. Adequately trained emergency response personnel were available to satisfy required staffing of the emergency response organization.

The inspectors also observed the activation, staffing, and operation of the emergency organization in the TSC, OSC, and EOF. At each response center, the required staffing and assignment of responsibility were consistent with the licensee's approved procedures.

No violations or deviations were identified.

8. 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 criteria promulgated in Section II.B of NUREG-0654, Revision 1: (1) responsibilities for emergency response were unambiguously defined; (2) adequate staffing was provided to assure initial facility accident response in key functional areas at all times; (3) onsite and offsite support organizational interactions were specified.

The inspectors observed that the initial onsite emergency organization was adequately defined and that staff was available to fill key functional

positions within the emergency organization. Augmentation of the initial emergency response organization was accomplished through mobilization of off-shift personnel. The on-duty Shift Supervisor assumed the duties of Emergency Coordinator promptly upon initiation of the simulated emergency, and directed the response until relieved by the Station Manager.

Required interactions between the licensee's emergency response organization and State and offsite support agencies were adequate and consistent with the scope of the exercise.

No violations or deviations were identified.

9. Emergency Response Support and Resources (82301)

This area was observed to assure that the following arrangements for requesting and effectively using assistance resources were made pursuant to 10 CFR 50.47(b)(3); paragraph IV.A of Appendix E to 10 CFR 50, and Section II.C of NUREG 0654, Revision 1, namely: (1) accommodation of selected State and local emergency response representatives at the licensee's near-site Emergency Operations Facility; (2) organizations capable of augmenting the planned response were identified.

Representatives of the State of Florida, and Dade and Monroe Counties were accommodated at the licensee's Emergency Operations Facility (EOF) and Emergency News Center (ENC). Licensee contact with offsite organizations was prompt, effective, and consistent with the scope of the exercise. Assistance resources from State and local agencies were available to the licensee.

No violations or deviations were identified.

10. Emergency Classification System (83201)

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, and specific criteria promulgated in Section I.D of NUREG-0654, Revision 1.

An emergency action level matrix was used to promptly identify and properly classify the emergency and escalate to more severe emergency classifications as the simulated emergency progressed. Licensee actions in this area were timely and effective.

Observations confirmed that the emergency classification system was effectively used and was consistent with the Radiological Emergency Plan and Implementing Procedures. The system appeared to be adequate for classification of the simulated accident sequences. The emergency procedures provided for initial and continuing mitigating actions during the simulated emergency.

No violations or deviations were identified.

11. Notification Methods and Procedures (83201)

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 criteria defined in Section II.E of NUREG-0654, Revision 1.

An inspector observed that notification methods and procedures were established and available for use in providing information concerning the simulated emergency conditions to Federal, State, and local response organizations, and to alert the licensee's augmented emergency response organizations. Notification of the State of Florida and local offsite organizations was completed within 15 minutes following declaration of each emergency classification.

Telephone notification of State and local response organizations was promptly followed by transmission of hard copies of the notification to these organizations. Such copies included prevailing meteorological information, average release rate (source terms in uCi/sec), site boundary integrated dose projections, and recommended protective actions when necessary.

The prompt notification system (PNS) for alerting the public within the plume exposure pathway was in place and operational. The system was actuated during the exercise to simulate warning the public of significant events occurring at the reactor site.

No violations or deviations were identified.

12. 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 criteria promulgated in Section II.F of NUREG-0654, Revision 1.

The inspector observed communications within and between the licensee's emergency response facilities (control room, TSC, OSC, and EOF), between the licensee and offsite agencies, and between the offsite environmental monitoring teams and the EOF. The inspectors also observed information flow among the various groups within the licensee's emergency organization. Emergency communications were adequate and consistent with the scope of the exercise.

No violations or deviations were identified.

13. 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 criteria defined in Section II.H of NUREG-0654, Revision 1.

The inspectors observed activation and staffing 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, TSC, OSC, and EOF.

a. Control Room - Consistent with the exercise scenario, management of the simulated accident sequence was initiated by the Control Room Shift Supervisor. Effective management of personnel gaining access to the control room precluded overcrowding, and served to maintain an ambient noise level required for orderly conduct of operations under emergency conditions.

The shift supervisor demonstrated proficiency in the following critical areas: (1) evaluation of conditions for classification of events; and (2) assessment of radiation levels associated with operation of specific reactor systems to identify the location of leakage sources.

Review of the control room records and logs disclosed that following the transfer of the Emergency Director's log to the TSC, the control room operators maintained a detailed log of the emergency during the remainder of day- 1 of the exercise. A detailed log of control room activities during emergency conditions provided a record of required assessment and mitigation of the simulated accident sequences.

Procedures were routinely followed in implementing indicated mitigating actions. It was noted however, that following operator action to accelerate reactor coolant system (RCS) depressurization via the power-operated relief valves (PORV) and initiate accumulator and residual heat removal (RHR) cooling, no procedure was available for coolant bleed and feed using the PORV's. This item was discussed in detail with licensee representatives prior to and during the critique.

Inspector Followup Item (IFI) 50-250/86-01-02, 50-251/86-01-02: Provide a procedure for RCS bleed and feed operations via the PORVs. The licensee acknowledged this finding and stated that the subject procedure was developed and was scheduled for issuance. This item will be reviewed during subsequent inspections.

b. Technical Support Center (TSC) - The TSC was activited and staffed promptly upon notification by the Emergency Coordinator of the simulated emergency conditions leading to the Alert and Site Area Emergency classifications. The TSC staff appeared to be knowledgeable concerning their emergency responsibilities, and TSC operations proceeded smoothly. The TSC was provided with adequate equipment for

support of the assigned staff. TSC security was promptly established. The independent ventilation system was actuated during the exercise. During operation of this facility, radiological habitability was routinely monitored and documented, and personnel dosimetry was distributed as required. Status boards and related visual aids were strategically located to facilitate viewing by the TSC staff. Dedicated communicators were assigned to the facility and all required notifications were promptly implemented.

The inspection disclosed the following additional findings, namely: (1) engineering, maintenance, and other technical support functions were readily implemented and factored into problem solving exercises; (2) assumption of duties by the Emergency Director was definite and firm; (3) transfer of certain emergency responsibilities from TSC to EOF was firmly declared and announced to the TSC staff; (4) briefings of the TSC staff were frequent and consistent with changes in plant status and the related emergency conditions; (5) accountability, including identified missing personnel, was readily implemented within the accepted time regime and was consistent with the scenario scope.

c. Operations Support Center (OSC) - The OSC was promptly staffed upon activation of the emergency plan by the Emergency Coordinator. An inspector observed that teams were promptly assembled, briefed, and dispatched. The OSC supervisor appeared to be cognizant of his duties and responsibilities. During operation of the facility, radiological habitability was routinely monitored and documented.

d. Emergency Operations Facility (EOF) - The EOF is located in the licensee's General Office in Miami, Florida. The facility was adequately equipped and staffed to support the required emergency response defined in the exercise scenario.

EOF security was promptly established and was included as a routine requirement for preparation and activation of the facility. Status boards and other related visual aids were strategically located and were readily accessible for viewing by the EOF staff. Dedicated communicators were assigned to the facility, and all required notifications were promptly made.

The EOF principal staff freely interacted with State and county representatives assigned to the facility. The subject representatives were routinely informed of plant status, and were consistently factored into the decision making process addressing required and proposed protective measures and actions. The Recovery Manager frequently consulted the EOF technical support staff. These meetings were usually announced, and included representatives of the cited offsite agencies and support groups. It was noted by licensee controllers and NRC inspectors, however, that the final conference on day-1 of the exercise was not announced. Although all selected staff and offsite support representatives were in attendance, some confusion existed. This finding was identified and fully discussed by the licensee prior to and

during their critique presentation and was documented as an item requiring corrective action.

No violations or deviations were identified regarding emergency response facilities and equipment.

14. 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 criteria in Section II.I of NUREG-0654, Revision 1.

The accident assessment program included an engineering assessment of plant status, and an assessment of radiological hazards to onsite and offsite personnel resulting from the accident. During the exercise, the engineering accident assessment team functioned effectively in analyzing plant status to provide recommendations to the Site Emergency Manager concerning mitigating actions required to reduce damage to plant systems and equipment, prevention of releases of radioactive materials, and termination of the emergency condition.

Radiological assessment activities involved several groups. An inplant group was effective in estimating the radiological impact within the plant based upon inplant monitoring and onsite measurements. Offsite radiological monitoring teams were dispatched to determine the level of radioactivity in those areas within the influence of the plume. Radiological effluent data was received in the EOF. The EOF dose calculations were computed and compared on a timely basis with results received from the TSC and offsite monitoring groups. The licensee's dose assessment group, freely interacted with the assigned State dose assessment specialists resident in the EOF. Dose assessments and projections were compared with the TSC and State data. All resultant data agreed within acceptable limits.

Routine inventory and verification of the contents of monitoring kits issued to offsite radiation monitoring teams' personnel was conducted. It was noted that required contents of each kit were provided and were consistent with assigned inventories. No instrument or radio failures occurred during offsite surveys and monitoring. It was noted, however, that teams were neither informed nor periodically updated regarding plant status, emergency classification and related conditions. This item was discussed with licensee representatives during the critique. The licensee acknowledged this finding.

Inspector Followup Item (IFI) 50-250/86-01-03, 50-251/85-01-03: Provide offsite radiological monitoring and surveillance teams periodic update of plant status and emergency classifications. This item will be reviewed during subsequent exercises.

No violations or deviations were identified.

15. Protective Response

This area was observed to determine that guidelines for protective actions, consistent with federal guidance, were developed and in place, and protective actions for emergency workers, including evacuation of non-essential personnel, are implemented promptly pursuant to 10 CFR 50.47(b)(10) and specific criteria promulgated in NUREG-0654, Section II.J.

The prompt notification system in the 10-mile EPZ was actuated. The sirens were operational. Protective actions regarding sheltering and evacuation of area occupants, where indicated, was promptly implemented as required. Prompt notification of the public was successfully implemented.

The protective measures decision making process was observed by the inspectors. Recommendations implemented by the EOF staff were timely, effective, and consistent with the above criteria. Protective measures recommendations were provided by the licensee to the State of Florida, designated counties and local offsite organizations. It was noted that all protective action responses recommended by the EOF staff represented input and concurrence by State and county representatives assigned to that facility

No violations or deviations were identified.

16. Radiological Exposure Control (82301)

This area was observed to determined that methods for controlling radiological exposures in an emergency were established and implemented for emergency workers, and that these methods included exposure guidelines consistent with EPA recommendations pursuant to 10 CFR 50.47(b)(11), and specific criteria defined in Section II.K of NUREG-0654, Rev. 1.

An inspector noted that radiological exposures were controlled throughout the exercise by issuing supplemental dosimeters to emergency workers and by conducting periodic radiological surveys in the emergency response facilities. Exposure guidelines were in place for various categories of emergency actions, and adequate protective clothing and respiratory protection was available and used as appropriate.

Health Physics control of radiation exposure, contamination control, and radiation area access appeared adequate. Health Physics Supervisors were observed to thoroughly brief survey teams prior to their deployment. Dosimetry was available and was used. High range dosimeters were also available in case they were needed. A communicator and data logger were established at the health physics access point and appeared to function in a satisfactory manner.

No violations or deviations were identified.

17. 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 criteria promulgated in Section II.G of NUREG-0654, Rev. 1

Information was provided to the media and the public in advance of the exercise. The information included details on how the public would be notified and the initial actions which should be taken in an emergency. A rumor control program was also in place.

The licensee activated and fully staffed the Emergency News Center (ENC). The facility was used by the licensee for preparation, coordination and dissemination of emergency news information. Written press releases were prepared and issued from the ENC. Releases issued were timely, and adequately reflected plant emergency conditions. A corporate spokesman was designated to conduct periodic press briefings. The briefings were technically accurate and presented in a manner readily understood by laymen. Visual aids were provided and effectively used. Question and answer sessions were held after each briefing.

Interaction and direct cooperation of the licensee with the State and counties was effective. Representatives of State, counties and Federal agencies were accommodated at the ENC. The cited representatives fully participated in the composition of all news releases. In essence, each news release was the product of the integrated activity of the licensee and the above cited support groups.

Similarly, State, Federal and county representatives assigned to the ENC, fully participated in planning and presentation of periodic press briefings held during the exercise. Operation and management of the ENC was effectively implemented, and was consistent with the emergency plan requirements and approved procedures.

No violations or deviations were identified.

18. Recovery Planning (82301)

This area was reviewed pursuant to the requirements in 10 CFR 50.47(b)(13), 10 CFR 50, Appendix E, paragraph IV.H, and the specific criteria in NUREG-0654, Section II.M.

The licensee conducted a detailed recovery planning session prior to termination of the exercise. Licensee planners discussed the need for administrative and logistical support, manpower needs, engineering service needs, radiological surveillance, and implementation of the recovery organization.

No violations or deviations were identified.

19. 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, 10 CFR 50, and the specific criteria promulgated in NUREG-0654, Section II.N.

A formal critique was held on January 24, 1986, with exercise controller's and observers, licensee management, and NRC representatives. Weaknesses identified during the exercise and plans for corrective action were discussed. Licensee action on identified weaknesses will be reviewed during subsequent inspections. The licensee's critique was detailed, and addressed both substantive deficiencies and indicated improvement items. The conduct and content of the critique were consistent with regulatory requirements and guidance cited above.

No violations or deviations were identified.

20. Followup Items (92703)

(Closed) IFI 83-23-03: Improve the Inplant Medical Emergency Program. Observation of the inplant portion of the medical emergency drill demonstrated that required implementation and management of the medical program was adequate.