P. O. BOX 14000, JUNO BEACH, FL 33408

FLORIDA POWER & LIGHT COMPANY

86 OCT 14 A10:30

OCTOBER 08 1986

L-86-403

Dr. J. Nelson Grace
Regional Administrator, Region II
U. S. Nuclear Regulatory Commission
101 Marietta Street, N.W., Suite 2900
Atlanta, Georgia 30303

Dear Dr. Grace:

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Inspection Report 250-86-33 and 251-86-33

Florida Power & Light Company has reviewed the subject inspection report and a response is attached.

There is no proprietary information in the report.

Very truly yours,

C. O. Woody
Group Vice President
Nuclear Energy

COW/RG/gp

Attachment

cc: Harold F. Reis, Esquire

IE01

1/1

RG2/040/1

FINDING A

Technical Specification 6.8.1 requires that written procedures and administrative policies be established, implemented and maintained that meet or exceed the requirements and recommendations of sections 5.1 and 5.3 of ANSI N18.7-1972 and Appendix A of USNRC Regulatory Guide 1.33.

ANSI N18.7-1972, Section 5.1.6, states that maintenance that can affect the performance of safety-related equipment shall be properly preplanned and performed in accordance with written procedures and documented instructions appropriate to the circumstances.

Contrary to the above, on June 27, 1986, an adequate maintenance procedure was not established, in that Plant Work Order (PWO) 63-6582 failed to address all appropriate precautions necessary to calibrate steam break protection circuitry. Consequently, the circuitry being tested was not properly removed from service and subsequent testing resulted in a Unit 3 reactor trip.

RESPONSE

1) FPL concurs with the finding.

2) The reason for the finding was that the procedure did not have any restrictions on partial performance or state any special requirements. The junior supervisor and planner did not recognize the potential problem areas in the section being performed.

3) a) The planner and field supervisor involved in the event were counseled on the precautions necessary when using partial procedures.

   b) A human performance evaluation was performed for this event to review the sequence of events for possible corrective actions. The corrective actions identified included a revision to the periodic surveillance procedures to add an additional caution to prohibit partial usage without the department head and maintenance superintendent review.

4) Procedure upgrades will be pursued for the periodic and at power surveillance procedures. These revisions, as part of the Procedure Upgrade Project, will break them into appropriate separate procedures and define specific requirements for partial procedure usage.

5) a) Full compliance for item 3 above was achieved by July 25, 1986.

   b) Full compliance for item 4 above will be achieved by December 31, 1987.

FINDING B

10 CFR 50, Appendix B, Criterion XVI, as implemented by FPL Topical Quality Assurance Report (FPLTQAR-1-76A) Revision 8, TQR 16.0, Revision 4, Corrective Action, requires, in part, that measures be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected.

FPL Quality Assurance Manual, Quality Procedure 16.1, Revision 8, delineates requirements for assuring that conditions adverse to quality are corrected.

Procedure O-ADM-913, revision dated May 23, 1986, entitled Corrective Action for Conditions Adverse to Quality, itemizes the mechanisms by which conditions adverse to quality are promptly identified, tracked and corrected.

T21:2

FINDING B (Continued)

Off-Normal Operating Procedure (ONOP) 0208.14, Deviation or Failure of Reactor Protection and Safety-Related Hagan Instrumentation Channels, revision dated September 4, 1985 states, in section 3.2, that bistables for a failed channel shall be placed in the tripped position within 30 minutes of the failure determination.

Contrary to the above, on July 1 and July 18, 1986, the licensee failed to take adequate measures to assure that conditions adverse to quality were promptly identified and corrected, in that:

FINDING B.1

On July 1, 1986, Unit 3 pressure transmitter (PT) 495 failed for twenty seconds resulting in a steam generator water level transient which required prompt operator action to preclude a reactor trip. PT 495 was of unknown quality and its failure resulted in the potential loss of redundancy for steam flow input to the reactor protective system. The failure mechanism and its potential for recurrence were not known. The required actions of ONOP 0208.14 were not implemented. Root cause evaluation and troubleshooting were not pursued until requested by the NRC on July 3, 1986.

RESPONSE

1) FPL does not concur with the finding.

2) The transmitter PT-495 momentarily failed low and subsequently returned to normal operation. After the momentary failure occurred, the Plant Supervisor Nuclear (PSN) inspected the area around the steam generator (SG) pressure transmitters. It was noted that a security guard was in the area of the transmitter and was communicating using a hand held radio. No other obvious problems could be found with the transmitters. The operators switched to an alternate steam flow channel for SG level control for the 3C SG. The steam flow channel (FT-494) that had momentarily fluctuated was watched to see if any erratic operation continued. No further fluctuations occurred so the PSN decided that the momentary fluctuations did not constitute a channel failure, so the channel was not taken out of service. A plant work order (PWO) was written to have the Instrumentation and Control group check out the circuit. No special priority was placed on the PWO because of the belief that the channel had not failed. During the subsequent investigations, the transmitter was compared to redundant channels which measure the same parameter and found to be operating within tolerance. It was decided to run shop tests on a similar model transmitter to try to determine the susceptibility to radio frequency (RF) interference. These tests were also conducted on an installed transmitter of the opposite unit. Both the shop transmitter and installed transmitter exhibited reactions to the RF transmissions from hand held radios. The transmitter failure has not been repeatable. To respond to potential concerns of the resident inspector an inspection and checkout of the loop was performed and no abnormalities were observed. The vendor has been contacted and has stated that momentary failures have been observed at other utilities with no subsequent adverse operation. The affected transmitter has been replaced and the one with the failure will be returned to the vendor at his request for a detailed factory examination. At no time after the initial spike of the transmitter has it operated out of tolerance or been otherwise nonfunctional.

FINDING B.2

On July 18, 1986, during electrical bus sequencer testing, normal control room lighting was inadvertently lost. One of two trains of emergency lighting had been removed from service for modification. The remaining train unexpectedly failed to energize, resulting in a loss of all control room lighting. The failure mechanism was not known. Normal control room lighting was restored within several minutes. However, the licensee failed to evaluate the potential for additional losses of all control room lighting and did not attempt to restore the failed emergency lighting train to service. Consequently, the control room remained susceptible to a loss of all lighting for over 24 hours.

RESPONSE

1) FPL concurs with the finding.

2) At the time of the event both Unit 3 and Unit 4 were in cold shutdown (Mode 5) for a dual unit maintenance outage expected to last approximately 2 weeks. A plant work order (PWO) was written to correct the problem, however, it was not expedited because of the status of the units and the length of the dual unit outage.

3) The train of control room emergency DC lighting that failed on July 18, 1986 was repaired and satisfactorily tested on July 22, 1986. The train of DC lighting out of service for modifications was returned to service on July 19, 1986.

4) a) An entry was made in the short term instruction book to discuss this event and to make the operating crews aware of the importance of expediting maintenance activities when two or more trains of a system are out of service.

   b) This event will also be discussed in shift briefings to be held in October, 1986.

5) Full compliance for item 4 will be achieved by October 31, 1986.

FINDING C

Technical Specification 6.8.1 requires that written procedures and administrative policies be established, implemented and maintained that meet or exceed the requirements and recommendations of sections 5.1 and 5.3 of ANSI N18.7-1972 and Appendix A of USNRC Regulatory Guide 1.33.

Appendix A of USNRC Regulatory Guide 1.33. states that procedures should be established for the operation of plant fire protection equipment.

Contrary to the above, adequate procedures did not exist to control deluge system valve line-ups, including pressure switch isolation valves. As a result, on June 16, 1986, the pressure switches associated with the deluge systems for the Units 3 and 4 component cooling water pump rooms and the A and B emergency diesel generators were discovered to be isolated, preventing control room and local area deluge actuation alarms from functioning.

RESPONSE

1) FPL concurs with the finding.

2) The reason for the finding was that the existing procedures were limited in scope to handle those instances where failures of sprinkler heads occurred or a deluge system was to be returned to service after actuation.

FINDING C/RESPONSE (Continued)

3) a) O-OP-016.1, Fire Water Suppression System, is currently under going revision to incorporate deluge system valve lineups to enhance the control on the fire water suppression system.

3) b) Drawing(s) to reflect the proper lineup and configuration of the deluge systems are currently being developed. This will provide additional guidance for proper system alignment.

4) The Procedure Upgrade Program (PUP) is currently revising and developing procedures in the areas of administration, normal and emergency operations, as well as surveillance and maintenance. The PUP is largely based on INPO guidance and good practice. The PUP is a part of the Performance Enhancement Program at Turkey Point.

5) Full compliance for item 3 above will be achieved by December 31, 1986.

FINDING D

10 CFR 50, Appendix B, Criterion VI, as implemented by FPL Topical Quality Assurance Report (FPLTQAR-1-76A) Revision 8, TQR 6.0, Document Control, requires, in part, that the distribution of controlled documents such as drawings which provide guidance, specifications or requirements affecting the quality of nuclear safety-related structures, systems and components, shall be controlled and that Quality Procedures shall delineate the control measures for drawings, including direction for the review of adequacy.

FPL Quality Assurance Manual, Quality Procedure 6.6, Revision 1, delineates requirements for maintaining the drawing update program and assuring that drawings reflect the as-constructed configuration of the safety-related system.

Administrative Procedure (AP) 0103.10, Using and Updating Plant Drawings, dated March 3, 1983, implements the above requirements and specifies that drawings shall be verified to ensure proper adequacy.

Contrary to the above, as of July 2, 1986, drawing 5610-T-D-18B, Revision 1, entitled "Steam Break Protection" was not accurate, in that each of three steam generator pressure transmitters were shown as supplying density compensation inputs to other than the correct steam flow modules. Consequently, the logic diagram did not accurately reflect the as-built design of the system.

RESPONSE

1) FPL concurs with the finding.

2) The reason for the finding was an oversight during the revision of the drawing.

3) Drawing 5610-T-D-18B, Steam Break Protection, was revised to correct the inaccuracies described above.

4) FPL is currently conducting a comprehensive review of select systems chosen on the basis of the importance of their role in safely shutting down the reactor or mitigating design basis accidents. As a part of this review, as-built system design drawings and other documents will be reviewed to assure consistency between the documents and system design basis.

5) Full compliance for item 3 above was achieved on July 22, 1986.

FINDING E

Technical Specification 6.8.1 requires that written procedures and administrative policies be established, implemented and maintained that meet or exceed the requirements and recommendations of sections 5.1 and 5.3 of ANSI N18.7-1972 and Appendix A of USNRC Regulatory Guide 1.33. Appendix A of USNRC Regulatory Guide 1.33 specifies that procedures be established describing operation of the shutdown cooling system.

ANSI N18.7-1972, section 5.3.5, requires that permission to release equipment for maintenance be granted by operating personnel. The equipment shall be made safe to work on. Measures shall provide for the protection of workers and equipment and strict control measures shall be enforced.

AP 0103.4, In-Plant Equipment Clearance Orders, revision dated May 13, 1985, implements ANSI N18.7-1972, and states, in section 5.3.5 and 3.4.1, that a clearance shall exist on a system when a component, equipment or system is isolated and is properly tagged with a danger tag to ensure protection of personnel and equipment. Section 3.4.3 of the AP 0103.4 requires independent verification to be completed where applicable per O-ADM-031, Independent Verification. Procedure O-ADM-031 revision dated July 12, 1985 requires, in section 5.2.1, that independent verification be performed on the fire protection system.

AP 0103.32, Reactor Cold Shutdown Conditions, Revision dated June 3, 1986, requires, in section 4.10, that the components of at least one Residual Heat Removal (RHR) loop be capable of being powered from an operable Emergency Diesel Generator (EDG).

FINDING E.1

Contrary to the above, on July 10, 1986, an adequate clearance was not properly established on the fire suppression water system prior to commencing weld repairs on C component cooling water channel head in the affected area. Additionally, independent verification for removing the fire suppression water system from service was not accomplished prior to commencing maintenance work in the affected area.

RESPONSE

1) FPL concurs with the finding.

2) The reason for the finding was that the personnel involved were trying to expedite a clearance to enable maintenance to begin work and did not adhere strictly to AP 0103.4.

3) The individual involved was counseled on the importance of complying with AP 0103.4 and not to start taking equipment out of service before the clearance tags have been hung.

4) This finding has been discussed in shift briefings to re-emphasize to the operators that full compliance with the equipment clearance procedure is expected even when the workload is heavy.

5) Full compliance for items 3 and 4 above will be achieved by October 31, 1986.

FINDING E.2

Contrary to the above, between July 20 - 25, 1986, the components of at least one RHR loop were not capable of being powered from an operable EDG.

RESPONSE

1) FPL does not concur with the finding.

2) Technical Specification (TS) 3.4.1.e requires that at least two coolant loops shall be operable one of which shall be in operation whenever the reactor coolant system (RCS) average temperature is less than 350 degrees Fahrenheit. TS 1.23 provides the definition of a coolant loop which includes both residual heat removal (RHR) loops and the three reactor coolant loops. AP 0103.32 also has the TS definition of a coolant loop included. Step 4.10 was included to insure personnel did not take credit for the operability of a RHR pump if an emergency power supply was not available. The step was not intended to require a RHR loop to be operable at all times. While the 4B RHR loop was in operation at this time, no credit was taken for its operability to meet TS requirements. During this event, the operable coolant loops to meet TS requirements were the A and B reactor coolant loops. A failure of the coupling on the A reactor coolant pump oil lift pump resulted in the loss of the A reactor coolant loop and an entry into the limiting condition for operation for TS 3.4.1.e for approximately 3½ hours while repairs were completed.

Therefore it is FPL's position that step 4.10 was included to clarify the operability requirements for a RHR loop and not specifically require a loop to be operable. To further clarify FPL's position, AP 0103.32 was revised on September 18, 1986 to clarify the operability requirements for RHR loop. This change requires that for each operable RHR loop its associated emergency diesel generator is capable of energizing its associated 4160 volt bus.

FINDING F

10 CFR 50.54 (q) states that a licensee authorized to operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards and requirements of 10 CFR 50.47(b) and 10 FR 50, Appendix E.

Turkey Point Plant Radiological Emergency Plan, Revision 15, implements 10 CFR 50.47(b) and 10 CFR 50, Appendix E. Section 4.6 of the Turkey Point Plant Radiological Emergency Plan states that the public address system provides for the transmission of warning and instructions in the event of an emergency. Section 5.2.2 specifies that the plant public address system will be used to announce emergency evacuation orders and states that the announcement of an emergency situation to all on-site individuals can be accomplished in less that 15 minutes.

Contrary to the above, prior to August 4, 1986, the Turkey Point Plant Radiological Emergency Plan was not adequately maintained in that:

1. The public address system was not installed in the nuclear administration building. This precluded on-site individuals from being able to hear emergency evacuation orders. Compensatory personnel notification measures were not established. On July 16, 1986, the site evacuation alarm was inadvertently sounded. The alarm and subsequent explanatory announcements were not being heard in the nuclear administrative building.

2. Between July and September 1985, the public address system was not installed in the health physics building. On two occasions, in September 1985, health physics personnel assigned to the site fire brigade failed to respond to fire drills because they could not hear the public address system announcements.

FINDING F (Continued)

3. Some general area public address system loudspeakers have not been maintained in an operable condition. As a result, on June 20, 1986, two of five fire brigade members failed to respond to a fire drill because they could not hear the fire horn and the fire announcement.

4. The public address system is not audible in several on-site high noise areas, including auxiliary feedwater, containment spray and safety injection pump rooms at times when this equipment is operating. Compensatory measures, such as flashing light systems or administrative notification systems have not been established as required by Inspection and Enforcement Bulletin 79-18, Audibility Problems Encountered on Evacuation of Personnel From High-Noise Areas. Consequently, the ability to announce an emergency situation to personnel in these areas has not been established.

RESPONSE

1) FPL concurs with the finding.

2) a) The reason for items 1 and 2 of the finding was that due to an oversight during the design phase of each building, a public address (PA) system was omitted.

b) The reason for item 3 of the finding was that after maintenance was performed on PA system speakers, individuals would reduce the volume of a speaker in a work area. It should be noted that the fire horn at Turkey Point functions independent of the PA system and only the announcement following the fire horn is delivered via the PA system.

c) In 1980 actions were taken to comply with IE Bulletin 79-18, however, due to the number of plant changes/modifications since then, FPL feels that it would be prudent to readdress the bulletin.

3) a) Public address systems have been installed in both the nuclear administration building and the health physics building.

b) In addition to the existing annual and semi-annual public address system preventative maintenance procedures, a third monthly visual inspection preventive maintenance procedure will be written to assure continued acceptable operation.

c) A plant change/modification (PC/M) will be generated to modify the existing public address equipment to incorporate a volume level control amplifier in the page stations in the site protected area.

d) Additional guidance will be provided to plant personnel to re-emphazise the importance of maintaining the public address system audible.

4) a) Power Plant Engineering, the Plant Project Review Board and the Plant Change Review Team will be requested to incorporate guidance in the PC/M review process to ensure that the audibility of the site's evacuation signals over the public address system is properly addressed. In addition, Project Management will be requested to determine that an audible evacuation signal is in place prior to releasing a new structure for occupancy.

b) An ambient noise level study will be conducted to determine the high noise areas on-site. This study will be done (when possible) at the maximum anticipated noise level in a given area. Areas where emergency equipment is located will be evaluated during the next scheduled surveillance/operability test.

FINDING F/RESPONSE (Continued)

4) c) Those areas identified in item 4.b as high noise areas will be evaluated for an effective means to deliver an evacuation signal. The results of the evaluation will be used to determine any required plant changes. The schedule for completion for any required changes will be provided by February 1, 1987.

5) a) Full compliance for item 3 above will be achieved by January 1, 1987.
b) Full compliance for item 4. a and 4. b above will be achieved by January 1, 1987.