UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30303

Report Nos.: 50-250/78-12 and 50-251/78-12

Docket Nos.: 50-250 and 50-251

License Nos.: DPR-31 and DPR-41

Licensee: Florida Power and Light Company
P. O. Box 013100
9250 West Flagler Street
Miami, Florida 33101

Facility Name: Turkey Points Units 3 and 4

Inspection at: Turkey Point Site, Florida City, Florida

Inspection conducted: June 26-29, 1978

Inspectors: E. H. Verdery
J. L. Skolds
H. D. Jenkins

Reviewed by: R. C. Lewis 8/11/78
R. C. Lewis, Chief, Reactor Projects Section No. 2 Date
Reactor Operations and Nuclear Support Branch

Inspection Summary

Inspection on June 26-29, 1978: (Report No. 50-250/78-12 and 50-251/78-12)
Areas Inspected: Routine unannounced inspection of maintenance, operations, followup on noncompliance, unresolved items, IE Bulletins and Circulars, Reportable events, and open items. The inspection involved 48 inspector-hours on site by two NRC inspectors.
Results: Of the seven areas inspected, no items of noncompliance were identified in five areas, three apparent items of noncompliance were identified in two areas (deficiency - failure to document proper approval of plant work orders (78-12-01) Units 3 and 4 - Detail II, paragraph 5; deficiency - failure to document operational release of safety-related equipment (78-12-02) Units 3 and 4 - Details II, paragraph 5; infraction - failure to properly control clearance on safety-related equipment (78-12-03) Units 3 and 4 - Details I, paragraph 5).

7810240217

DETAILS I

Prepared by: R.C. Lewis 8/11/78
for E. H. Verdery, Reactor Inspector Date
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

Dates of Inspection: June 26-29, 1978

Reviewed by: R.C. Lewis 8/11/78
R. C. Lewis, Chief Date
Reactor Projects Section No. 2
Reactor Operations and Nuclear
Support Branch

1. Persons Contacted

Florida Power and Light Company

*H. E. Yaeger, Plant Manager
*J. K. Hays, Plant Superintendent, Nuclear
*D. W. Jones, Quality Control Supervisor
*J. P. Mendieta, I&C Department Supervisor
*V. B. Wager, Operations Supervisor, Nuclear
*H. M. Ainsworth, Assistant Maintenance Superintendent
*R. J. Spooner, QAO Supervisor
*C. D. Ward, Electrical Supervisor
*B. C. Kilpatrick, Assistant Maintenance Superintendent
*P. J. White, Maintenance Superintendent
*D. Whittier, Licensing Engineer, General Office
*E. F. Baker, Quality Assurance, General Office
*J. A. Olsonowski, QC Compliance Engineer
*C. J. Baker, Plant Supervisor Nuclear
W. R. Williams, Assistant Superintendent Electrical Maintenance

The inspector contacted several operators and technical support personnel not listed.

*Denotes those attending the exit interview.

2. Licensee Action on Previous Inspection Findings

a. Noncompliance

(Open) (77-21-02): Inadequate Procedure for control of Temporary Modifications and Jumpers. The licensee has implemented a

revision to AO 0103.3, Control and Use of Jumpers and Disconnected Leads. However, the revised procedure did not address the use of mechanical jumpers, i.e., hoses, dutchmen, etc. The licensee has committed to implementing a revision to this procedure to include mechanical jumper controls by July 7, 1978.

b. Unresolved Items

(1) (Closed) (76-01-01): Agreement between meter reading and recorder on Nuclear Instrumentation N-31. The licensee has incorporated provisions in the procedure for calibration of all safety-related instrumentation to check calibrate the associated instrument recorders during each refueling outage. The inspector had no further questions.

(2) (Closed) (77-27-01): Plant change and modification (PC/M) Administrative Controls. The licensee has significantly reduced the backlog of administrative review of completed PC/M packages. Additionally, the licensee has implemented an improved Administrative Procedure (AP) 0109.15 which should preclude the occurrence of PC/M documentation being held in the field without proper QC review. Assignment of separate PC/M numbers for each unit and system and reduction of the scope of work to that which can be accomplished in a single outage will be considered in the future. The inspector had no further questions.

(3) (Open) (78-01-01): Quality Assurance Records Not Stored as Required by TQ&R. The licensee has commenced sending completed mechanical safety-related Plant Work Order (PWO) to Document Control as of January 1978. The licensee committed, at the exit interview, to start sending completed electrical safety-related PWO's to Document Control by August 1, 1978. Additionally, the licensee will schedule the microfilming of previously completed safety-related PWO's for inclusion in permanent storage in Document Control. This item will remain open.

(4) (Open) (77-21-03): Maintenance Inspection, Witness and Hold Points (77-21-03): This unresolved item identified in IE Inspection Reports 50-250/77-21 and 50-251/77-21, concerns QC involvement in reviewing safety-related plant work orders and was followed up in IE Inspection Report 50-250/78-01 and 50-251/78-01. The licensee agreed to review the current level of QC involvement in maintenance activities and

consider having the QC Department review all completed safety-related PWO's before transferring them to Document Control. This item remains unresolved.

(5) (Closed) (78-03-02): Management controls to Properly Administrate Changes to Normal Plant Operating Conditions. See item (6) below.

(6) (Closed) (78-03-02): Inadequate System for Promulgation of Special Operating Orders. The licensee has promulgated a "Special Instruction Book" by memorandum dated June 28, 1978. This book will contain special instructions which may be issued as needed to identify temporary changes in plant conditions, provide guidance for handling temporary situations not specifically covered by procedures until procedures are developed and formally approved. The use of this method of communication is in accordance with ANSI 18.7 section 5.1.4 and resolves this item and 78-03-02.

(7) (Closed) (78-08-01): Implementation of "Q" List. The licensee promulgated an official "Q" list on June 1, 1978. The list as promulgated includes all of the systems listed in the Turkey Point FSAR, Section 1.9. In addition, the list includes some components that are not listed in Section 1.9 of the FSAR and do not meet the definition of safety-related equipment as specified in ANSI 18.7. The licensee intends this list to be a dynamic document which will be amended as deemed necessary. The inspector stated that any deletion of equipment or systems listed in Section 1.9 of the FSAR should be thoroughly researched and documented in a safety analysis. This item is closed.

3. New Unresolved Items

None identified during this inspection.

4. Exit Interview

The inspectors met with Mr. Yaeger and other licensee representatives listed in paragraph 1 at the conclusion of the inspection on June 29, 1978. The inspection findings were discussed and the items of noncompliance were amplified to allow the licensee to offer additional information.

During the meeting the licensee did provide additional documentation and information to support the fact that post maintenance testing had

been performed or was not required because the maintenance in question had been performed on spare equipment which was not installed in safety-related systems or components.

The licensee did not take exception to the items of noncompliance.

5. Use of Clearance Orders as Procedures

In response to a discrepancy identified IE Inspection Reports 250/76-15 and 251/76-15, the licensee revised AP 0103.4, In Plant Equipment Clearance Orders, to require that all clearances on nuclear safety related systems or equipment listed in the Technical Specification 3.0 would be properly reviewed. This review will be indicated by having the Nuclear Watch Engineer (NWE) or Nuclar Plant Supervisor (NPS) and a qualified Senior Reactor Operator (SRO) sign the clearance in signature blocks indicated on a special Nuclear Safety Related (NSR) Stamp.

The purpose of the special review by the NPS or NWE is to ensure that the clearance meets the requirement that all safety-related equipment be removed and returned from service using an approved procedure. The clearance is thus approved as a procedure by utilizing the stamp.

The inspector reviewed the Equipment Clearance Order book for both Units 3 and 4 and determined that the NSR stamp appeared on very few of the clearances in effect for safety-related components.

The specific clearances listed in the Notice of Violation are examples of a general lack of understanding on the part of the operations personnel on shift as to the significance of this special NSR stamp.

The failure of the licensee to properly control the clearances issued on nuclear safety-related components has been designated an infraction in the Notice of Violation (78-12-03).

6. 10 CFR Part 21 Reporting Program

The inspector reviewed the licensee's administrative system to verify that controls have been established to ensure that the requirements of 10 CFR Part 21 are met.

Discussions with plant personnel indicated that no items have been identified to be reportable under 10 CFR 21 requirements.

The inspector noted in his review of Quality Procedure 16.4, Evaluating and Reporting of Substantial Safety Hazards in Accordance

with 10 CFR Part 21, that the administrative controls did not detail the record keeping requirements as per 10 CFR 21.51. This item will be reviewed during a subsequent inspection (78-12-06).

No items of noncompliance or deviations were identified.

7. Plant Operations

The inspector reviewed general plant operations for both units including an examination of selected operating logs, special orders, jumper and clearance logs, equipment out of service logs for the period April 12, 1978 through June 28, 1978. This inspection was made to determine compliance with Technical Specifications, Regulations and licensee procedures.

During a tour of the control room the inspector noted that the Pressurizer Relief Tank (PRT) on Unit No. 4 was operating at greater than the normal operating level. Upon questioning the Nuclear Control Center Operator (NCCO) the inspector was informed that the PRT rupture disc had failed and that the PRT was being allowed to overflow to the Unit 4 containment sump. The licensee identified this problem on May 31, 1978, when drain valve 4-523 failed to open during a routine level reduction on the previous day and attempts to free the drain line were made by pressurizing the PRT with normal nitrogen supply to approximately 80 psig. This pressurization apparently caused one or both of the rupture discs to fail. On June 2, 1978, the licensee issued a safety evaluation to justify continued operation of Unit 4 with the rupture disc failed. The inspector expressed his concern for the potential for an explosive mixture of H_2 in air with continuous venting of the PRT to the containment atmosphere. The licensee supplemented his original evaluation to show that the necessary primary system leakage rate to produce a dangerous level of Hydrogen in the containment would exceed 100 gpm. Based on the results of the licensee's sample of the containment for Hydrogen, the concentration is less than 0.8% H_2. This operating condition will continue until Unit 4 is shutdown for refueling in August 1978. This item will be reviewed during subsequent inspections. (78-12-05).

8. Licensee Action on IE Bulletins and Circulars

a. IE Bulletin 78-05 - Circuit Breaker Auxiliary Contact Mechanism

In his response dated June 5, 1978, the licensee stated that there were no GE type switchgear installed in any 480 volt systems at Turkey Point. The inspector verified the licensee response and determined that only ITE and Westinghouse switchgear are used in the facility 480 volt system. This item is closed.

b. IE Circular 77-16 - Emergency Diesel Generator Electrical Trip Lockout

In accordance with Section 8.2 of the Turkey Point FSAR the following Diesel Generator Trips are cutout upon accident initiation.

(1) Crankcase Pressure
(2) Cooling Jacket Low Water Level
(3) High Engine Temperature
(4) Low Oil Pressure

The specific trip function discussed in the circular regarding the generator field relay coil is not cutout under accident initiation at Turkey Point. This item is closed.

9. Reportable Events

Two reportable events were reviewed to ascertain that (1) reporting requirements of Technical Specification 6.9.2 were met; (2) corrective action was taken as required by Appendix B to 10 CFR Part 50; (3) the event was reviewed and evaluated; and (4) the facility was operated within the requirements of 10 CFR 50.59 and the Technical Specifications subsequent to the event.

a. Reportable Events 250/78-02 and 251/78-03

This event involved the discovery of errors in the modules used for the Emergency Core Cooling System (ECCS) analysis. Specifically, these errors were associated with the calculational method used in transferring the heat generated by the zirconium water reaction. The licensee has made conservative adjustments in his operating thermal limits to account for these errors and will resubmit a revised ECCS analysis based upon corrected codes as soon as the NRC approves the revised codes. This item will remain open pending final resolution by licensing action.

b. Reportable Event 250/78-04

This event involved reduction in the condensate storage tank level below the minimum allowed by Technical Specification (TS) 3.8.1.c. Operation in this manner constitutes a degraded mode in accordance with TS 3.8.3. This situation occurs periodically due to continuous steam generator blowdown and routine depletion of cation demineralizers which requires interruption of condensate make up flow while resin regeneration is performed. The licensee

is evaluating long term corrective measures which include steam generator blowdown recovery and additional water storage capacity.

10. Status of Open Items

a. RWST Level Indicator (76-01-01)

The inspector reviewed the status of the installation of redundant level indicator as discussed in FDL Reportable Occurrence Report No. 251/76-02. The licensee has installed a digital indicator on Unit 4 and plans to install an identical indicator on Unit 3 during the next outage of sufficient duration. The inspector reviewed PCM 78-1, Install Digital RWST Indicator, and verified that the installation was performed in accordance with applicable procedures. This item is closed.

b. Continuous Recirculation Flow Between the Boric Acid Tank (BAT) and the Boron Injection Tank (BIT) (77-01-02)

This modification is essentially complete; however, the licensee is experiencing difficulty with the operation of the newly installed recirculation pumps. Additionally, the final operational test of the modified system has not been completed due to the availability of some test instrumentation. The licensee is currently recirculating the system on a once per shift basis for 15 minutes to ensure that the boron injection flowpath remains clear. This item remains open.

c. Replace Emergency Diesel Fuel Lines (77-12-01)

The licensee has completed the installation of new stainless steel fuel lines on both diesel generators as of March 21, 1978. The inspector reviewed PCM 77-24 and PWO 02998 to verify proper installation and testing. This item is closed.

RII Rpt. Nos. 50-250/78-12
and 50-251/78-12 II-1

DETAILS II

Prepared by: _____ 7/28/78
J. L. Skolds, Reactor Inspector Date
Nuclear Support Section No. 2
Reactor Operations and Nuclear
Support Branch

Dates of Inspection: June 26-29, 1978

Reviewed by: _____ 7/28/78
P. J. Kellogg, Chief Date
Nuclear Support Section No. 2
Reactor Operations and Nuclear
Support Branch

1. Persons Contacted

Florida Power and Light Company

*H. E. Yaeger, Plant Manager
J. K. Hays, Plant Superintendent, Nuclear
*D. W. Jones, Quality Control Supervisor
*P. J. White, Maintenance Superintendent
*J. P. Mendieta, I&C Department Supervisor
*H. M. Ainsworth, Assistant Supt. Nuclear Maintenance, Primary
*B. C. Kilpatrick, Asst. Supt. Nuclear Maintenance, Secondary
*V. B. Wager, Operations Supervisor
*C. D. Ward, Electrical Supervisor
*C. J. Baker, Nuclear Plant Supervisor
*R. J. Spooner, QAO Supervisor
*J. A. Olsonowski, QC Compliance Engineer
*G. D. Whittier, Senior Licensing Engineer (GO)
K. N. York, Document Control Supervisor
D. O. Nichols, I&C Maint. Supervisor
L. G. Hess, I&C GEMS Planner
F. R. Martone, Mechanical GEMS Planner (Primary)
V. Harris, Mechanical GEMS Planner (Secondary)

*Denotes those present at exit interview.

2. Licensee Action on Previous Inspection Findings

Not inspected.

3. Unresolved Items

One unresolved item was identified subsequent to the exit interview and was communicated to the licensee by telephone on July 7, 1978.

4. Exit Interview

See Details I, paragraph 4.

5. Maintenance

The inspector conducted a review of the following maintenance activities:

PWO	Unit	Title
0336	3	A, B, & C MSIV
0434	3, 4	A Diesel Generator
0453	3, 4	A Diesel Generator
0593	3, 4	A Diesel Generator
0596	3, 4	A & B Diesel Generator
1623	4	CRDM Motor
1657	3	3C CCW Pump
1745	3	Rx Coolant Filters
1944	3	Rx Coolant Filters
2079	3	3C CCW Pump Seals
2184	4	4B Safety Injection Pump
2204	3	3B RHR Heat Exchanger
2297	3	3A Charging Pump
2319	4	A Steam Generator
2323	4	A, B, & C Steam Generator
2348	3	3A Charging Pump
2354	3	3A Charging Pump
2371	3	Rx Coolant Filters
2372	3	Rx Coolant Filters
2375	3	3A Charging Pump
2540	3	3A Charging Pump
2860	4	Steam Generator
2890	3	3C CCW Pump
4176	3 & 4	A Diesel Generator
4184	3 & 4	B Diesel Generator
4197	3	B A Pump
4378	3 & 4	Battery Charger Printed Circuit Board
4745	3	BAST Heater
7040	4	Adjust PRM R-20
7095	4	BIT Mini Recirculation Pump

PWO	Unit	Title
7121	4	Rod Drop Bistable
7154	4	SFP Low Level Alarm
7379	3	Plant vent NMC
7541	3	Lower setpoint to 150K
7542	4	Lower setpoint on R-4-19
7746	3	D/P Transmitter
7849	4	ARMS Channel 8
7928	4	Delta T Reading 4^{o} Low
8390	3	ARM Channel 22
8456	4	RCP A Loop FI 414 & 415
8466	4	S/G Level Alarms
8505	4	RPI Control Rod Bank
9108	3 & 4	24V Power Supply

The maintenance was reviewed to verify that:

- The limiting condition for operation was met while components or systems were removed from service for maintenance
- The maintenance activities were accomplished using approved procedures by qualified personnel
- The systems or components were functionally tested or calibrated as necessary prior to returning the component or system to service
- The required administrative approvals were obtained prior to initiating maintenance activities
- The maintenance activities were inspected in accordance with the licensee's requirements

The inspector used one or more of the following acceptance criteria for the above items:

- ANSI 18.7 - 1972
- Final Safety Analysis Report
- Technical Specifications
- Administrative Procedure 0190.19
- Quality Procedure 11.4
- Quality Procedure 10.3
- Quality Procedure 11.2

Findings were acceptable with the exception of items noted below:

a. ANSI 18.7-1972 Section 5.3.5(1) requires that "Permission to release equipment or systems for maintenance shall be granted by responsible operating personnel and that the granting of permission by the operations group shall be documented." Contrary to the above, documented release of equipment by the operations group could not be located for the following Plant Work Orders (PWO):

PWO	Title
0453	"A" Diesel Generator
1623	CRD Motor
2204	RHR Hx
2375	3A Charging Pump
7541	Lower Setpoint to 150K
7849	ARMS Channel 8

The above item is in noncompliance with ANSI 18.7-1972 Section 5.3.5 and is designated a deficiency. (78-12-01)

b. Technical Specifications, Section 6.8.1 requires that written procedures and administrative policies be established, implemented, and maintained that meet or exceed the requirements and recommendations of Appendix "A" to Regulatory Guide 1.33. Paragraph 9.e of Appendix "A" to Regulatory Guide 1.33 states that "general procedures for the control of maintenance, repair, replacement and modification work should be prepared before reactor operation is begun. These procedures should include information on areas such as the following: (1) Method for obtaining permission and clearance for operation personnel to work and for logging such work." At the present time, the method for obtaining permission to take equipment out of service for maintenance is by obtaining a clearance or verbal permission from the Nuclear Plant Supervisor. There is no formal method for obtaining permission to commence work if a clearance is not required. If a clearance is not required, documentation from the operations group for approval to commence work, as required by ANSI 18.7-1972, is relied upon to be in the Nuclear Control Center Operator log or Nuclear Plant Supervisor log. The inadequacy of procedures to include a method for obtaining permission from operations to work on safety-related equipment is unresolved (78-12-04) pending license review of administrative control of safety-related maintenance.

c. Administrative Procedure 0190.19, Control of Maintenance on Nuclear Safety-Related Systems, Section 8.1.2 requires that the Assistant Superintendent Nuclear Maintenance, Electrical Maintenance, or the I&C Supervisor or their designees will determine if a nuclear safety system is involved in the maintenance activity and, if so, will indicate YES under Nuclear Safety-Related on the PWO forms. He will further determine whether a Maintenance Procedure is required and approve the PWO in the Nuclear Supervisor approval signature block. Contrary to the above, the Nuclear Supervisor approval signature block was not signed on the following Plant Work Orders:

PWO	Title
0336	A, B, & C MSIV
1657	3C CCW Pump
1745	Rx Coolant Filters
2319	"A" Steam Generator
2372	Rx Coolant Filters
7542	Lower Setpoint on R-4-19
7746	D/P Transmitter

The above item is in noncompliance with Technical Specifications, Section 6.8.1 and is designated a deficiency. (78-12-02)