



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

Report Nos.: 50-250/85-18 and 50-251/85-18

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 Conducted: May 13-17, 1985

Inspector: C. F. Smith

5-29-85
Date Signed

Accompanying Personnel: L. R. Moore, Region II
J. H. Moorman, III, Region II

Approved by: C. M. Upright
C. M. Upright, Section Chief
Division of Reactor Safety

6/4/85
Date Signed

SUMMARY

Scope: This routine, unannounced inspection entailed 101 inspector-hours on site in the areas of design program and test and experiments.

Results: No violations or deviations were identified.

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

- B. Abrishami, System Performance Supervisor
- *J. Arias, Jr., Regulation and Compliance Supervisor
- *C. Baker, Plant Manager
- *W. Bladow, Quality Assurance (QA) Supervisor
- *T. Coste, Project QA Engineer
- *M. Crisler, Quality Control (QC) Supervisor
- R. Dargento, QC Engineer, Stone and Webster
- J. Ferrare, QA Engineer
- *D. Grandage, Operations Superintendent - Nuclear
- *R. Hart, Licensing Engineer
- J. Kappes, Maintenance Superintendent
- *J. Moore, Assistant Superintendent - Start-up
- *P. Pace, Licensing Engineer
- P. Shidel, Drawing Update Supervisor
- *E. Suarez, Configuration Control Supervisor
- D. Tomaszewski, Operations Support Engineering Supervisor
- L. Wade, QA Engineer
- *C. Wethy, Site Vice-President
- K. York, Document Control Supervisor
- *H. Young, Project Site Manager

NRC Resident Inspectors

- *T. Peebles, Senior Resident Inspector
- *D. Brewer

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on May 17, 1985, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings listed below. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspector during this inspection.

Inspector Followup Item, Development and Revision of Design Program Documents, paragraph 4.

3. Licensee Action on Previous Enforcement Matters

This subject was not addressed in the inspection.



4. Design Program (37702)

- References:
- (a) 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants, and Fuel Reprocessing Plants, Criterion III
 - (b) Regulatory Guide 1.64, Quality Assurance Requirements for the Design of Nuclear Power Plants, Revision 2
 - (c) ANSI N45.2.11-1974, Quality Assurance Requirements for the Design of Nuclear Power Plants
 - (d) Regulatory Guide 1.33, Quality Assurance Requirements (Operations) November 1972
 - (e) ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants
 - (f) 10 CFR Part 50.59, Changes, Tests and Experiments
 - (g) Technical Specifications Section 6.5, Review and Audit

The inspector reviewed the licensee design change program required by references (a) through (g) to verify that these activities were conducted in accordance with regulatory requirements, industry guides and standards, and Technical Specifications. The following criteria were used during the review to assess the overall acceptability of the established program:

- Procedures have been established to control design changes which include assurance that a proposed change does not involve an unreviewed safety question or a change in technical specifications as required by 10 CFR 50.59.
- Procedures and responsibilities for design control have been established including responsibilities and methods for conducting safety evaluations.
- Administrative controls for design document control have been established for the following:
 - o Controlling changes to approved design change documents
 - o Controlling or recalling obsolete design change documents such as revised drawings and modification procedures
 - o Release distribution of approved design change documents
- Administrative controls and responsibilities have been established commensurate with the time frame for implementation to assure that design changes will be incorporated into:



- Plant procedures
- Operator training programs
- Plant drawings to reflect implemented design changes and modifications
- Design controls require that implementation will be in accordance with approved procedures.
- Design controls require assigning responsibility for identifying post-modification testing requirements and acceptance criteria in approved test procedures and for evaluation of test results.
- Procedures assign responsibility and delineate the method for reporting design changes to the NRC in accordance with 10 CFR 50.59.
- Controls require review and approval of temporary modifications in accordance with Section 6 of the Technical Specifications and 10 CFR 50.59.

The documents listed below were reviewed to verify that these criteria had been incorporated into the licensee design program:

FP&L Topical Quality Assurance Report (FPLTQAR-1-76A), TQR 3.0 Design Control, Revision 4, TQR 16.0 Corrective Action, Revision 4

QP 3.4, Plant Changes and Modifications for Operating Plants, Revision 7

QP 3.2, Identification and Control of Design Interfaces, Revision 4

QP 3.5, Design Control at the Construction Site, Revision 3

QP 3.6, Control of FPL Originated Design

QP 6.1, Control of Construction Project Contractor Drawings, Specifications and Procedures, Revision 1

Administrative Procedure 0190.15, Plant Projects - Approval, Implementation and Regulatory Requirements, dated September 26, 1984

Administrative Procedure 0103.3, Control and Use of Temporary System Alteration dated September 26, 1984

Administrative Procedure 0190.81, Change Review Team (CRT) dated February 20, 1985

Administrative Procedure 0190.82, Request for Technical Assistance (RTA)-Preparation, Review, and Approval, dated May 8, 1985



Administrative Procedure 0190.84, Request for Engineering Assistance (REA)-Preparation, Review, and Approval, dated May 1, 1985

The design change program consists of a sequence of activities that begins with the identification of a nuclear station problem and ends with the implementation and verification of a plant change/modification (PC/M) with subsequent turnover to Nuclear Plant Staff. Administrative procedure 0190.15 is the controlling procedure for PC/M and delineates the administrative controls for any proposed design change to a system that is part of a licensed operating nuclear power plant.

Paragraph 5.0 of Administrative Procedure 0190.15 addresses the responsibilities of the various organizations participating in the PC/M program. For the most part, the responsibilities of organizations that are part of Nuclear Operations have been adequately described. However, in accordance with 10 CFR 50, Appendix B, Criterion II, the program is required to address the major offsite organizations participating in the program. The following examples are typical of organizations that need to be addressed, Corporate QA, Power Plant Engineering (JPE), Backfit Construction group and/or contractors.

Paragraph 7.0, Records and Notifications, addresses the controls applicable to the quality assurance records system along with the requirements for notifying the NRC. The functional responsibilities of Construction Document Control Center during PC/M implementation and its interface with Nuclear Operations staff have not been addressed. Paragraph 8.4.5, Process Engineering Drawings Related to Plant Changes, references Quality Procedure (QP) 6.5, PTP Drawing Control. This QP was deleted in 1982. Additionally the inspector determined that the activities of the Drawing Update group have not been proceduralized. The inspector reviewed a draft copy of the following procedure intended to correct this program deficiency:

Power Plant Engineering, Engineering Support Services, Drawing Update Program Procedure for Turkey Points Nuclear Units 3 and 4.

Paragraph 8.0 attempts to delineate the controls applicable to the administration of PC/Ms. This paragraph addresses to various levels of detail the following activities and documentation requirements which form part of the design change program:

Initiation
Scheduling
Funding/Budgeting
Drawing Control
Installation and Return to Service
Completion of Documentation

Paragraphs 8.7 and 8.8 delineate the administrative controls applicable to the flow of activities and the identification of organizations involved in preparing, routing, approving, and scheduling PC/Ms. The licensee's accepted quality assurance program and ANSI N45.2.11-1974, paragraph 4.1,



requires that methods be established for relating the final design back to the source of design input. The traceability required for relating the final design as documented in a PC/M package back to the design inputs generated consequent to a Request for Engineering Assistance (REA) has not been specifically addressed by licensee design change program. Additionally, paragraph 5.1 of ANSI N45.2-11 requires that the external interfaces between organizations performing work affecting quality of design shall be identified in writing. Licensee program is deficient in that this requirement has not been specifically addressed. The responsibilities for external organizations have not been defined nor adequately addressed to cover the preparation, review, and approval of documents involving design interfaces. The PC/M program flow chart shown on page 69 of administrative procedure 0190.15 is illegible.

The implementation of PC/M packages may be performed either by Plant Maintenance or the Construction Backfit group. ANSI N45.2.11-1974, paragraph 8.0, requires that design changes to approved design documents be transmitted to all affected persons and organizations. The licensee design change program is deficient in that requirements for including Nuclear Plant staff in the flow path for processing and documentation of field changes initiated by the Construction Backfit group have not been specifically addressed.

A comprehensive system of planned and periodic audit is required to be carried out to verify compliance with all aspects of the quality assurance program, and to determine the effectiveness of the program. The licensee presently conducts a biannual audit to verify compliance of the contents of the construction administrative site procedures with the QPs. The QPs are the implementing documents of the Topical QA Report. Surveillance of construction activities are subsequently performed to verify implementation of the construction administrative site procedures. Administrative procedure 0190.15 does not address the requirements for auditing the implementation of PC/Ms by the Backfit Construction group in accordance with 10 CFR 50, Appendix B, Criterion XVIII.

Quality procedure 3.4, paragraph 5.7.5, addresses the responsibilities of the Company Environmental Review group (CERG) in connection with the review of PC/M packages for Unreviewed Environmental Question Determination (UEQD). The requirements are stated explicitly for plant St. Lucie, and QP 3.4 requires revision to impose similar requirements on plant Turkey Point. Technical Specification (TS) Section 5.1.4 requires the performance of a UEQD for proposed changes or modifications to plant systems or equipment. Administrative procedure 0190.15 does not delineate the measures established to ensure compliance with TS Section 5.1.4.

Pursuant to discussions with licensee management, the inspector determined that the licensee had earlier identified deficiencies in the design program. A major effort consisting of the breaking out of various activities described in administrative procedure 0190.15 is presently underway. Administrative procedure 0190.15 is being restructured to specifically



address the review, approval and implementation of PC/Ms. Additional administrative procedures have been, or are being developed to specifically address other activities and identify organizations involved in the design change program.

The inspector reviewed the following documents in connection with licensee revision of the design change program documents:

Administrative Procedure 0190.81, Change Review Team (CRT), dated February 20, 1985

Administrative Procedure 0190.82, Request for Technical Assistance (RTA)-Preparation, Review, and Approval, dated May 8, 1985

Administrative Procedure 0190.84, Request for Engineering Assistance (REA)-Preparation, Review and Approval, dated May 1, 1985

The inspector determined that draft copies of administrative procedures are being developed for the following activities and/or organizations:

Project Review Board
Request for Engineering Cost Estimate
Plant Change and Modifications (PC/M) Administrative Procedure 0190.15.

Licensee management stated that the design change program will be fully developed and be implemented by September 1, 1985.

Within this area one Inspector Followup Item was identified. The licensee has identified programmatic deficiencies within the PC/M program and is presently implementing corrective actions by revising the PC/M program documents. Until the licensee has completed the development and/or revision of the program documents, and a reinspection of this functional area is performed, this is identified as Inspector Followup Item (250, 251/85-18-01)

5. Test and Experiments (37703)

- References:
- (a) 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants
 - (b) 10 CFR 50.59, Changes, Test, and Experiments
 - (c) Regulatory Guide 1.33, Quality Assurance Program Requirements, Revision 2
 - (d) ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants

The inspector reviewed the licensee test and experiment program required by references (a) through (d) to verify that the program was in accordance with regulatory requirements, commitments in the application, and industry guides



and standards. The following criteria were used during this review to assess the overall acceptability of the established program:

- A formal method has been established to handle all requests or proposals for conducting plant tests involving safety related components.
- Provisions have been made to assure that all tests will be performed in accordance with approved written procedures.
- Responsibilities have been assigned for reviewing and approving test procedures.
- A formal system, including assignment of responsibility, has been established to assure that all proposed tests will be reviewed to determine whether they are as described in the FSAR.
- Responsibilities have been assigned to assure that a written safety evaluation required by 10 CFR 50.59 will be developed for each test to assure that it does not involve an unreviewed safety question or a change in Technical Specifications (TS).

The documents listed below were reviewed to verify that the previously listed criteria had been incorporated into the licensee's tests and experiments program.

QP 11.2	Test Control Operation, Revision 2
QP 11.4	Test Control - Operation, Revision 2
AP 0190.22	Changes, Test, and Experiments, dated 8-2-84

The inspector reviewed the licensee changes, tests, and experiments program documents to determine the program scope and content. The inspector determined that a program has been established to handle changes, test, and experiments. Additionally, all testing of safety-related components is performed in accordance with approved written procedures.

It was noted that AP 0190.22 references the requirements of ANSI N18.7-1972 vice ANSI N18.7-1976 listed as the reference in the baseline matrix of the topical report.

The inspector verified that written safety evaluations required by 10 CFR 50.59 are developed for special tests to assure that unreviewed safety questions or changes to the TS do not exist. The inspector reviewed the following special tests to verify conformance with licensee documented program:

83-02	Functional test of steam dump to condensor valves
83-03	Auxiliary Building Ventilation Test
84-04	Functional Test of Auxiliary Power Breaker Interlocks



The inspector verified that an Unreviewed Safety Question Determination was performed in accordance with the requirements of 10 CFR 50.59 and that the format of the test procedure was consistent with the requirements delineated in QP 11.4, Test Control Program.

Within this area, no violations or deviations were identified.

