



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

May 7, 2001

Mr. T. F. Plunkett
President - Nuclear Division
Florida Power and Light Company
P.O. Box 14000
Juno Beach, Florida 33408-0420

**SUBJECT: TURKEY POINT UNITS 3 AND 4 - ISSUANCE OF AMENDMENTS
REGARDING REDUCTION OF TEMPERATURE REQUIREMENT DURING
ROD CLUSTER CONTROL ASSEMBLY DROP TEST (TAC NOS. MB1396
AND MB1397)**

Dear Mr. Plunkett:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 214 to Facility Operating License No. DPR-31 and Amendment No. 208 to Facility Operating License No. DPR-41 for the Turkey Point Plant, Units Nos. 3 and 4, respectively. The amendments consist of changes to the Technical Specifications in response to your application dated March 12, 2001.

The proposed amendments will reduce the requirement for average reactor coolant temperature during the rod cluster control assembly (RCCA) drop test from greater than or equal to 541°F to greater than or equal to 500°F. RCCA drop tests are required prior to reactor criticality: (1) for all rods, following each removal of the reactor vessel head, (2) for specifically affected individual rods, following maintenance work which could affect the drop times of those specific rods, and (3) at least every 18 months.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Handwritten signature of Kahtan N. Jabbour in cursive script.

Kahtan N. Jabbour, Senior Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-250 and 50-251

Enclosures:

1. Amendment No.214 to DPR-31
2. Amendment No.208 to DPR-41
3. Safety Evaluation

cc w/encls: See next page

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/RA/

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UNITED STATES
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FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-250

TURKEY POINT PLANT UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 214
License No. DPR-31

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Florida Power and Light Company (the licensee) dated March 12, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-31 is hereby amended to read as follows:

(B) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 214 , are hereby incorporated in the license. The Environmental Protection Plan contained in Appendix B is hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

2. This license amendment is effective as of its date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Richard P. Correia, Chief, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 7, 2001



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-251

TURKEY POINT PLANT UNIT NO. 4

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 208
License No. DPR-41

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Florida Power and Light Company (the licensee) dated March 12, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-41 is hereby amended to read as follows:

(B) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 208 , are hereby incorporated in the license. The Environmental Protection Plan contained in Appendix B is hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Richard P. Correia, Chief, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 7, 2001

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 214 FACILITY OPERATING LICENSE NO. DPR-31

AMENDMENT NO. 208 FACILITY OPERATING LICENSE NO. DPR-41

DOCKET NOS. 50-250 AND 50-251

Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by amendment number and contain marginal lines indicating the area of change.

Remove pages

3/4 1-24

Insert pages

3/4 1-24

REACTIVITY CONTROL SYSTEMS

ROD DROP TIME

LIMITING CONDITION FOR OPERATION

3.1.3.4 The individual full-length (shutdown and control) rod drop time from the fully withdrawn position shall be less than or equal to 2.4 seconds from beginning of decay of stationary gripper coil voltage to dashpot entry with:

- a. T_{avg} greater than or equal to 500°F, and
- b. All reactor coolant pumps operating.

APPLICABILITY: MODES 1 and 2.

ACTION:

With the drop time of any full-length rod determined to exceed the above limit, restore the rod drop time to within the above limit prior to proceeding to MODE 1 or 2.

SURVEILLANCE REQUIREMENTS

4.1.3.4 The rod drop time of full-length rods shall be demonstrated through measurement prior to reactor criticality:

- a. For all rods following each removal of the reactor vessel head,
- b. For specifically affected individual rods following any maintenance on or modification to the Control Rod Drive System which could affect the drop time of those specific rods, and
- c. At least once per 18 months.



UNITED STATES
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WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 214 TO FACILITY OPERATING LICENSE NO. DPR-31
AND AMENDMENT NO. 208 TO FACILITY OPERATING LICENSE NO. DPR-41

FLORIDA POWER AND LIGHT COMPANY

TURKEY POINT UNIT NOS. 3 AND 4

DOCKET NOS. 50-250 AND 50-251

1.0 INTRODUCTION

By application dated March 12, 2001, Florida Power and Light Company (the licensee) submitted a proposed change to the Technical Specifications (TSs) for Units 3 and 4 at the Turkey Point Plant. The licensee's proposal would reduce the requirement for average reactor coolant temperature during the rod cluster control assembly (RCCA) drop test.

2.0 BACKGROUND

2.1 Proposed TS Change

The licensee has proposed to modify Limiting Condition for Operation (LCO) 3.1.3.4. LCO 3.1.3.4, which is applicable during MODES 1 and 2, currently reads as follows:

The individual full-length (shutdown and control) rod drop time from the fully withdrawn position shall be less than or equal to 2.4 seconds from beginning of decay of stationary gripper coil voltage to dashpot entry with:

- a. T_{avg} greater than or equal to 541°F, and
- b. All reactor coolant pumps operating.

The licensee's proposed change is to replace "541°F" with "500°F" in subpart "a."

2.2 Conditions Requiring RCCA Drop Testing

Surveillance Requirement (SR) 4.1.3.4 states that the demonstration of required RCCA drop time is required prior to reactor criticality:

- (1) for all RCCAs, following each removal of the reactor vessel head,
- (2) for specifically affected individual RCCAs, following maintenance work which could affect the drop times of those specific RCCAs, and
- (3) at least every 18 months.

The RCCA drop test is routinely performed at the conclusion of each refueling outage.

2.3 Licensee Rationale for Proposed Change

The licensee has stated that the proposed temperature reduction for the RCCA drop test could reduce the duration of refueling outages by providing greater flexibility in the scheduling of outage activities. Upon reviewing activities during the plant heat-up phase at the conclusion of a refueling outage, the licensee found that it could be beneficial to perform the RCCA drop test concurrently with any main steam safety valve (MSSV) post-maintenance testing which may be necessary. As MSSV post-maintenance testing is typically performed in a temperature range between 515°F and 525°F, a TS change would be required to concurrently perform the RCCA drop test.

3.0 EVALUATION

The RCCA drop test is intended to provide verification that RCCAs will perform as assumed during a reactor trip from power operation. Verification of RCCA drop time allows the licensee to determine that actual drop times are consistent with the drop times assumed in the plant's safety analysis. The RCCA drop test ensures that the reactor internals and RCCA drive mechanisms do not interfere with RCCA motion or increase drop time, and that no degradation in the system has occurred that would adversely affect the operability of the RCCAs.

The results from an RCCA drop test performed at 500°F would provide a conservative measurement of actual drop times under temperature conditions during power operation. The NRC staff has reviewed the results from testing during the initial startup at both units. RCCA drop tests were performed at cold (120°F - 140°F) and hot (537°F - 545°F) reactor coolant temperatures with all reactor coolant pumps operating. The tests demonstrated a slight increase in RCCA drop time as reactor coolant temperature was decreased. Specifically, a drop time increase of less than 0.2 seconds was observed between the cold and hot coolant temperatures. A slight increase in RCCA drop time at lower reactor coolant temperatures is expected. At lower coolant temperatures, the coolant density increases, which increases the resistive force against a dropping RCCA, thereby increasing its drop time.

The licensee has additionally stated that the slight increase in RCCA drop time due to the decreased reactor coolant temperature would not challenge the 2.4 second drop time limit specified in LCO 3.1.3.4. Based on testing during the units' initial startups, the licensee expects that a decrease in reactor coolant temperature from 541°F to 500°F would increase the RCCA drop time by less than 0.1 seconds. Historically, RCCA drop test results have typically resulted in drop times of less than 1.5 seconds. Therefore, the slightly increased drop time which would result from the licensee's proposed TS change would not be expected to approach the RCCA drop test success criterion specified in LCO 3.1.3.4.

The staff notes that the licensee's proposed change is consistent with the Standard TSs for Westinghouse Plants, NUREG-1431, Revision 1. SR 3.1.5.3 of the STSs specifies an average reactor coolant temperature of 500°F for performing RCCA drop testing. The discussion in the STSs' Bases associated with SR 3.1.5.3 states that an average reactor coolant temperature of greater than or equal to 500°F simulates a reactor trip under actual conditions.

Based upon the STSs' guidance, as supported by the licensee's experimental results, the staff concludes that satisfaction of the licensee's proposed LCO 3.1.3.4 would verify that actual RCCA drop times are consistent with the drop times used in the licensee's safety analysis. Therefore, the staff finds the proposed TS change to be acceptable.

4.0 STATE CONSULTATION

Based upon a letter dated March 8, 1991, from Mary E. Clark of the State of Florida, Department of Health and Rehabilitative Services, to Deborah A. Miller, Licensing Assistant, U.S. Nuclear Regulatory Commission, the State of Florida does not desire notification of issuance of license amendments.

5.0 ENVIRONMENTAL CONSIDERATION

These amendments involve a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (66 FR 17967). Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Margaret Chatterton, NRR
John Lehning, NRR

Date: May 7, 2001

Mr. T. F. Plunkett
Florida Power and Light Company

cc:

M. S. Ross, Attorney
Florida Power & Light Company
P.O. Box 14000
Juno Beach, FL 33408-0420

Mr. Robert J. Hovey, Site
Vice President
Turkey Point Nuclear Plant
Florida Power and Light Company
9760 SW. 344th Street
Florida City, FL 33035

County Manager
Miami-Dade County
111 NW 1 Street, 29th Floor
Miami, Florida 33128

Senior Resident Inspector
Turkey Point Nuclear Plant
U.S. Nuclear Regulatory Commission
9762 SW. 344th Street
Florida City, Florida 33035

Mr. William A. Passetti, Chief
Department of Health
Bureau of Radiation Control
2020 Capital Circle, SE, Bin #C21
Tallahassee, Florida 32399-1741

Mr. Joe Myers, Director
Division of Emergency Preparedness
Department of Community Affairs
2740 Centerview Drive
Tallahassee, Florida 32399-2100

TURKEY POINT PLANT

Attorney General
Department of Legal Affairs
The Capitol
Tallahassee, Florida 32304

Plant Manager
Turkey Point Nuclear Plant
Florida Power and Light Company
9760 SW. 344th Street
Florida City, FL 33035

Mr. Steve Franzone
Licensing Manager
Turkey Point Nuclear Plant
9760 SW. 344th Street
Florida City, FL 33035

Mr. Don Mothena
Manager, Nuclear Plant Support Services
P.O. Box 14000
Juno Beach, FL 33408-0420

Mr. J.A. Stall
Vice President - Nuclear Engineering
Florida Power & Light Company
P.O. Box 14000
Juno Beach, FL 33408-0420