



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 26, 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 THE SURVEILLANCE INTERVAL FOR THE CONTAINMENT AIR  
LOCK INTERLOCK MECHANISMS (TAC NOS. MB0680 AND MB0681)

Dear Mr. Plunkett:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No.213 to Facility Operating License No. DPR-31 and Amendment No.207 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 (TS) in response to your application dated December 6, 2000.

These amendments would revise Surveillance Requirement 4.6.1.3.c to extend the interval for testing the containment air lock interlock mechanisms from 6 months to 24 months. Additionally, the amendments would correct an unrelated administrative error in TS Table 3.3-2, "Engineered Safety Features Actuation System Instrumentation."

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,

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.213 to DPR-31
2. Amendment No.207 to DPR-41
3. Safety Evaluation

cc w/encls: See next page

NRR-058

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

April 10, 2001

SUBJECT: TURKEY POINT UNITS 3 AND 4 - ISSUANCE OF AMENDMENTS  
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/RA/

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

FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-250

TURKEY POINT PLANT UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 213  
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 December 6, 2000, 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. 213 , 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: April 26, 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. 207  
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 December 6, 2000, 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.

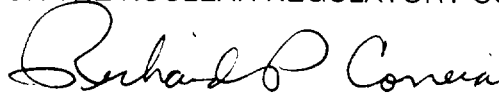
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-41 is hereby amended to read as follows:

2. Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 207 , 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: April 26, 2001

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 213 FACILITY OPERATING LICENSE NO. DPR-31

AMENDMENT NO. 207 FACILITY OPERATING LICENSE NO. DPR-41

DOCKET NOS. 50-250 AND 50-251

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

Remove pages

3/4 3-14  
3/4 6-5

Insert pages

3/4 3-14  
3/4 6-5

TABLE 3.3-2

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
1. Safety Injection (Reactor Trip, Turbine Trip, Feedwater Isolation, Control Room Ventilation Isolation, Start Diesel Generators, Containment Phase A Isolation (except Manual SI), Containment Cooling Fans, Containment Filter Fans, Start Sequencer, Component Cooling Water, Start Auxiliary Feedwater and Intake Cooling Water).					
a. Manual Initiation	2	1	2	1 2, 3, 4	17
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1 2, 3, 4	14
c. Containment Pressure - High	3	2	2	1 2, 3	15
d. Pressurizer Pressure - Low	3	2	2	1 2, 3 <sup>#</sup>	15
e. High Differential Pressure Between the Steam Line Header and any Steam Line	3/steam line	2/steam line in any steam line	2/steam line	1 2, 3 <sup>#</sup>	15



## CONTAINMENT SYSTEMS

### SURVEILLANCE REQUIREMENTS

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4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

- a. Following each closing, at the frequency specified in the Containment Leakage Rate Testing Program, by verifying that the seals have not been damaged and have seated properly by vacuum testing the volume between the door seals in accordance with approved plant procedures.
- b. By conducting overall air lock leakage tests in accordance with the Containment Leakage Rate Testing Program.
- c. At least once per 24 months by verifying that only one door in each air lock can be opened at a time.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 213 TO FACILITY OPERATING LICENSE NO. DPR-31  
AND AMENDMENT NO. 207 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 December 6, 2000, Florida Power and Light Company (the licensee) requested amendments to the Technical Specifications (TS) appended to Facility Operating Licenses DPR-31 and DPR-41 for the Turkey Point Units 3 and 4. The proposed changes would: (1) revise Surveillance Requirement (SR) 4.6.1.3.c to extend the interval for testing the containment air lock interlock mechanisms from 6 months to 24 months, and (2) correct an administrative error in TS 3.3.2, Table 3.3-2, item 1.e, which refers to an incorrect Table Note.

## 2.0 BACKGROUND

### 2.1 Surveillance of Containment Air Lock Interlock Mechanisms

Each containment at Turkey Point has two air locks, commonly named the personnel air lock and the escape hatch. Each air lock has an inner and an outer door. Containment Integrity requires each containment air lock to be operable in Modes 1 through 4. Since both inner and outer air lock doors are designed to withstand the maximum expected post-accident containment pressure, closure of either door will support Containment Integrity. Normally, both doors remain closed except for routine transit or during the performance of air lock surveillance, when at least one door shall be closed. Interlocks prevent both doors in the air lock from being opened at the same time, thereby preserving Containment Integrity, when required. Currently, the containment air lock interlock mechanism is required, per TS SR 4.6.1.3.c, to undergo testing to demonstrate operability of the interlock mechanism at a 6-month frequency. The subject testing requires the licensee to "verify that only one door in each air lock can be opened at a time." The licensee has proposed to extend the surveillance interval from 6 to 24 months.

Testing of the air lock interlock mechanism is accomplished by having one door not completely engaged in the closed position, while attempting to open the second door. Presently, SR 4.6.1.3.c requires the interlocks to be tested at least once every 6 months, which results in performing the testing during power operation. A failure of this SR would effectively result in a

loss of Containment Integrity. This is contrary to the recommendation regarding conservative operation, in that it challenges the interlock in a mode of operation when it is required.

The air lock interlocks are completely mechanical, and their failure rate is low. The design of the interlock mechanism does not include components, such as seals or electrical relays, which might degrade through normal use and lead to sudden failure. The licensee's procedures specify that interlocks will not be challenged during normal ingress and egress. One door is opened; all personnel and equipment as necessary are placed in the air lock; then the door is completely closed prior to attempting to open the second door. Operator training programs reinforce these procedures.

The interlocks cannot be readily bypassed. To do so requires removal of linkages, which are under the control of plant procedures, such as temporary system alterations, containment closure procedures, and equipment out of service. During refueling outages, the interlocks are typically defeated (by removing linkages) to allow both doors to be opened, as allowed by TS 3.9.4.b. The interlock testing is subsequently performed to ensure operability of the interlock prior to entering Mode 4, as required by TS 4.0.4. Therefore, although the proposed amendments would allow a testing interval of up to 30 months, as a practical matter, the surveillance can be expected to be performed at the end of each refueling outage. Performing the surveillance at power increases the potential for radiation dose to workers performing the test. A frequency change that would result in the surveillance normally being performed during outages would minimize the potential for radiation exposure and would be consistent with as low as reasonably achievable (ALARA) principles.

Historically, the air lock interlock test had its frequency chosen to coincide with that of the overall air lock leakage test. Initially, this leakage test was performed at 6-month intervals in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix J, Option A. Turkey Point's TS were amended in January 1997, to use 10 CFR Part 50 Appendix J, Option B, which allowed an extension of the overall air lock leakage test interval to a maximum of 30 months, based on acceptable performance. The licensee's requested revision of SR 4.6.1.3.c. to extend the testing interval of the air lock door interlock to 24 months would also permit a maximum interval of 30 months between tests. The extension to 30 months is permitted per Turkey Point TS 4.0.2 which allows an extension not to exceed 25% of the surveillance interval. Thus, the proposed amendments realign the SR frequencies of the air lock interlock test and the overall leakage test with each other.

The proposed amendments are consistent with the recommendations proposed by the Nuclear Energy Institute's (NEI) TS Task Force as TSTF-17, which were approved by the Nuclear Regulatory Commission (NRC) for incorporation into the Improved Standardized Technical Specifications on March 13, 1997. NUREG 1431, Standardized TS for Westinghouse Plants as modified by TSTF-17, establishes the frequency for the airlock door interlocks at 24 months.

## 2.2 Administrative Error in TS 3.3.2, Table 3.3-2, Item 1.e

Line item 1.e of TS Table 3.3-2 discusses the Engineered Safeguards Features Actuation signal resulting from High Differential Pressure between the Steam Line Header and any Steam Line. Currently, the Applicable Modes column of the referenced TS contains an asterisk, which refers to a Table Notation indicating that the trip function may be blocked "below the Tavg-Low Interlock Setpoint." The licensee has proposed to change the asterisk to a pound sign (#),

which refers to a Table Notation indicating that the trip function may be blocked "below the Pressurizer Pressure Interlock Setpoint of 2000 psig."

Section 7 of the Turkey Point Updated Final Safety Analysis Report (UFSAR) discusses the design of the Engineered Safeguards Features instrumentation. Table 7.2-1, item 19.d, describes the High Differential Pressure between the Steam Line Header and any Steam Line, and contains the note, "block permitted below 2000 psig (pressurizer pressure)."

### 3.0 EVALUATION

#### 3.1 Surveillance for Containment Air Lock Interlock Mechanisms

As noted above in Section 2.1, the licensee has proposed extending the surveillance interval for testing the containment air lock interlock mechanisms, in SR 4.6.1.3.c, from 6 months to 24 months.

The air lock door interlock mechanisms are completely mechanical and contain no components which are prone to degradation. Based on generic operating history, the probability of failure during normal service is low. During normal operation, only one air lock door is opened at a time, and the interlocks are not challenged. Bypassing the interlocks is not readily done. It requires removal of linkages, which are under procedural and administrative controls. Typically, the interlock mechanisms are defeated only during refueling outages, and, prior to entering Mode 4, they are restored and tested per TS. Based on the inherent reliability of the interlock mechanisms and the lack of challenges to their operability, it is reasonable to expect that they need not be tested every 6 months. Establishing a 24-month surveillance frequency is consistent with the current SR frequency of the air lock leakage test under 10 CFR Part 50, Appendix J, Option B; and with NUREG 1431, Standardized TS for Westinghouse Plants as modified by TSTF-17.

The current 6-month surveillance interval results in testing of the interlocks during plant operation. Challenging interlocks when they are required to be in service is contrary to licensee procedures and formal training, and good practice. A failure of the test during operation would effectively result in a loss of Containment Integrity at a time when it is required. If the proposed amendments are granted, the licensee expects to perform the test during refueling outages, when the plant is in a mode in which the interlock is not required to be operable. Extending the surveillance interval is consistent with ALARA principles, since it reduces the potential for radiation exposure to personnel performing the test.

Based on the discussion above, the staff concludes that the licensee's proposal to change the required testing interval for SR 4.6.1.3.c from 6 months to 24 months is acceptable.

#### 3.2 Administrative error in TS 3.3.2, Table 3.3-2, Item 1.e

Based on the system design information contained in the UFSAR, the existing asterisk which refers to a note indicating that this Safety Injection signal may be blocked below the Tavg--Low Interlock Setpoint is incorrect. The correct Block Permissive for this signal is pressurizer pressure below 2000 psig. Based on its review, the staff finds that this is an administrative error, and the licensee's proposal to correct it is 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, NRC, the State of Florida does not desire notification of issuance of license amendments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

These amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20, changes surveillance requirements, and corrects an administrative error. 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 hazard consideration and there has been no public comment on such finding (66 FR 9385). 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 these 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.

#### 7.0 REFERENCE

1. Letter from R.J. Hovey, Vice President, Turkey Point Plant, to NRC, Proposed License Amendments, Containment Air Lock Interlock Surveillance Frequency, and Correction to Table 3.3-2, Item 1.e, dated Dec. 6, 2000.

Principal Contributor: Brendan T. Moroney, NRR

Date: April 26, 2001

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

## **TURKEY POINT PLANT**

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