



**FPL**

MAR 12 2001

L-2001-032  
10 CFR 50.90  
10 CFR 50.91  
10 CFR 50.92

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D. C. 20555

Re: Turkey Point Units 3 and 4  
Docket Nos. 50-250 and 50-251  
Proposed License Amendments  
Reduction of the Temperature Requirement to  
Perform the Rod Cluster Control Assembly Drop Test

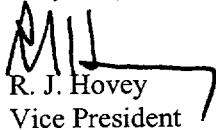
In accordance with 10 CFR 50.90, Florida Power and Light Company (FPL) requests that Appendix A of Facility Operating Licenses DPR-31 and DPR-41 be amended to reduce the temperature requirement to perform the Rod Cluster Control Assembly (RCCA) drop test. Specifically, FPL requests to reduce the average temperature limit in Technical Specification (TS) 3.1.3.4a from greater than or equal to 541 °F to greater than or equal to 500 °F. The benefit associated with the proposed amendments will allow greater flexibility in refueling outage scheduling.

A description of the proposed license amendments is provided in Attachment 1. FPL has determined that the proposed license amendments do not involve a significant hazard pursuant to 10 CFR 50.92. Attachment 2 provides the "Determination of No Significant Hazards Consideration" and the "Environmental Impact Evaluation." Enclosure 1 provides marked up pages for the proposed changes to the Technical Specifications.

The proposed license amendments have been reviewed by the Turkey Point Plant Nuclear Safety Committee and the FPL Company Nuclear Review Board. In accordance with 10 CFR 50.91(b), a copy of the proposed license amendments is being forwarded to the State Designee for the State of Florida. FPL requests that these amendments, if approved, be issued by August 2001 to allow implementation prior to next refueling outage.

Should there be any questions, please contact Steve Franzone at (305) 246-6226.

Very truly yours,

  
R. J. Hovey  
Vice President  
Turkey Point Plant

SM

Attachments, Enclosure

cc: Regional Administrator, Region II, USNRC  
Senior Resident Inspector, USNRC, Turkey Point Plant  
Florida Department of Health

A001


Turkey Point Units 3 and 4  
Docket Nos. 50-250 and 50-251  
Proposed License Amendments  
Reduction of the Temperature Requirement to  
Perform the Rod Cluster Control Assembly Drop Test

STATE OF FLORIDA            )  
                                          ) ss.  
COUNTY OF MIAMI-DADE    )

R. J. Hovey being first duly sworn, deposes and says:

That he is Vice President, Turkey Point Plant, of Florida Power and Light Company, the Licensee herein;

That he has executed the foregoing document; that the statements made in this document are true and correct to the best of his knowledge, information and belief, and that he is authorized to execute the document on behalf of said Licensee.

  
\_\_\_\_\_  
R. J. Hovey

Subscribed and sworn to before me this

March 12, 2001,

Olga Haneck  
\_\_\_\_\_  
Name of Notary Public (Type or Print)



Olga Haneck  
\_\_\_\_\_  
R. J. Hovey is personally known to me.

## **DESCRIPTION OF PROPOSED LICENSE AMENDMENTS**

### **1.0 Introduction**

In accordance with 10 CFR 50.90, Florida Power and Light Company (FPL) requests that Appendix A of Facility Operating Licenses DPR-31 and DPR-41 be amended to reduce the temperature requirement to perform the Rod Cluster Control Assembly (RCCA) drop test. Specifically, FPL requests to reduce the average temperature limit in Technical Specification (TS) 3.1.3.4a from greater than or equal to 541 °F to greater than or equal to 500 °F. The benefit associated with these proposed changes is a potential reduction in refueling outage duration, by performing the RCCA drop test concurrent with other outage activities scheduled above 500 °F. The proposed changes are consistent with the moderator temperature limit provided in NUREG-1431 for the performance of this test.

### **2.0 Background**

In recent refueling outages, the Main Steam Safety Valve (MSSV) tests were performed at power prior to shutting down for the refueling outage. Some MSSVs undergo maintenance during the outage thus requiring an additional test in Mode 3, which is typically performed between 515 °F and 525 °F. After the completion of the MSSV testing, the unit heats up to  $\geq 541$  °F, and the RCCA rod drop test is performed. A review of the sequence of these activities shows that if the Rod Position Indication (RPI) instrumentation calibration and the RCCA drop test can be performed concurrent with the MSSV testing, it will result in an increased flexibility in refueling planning, which could result in a reduced outage duration.

### **3.0 Current Technical Specifications**

TS 3.1.3.4a requires that the RCCA drop test be performed with  $T_{\text{avg}} \geq 541$  °F and with all reactor coolant pumps operating. This requirement ensures that the measured RCCA test drop times will be representative of insertion times experienced during a reactor trip at operating conditions. The acceptance criterion is that the RCCA drop time from fully withdrawn to dashpot entry shall be less than or equal to 2.4 seconds.

### **4.0 Proposed Technical Specification Changes Discussion**

The following change to TS 3.1.3.4a is proposed:

Change "**T-avg greater than or equal to 541 °F**" to "**T-avg greater than or equal to 500 °F**".

#### **Justification:**

The time criterion of 2.4 seconds is based on the assumptions used in the accident analysis. Verification of the rod drop times is performed to determine that the maximum rod drop time is consistent with the assumed rod drop time used in the safety analysis. The rod drop measurement, which is performed after each reactor head removal and prior to criticality, ensures that the reactor internals and rod drive mechanisms do not interfere with rod motion or drop time, and that no degradation in the system has occurred that adversely affect the operability of rods. The testing is performed with all reactor coolant pumps operating and at an average moderator temperature that simulates a reactor trip under actual conditions.

The proposed Technical Specification changes in T-avg from greater than or equal to 541 °F, to greater than or equal to 500 °F, will allow flexibility when scheduling the performance of the RCCA drop test. Existing plant procedures account for RPI instrument calibration at lower temperature. Plant procedures will be maintained in place to ensure rod drop testing is performed with sufficient shutdown margin to remain in Mode 3.

Performing the measurements at the proposed lower moderator average temperature will increase the test drop time, which will be closer to the 2.4 seconds limit. Historically, the test results have shown a significant margin to the limit. RCCA drop times, from the beginning of the stationary gripper coil voltage decay to dashpot entry, have been typically less than 1.5 seconds. During the Cycle 1 startup testing at both Turkey Point Units 3 and 4, the RCCA rod drop tests were performed at several RCS moderator temperatures with all reactor coolant pumps operating. The results of these tests demonstrated that the RCCA drop times increased slightly at lower temperatures. The increase in RCCA rod drop time between performing the test at <150 °F versus about 541 °F is less than 0.2 seconds. This behavior is expected due to the increase in water density. Therefore, performing the test at greater than or equal to 500 °F rather than greater or equal to 541 °F is expected to increase the RCCA drop times by less than 0.1 seconds. Currently, there is sufficient margin to accommodate this increase without changing the 2.4 seconds limit, and thus there will be no change in acceptance criteria. The rod drop time assumption in the safety analysis is not changed and consequently, the analysis results are not affected.

Based on the above, available margin in the measured RCCA drop test will be used to accommodate the slight increase in drop times as a result of performing the test at a lower temperature.

## **NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION**

### **Introduction**

Florida Power & Light Company (FPL) requests that Appendix A of Facility Operating Licenses DPR-31 and DPR-41 be amended to reduce the temperature requirement to perform the Rod Cluster Control Assembly (RCCA) drop test. Specifically, FPL requests to reduce the average temperature limit in Technical Specification (TS) 3.1.3.4a from greater than or equal to 541 °F to greater than or equal to 500 °F.

The Nuclear Regulatory Commission has provided standards for determining whether a significant safety hazards consideration exists (10 CFR §50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. Each standard is discussed below for the proposed amendments.

### **Discussion**

- (1) **Operation of the facility in accordance with the proposed amendments would not involve a significant increase in the probability or consequences of an accident previously evaluated.**

The probability of occurrence of an accident previously evaluated for Turkey Point is not altered by the proposed amendments to the Technical Specifications. The proposed changes do not impact the integrity of the reactor coolant system pressure boundary (i.e., no change in operating pressure, materials, seismic loading, etc.) and therefore do not increase the potential for the occurrence of a loss of coolant accident (LOCA). The changes do not make any physical changes to the facility design, material, or construction standards. The probability of any design basis accident (DBA) is not affected by these changes, nor are the consequences of any DBA affected by these changes. The proposed changes are not considered to be an initiator or contributor to any accident currently evaluated in the Turkey Point Updated Final Safety Analysis Report (UFSAR). Based on the above, FPL concludes that the proposed amendments do not involve a significant increase in the probability or consequences of any accident previously evaluated.

- (2) **Operation of the facility in accordance with the proposed amendments would not create the possibility of a new or different kind of accident from any previously evaluated.**

The Rod Cluster Control Assembly (RCCA) drop test is routinely performed each refueling. Decreasing the test temperature will not create the possibility of a new or different accident. The proposed test conditions remain bounded by the analysis of record since the RCCA drop time assumption in the UFSAR accident analysis will not be changed. Since no new failure modes are associated with the proposed changes, the proposed amendments do not create the possibility of a new or different kind of accident from any previously evaluated.

**3) Operation of the facility in accordance with the proposed amendments would not involve a significant reduction in a margin of safety.**

These Technical Specification changes do not involve a significant reduction in margin since the acceptance criterion for RCCA drop time will not change. The proposed changes will reduce the minimum RCCA rod drop test temperature from greater than or equal to 541 °F to greater than or equal to 500 °F. This will slightly increase the test drop time, but will be well within the current Technical Specifications limit of 2.4 seconds. Therefore, the margin to safety as defined by Technical Specifications acceptance criterion is not impacted by the proposed amendments.

**Conclusion**

Based on the above discussion, FPL has determined that the proposed amendments do not (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety; and therefore the proposed amendments do not involve a significant safety hazards consideration as defined in 10 CFR 50.92.

**Environmental Impact Evaluation**

10 CFR 51.22(c)(9) provides criteria for identification of licensing and regulatory actions eligible for categorical exclusion from performing an environmental assessment. A proposed amendment to an operating license for a facility requires no environmental assessment if operation of the facility in accordance with the proposed amendment would not:

- (i) involve a significant hazards consideration,
- (ii) result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, and
- (iii) result in a significant increase in individual or cumulative occupational radiation exposure.

FPL has reviewed this proposed license amendment and concludes that it meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22 (c)(9). Pursuant to 10 CFR 51.22(c), no environmental impact statement or environmental assessment needs to be prepared in connection with this request.

**Enclosure 1 to L-2001-032**

**PROPOSED TECHNICAL SPECIFICATION PAGE**

**3/4 1-24**

## REACTIVITY CONTROL SYSTEMS

### ROD DROP TIME

#### LIMITING CONDITION FOR OPERATION

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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 541°F, and ~~delete~~
- b. All reactor coolant pumps operating. 500°F ~~add~~

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

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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.