

December 20, 2001

Mr. J. A. Stall  
Senior Vice President, Nuclear and  
Chief Nuclear Officer  
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 DELETION OF TECHNICAL SPECIFICATIONS FOR  
HYDROGEN MONITORS AND POST-ACCIDENT CONTAINMENT  
VENT SYSTEM (TAC NOS. MB0334 AND MB0335)

Dear Mr. Stall:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 217 to Facility Operating License No. DPR-31 and Amendment No. 211 to Facility Operating License No. DPR-41 for the Turkey Point Plant, Unit Nos. 3 and 4, respectively. The amendments, which consist of changes to the Technical Specifications, provide a partial response to your application dated October 23, 2000, regarding the removal of the hydrogen control system requirements from the Turkey Point Units 3 and 4 design bases. Specifically, the amendments would delete references to the containment hydrogen monitors in TS Tables 3.3-5, "Accident Monitoring Instrumentation," and 4.3-4, "Accident Monitoring Instrumentation Surveillance Requirements." In addition, the amendments would delete TS 3/4.6.5, "Combustible Gas Control - Hydrogen Monitors," and TS 3/4.6.6, "Post Accident Containment Vent System."

The staff will act separately on your request for an exemption from the functional requirements of the hydrogen monitors, and the modification of the revised Confirmatory Order issued on October 5, 2000. 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,

**/RA/**

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. 217 to DPR-31
2. Amendment No. 211 to DPR-41
3. Safety Evaluation

cc w/enclosures: See next page

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Enclosures: As stated (2)

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cc w/encls: See next page

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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. 217  
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 October 23, 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. 217, 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 120 days within issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

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: December 20, 2001

FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-251

TURKEY POINT PLANT UNIT NO. 4

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 211  
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 October 23, 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:

(B) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 211, 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.

- (C) This license amendment is effective as of its date of issuance and shall be implemented within 120 days.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

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: December 20, 2001

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 217 FACILITY OPERATING LICENSE NO. DPR-31

AMENDMENT NO. 211 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 3-43  
3/4 3-44  
3/4 3-46  
3/4 6-19  
3/4 6-20  
3/4 6-21

Insert pages

3/4 3-43  
3/4 3-44  
3/4 3-46  
3/4 6-19  
3/4 6-20  
3/4 6-21

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 217 TO FACILITY OPERATING LICENSE NO. DPR-31  
AND AMENDMENT NO. 211 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 letter dated October 23, 2000, Florida Power and Light Company (the licensee) submitted an application to remove the requirements for the hydrogen control systems from the Turkey Point Units 3 and 4 design bases. The submittal consisted of: (1) a request for an exemption from Title 10, *Code of Federal Regulations* (10 CFR) Section 50.44 and 10 CFR 50, Appendix E, Section VI, for the hydrogen recombiner, the post-accident containment (PAC) vent system, and the hydrogen monitors; (2) proposed license amendments to remove the hydrogen monitors and the post-accident containment vent system from the Turkey Point Plant, Units 3 and 4, Technical Specifications (TS); and (3) a request to modify the revised Confirmatory Order dated October 5, 2000, to eliminate the commitments made in response to NUREG-0737, Item II.F.1, Attachment 6, "Containment Hydrogen Monitor."

By letter dated December 12, 2001, the U.S. Nuclear Regulatory Commission (NRC) staff has approved the licensee's exemption request for the recombiner and the PAC vent system. The amendments issued with this safety evaluation consist of changes to the TS for the removal of the requirements for the hydrogen monitors and the PAC vent system from the Turkey Point Units 3 and 4 design bases. Specifically, the amendments would delete references to the containment hydrogen monitors in TS Tables 3.3-5, "Accident Monitoring Instrumentation," and 4.3-4, "Accident Monitoring Instrumentation Surveillance requirements." In addition, the amendments would delete TS 3/4.6.5, "Combustible Gas Control - Hydrogen Monitors," and TS 3/4.6.6, "Post Accident Containment Vent System." The staff will act separately on the licensee's request for an exemption from the functional requirements of the hydrogen monitors, and the modification of the revised Confirmatory Order issued on October 5, 2000.

## 2.0 EVALUATION

In its request, the licensee asserts that the containments of Turkey Point Plant, Units 3 and 4, have sufficient safety margins against hydrogen burns following design-basis and severe accidents without the use of the hydrogen monitoring or the concentration control systems. The Turkey Point Probabilistic Risk Assessment indicates that none of the accident sequences addressed that could realistically threaten containment due to hydrogen combustion are impacted by the hydrogen monitoring or concentration control systems. NRC-sponsored studies, such as NUREG-1150 and NUREG/CR-5662, have found hydrogen combustion to be a small contributor to containment failure for large, dry containment designs due to the robustness of these containment types and the likelihood of a random ignition source.



The staff has sufficient justification to remove the hydrogen monitors from the Turkey Point TS because they no longer meet the definition of either a Category 1 or a Type A variable, as defined in Regulatory Guide (RG) 1.97. Currently, the hydrogen monitors are retained in TS because they are classified as either Category 1 or Type A variables. This fact is reflected in NUREG-1431, Revision 2, "Standard Technical Specifications Westinghouse Plants," which states, "PAM [post accident monitoring] instrumentation that meets the definition of Type A in Regulatory Guide 1.97 satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii). Category I, non-Type A, instrumentation must be retained in TS because it is intended to assist operators in minimizing the consequences of accidents. Therefore, Category I, non-Type A, variables are important for reducing public risk."

RG 1.97 defines Type A variables as those that provide primary information needed to permit the control room operating personnel to take the specified manually controlled actions for which no automatic control is provided and that are required for safety systems to accomplish their safety functions for design-basis accident events. The exemption issued on December 12, 2001, concludes that the plant could withstand the consequences of uncontrolled hydrogen-oxygen recombination without loss of safety function and without credit for the hydrogen recombiner or the hydrogen purge system for design-basis accident events. Therefore, the hydrogen monitors no longer meet the definition of a Type A variable as defined in RG 1.97.

Likewise, Section 4.3.1 of Attachment 2 to SECY-00-198 and this evaluation find that failure of large, dry containments due to hydrogen combustion is not a significant contributor to the risk to public health and safety. This conclusion is based on the robustness of these containment types and the likelihood of a random ignition source. Operator action is not credited or anticipated for design-basis events or for beyond design-basis accidents that have been analyzed. Therefore, for large, dry containments, the hydrogen monitors also no longer meet the definition of a Category 1 variable, as defined in RG 1.97. The staff finds that the hydrogen monitors can be removed from the Turkey Point TS, because they no longer meet the definition of a Category 1 or a Type A variable, as these variables are defined in RG 1.97.

As discussed above, the staff concludes that the hydrogen monitors no longer meet the definition of Category 1 in RG 1.97. RG 1.97 states that Category 3 is intended to provide requirements that will ensure that high-quality off-the-shelf instrumentation is obtained and applies to backup and diagnostic instrumentation. Category 3 is a more appropriate categorization for the hydrogen monitors, because the hydrogen monitors are primarily needed to assess the degree of core damage and confirm that spurious ignition has taken place and that containment integrity is not threatened by an explosive mixture.

With regard to the post-accident containment vent system, the staff has granted an exemption to the licensee to abandon or remove this system from the Turkey Point Plant design basis. As discussed in Attachment 2 to SECY-00-198, the staff has concluded that the hydrogen release following a design-basis loss-of-coolant accident did not contribute to the conditional probability of a large release. Therefore, the TS governing the operability of this system becomes unnecessary.

In November 1994, the US nuclear industry committed to implement severe accident management at their plants by December 31, 1998, using the guidance contained in the Nuclear Energy Institute document NEI 91-04, Revision 1, "Severe Accident Issue Closure Guidelines." Generic severe accident management guidelines developed by the Westinghouse

Owners Group include venting the containment to address combustible gas control. The staff continues to view controlled venting of all containment types to be an important severe accident management strategy. The staff expects the licensee's severe accident management guidelines to address controlled venting.

Based on the above evaluation, the staff finds that the revision to the TS for the hydrogen monitors and the post-accident containment vent system is acceptable.

### 3.0 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 indicated that it does not desire notification of issuance of license amendments.

### 4.0 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 and changes surveillance requirements. 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 2014). 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.

### 5.0 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: Michael Snodderly, NRR

Date: December 20, 2001

Mr. J. A. Stall  
Florida Power and Light Company

**TURKEY POINT PLANT**

cc:

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