



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

May 27, 2009

Mr. Mano Nazar  
Senior Vice President, Nuclear and  
Chief Nuclear Officer  
Florida Power and Light Company  
P.O. Box 14000  
Juno Beach, Florida 33408-0420

SUBJECT: ST. LUCIE PLANT, UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS  
REGARDING IMPLEMENTATION OF TSTF-511, REVISION 0, "ELIMINATE  
WORKING HOUR RESTRICTIONS FROM TS 5.2.2 TO SUPPORT  
COMPLIANCE WITH 10 CFR PART 26" (TAC NOS. ME0653 AND ME0654)

Dear Mr. Nazar:

The Commission has issued the enclosed Amendment Nos. 208 and 156 to Renewed Facility Operating License Nos. DPR-67 and NPF-16 for the St. Lucie Plant, Units 1 and 2, respectively. These amendments consist of changes to the Technical Specifications in response to your application dated February 12, 2009.

These amendments delete those portions of Technical Specifications superseded by Title 10 of the *Code of Federal Regulations* (10 CFR), Part 26, Subpart I. This change is consistent with Nuclear Regulatory Commission approved Technical Specification Task Force (TSTF) Improved Standard Technical Specification Change Traveler TSTF-511, Revision 0, "Eliminate Working Hour Restrictions from TS 5.2.2 to Support Compliance with 10 CFR Part 26."

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,

A handwritten signature in cursive script that reads "Siva P. Lingam".

Siva P. Lingam, Project Manager  
Plant Licensing Branch II-2  
Division of Operator Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-389

Enclosures:

1. Amendment No. 208 to DPR-67
2. Amendment No. 156 to NPF-16
3. Safety Evaluation

cc w/enclosures: Distribution via Listserv



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

FLORIDA POWER & LIGHT COMPANY

DOCKET NO. 50-335

ST. LUCIE PLANT UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 208  
Renewed License No. DPR-67

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Florida Power & Light Company (the licensee), dated February 12, 2009, 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, Renewed Facility Operating License No. DPR-67 is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and by amending paragraph 3.B to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 208, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION



Thomas H. Boyce, Chief  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Operating License  
and Technical Specifications

Date of Issuance: May 27, 2009

ATTACHMENT TO LICENSE AMENDMENT NO. 208

TO RENEWED FACILITY OPERATING LICENSE NO. DPR-67

DOCKET NO. 50-335

Replace Page 3 of Renewed Operating License DPR-67 with the attached Page 3.

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

Page 6-5

Insert Pages

Page 6-5

applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

A. Maximum Power Level

FPL is authorized to operate the facility at steady state reactor core power levels not in excess of 2700 megawatts (thermal).

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 208 are hereby incorporated in the renewed license. FPL shall operate the facility in accordance with the Technical Specifications.

Appendix B, the Environmental Protection Plan (Non-Radiological), contains environmental conditions of the renewed license. If significant detrimental effects or evidence of irreversible damage are detected by the monitoring programs required by Appendix B of this license, FPL will provide the Commission with an analysis of the problem and plan of action to be taken subject to Commission approval to eliminate or significantly reduce the detrimental effects or damage.

C. Updated Final Safety Analysis Report

The Updated Final Safety Analysis Report supplement submitted pursuant to 10 CFR 54.21(d), as revised on March 28, 2003, describes certain future activities to be completed before the period of extended operation. FPL shall complete these activities no later than March 1, 2016, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

The Updated Final Safety Analysis Report supplement as revised on March 28, 2003, described above, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4), following issuance of this renewed license. Until that update is complete, FPL may make changes to the programs described in such supplement without prior Commission approval, provided that FPL evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

D. Sustained Core Uncovery Actions

Procedural guidance shall be in place to instruct operators to implement actions that are designed to mitigate a small-break loss-of-coolant accident prior to a calculated time of sustained core uncovery.

## **6.0 ADMINISTRATIVE CONTROLS**

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f. DELETED

g. The operations supervisor shall hold a Senior Reactor Operator license.

### **SHIFT TECHNICAL ADVISOR FUNCTION**

6.2.3 An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift.



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FLORIDA POWER & LIGHT COMPANY

ORLANDO UTILITIES COMMISSION OF

THE CITY OF ORLANDO, FLORIDA

AND

FLORIDA MUNICIPAL POWER AGENCY

DOCKET NO. 50-389

ST. LUCIE PLANT UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 156  
Renewed License No. NPF-16

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Florida Power & Light Company, et al. (the licensee), dated February 12, 2009, 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, Renewed Facility Operating License No. NPF-16 is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and by amending paragraph 3.B to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 156, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION



Thomas H. Boyce, Chief  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Operating License  
and Technical Specifications

Date of Issuance: May 27, 2009



ATTACHMENT TO LICENSE AMENDMENT NO. 156  
TO RENEWED FACILITY OPERATING LICENSE NO. NPF-16  
DOCKET NO. 50-389

Replace Page 3 of Renewed Operating License NPF-16 with the attached Page 3.

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

Page 6-2

Insert Pages

Page 6-2

neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required.

- D. Pursuant to the Act and 10 CFR Parts 30, 40, and 70, FPL to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- E. Pursuant to the Act and 10 CFR Parts 30, 40, and 70, FPL to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

3. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission's regulations: 10 CFR Part 20, Section 30.34 of 10 FR Part 30, Section 40.41 of 10 CFR Part 40, Section 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:

A. Maximum Power Level

FPL is authorized to operate the facility at steady state reactor core power levels not in excess of 2700 megawatts (thermal).

Commencing with the startup for Cycle 16 and until the Combustion Engineering Model 3410 Steam Generators are replaced, the maximum reactor core power shall not exceed 89 percent of 2700 megawatts (thermal) if:

- a. The Reactor Coolant System Flow Rate is less than 335,000 gpm but greater than or equal to 300,000 gpm, or
- b. The Reactor Coolant System Flow Rate is greater than or equal to 300,000 gpm AND the percentage of steam generator tubes plugged is greater than 30 percent (2520 tubes/SG) but less than or equal to 42 percent (3532 tubes/SG).

This restriction in maximum reactor core power is based on analyses provided by FPL in submittals dated October 21, 2005 and February 28, 2006; and approved by the NRC in Amendment No. 145, which limits the percent of steam generator tubes plugged to a maximum of 42 percent (3532 tubes) in either steam generator and limits the plugging asymmetry between steam generators to a maximum of 600 tubes.

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 156 are hereby incorporated in the renewed license. FPL shall operate the facility in accordance with the Technical Specifications.

## **6.0 ADMINISTRATIVE CONTROLS**

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### **6.2 ORGANIZATION** (Continued)

#### **UNIT STAFF**

- 6.2.2 The unit organization shall be subject to the following:
- a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.
  - b. DELETED
  - c. A health physics technician<sup>#</sup> shall be on site when fuel is in the reactor.
  - d. Either a licensed SRO or licensed SRO limited to fuel handling who has no concurrent responsibilities during this operation shall be present during fuel handling and shall directly supervise all CORE ALTERATIONS.
  - e. DELETED
  - f. DELETED
  - g. The operations supervisor shall hold a Senior Reactor Operator License.

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# The health physics technician may be less than the minimum requirement for a period of time not to exceed 2 hours, in order to accommodate unexpected absence, provided immediate action is taken to fill the required positions.



UNITED STATES  
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 208 AND 156

TO RENEWED FACILITY OPERATING LICENSES NOS. DPR-67 AND NPF-16

FLORIDA POWER AND LIGHT COMPANY, ET AL.

ST. LUCIE PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-335 AND 50-389

## 1.0 INTRODUCTION

By letter dated February 12, 2009 (Agencywide Documents Access and Management System Accession No. ML090500397), Florida Power and Light Company, et al. (the licensee), requested amendments to Renewed Operating Licenses DPR-67 and NPF-16 for St. Lucie Plant, Unit Nos. 1 and 2 (St. Lucie 1 and 2), respectively, by revising the Technical Specifications (TSs). The proposed amendments would delete those portions of TSs superseded by Title 10 of the *Code of Federal Regulations* (10 CFR), Part 26, Subpart I. This change is consistent with Nuclear Regulatory Commission (NRC) approved Technical Specification Task Force (TSTF) Improved Standard Technical Specifications Change Traveler TSTF-511, Revision 0, "Eliminate Working Hour Restrictions from TS 5.2.2 to Support Compliance with 10 CFR Part 26." These changes were described in a Notice of Availability for Consolidated Line Item Improvement Process TSTF-511 published in the *Federal Register* on December 30, 2008 (73 FR 79923).

St. Lucie 1 and 2 have custom TS format; thus, there are minor differences with the TSTF-511 model and St. Lucie 1 and 2 TSs. The equivalent St. Lucie 1 and 2 TSs work-hour restrictions are located in TS 6.2.2.f. This differs from TSTF-511, where work-hour restrictions are located in Combustion Engineering Standard Technical Specifications (STSs) 5.2.2.d.

## 2.0 REGULATORY EVALUATION

The history of NRC regulations pertaining to prevention of worker impairment is summarized in the *Federal Register* notice containing the final rule that amended 10 CFR Part 26 (73 FR 16966, March 31, 2008). Subpart I of 10 CFR Part 26 provides the regulatory requirements for managing worker fatigue at nuclear power plants.

The NRC regulatory requirements related to the content of the TSs are contained in 10 CFR 50.36. Section 50.36 of 10 CFR Part 50 requires that the TSs include items in the following categories: (1) safety limits, limiting safety systems settings, and limiting control settings; (2) limiting conditions for operation (LCOs); (3) Surveillance Requirements;

(4) design features; and (5) administrative controls. The administrative controls are the provisions relating to organization and management, procedures, record keeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner.

The NRC guidance for the format and content of licensee TSs can be found in NUREG-1432, Revision 3.0, "Standard Technical Specifications Combustion Engineering Plants," referred to as STSs. Section 5 of STSs contains administrative controls. Section 5.2.2.d of STSs contains requirements for administrative procedures to limit the working hours of personnel who perform safety-related functions. This Section represents NRC guidance on how licensee TS requirements should address work-hour controls. Licensees adhere to the guidance to varying degrees due to minor administrative differences and differences in each licensee's current licensing basis. The inconsistent level of adherence to NRC guidance has led to inconsistent TS interpretation and implementation. This has also made it difficult for NRC to enforce the requirements.

The new requirements of 10 CFR Part 26, Subpart I supersede the guidance for requirements found in Section 5.2.2.d of the STSs. Subpart I of 10 CFR Part 26 distinguishes between work-hour controls and fatigue management and strengthens the requirements for both. Subpart I of 10 CFR Part 26 also requires nuclear power plant licensees to ensure against worker fatigue adversely affecting public health and safety and the common defense and security by establishing clear and enforceable requirements for the management of worker fatigue. Licensees are required to implement Subpart I of 10 CFR Part 26 by October 1, 2009, as announced in the Final rule that revised 10 CFR Part 26 (73 FR 16966, March 31, 2008). TSTF-511 proposed a change to STSs that would delete Section 5.2.2.d of STSs. This change was approved in the Federal Register notice on December 30, 2008 (73 FR 79923).

#### 2.1 Adoption of TSTF-511, Revision 0, by St. Lucie 1 and 2

Proper adoption of TSTF-511 and implementation of 10 CFR Part 26, Subpart I by the licensee will provide reasonable assurance that the licensee will maintain limits on the working hours of personnel who perform safety-related functions. The licensee has committed to remove the plant-specific TS requirements concurrently with the implementation of the 10 CFR Part 26, Subpart I requirements.

### 3.0 TECHNICAL EVALUATION

Controls on work hours for personnel at nuclear power plants are necessary to prevent worker fatigue from adversely affecting public health and safety and the common defense and security. Work-hour controls for St. Lucie 1 and 2 are currently located in Section 6.2.2.f of TSs. When implemented, the regulatory requirements of 10 CFR 26, Subpart I replace the plant-specific TS requirements found in Section 6.2.2.f of St. Lucie 1 and 2 TSs.

The licensee proposed deleting Section 6.2.2.f of TS. The licensee committed to implement the new requirements of 10 CFR Part 26, Subpart I concurrently with the deletion of the TS requirements on work-hour controls. The NRC staff finds that reasonable controls for the implementation and for subsequent evaluation of proposed changes pertaining to the above regulatory commitment(s) are best provided by the licensee's administrative processes, including its commitment management program (see Regulatory Issue Summary 2000-017, "Managing

Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff”). The above regulatory commitments do not warrant the creation of regulatory requirements (items requiring prior NRC approval of subsequent changes).

St. Lucie 1 and 2 have custom TSs; thus, there is a minor difference between the TSTF-511 model and St. Lucie 1 and 2 TSs. The equivalent St. Lucie 1 and 2 TS work-hour restrictions are located in Section 6.2.2.f of the TSs. This differs from TSTF-511, where work-hour restrictions are located in Section 5.2.2.d of the STSs.

St. Lucie 1 and 2 TS Section 6.2.2.f is similar to the content of TSTF-511 STS Section 5.2.2.d. St. Lucie 1 and 2 TSs do not include the following supplemental content that is included in STSs Section 5.2.2.d:

The controls shall include guidelines on working hours that ensure adequate shift coverage shall be maintained without routine heavy use of overtime.

Controls shall be included in the procedures to require a periodic independent review be conducted to ensure that excessive hours have not been assigned.

These differences are insignificant as the intent of TSTF-511 is to delete TSs superseded by the revised regulations in 10 CFR Part 26, Subpart I. These minor variations proposed from St. Lucie 1 and 2 TS changes remain bounded by NRC Staff’s model safety evaluation (73 FR 79923).

The NRC staff evaluated the licensee’s proposed change against the applicable regulatory requirements listed in Section 2. The NRC staff also compared the proposed change to the change made to the STSs by TSTF-511. The NRC staff considered the licensee’s commitment to implement 10 CFR Part 26, Subpart I concurrently with the deletion of TS work-hour control requirements in its evaluation of the proposed change. Given the licensee’s commitment, there is reasonable assurance that the licensee will comply with the regulations for work-hour controls, either through TS requirements or through the requirements of 10 CFR Part 26, Subpart I, at all times at St. Lucie 1 and 2. Therefore, the licensee will continue to prevent worker fatigue from adversely affecting public health and safety and the common defense and security. Therefore, the NRC staff finds the proposed change acceptable.

#### 4.0 STATE CONSULTATION

Based upon a letter dated May 2, 2003, from Michael N. Stephens of the Florida Department of Health, Bureau of Radiation Control, to Brenda L. Mozafari, Senior Project Manager, U.S. Nuclear Regulatory Commission, the State of Florida does not desire notification of issuance of license amendments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments relate to changes in record keeping, reporting, or administrative procedures or requirements. 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 (74 FR 12393, dated March 24, 2009). Accordingly, the amendments meet the eligibility

criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). 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.

Principal Contributor: Abraham Marrero

Date: May 27, 2009

May 27, 2009

Mr. Mano Nazar  
Senior Vice President, Nuclear and  
Chief Nuclear Officer  
Florida Power and Light Company  
P.O. Box 14000  
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REGARDING IMPLEMENTATION OF TSTF-511, REVISION 0, "ELIMINATE  
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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/*

Siva P. Lingam, Project Manager  
Plant Licensing Branch II-2  
Division of Operator Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-389

Enclosures:

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