

July 30, 1998

Mr. T. F. Plunkett  
President - Nuclear Division  
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 OPERATIONS SHIFT SCHEDULES (TAC NOS. MA2110, MA2111)

Dear Mr. Plunkett:

The Commission has issued the enclosed Amendment Nos. 155 and 93 to Facility Operating License Nos. DPR-67 and NPF-16 for the St. Lucie Plant, Unit Nos. 1 and 2, respectively. These amendments consist of changes to the Technical Specifications (TS) in response to your application dated May 27, 1998, regarding specific work hours.

The amendments revise the Administrative Controls, Unit Staff Section 6.2.2.f of TS to authorize the use of various controlled shift structures and durations during a nominal (36 to 48 hours) work week. This includes the use of up to 12-hour shifts without heavy use of overtime.

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,

Original signed by:

William C. Gleaves, Project Manager  
Project Directorate II-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket Nos. 50-335, 50-389

Enclosures: 1. Amendment No. 155 to DPR-67  
2. Amendment No. 93 to NPF-16  
3. Safety Evaluation

cc w/enclosures: See next page

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

July 30, 1998

Mr. T. F. Plunkett  
President - Nuclear Division  
Florida Power and Light Company  
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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,

A handwritten signature in black ink, appearing to read "Wm C Greaves".

William C. Greaves, Project Manager  
Project Directorate II-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket Nos. 50-335, 50-389

Enclosures: 1. Amendment No. 155 to DPR-67  
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3. Safety Evaluation

cc w/enclosures: See next page

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

cc:

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**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 FACILITY OPERATING LICENSE

Amendment No. 155  
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 May 27, 1998, 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.

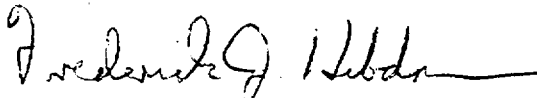
2. Accordingly, Facility Operating License No. DPR-67 is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and by amending paragraph 2.C.(2) to read as follows:

- (2) Technical Specifications

- The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 155, 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 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Frederick J. Hebdon, Director  
Project Directorate II-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: July 30, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 155

TO FACILITY OPERATING LICENSE NO. DPR-67

DOCKET NO. 50-335

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by amendment number and contains vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Remove Page

6-5

Insert Page

6-5

- f. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions; e.g., senior reactor operators, reactor operators, health physicists, auxiliary operators, and key maintenance personnel.

The administrative procedures shall include guidelines on working hours that ensure that adequate shift coverage is maintained without routine heavy use of overtime for individuals. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance or major plant modification, on a temporary basis the following guidelines shall be followed:

1. An individual should not be permitted to work more than 16 hours straight, excluding shift turnover time.
2. An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any 7-day period, all excluding shift turnover time.
3. A break of at least 8 hours should be allowed between work periods, including shift turnover time.
4. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized by the Plant General Manager or his deputy, or higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation. Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Plant General Manager or his designee to assure that excessive hours have not been assigned. Routine deviation from the above guidelines is not authorized.

- g. The Operations Supervisor shall hold a Senior Reactor Operator license.

SHIFT TECHNICAL ADVISOR

- 6.2.3 The Shift Technical Advisor function is to provide on shift advisory technical support in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit.



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

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 FACILITY OPERATING LICENSE

Amendment No. 93  
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 May 27, 1998, 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.



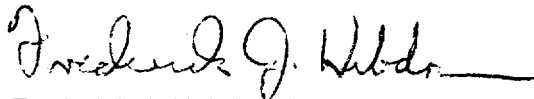
2. Accordingly, Facility Operating License No. NPF-16 is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and by amending paragraph 2.C.2 to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 93 , 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 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Frederick J. Hebdon, Director  
Project Directorate II-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: July 30, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 93

TO FACILITY OPERATING LICENSE NO. NPF-16

DOCKET NO. 50-389

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by amendment number and contains vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Remove Page

6-2

Insert Page

6-2

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. At least one licensed Reactor Operator shall be in the control room when fuel is in the reactor. In addition, while the reactor is in MODE 1, 2, 3, or 4, at least one licensed Senior Reactor Operator shall be in the control room.
- c. A health physics technician\* 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. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions, e.g., senior reactor operators, reactor operators, health physicists, auxiliary operators, and key maintenance personnel. The administrative procedures shall include guidelines on working hours that ensure that adequate shift coverage is maintained without routine heavy use of overtime for individuals. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance or major plant modification, on a temporary basis the following guidelines shall be followed:

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 155 TO FACILITY OPERATING LICENSE NO. DPR-67  
AND AMENDMENT NO. 93 TO FACILITY OPERATING LICENSE NO. 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 May 27, 1998, Florida Power and Light (the licensee) submitted a request for changes to the St. Lucie Plant, Units 1 and 2, Technical Specifications (TS). The requested changes would allow the use of 12-hour shifts by deleting the discussion of specific work hours (currently 8 hours) from the administrative section of TS 6.2.2.f. Current limits on the use of overtime in the administrative section of the TS are retained.

In the submittal the licensee stated that it desired to change to the 12-hour shift to reduce the number of shift-to-shift turnovers and reduce the potential for miscommunication and errors. The staff notes that several other facilities' TSs allow the use of 12-hour operating shifts.

2.0 EVALUATION

The proposed revisions in the TS Section 6.2.2.f, "Unit Staff," for both Units 1 and 2 include deleting a sentence that states,

The objective shall be to have operating personnel work a normal 8-hour day, 40-hour week while the plant is operating.

The proposed revision also inserts the necessary editorial changes and the following sentence to Section 6.2.2.f,

The administrative procedures shall include guidelines on working hours that ensure that [adequate shift coverage is maintained without routine heavy use of overtime] for individuals.

On February 11, 1982, the Nuclear Regulatory Commission (NRC) published in the Federal Register (47 FR 7352) the "Policy on Factors Causing Fatigue of Operating Personnel at Nuclear Reactors." On June 15, 1982, the NRC disseminated a revision to the policy by Generic Letter (GL) 82-12, "Nuclear Power Plant Staff Working Hours." GL 82-12

recommended that licensees incorporate, in their administrative procedures, a policy on shift manning and overtime with the objective of preventing situations where fatigue could reduce the ability of operating personnel to keep the reactor in a safe condition. The staff has reviewed operating events at U.S. nuclear plants and has not been able attribute inadequate control of working hours as contributing factors to these events and has therefore determined that control of working hours through administrative procedures provides reasonable assurance that personnel overtime will not jeopardize safe plant operation. Control of overtime through administrative procedures is consistent with Action Item I.A.1.2.2, "Limit Overtime," of NUREG-0737, "Clarification of TMI [Three Mile Island] Action Plan Requirements," dated November 1980. Specific working hours are not required to be included in the TS under 10 CFR 50.36(c)(5), "Administrative Controls."

The NRC policy on working hours described in GL 82-12 is that licensees are to establish controls to ensure that personnel are not assigned to shift duties while in a fatigued condition that could significantly reduce their mental alertness or their decision making capability. The staff has previously approved 12-hour shifts at other U.S. nuclear power plants and has found no evidence of adverse effects on plant safety resulting from the use of such shifts, provided the overtime guidelines and controls are observed. The GL further states that an adequate number of plant operating personnel should be employed to maintain adequate shift coverage without routine heavy use of overtime. These overtime guidelines include limits such as not permitting an individual to work more than 16 consecutive hours, allowing a break of at least 8 hours between work periods, and working no more than 72 hours in a 7-day period. The limits on the use of overtime are currently specified in the St. Lucie TS and are being retained.

### 3.0 STAFF CONCLUSION

The staff concludes that the duration of the shift may be deleted from TS since the controls on overtime will be retained in TS to provide reasonable assurance that personnel are not assigned to shift duties while in a fatigued condition that could significantly reduce their mental alertness and decision making capability.

### 4.0 STATE CONSULTATION

Based upon a letter dated March 8, 1991, from the State of Florida to Deborah A. Miller, NRC, the State of Florida has no comments.

### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to administrative procedures or requirements. Accordingly, these 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: William Gleaves

Dated: July 30, 1998