January 27, 1995

DISTRIBUTION
See attached sheet

Mr. J. H. Goldberg
President - Nuclear Division
Florida Power and Light Company
P.O. Box 14000
Juno Beach, Florida 33408-0420

SUBJECT: ST. LUCIE UNIT 1 - ISSUANCE OF AMENDMENTS RE: LOW TEMPERATURE OVERPRESSURE PROTECTION (LTOP) REQUIREMENTS FOR POWER OPERATED RELIEF VALVES (TAC NO. M90026)

Dear Mr. Goldberg:

The Commission has issued the enclosed Amendment No. 132 to Facility Operating License No. DPR-67 for the St. Lucie Plant, Unit No. 1. This amendment consists of changes to the Technical Specifications in response to your application dated July 28, 1994.

This amendment revises Technical Specification 3/4.4.13 to incorporate Low Temperature Overpressure Protection requirements similar to those recommended by the NRC staff via Generic Letter 90-06.

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)

Jan A. Norris, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-335

Enclosures:
1. Amendment No. 132 to DPR-67
2. Safety Evaluation

cc w/enclosures:
See next page

FILENAME - A:\SL190026.AMD

OFFICE	LA:PDII-2	PM:PDII-2	D:PDII-2	OGC	
NAME	Dunnington EJD	JNorris	DMatthews		
DATE	1/10/95	1/27/94	1/27/94	1/13/95	
COPY	Yes/No	Yes/No	Yes/No	Yes/No	

010022

DF01

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DATED: January 27, 1995

AMENDMENT NO. 132 TO FACILITY OPERATING LICENSE NO. DPR-67 - ST. LUCIE, UNIT 1

Docket File
NRC & Local PDRs
PDII-2 Reading
S. Varga, 14/E/4
D. Hagan, TWFN, 4/A/43
G. Hill (2), TWFN 5/C/3
C. Grimes, 11/F/23
ACRS (4)
OPA
OC/LFMB
D. Verelli, RII

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. 132
License No. DPR-67

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 July 28, 1994, 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. 132, 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 the date of its issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

for David B. Matthews, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 27, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 132

TO FACILITY OPERATING LICENSE NO. DPR-67

DOCKET NO. 50-335

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

Remove Pages	Insert Pages
3/4 4-59	3/4 4-59
B 3/4 4-15	B 3/4 4-15

LIMITING CONDITION FOR OPERATION

3.4.13 Two power operated relief valves (PORVs) shall be OPERABLE, with their setpoints selected to the low temperature mode of operation as follows:

a. A setpoint of less than or equal to 350 psia shall be selected:

1. During cooldown when the temperature of any RCS cold leg is less than or equal to 215°F and

2. During heatup and isothermal conditions when the temperature of any RCS cold leg is less than or equal to 193°F.

b. A setpoint of less than or equal to 530 psia shall be selected:

1. During cooldown when the temperature of any RCS cold leg is greater than 215°F and less than or equal to 281°F.

2. During heatup and isothermal conditions when the temperature of any RCS cold leg is greater than or equal to 193°F and less than or equal to 304°F.

APPLICABILITY: MODE 4 when the temperature of any RCS cold leg is less than or equal to 304°F, MODE 5, and MODE 6 when the head is on the reactor vessel; and the RCS is not vented through greater than a 1.75 square inch vent.

ACTION:

a. With one PORV inoperable in MODE 4, restore the inoperable PORV to OPERABLE status within 7 days; or depressurize and vent the RCS through greater than a 1.75 square inch vent within the next 8 hours.

b. With one PORV inoperable in MODES 5 or 6, either (1) restore the inoperable PORV to OPERABLE status within 24 hours, or (2) complete depressurization and venting of the RCS through greater than a 1.75 square inch vent within a total of 32 hours.

c. With both PORVs inoperable, restore at least one PORV to operable status or complete depressurization and venting of the RCS through greater than a 1.75 square inch vent within 24 hours.

d. With the RCS vented per ACTIONS a, b, or c, verify the vent pathway at least once per 31 days when the pathway is provided by a valve(s) that is locked, sealed, or otherwise secured in the open position; otherwise, verify the vent pathway every 12 hours.

e. In the event either the PORVs or the RCS vent(s) are used to mitigate an RCS pressure transient, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 30 days. The report shall describe the circumstances initiating the transient, the effect of the PORVs or RCS vent(s) on the transient, and any corrective action necessary to prevent recurrence.

f. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.4.13 Each PORV shall be demonstrated OPERABLE by:

a. Verifying the PORV isolation valve is open at least once per 72 hours; and

b. Performance of a CHANNEL FUNCTION TEST, but excluding valve operation, at least once per 31 days; and

c. Performance of a CHANNEL CALIBRATION at least once per 18 months.

REACTOR COOLANT SYSTEM

REACTOR COOLANT PUMP - STARTING

LIMITING CONDITION FOR OPERATION

3.4.14 If the steam generator temperature exceeds the primary temperature by more than 30°F, the first idle reactor coolant pump shall not be started.

APPLICABILITY: MODES 4# and 5.

ACTION:

If a reactor coolant pump is started when the steam generator temperature exceeds primary temperature by more than 30°F, evaluate the subsequent transient to determine compliance with Specification 3.4.9.1.

SURVEILLANCE REQUIREMENTS

4.4.14 Prior to starting a reactor coolant pump, verify that the steam generator temperature does not exceed primary temperature by more than 30°F.

#Reactor Coolant System Cold Leg Temperature is less than 304°F.

3/4.4.13 POWER OPERATED RELIEF VALVES and 3/4.4.14 REACTOR COOLANT PUMP - STARTING

The low temperature overpressure protection system (LTOP) is designed to prevent RCS overpressurization above the 10 CFR Appendix G operating limit curves (Figures 3.4-2a and 3.4-2b) at RCS temperatures at or below 304°F during heatup and 281°F during cooldown. The LTOP system is based on the use of the pressurizer power-operated relief valves (PORVs) and the implementation of administrative and operational controls.

The PORVs aligned to the RCS with the low pressure setpoints of 350 and 530 psia, restrictions on RCP starts, limitations on heatup and cooldown rates, and disabling of non-essential components provide assurance that Appendix G P/T limits will not be exceeded during normal operation or design basis overpressurization events due to mass or energy addition to the RCS. The LTOP system APPLICABILITY, ACTIONS, and SURVEILLANCE REQUIREMENTS are consistent with the resolution of Generic Issue 94, "Additional Low-Temperature Overpressure Protection for Light-Water Reactors," pursuant to Generic Letter 90-06.

3/4.4.15 REACTOR COOLANT SYSTEM VENTS

Reactor Coolant System vents are provided to exhaust noncondensible gases and/or steam from the primary system that could inhibit natural circulation core cooling. The OPERABILITY of at least one Reactor Coolant System vent path from the reactor vessel head and the pressurizer steam space ensures the capability exists to perform this function.

The redundancy design of the Reactor Coolant System vent systems serves to minimize the probability of inadvertent or irreversible actuation while ensuring that a single failure of a vent valve, power supply, or control system does not prevent isolation of the vent path.

The function, capabilities, and testing requirements of the Reactor Coolant System vent system are consistent with the requirements of Item II.b.1 of NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 132

TO FACILITY OPERATING LICENSE NO. DPR-67

FLORIDA POWER AND LIGHT COMPANY

ST. LUCIE PLANT, UNIT NO. 1

DOCKET NO. 50-335

1.0 INTRODUCTION

By letter dated July 28, 1994 the Florida Power and Light Company, the licensee for the St. Lucie Unit 1 plant, requested to amend the operating license regarding the Low Temperature Overpressure Protection (LTOP) requirements for the power operated relief valves (PORVs). By letter dated August 20, 1993, the staff accepted the licensee's resolution of the issues raised in Generic Letter 90-06 (GL), "Power Operated Relief Valves and Block Valve Reliability and Additional Low Temperature Overpressure Protection for Light Water Reactors." The staff's approval was based partially on the licensee's commitment to request a change to the St. Lucie Unit 1 LTOP technical specifications similar to the GL recommendations. This amendment request fulfills that commitment.

2.0 DESCRIPTION OF PROPOSED CHANGES

The applicability, actions, and surveillance requirements of TS 3/4.4.13 have been rewritten in their entirety using the guidance provided for "Modified Technical Specifications for Combustion Engineering and Westinghouse Plants", which is contained in Enclosure B of GL 90-06. Plant specific deviations from the model TS are shown in brackets[].

LCO 3.4.13 APPLICABILITY is changed to read: "MODE 4 when the temperature of any RCS cold leg is less than or equal to 304 °F, MODE 5, and MODE 6 when the head is on the reactor vessel; and the RCS is not vented through greater than a 1.75 square inch vent."

ACTION-a applies to one inoperable PORV when in MODE 4 with the temperature of any RCS cold leg less than or equal to 304 °F. It requires that the inoperable PORV be restored to OPERABLE status within 7 days; or depressurize and vent the RCS through greater than a 1.75 square inch vent within the next 8 hours.

ACTION-b applies to one inoperable PORV when LTOP is required in MODES 5 or 6. It requires that the inoperable PORV be restored to OPERABLE status within 24 hours, or complete depressurization and venting of the RCS through greater than a 1.75 square inch vent within a total of 32 hours.

ACTION-c applies to a condition where both PORVs are inoperable below an RCS temperature of 304 °F. It requires that [at least one PORV be restored to operable status or] depressurization and venting of the RCS through greater than a 1.75 square inch vent be completed within [24] hours.

ACTION-d requires that the vent pathway, when established per Actions a, b, or c, be verified at least once per 31 days when the pathway is provided by a valve(s) that is locked, sealed, or otherwise secured in the open position; otherwise the pathway must be verified every 12 hours.

ACTION-e requires a Special Report to be submitted to the Commission, pursuant to Specification 6.9.2, within 30 days of an event where either the PORVs or RCS vent(s) are used to mitigate an RCS pressure transient.

ACTION-f excludes this Limiting Condition for Operation from the requirements of TS 3.0.4.

SURVEILLANCE REQUIREMENTS are upgraded to require that OPERABILITY of each PORV be demonstrated by verifying the associated PORV isolation valve open at least once per 72 hours; performing a Channel Functional Test (excluding valve operation) at least once per 31 days; and performing a Channel Calibration at least once per 18 months.

BASES page B 3/4 4-15 is updated to reflect that TS 3/4.4.13 is consistent with GL 90-06.

3.0 EVALUATION

The proposed Technical Specification (TS) 3.4.13 on PORV operability and surveillance for modes 5 and 6 is identical to that proposed in the Generic Letter (GL), except for part c. The GL model TS reads as follows:

c. With both PORVs inoperable, complete depressurization and venting of the RCS through at least a___ square inch vent within 8 hours

The proposed TS 3.4.13 part c reads as follows:

c. With both PORVs inoperable, restore at least one PORV to operable status or complete depressurization and venting of the RCS through greater than a 1.75 square inch vent within 24 hours.

The GL TS does not provide for restoration of at least one PORV into operable status before depressurization. The St. Lucie Unit 1 proposed TS provides for an attempt to restore one PORV to operable status, which is more flexible than

the GL model TS and also acceptable to the staff. The GL proposes to complete depressurization within 8 hours if both PORVs are inoperable, while the St. Lucie Unit 1 TS proposes 24 hours. The longer period for depressurization is acceptable to the staff for an older plant like St. Lucie, Unit 1 because it will result in lower thermal stresses to the pressure vessel. Therefore, the staff finds the proposed 24 hour interval for depressurization to be acceptable and the proposed TS acceptable in its entirety.

4.0 STATE CONSULTATION

Based upon the written notice of the proposed amendments, the Florida State official had no comments.

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. 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 (59 FR 42341). 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.

Principal Contributor: L. Lois

Date: January 27, 1995