

FEB 25 1981

Docket No. 50-335

Dr. Robert E. Uhrig  
Vice President  
Advanced Systems & Technology  
Florida Power & Light Company  
Post Office Box 529100  
Miami, Florida 33152

Dear Dr. Uhrig:

The Commission has issued the enclosed Amendment No. 38 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 April 18, 1980.

The amendment modifies the Technical Specifications to increase the limits on secondary containment bypass leakage and Control Room outside air intake.

Copies of the Safety Evaluation and Notice of Issuance are also enclosed.

Sincerely,

*Robert A. Clark*  
Robert A. Clark

Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing

Enclosures:

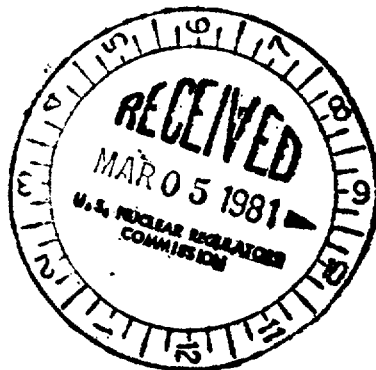
1. Amendment No. 38 to DPR-67
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:  
See next page

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*As to notice of Amendment only*



OFFICE	DL:ORB#3	DL:ORB#3	OELD	DL:OR	DSE:AEF		
SURNAME	C Nelson:lb	R Clark	W.D. Patton	Novak	R. Houston		
DATE	2/19/81	2/20/81	2/23/81	2/23/81	2/20/81		



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

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PMKreutzer

Docket No. 50-335

Docketing and Service Section  
Office of the Secretary of the Commission

SUBJECT: FLORIDA POWER AND LIGHT COMPANY, ST. LUCIE PLANT, UNIT NO. 1

Two signed originals of the Federal Register Notice identified below are enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies ( 12 ) of the Notice are enclosed for your use.

- Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for Submission of Views on Antitrust Matters.
- Notice of Availability of Applicant's Environmental Report.
- Notice of Proposed Issuance of Amendment to Facility Operating License.
- Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- Notice of Availability of NRC Draft/Final Environmental Statement.
- Notice of Limited Work Authorization.
- Notice of Availability of Safety Evaluation Report.
- Notice of Issuance of Construction Permit(s).
- Notice of Issuance of Facility Operating License(s) or Amendment(s).

Other: Amendment No. 38

Referenced documents have been provided PDR.

Enclosure:  
As Stated

Division of Licensing, ORB#3  
Office of Nuclear Reactor Regulation

OFFICE →	ORB#3:DL					
SURNAME →	PMKreutzer/pn					
DATE →	2/25/81					



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

February 25, 1981

Docket No. 50-335

Dr. Robert E. Uhrig  
Vice President  
Advanced Systems & Technology  
Florida Power & Light Company  
Post Office Box 529100  
Miami, Florida 33152

Dear Dr. Uhrig:

The Commission has issued the enclosed Amendment No. 38 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 April 18, 1980.

The amendment modifies the Technical Specifications to increase the limits on secondary containment bypass leakage and Control Room outside air intake.

Copies of the Safety Evaluation and Notice of Issuance are also enclosed.

Sincerely,

A handwritten signature in cursive script, appearing to read "Robert A. Clark".

Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing

Enclosures:

1. Amendment No. 38 to DPR-67
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:  
See next page

Florida Power & Light Company

cc:

Robert Lowenstein, Esquire  
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County Administrator  
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Division  
Office of Radiation Programs  
(AW-459)  
U. S. Environmental Protection Agency  
Crystal Mall #2  
Arlington, Virginia 20460

U.S. Environmental Protection Agency  
Region IV Office  
ATTN: EIS COORDINATOR  
345 Courtland Street, N.E.  
Atlanta, Georgia 30308

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Manager - Washington Nuclear Operations.  
C-E Power Systems  
Combustion Engineering, Inc.  
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Mr. Jack Shreve  
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Tallahassee, Florida 32304

cc w/enclosure(s) and incoming  
dtd.: 4/18/80  
Bureau of Intergovernmental  
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660 Apalachee Parkway  
Tallahassee, Florida 32304



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

FLORIDA POWER & LIGHT COMPANY

DOCKET NO. 50-335

ST. LUCIE PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 38  
License No. DPR-67

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Florida Power and Light Company dated April 18, 1980, 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 2.C.(2) of Facility Operating License No. DPR-67 is hereby amended to read as follows:

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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 38 , 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.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: February 25, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 38

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 No. and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Pages

3/4 6-2

3/4 6-3

3/4 7-23

### 3/4.6 CONTAINMENT SYSTEMS

#### 3/4.6.1 CONTAINMENT VESSEL

#### CONTAINMENT VESSEL INTEGRITY

#### LIMITING CONDITION FOR OPERATION

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3.6.1.1 CONTAINMENT VESSEL INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

Without CONTAINMENT VESSEL INTEGRITY, restore CONTAINMENT VESSEL INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.6.1.1 CONTAINMENT VESSEL INTEGRITY shall be demonstrated:

- a. At least once per 31 days by verifying that:
  1. All containment vessel penetrations not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except as provided in Table 3.6-2 of Specification 3.6.3.1, and
  2. All containment vessel equipment hatches are closed and sealed.
- b. By verifying that each containment vessel air lock is OPERABLE per Specification 3.6.1.3.



## CONTAINMENT SYSTEMS

### CONTAINMENT LEAKAGE

#### LIMITING CONDITION FOR OPERATION

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3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate of:
  1.  $< L_a$ , 0.50 percent by weight of the containment air per 24 hours at  $P_a$ , (39.6 psig), or
  2.  $< L_t$ , 0.32 percent by weight of the containment air per 24 hours at a reduced pressure of  $P_t$ , (19.8 psig).
- b. A combined leakage rate of  $< 0.60 L_a$  for all penetrations and valves subject to Type B and C tests as identified in Table 3.6-1 when pressurized to  $P_a$ .
- c. A combined leakage rate of  $< 0.27 L_a$  for all penetrations identified in Table 3.6-1 as secondary containment bypass leakage paths when pressurized to  $P_a$ .

APPLICABILITY: MODES 1, 2, 3 and 4.

#### ACTION:

With either (a) the measured overall integrated containment leakage rate exceeding  $0.75 L_a$  or  $0.75 L_t$ , as applicable, or (b) with the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding  $0.60 L_a$ , or (c) with the combined bypass leakage rate exceeding  $0.27 L_a$ , restore the leakage rate(s) to within the limit(s) prior to increasing the Reactor Coolant System temperature above 200°F.

#### SURVEILLANCE REQUIREMENTS

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4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4-1972:

- a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at  $40 \pm 10$  month intervals during shutdown at either  $P_a$  (39.6 psig) or at  $P_t$  (19.8 psig) during each 10-year

## CONTAINMENT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

service period. The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection.

- b. If any periodic Type A test fails to meet either  $.75 L_a$  or  $.75 L_t$ , the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet either  $.75 L_a$  or  $.75 L_t$ , a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet either  $.75 L_a$  or  $.75 L_t$  at which time the above test schedule may be resumed.
- c. The accuracy of each Type A test shall be verified by a supplemental test which:
  1. Confirms the accuracy of the Type A test by verifying that the difference between supplemental and Type A test data is within  $0.25 L_a$  or  $0.25 L_t$ ,
  2. Has a duration sufficient to establish accurately the change in leakage between the Type A test and the supplemental test.
  3. Requires the quantity of gas injected into the containment or bled from the containment during the supplemental test to be equivalent to at least 25 percent of the total measured leakage rate at  $P_a$  (39.6 psig) or  $P_t$  (19.8 psig).
- d. Type B and C tests shall be conducted with gas at  $P_a$  (39.6 psig) at intervals no greater than 24 months except for tests involving air locks.
- e. The combined bypass leakage rate shall be determined to be  $< 0.27 L_a$  by applicable Type B and C tests at least once per 24 months except for penetrations which are not individually testable; penetrations not individually testable shall be determined to have no detectable leakage when tested with soap bubbles while the containment is pressurized to  $P_a$  (39.6 psig) during each Type A test.
- f. Air locks shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.3.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

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- g. All Type A test leakage rates shall be calculated using observed data converted to absolute values. Error analyses shall be performed to select a balanced integrated leakage measurement system.

## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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- e. At least once per 18 months by:
1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is  $< 4.15$  inches Water Gauge while operating the ventilation system at a flow rate of  $2000 \text{ cfm} \pm 10\%$ .
  2. Verifying that on a containment isolation signal or chlorine accident detection signal, the system automatically isolates the control room within 35 seconds and switches into a recirculation mode of operation with flow through the HEPA filters and charcoal adsorber banks.
  3. Verifying that the system maintains the control room at a positive pressure of  $\geq 1/8$  inch W.G. relative to the outside atmosphere during system operation with  $\leq 450$  cfm outside air intake.
- f. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove  $\geq 99\%$  of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the ventilation system at a flow rate of  $2000 \text{ cfm} \pm 10\%$ .
- g. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove  $\geq 99\%$  of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the ventilation system at a flow rate of  $2000 \text{ cfm} \pm 10\%$ .

## PLANT SYSTEMS

### 3/4.7.8 ECCS AREA VENTILATION SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.7.8.1 Two independent ECCS area exhaust air filter trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

#### ACTION:

With one ECCS area exhaust air filter train inoperable, restore the inoperable train to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.7.8.1 Each ECCS area exhaust air filter train shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filter and charcoal adsorber train and verifying that the train operates for at least 15 minutes.
- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:
  1. Verifying that the charcoal adsorbers remove  $\geq 99\%$  of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the ventilation system at a flow rate of 30,000 cfm  $\pm 10\%$ .
  2. Verifying that the HEPA filter banks remove  $\geq 99\%$  of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the ventilation system at a flow rate of 30,000 cfm  $\pm 10\%$ .



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 38 TO

FACILITY OPERATING LICENSE NO. DPR-67

FLORIDA POWER AND LIGHT COMPANY

ST. LUCIE, UNIT NO. 1

DOCKET NO. 50-335

Introduction

By letter dated April 18, 1980, Florida Power and Light Company (FP&L or the licensee) proposed a change to the Technical Specifications for St. Lucie, Unit No. 1 (the plant). The proposal would change the limits on unfiltered secondary containment bypass leakage from 12 to 27% of the primary containment leak rate and increase the limit on control room outside air intake from 100 to 450 cubic feet per minute (cfm). These parameters are limited to assure that post-loss of coolant accident (LOCA) offsite and control room doses are within the regulatory limits of 10 CFR §100 and 10 CFR §50 General Design Criteria (GDC) 19, respectively.

Evaluation

By letter dated August 1, 1977, we presented our analysis of offsite and control room doses assuming the following:

1. the addition of heaters to the Shield Building Ventilation System filters;
2. the addition of sodium hydroxide to the containment spray system;
3. an overall control room filter iodine removal efficiency of 70%;
4. secondary containment bypass leakage of 27%; and
5. control room outside air intake of 100 cfm.

Our analysis resulted in calculated offsite doses within the guidelines of 10 CFR §100. The modifications discussed in assumptions 1 and 2 above have been installed and approved by Amendment Nos. 26 and 27 dated May 23 and 26, 1978, respectively. Therefore, the licensee's request to change the limit on secondary containment bypass leakage from 12%, the limit associated with the as-built facility before installation of the modifications discussed above, to 27%, as assumed in our analysis, is acceptable.

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Our analysis indicated that the control room operator thyroid dose might exceed our criteria (10 CFR §50, Appendix A, GDC 19 and Standard Review Plan (SRP) Section 6.4.II.8.a). Calculated control room doses were 33 rem and less than 2 rem for the thyroid and whole body respectively. Assumption 3, that control filter iodine removal efficiency was 70%, was based on our belief that provisions did not exist for proper humidity control.

By letter dated September 23, 1977, FP&L pointed out that relative humidity was maintained at less than 70% by the seismic class I air conditioning units. With this humidity control a higher filter iodine removal efficiency of 95% can be assumed. When the control room operator thyroid dose of 33 rem, as previously calculated by the staff, is corrected for a filter efficiency of 95% and an increased outside air intake of 450 cfm the calculated thyroid dose is 22 rem and the criteria of GDC-19 and SRP Section 6.4 are satisfied. Therefore, a control room outside air intake limit of 450 cfm is acceptable.

#### Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types of total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

#### Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: February 25, 1981

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-335FLORIDA POWER AND LIGHT COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 38 to Facility Operating License No. DPR-67, issued to Florida Power and Light Company, which revised Technical Specifications for operation of the St. Lucie Plant, Unit No. 1 (the facility) located in St. Lucie County, Florida. The amendment is effective as of its date of issuance.

The amendment modifies the Technical Specifications to increase the limits on secondary containment bypass leakage and Control Room outside air intake.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4), an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

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- 2 -

For further details with respect to this action, see (1) the application for amendment dated April 18, 1980, (2) Amendment No. 38 to License No. DPR-67, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW., Washington, D.C. and at the Indian River Community College Library, 3209 Virginia Avenue, Ft. Pierce, Florida. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 25th day of February, 1981.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing