

January 10, 1990

Docket No. 50-389

DISTRIBUTION
See attached sheet

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

Dear Mr. Goldberg:

SUBJECT: ST. LUCIE UNIT 2 - ISSUANCE OF AMENDMENT RE: DIESEL GENERATOR ACTION STATEMENT (TAC NO. 74112)

The Commission has issued the enclosed Amendment No. 43 to Facility Operating License No. NPF-16 for the St. Lucie Plant, Unit No. 2. This amendment consists of changes to the Technical Specifications in response to your application dated July 26, 1989.

This amendment revises Action f. of Technical Specification 3.8.1.1. to make it consistent with the emergency diesel generator testing action requirements.

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

Enclosures:

1. Amendment No. 43 to NPF-16
2. Safety Evaluation

cc w/enclosures:
See next page

OFC	:LA:BP II-2:	:PM:PD II-2	:D:PD II-2	:OGC	:NRR:SELB	:
NAME	:D. Miller	:J. Norris	:J. K. D.	:H. B.	:F. Rosa	:
DATE	:12/14/89	:12/15/89	:12/18/89	: 12/18/89	:12/28/89	:

OFFICIAL RECORD COPY
Document Name: AMEND/ST. LUICE TAC 74112

9001180304 900110
FOR ADDCK 05000389
P PDC

Handwritten signatures and initials:
1/4/90
Fol
1/11
CP-1

Mr. J. H. Goldberg
Florida Power & Light Company

St. Lucie Plant

cc:

Mr. Jack Shreve
Office of the Public Counsel
Room 4, Holland Building
Tallahassee, Florida 32304

Senior Resident Inspector
St. Lucie Plant
U.S. Nuclear Regulatory Commission
7585 S. Hwy A1A
Jensen Beach, Florida 33457

State Planning & Development
Clearinghouse
Office of Planning & Budget
Executive Office of the Governor
The Capitol Building
Tallahassee, Florida 32301

Harold F. Reis, Esq.
Newman & Holtzinger
1615 L Street, N.W.
Washington, DC 20036

John T. Butler, Esq.
Steel, Hector and Davis
4000 Southeast Financial Center
Miami, Florida 33131-2398

Administrator
Department of Environmental Regulation
Power Plant Siting Section
State of Florida
2600 Blair Stone Road
Tallahassee, Florida 32301

Mr. Weldon B. Lewis, County
Administrator
St. Lucie County
2300 Virginia Avenue, Room 104
Fort Pierce, Florida 33450

Mr. Charles B. Brinkman, Manager
Washington Nuclear Operations
Combustion Engineering, Inc.
12300 Twinbrook Parkway, Suite 330
Rockville, Maryland 20852

Mr. Jacob Daniel Nash
Office of Radiation Control
Department of Health and
Rehabilitative Services
1317 Winewood Blvd.
Tallahassee, Florida 32399-0700

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
101 Marietta Street N.W., Suite 2900
Atlanta, Georgia 30323



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

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. 43
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 July 26, 1989, 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.

9001180307 900110
PDR ADDCK 05000389
PDC

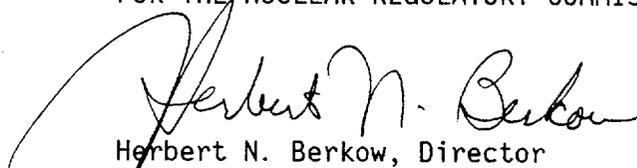
2. Accordingly, Facility Operating License No. NPF-16 is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and by amending paragraph 2.C.2 to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 43, 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



Herbert N. Berkow, 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 10, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 43

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 a vertical line indicating the area of change. The corresponding overleaf page is also provided to maintain document completeness.

Remove Page

3/4 8-3

Insert Page

3/4 8-3

ELECTRICAL POWER SYSTEMS

ACTION (Continued)

- d. With two of the required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of two diesel generators by sequentially performing Surveillance Requirement 4.8.1.1.2a.4 on both diesels within 8 hours, unless the diesel generators are already operating; restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. Following restoration of one offsite source, follow ACTION Statement a. with the time requirement of that ACTION Statement based on the time of initial loss of the remaining inoperable offsite A.C. circuit.
- e. With two of the above required diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; restore one of the inoperable diesel generators to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Following restoration of one diesel generator unit, follow ACTION Statement b. with the time requirement of that ACTION Statement based on the time of initial loss of the remaining inoperable diesel generator.
- f. With one Unit 2 startup transformer (2A or 2B) inoperable and with a Unit 1 startup transformer (1A or 1B) connected to the same A or B offsite power circuit and administratively available to both units, then should Unit 1 require the use of the startup transformer administratively available to both units, Unit 2 shall demonstrate the operability of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter. If either EDG has not been successfully tested within the past 24 hours, demonstrate its OPERABILITY by performing Surveillance Requirement 4.8.1.1.2a.4 separately for each such EDG within 24 hours. Restore the inoperable startup transformer to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability; and
- b. Demonstrated OPERABLE at least once per 18 months by transferring (manually and automatically) unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

- a. In accordance with the frequency specified in Table 4.8-1 on a STAGGERED TEST BASIS BY:

SURVEILLANCE REQUIREMENTS (Continued)

1. Verifying the fuel level in the engine-mounted fuel tank,
2. Verifying the fuel level in the fuel storage tank,
3. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the engine-mounted tank,
4. Verifying the diesel starts from ambient condition and accelerates to approximately 900 rpm in less than or equal to 10 seconds**. The generator voltage and frequency shall be 4160 ± 420 volts and 60 ± 1.2 Hz within 10 seconds after the start signal**. The diesel generator shall be started for this test by using one of the following signals:
 - a) Manual.
 - b) Simulated loss-of-offsite power by itself.
 - c) Simulated loss-of-offsite power in conjunction with an ESF actuation test signal.
 - d) An ESF actuation test signal by itself.
5. Verifying the generator is synchronized, loaded*** to greater than or equal to 3685 kW in less than or equal to 60 seconds, and operates within a load band of 3450 to 3685 kW at least an additional 60 minutes, and
6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.
 - b. By removing accumulated water:
 1. From the engine-mounted fuel tank at least once per 31 days and after each occasion when the diesel is operated for greater than 1 hour, and
 2. From the storage tank at least once per 31 days.

**The diesel generator start (10 sec) from ambient conditions shall be performed at least once per 184 days in these surveillance tests. All other diesel generator starts for purposes of this surveillance testing may be preceded by an engine prelube period and may also include warmup procedures (e.g., gradual acceleration) as recommended by the manufacturer so that mechanical stress and wear on the diesel generator is minimized.

***Generator loading in less than or equal to 60 seconds shall be performed at least once every 184 days; timing for this loading test shall start upon the closing of the diesel generator breaker. All other loading for the purpose of this surveillance test may be performed according to manufacturer's recommendations. The indicated load band is meant as guidance to avoid routine overloading. Variations in loads in excess of the band due to changing bus loads shall not invalidate this test.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 43

TO FACILITY OPERATING LICENSE NO. NPF-16

FLORIDA POWER & LIGHT COMPANY, ET AL.

ST. LUCIE PLANT, UNIT NO. 2

DOCKET NO. 50-389

1.0 INTRODUCTION

Amendment No. 39, issued on February 7, 1989 for the St. Lucie Plant Unit No. 2, revised emergency diesel generator surveillance testing requirements to meet the recommendations contained in the Generic Letter 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability." Generic Letter 84-15 concluded that the frequency of diesel generator fast, cold starts from ambient conditions should be reduced to prevent premature diesel engine degradation, and encouraged licensees to amend their Technical Specifications accordingly. As a result of Amendment No. 39, a difference now exists between Action Statements 3.8.1.1.a and 3.8.1.1.f, both of which pertain to similar operating conditions of the emergency diesel generators, i.e., when one offsite power source is inoperable. By letter dated July 26, 1989, the licensee proposed a change to the surveillance requirements of the Action Statement 3.8.1.1.f to be consistent with the requirements of Action Statement 3.8.1.1.a.

2.0 EVALUATION

The proposed change would reduce the frequency of diesel engine starts and diesel engine fast, cold starts. The current frequency is to test the diesel generator within 1 hour of one of the offsite power sources becoming inoperable and at least once per 8 hours thereafter, using the fast, cold start approach. The proposed change would require that each diesel be tested within 24 hours when one offsite circuit is inoperable if each diesel generator was not successfully tested within the past 24 hours. The provision for reducing the fast, cold starts would also apply. The reduction of the periodic testing and type of start of the diesel generator during the period of time when an offsite circuit is not operable (up to 72 hours) is justified on the basis that the operability of both diesel generators is assured because the diesel generators were tested during the previous 24 hours, and, if not, they will be tested to demonstrate operability within 24 hours of declaring the offsite circuit inoperable. In addition, one offsite circuit would be operable.

The net effect of the change is to reduce the diesel generator testing frequency and type of start (fast, cold start) such that there is still a high degree of assurance that they would operate, if called upon, when one

offsite circuit is inoperable. The reduction of diesel generator testing frequency and type of start should increase the reliability of the machines because the engines will be properly conditioned before startup and the manner of starts will be decreased to reduce wear and tear. In addition, the proposed change will make the two Action Statements, 3.8.1.1.a and 3.8.1.1.f, consistent.

3.0 TECHNICAL FINDING

Based on the considerations discussed above, the staff finds the proposed change to Action Statement 3.8.1.1.f acceptable.

4.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves 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 published a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets 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 amendment.

5.0 CONCLUSION

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: January 10, 1990

Principal Contributor:
J. Norris

DATED: January 10, 1990

AMENDMENT NO. 43 TO FACILITY OPERATING LICENSE NO. NPF-16 - ST. LUCIE, UNIT 2

Docket File

NRC & Local PDRs

PDII-2 Reading

S. Varga, 14/E/4

G. Lainas, 14/H/3

H. Berkow

D. Miller

J. Norris

OGC-WF

D. Hagan, 3302 MNBB

E. Jordan, 3302 MNBB

B. Grimes, 9/A/2

G. Hill (4) P1-137

Wanda Jones, P-130A

J. Calvo, 11/F/23

ACRS (10)

GPA/PA

OC/LFMB

PD Plant-specific file [Gray File]

M. Sinkule, R-II

Others as required

cc: Plant Service list