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Docket Nos. 50-250 50-251

Dr. Robert E. Uhrig, Vice President Advanced Systems and Technology Florida Power and Light Company Post Office Box 529100 Miami, Florida 33152 Distribution: Docket File NRC PDR Local PDR ORB #1 DEisenhut CParrish MGrotenhuis OELD SECY OI&E (2) TBarnhart (8) LSchneider

DBrinkman ACRS (10) Lazevnick **OPA** RDiggs NSIČ ASLAB APR 1-4 1982 ES LUCLERS REPULATION COMMISSIO DOCUMENT INSERTEMENT BR TIDC

Dear Dr. Uhrig:

The Commission has issued the enclosed Amendment No.⁸² to Facility Operating License No. DPR-31 and Amendment No. ⁷⁶ to Facility Operating License No. DPR-41 for the Turkey Point Plant Unit Nos. 3 and 4, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated August 15, 1980.

These amendments modify the Technical Specifications, Appendix A to the licenses to update the emergency power systems surveillance tests.

We are currently reviewing diesel generator reliability under Task Action Plan A-44 "Station Blackout." When that review is complete we may find additional requirements are necessary. In the interim these technical specifications proposed by the licensee improve the diesel generator reliability.

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

Sincerely,

ORIGINAL SIGNED

Marshall Grotenhuis, Project Manager Operating Reactors Branch #1 Division of Licensing

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Docket Nos. 50-250 50-251

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

DISTRIBUTION: Docket File ACRS (10) NRC PDR Lazevnick Local PDR **OPA** ORB #1 RDiggs NSIC DEisenhut CParrish ASLAB MGrotenhuis ÓELD. SECY 01&E (2) TBarnhart (8) LSchneider

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Dear Dr. Uhrigh

The Commission has issued the enclosed Amendment No. to Facility Operating License No. DPR-31 and Amendment No. to Facility Operating License No. DPR-41 for the Turkey Point Plant Unit Nos. 3 and 4, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated August 15, 1980.

These amendments modify the Technical Specifications, Appendix A to the licenses to update the emergency power systems surveillance tests.

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

Sincerely,

Marshall Grotenhuis, Project Manager Operating Reactors Branch #1 Division of Licensing

Enclosures:

- 1. Amendment No. to DPR-31
- 2. Amendment No. to DPR-41
- 3. Safety Evaluation

4. Notice of Issuance

cc: w/encls: See next page

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OFFICIAL RECORD COPY

Robert E. Uhrig Florida Power and Light Company

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Bureau of Intergovernmental Relations 560 Apalachee Parkway Tallahassee, Florida 32304

Resident Inspector Turkey Point Nuclear Generating Station U. S. Nuclear Regulatory Commission Post Office Box 1207 Homestead, Florida 33030

Regional Radiation Representative EPA Region IV 345 Courtland Street, N.W. Atlanta, Georgia 30308 Mr. Jack Shreve Office of the Public Counsel Room 4, Holland Building Tallahassee, Florida 32304

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

James P. O'Reilly Regional Administrator - Region II U. S. Nuclear Regulatory Commission 101 Marietta Street - Suite 3100 Atlanta, Georgia 30303

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

FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-250

TURKEY POINT PLANT UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 82 License No. DPR-31

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Florida Power and Light Company (the licensee) dated August 15, 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 3.B of Facility Operating License No. DPR-31 is hereby amended to read as follows:
 - (B) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 82° , 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.

Operating Reactors Branch #1 Division of Licensing

Attachment: Changes to the Technical Specifications

Date of Issuance: April 5, 1982

FOR THE NUCLEAR REGULATORY COMMISSION

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- Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-41 is hereby amended to read as follows:
 - (B) <u>Technical</u> Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 76, 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.

FQR THE NUCLEAR REGULATORY COMMISSION

Steven A. Varga, Chief Operating Reactors\Branch #1

Division of Licensing

Attachment: Changes to the Technical Specifications

Date of Issuance: April 5, 1982

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 82 TO FACILITY OPERATING LICENSE NO. DPR-31

AMENDMENT NO. 76 TO FACILITY OPERATING LICENSE NO. DPR-41

DOCKET NOS. 50-250 AND 50-251

Revise Appendix A as follows:

Remove Pages	Insert Pages
4.8-1	4.8-1
4.8-2	4.8-2
	4.8-3
	Table 4.8-1, p. 1 of 2
	Table 4.8-1, p. 2 of 2

EMERGENCY POWER SYSTEM PERIODIC TESTS

4.8

<u>Applicability</u>: Applies to periodic testing and surveillance requirements for the emergency power system.

<u>Objective</u>: To verify that the emergency power system will respond promptly and properly.

Specification: The following tests and surveillance shall be performed as stated:

1. Diesel Generator

Each diesel generator shall be demonstrated OPERABLE:

- a. On a staggered test basis (nonconcurrently) at the frequency specified by Table 4.8-1 by:
 - 1. Verifying fuel level in the day tank and in the engine-mounted fuel tank.

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- 2. Verifying fuel level in the fuel storage tank.
- 3. Verifying that a fuel transfer pump can be started and transfers fuel from the Diesel Oil Storage Tank to the Day Tank.
- 4. Verifying that the diesel generator starts from ambient conditions and accelerated to provide 60+1.2 Hz frequency and 4160+624 volts in ≤15 seconds.
- Verifying that the generator is synchronized, loaded to >2500 kw within 10 minutes and operates for >60 minutes.
- Verifying that the diesel generator cooling system functions within design limits during the 1-hour full load test required by Specification 4.8.1.a.5.
- b. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank is within acceptable limits when checked for viscosity, water, and sediment.
- c. At least once per 18 months by:
  - Subjecting the diesel to an inspection in conjunction with its manufacturer's recommendations for this class of standby service.

2. Verifying the diesel generator's capability to:

4.8-1

Amendment Nos. 82 & 76

- (a) Reject a load of 200 kw without exceeding 4160+624 volts and 60+1.2 Hz.
- (b) Reject complete load without exceeding 4160+624 volts, and without exceeding overspeed limits.
- 3. Verifying that diesel generator trips which are operable during the test mode of diesel operation are inoperable when the diesel is not in the test mode of operation.
- 4. Alternately initiating one of the following two diesel startup tests:
  - (a) Simulate a safety injection signal, and allow the diesel generator to achieve nominal rated voltage and speed. Then simulate a loss of offsite power, and allow the diesel generator to load and stabilize.
  - (b) Simulate a loss of offsite power, and allow the diesel generator to load and stabilize. Then simulate a safety injection signal, and allow the diesel generator to sequence safety loads and stabilize.
- 5. Monitoring the tests specified in 4.8.1.c.4 to:
  - (a) Verify proper deenergization and load shedding from the 4160 volt busses.
  - (b) Verify that the diesel generator starts from ambient conditions and accelerates to provide 60+1.2 Hz frequency and 4160+624 volts in <15 seconds.</p>
- 6. Verifying that the diesel generator operates for at least 8 hours by performing the following tests:
  - (a) Load the diesel generator to ≥2750 kw during the first 2 hours of the 8 hour test.
  - (b) Load the diesel generator to >2500 kw during the last 6 hours of the 8 hour test.
  - (c) Verify that voltage, frequency, and cooling system functions are within design limits during the 8 hour full-load test.
- 7. Demonstrating the ability to sequentially:

- (a) Synchronize the diesel generator with offsite power while the generator is supplying emergency loads;
- (b) Transfer the emergency load to offsite
   power;
- (c) Isolate the diesel generator; and
- (d) Return the diesel generator to standby status.
- Verifying that auto connected loads to each diesel generator do not exceed 2750 kw.
- d. At least once per 10 years, or after any modification that could affect diesel generator independence, start both diesel generators simultaneously at a time when both reactors are shutdown and verify that both diesel generators provide 60+1.2 Hz frequency and 4160+624 volts in <15 seconds.</p>

Page 1 of 2

#### **TABLE 4.8-1**

#### Diesel Generator Test Schedule

| Number of Unsuccessful Valid<br>Tests in Last 100 Valid Tests | Test Frequency            |
|---------------------------------------------------------------|---------------------------|
| <u>&gt;</u> 3                                                 | At least once per 30 days |
| <u>&gt;</u> 6                                                 | At least once per 14 days |
| <u>&gt;</u> 9                                                 | At least once per 7 days  |

A "VALID TEST" is defined as a start attempt initiated by (1) a bona fide automatic start signal with the diesel-generator in service (2) a manual start signal for the purpose of accomplishing the Technical Specification surveillance, or (3) a manual start signal for the purpose of demonstrating the diesel-generator unit is operable following repair, modification, or maintenance. Only valid tests conducted after the issuance of this Specification shall be included in the computation of the "last 100 valid tests." The last 100 valid tests shall be detemined on a per individual diesel-generator basis. Entry into this test schedule shall be made at the 14 day test frequency.

An "UNSUCCESSFUL VALID TEST" is defined as a valid test during which:

- (1) the diesel-generator does not start properly,
- (2) the diesel-generator does not come up to nominal speed and voltage within 15 seconds, or
- (3) the diesel-generator is incapable of operating for at least 60 minutes due to a disabling malfunction directly related to engine or generator performance (e.g., fuel system malfunction).

For the purpose of determining the required frequency of diesel generator set periodic availability testing, only diesel generator set failures are to be included in the failure total. A diesel generator set failure is defined as:

A valid test during which:

- (1) the diesel generator does not start properly, or
- (2) the diesel generator set does not come up to required speed or voltage within the required time interval, or
- (3) the diesel generator set is incapable of operating at the required load for the required time interval due to a disabling malfunction directly related to engine or generator performance (e.g. fuel, lubrication or excitation system malfunction).

Table 4.8-1 Page 2 of 2

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There are many components which can prevent completely successful diesel generator set testing. These must be repaired, reported as applicable and retest performed. However, the diesel generator set should not then be routinely subjected to additional, ultimately degrading, rapid start testing unless the failure is diesel generator set related.

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

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO AMENDMENT NO. 82 TO FACILITY OPERATING LICENSE NO. DPR-31 AND AMENDMENT NO. 76 TO FACILITY OPERATING LICENSE NO. DPR-41 FLORIDA POWER AND LIGHT COMPANY

TURKEY POINT PLANT UNIT NOS. 3 AND 4

DOCKET NOS. 50-250 AND 50-251

#### Introduction

By letter dated August 15, 1980 Florida Power and Light Company (the licensee) submitted an amendment request for Facility Operating License Nos. DPR-31 and and DPR-41 for the Turkey Point Plant Unit Nos. 3 and 4. The amendments proposed to modify the Technical Specifications to update the emergency power system surveillance tests.

#### Background

Florida Power & Light Company experienced an electrical power system disturbance on Sunday, May 14, 1978, which resulted in the loss of offsite power to the St. Lucie Plant for approximately eight minutes. Reconstruction of the events leading to the disturbance revealed that it was caused by a combination of operator error and a design deficiency. Details of the event are presented in "Report on System Distrubance, May 14, 1978," Florida Power & Light Company, dated May 25, 1978. The report was submitted to the NRC on May 25, 1978.

A meeting was held with the licensee on June 5, 1978, in Bethesda, Maryland, to discuss loss of offsite power to the St. Lucie plant on May 14, 1978, and ORNL reports on transmission system disturbances dated April 11 and May 11, 1978. Based on the meeting, the licensee committed to provide proposed methods, procedures and plans for implementation of the staff position in a letter dated June 8, 1978. In addition, the licensee committed to conform to Regulatory Guide 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants," as implemented in the Standard Technical Specifications for surveillance of onsite power sources for the Turkey Point Plant.

On August 15, 1980, the licensee proposed Technical Specifications. These Technical Specifications superceded those originally provided on September 8, 1978.

#### Evaluation

On June 8, 1978, the licensee committed to the requirements that were presented by the staff in the June 5, 1978 meeting. Those requirements are as follows:

General Design Criterion (GDC-17) requires that the offsite electrical system, which supplies power to a nuclear power station through two separate circuits, be designed "so as to minimize to the extent practical the likelihood of their simultaneous failure under operating and postulated accident and environmental conditions." Based on the evaluation of the information supplied by the licensee on the May 14, 1978 system disturbance, our technical consultants have provided certain recommendations which could improve the operation of the licensee grid system in meeting GDC-17. We have evaluated these recommendations and have developed the following staff positions. We required that the licensee submit its proposed methods, procedures and schedules to implement these positions.

#### Staff Position No. 1

Under certain well-defined and predefined conditions, a power system shall be declared to be in some class of alert. For each such class there shall be well defined procedures to mandate or to guide the actions of the operating personnel. Some of the things which might place a system in an alert condition are: planned outage of significant components, extended severe weather spells which strain capacity over an extended area, impending storms, fires, floods, sudden loss of components, or sudden misbehavior of state variables for no known reason. The listing and the definition of the alert status and the prescription of required remedies during any alert condition are to be provided by the licensee.

#### Staff Position No. 2

Prior to the planned outage of any major component, a stability evaluation of the resulting configuration of bounding magnitude shall be performed. When the stability evaluation is performed by steady state (load flow) and transient stability analyses, both single and double contingencies shall be considered in the computations to determine the state of alertness appropriate to the system configuration (Position No. 1).

In addition, we required that the licensee:

- a. Improve telemetering equipment that transmits current information on the state of all major transmission and generation components to the Control Center; and
- b. Provide and maintain current daily reports of equipment availability, disabling of major relays, etc., in the Control Center.

On September 8, 1978, the licensee responded with proposed Technical Specifications. The staff review of these Technical Specifications was provided in a letter to the licensee on March 9, 1979. The licensee provided additional information on May 7, 1979 and resubmitted Technical Specifications on August 15, 1980.

We are currently reviewing diesel generator reliability under Task Action Plan A-44 "Station Blackout." When that review is complete we may find additional requirements are necessary. In the interim these technical specifications proposed by the licensee improve the diesel generator reliability.

We have reviewed the proposed technical specifications and find that they significantly improve the reliability of the emergency diesel generators at the Turkey Point Plant and are acceptable.

## Environmental Consideration

We have determined that the amendments do not authorize a change in effluent types or 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 amendments involve an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR 551.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

#### Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the amendments do 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: April 5, 1982

J. Lasevnick

M. Grotenhuis

# UNITED STATES NUCLEAR REGULATORY COMMISSION DOCKET NO. 50-250 AND 50-251 FLORIDA POWER AND LIGHT COMPANY NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 82 to Facility Operating License No. DPR-31, and Amendment No. 76 to Facility Operating License No. DPR-41 issued to Florida Power and Light Company (the licensee), which revised Technical Specifications for operation of Turkey Point Plant, Unit Nos. 3 and 4 (the facilities) located in Dade County, Florida. The amendments are effective as of the date of issuance.

The amendments modify the Technical Specifications, Appendix A to the license, to update the emergency power system surveillance tests.

The application for the amendments 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 amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these amendments 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 these amendments. For further details with respect to this action, see (1) the application for amendments dated August 15, 1980, (2) Amendment Nos. 82 and 76 to License Nos. DPR-31 and DPR-41, 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 Environmental and Urban Affairs Library, Florida International University, Miami, Florida 33199. 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 5thday of April, 1982.

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FOR THE NUCLEAR REGULATORY COMMISSION Operating Reactors Branch #1 Division of Licensing