

Posted  
Amort 107  
to DPR-41

Docket Nos. 50-250  
and 50-251 May 9, 1985

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Mr. J. W. Williams, Jr., Vice President  
Nuclear Energy Department  
Florida Power and Light Company  
Post Office Box 14000  
Juno Beach, Florida 33408

Dear Mr. Williams:

The Commission has issued the enclosed Amendment No. 113 to Facility Operating License No. DPR-31 and Amendment No. 107 to Facility Operating License No. DPR-41 for the Turkey Point Plant Units Nos. 3 and 4, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated March 7, 1985.

These amendments revise the Technical Specifications to delete the maximum amount of enriched fissionable material which can be used in the core, or available on site, in the form of fabricated neutron flux detectors for the purpose of monitoring core neutron flux. This is necessary to allow for new excore neutron flux monitoring systems to be installed pursuant to Regulatory Guide (RG) 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants To Assess Plant Conditions During and Following An Accident." In addition, the amendments clarify the existing requirements relating to the surveillance for leak testing of fission detectors, sealed sources and startup sources.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular monthly Federal Register notice.

Sincerely,

/s/DMcDonald

Daniel G. McDonald, Jr., Project Manager  
Operating Reactors Branch #1  
Division of Licensing

Enclosures:

1. Amendment No. 113 to DPR-31
2. Amendment No. 107 to DPR-41
3. Safety Evaluation

cc: w/enclosures  
See next page

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CParrish  
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BC-ORB#1:DL  
Starga  
5/1/85

OELD  
4/2/85  
AD-OR:DL  
GLAhnas  
5/1/85

J. W. Williams, Jr.  
Florida Power and Light Company

Turkey Point Plant

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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. 113  
License No. DPR-31

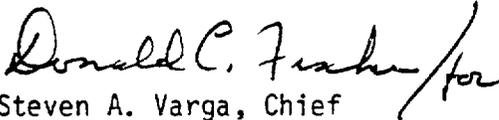
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Florida Power and Light Company (the licensee) dated March 7, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules 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 Appendix A and B, as revised through Amendment No. 113, 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 issuance and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Steven A. Varga, Chief  
Operating Reactors Branch #1  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 9, 1985



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

FLORIDA POWER AND LIGHT COMPANY

DOCKET NO. 50-251

TURKEY POINT PLANT UNIT NO. 4

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 107  
License No. DPR-41

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Florida Power and Light Company (the licensee) dated March 7, 1985, 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-41 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendix A and B, as revised through Amendment No. 107, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective immediately and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Steven A. Varga, Chief  
Operating Reactors Branch #1  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 9, 1985

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 113 FACILITY OPERATING LICENSE NO. DPR-31

AMENDMENT NO. 107 FACILITY OPERATING LICENSE NO. DPR-41

DOCKET NO. 50-250 AND 50-251

Revise Appendix A as follows:

Remove Pages

4.13-1

5.2-1

5.2-2

Insert Pages

4.23-1

5.2-1

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#### 4.13 RADIOACTIVE MATERIALS SOURCES SURVEILLANCE

**Applicability:** Applies to leakage testing of by-product, source and special nuclear radioactive material sources.

**Objective:** To assure that leakage from by-product, source and special nuclear radioactive material sources does not exceed allowable limits.

**Specification:** Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an agreement State, as follows:

1. Each sealed source, except fission detectors and startup sources subject to core flux or those exempted by Specification 3.11 containing radioactive material, other than Hydrogen 3, with a half-life greater than 30 days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six months.
2. The periodic leak test required does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another user unless they have been leak tested within six months prior to the date of use or transfer. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, sealed sources shall not be put into use until tested.
3. Startup sources and fission detectors shall be leak tested prior to and following any repair or maintenance and before being subjected to core flux.

## 5.2 REACTOR

### REACTOR CORE

1. The reactor core contains approximately 71 metric tons of uranium in the form of slightly enriched uranium dioxide pellets. The pellets are encapsulated in Zircaloy - 4 tubing to form fuel rods. The reactor core is made up of 157 fuel assemblies. Each fuel assembly contains 204 fuel rods.
2. The average enrichment of the initial core is a nominal 2.50 weight percent of U-235. Three fuel enrichments are used in the initial core. The highest enrichment is a nominal 3.10 weight percent of U-235.
3. Reload fuel will be similar in design to the initial core.
4. Burnable poison rods are in the form of rod clusters which are located in vacant rod cluster control guide tubes, are used for reactivity and/or power distribution control.
5. There are 45 full-length RCC assemblies and 8 partial-length\* RCC assemblies in the reactor core. The full-length RCC assemblies contain a 144 inch length of silver-indium-cadmium alloy clad with the stainless steel. The partial-length\* RCC assemblies contain a 36 inch length of silver-indium-cadmium alloy with the remainder of the stainless steel sheath filled with  $Al_2O_3$ .

### REACTOR COOLANT SYSTEM

1. The design of the Reactor Coolant System complies with the code requirements.
2. All piping, components and supporting structures of the Reactor Coolant System are designed to Class I requirements and have been designed to withstand:
  - a. The design seismic ground acceleration, 0.05g acting in the horizontal and 0.033g acting in the vertical planes simultaneously, with stress maintained within code allowable working stresses.
  - b. The maximum potential seismic ground acceleration, 0.15g, acting in the horizontal and 0.10g acting in the vertical directions simultaneously with no loss of function.
3. The nominal liquid volume of the Reactor Coolant System, at rated operating conditions, is 9088 cubic feet.

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\* Any reference to part-length rods no longer applies after the part-length rods are removed from the reactor.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 113 TO FACILITY OPERATING LICENSE NO. DPR-31  
AND AMENDMENT NO. 107 TO FACILITY OPERATING LICENSE NO. DPR-41  
FLORIDA POWER AND LIGHT COMPANY  
TURKEY POINT UNIT NOS. 3 AND 4  
DOCKET NOS. 50-250 AND 50-251

1. Introduction

By letter dated March 7, 1985, the Florida Power and Light Company submitted proposed changes to the Technical Specifications (TS) appended to Facility Operating License Nos. DPR-31 and DPR-41 for the Turkey Point Units 3 and 4.

The proposed changes modify the Technical Specifications to (1) clarify the leak testing frequency for fission detectors and (2) delete the limit on the quantity of fissionable material that may be used in the core, or available on site in fission detectors. In addition, pages 5.2-1 and 5.2-2 were consolidated into one page.

2. Discussion

Technical Specification 4.13 currently requires that each source, except startup sources subject to core flux, shall be tested for leakage and/or contamination at intervals not to exceed six months. TS 4.13 also requires that startup sources shall be leak tested prior to and following any repair or maintenance and before being subjected to core flux. Standard PWR Technical Specification 4.7.10 requires that leak testing of startup and fission detectors be performed prior to use and following repair or maintenance. The leak test for sealed sources is required in order to identify leakage due to the handling of sources. Unlike other sealed sources which require leak testing on a six month frequency, neither fission chambers nor startup sources are routinely handled. This change will clarify the intent of TS 4.13 in that fission chambers are to be leak tested on the same frequency as startup sources.

Technical Specification 5.2 limits to 10 grams the quantity of enriched fissionable material which may be used either in the core, or available on the site, in the form of fabricated neutron flux detectors for the purposes of monitoring core neutron flux. The licensee is installing a new excore neutron monitoring system as required by the NRC pursuant to Regulatory Guide 1.97, Revision 3 and for alternate shutdown. Each of the detectors in the new system will contain a small quantity of enriched fissionable material. The total quantity of fissionable material on site would exceed that allowed by TS 5.2.

Section II.C of the Operating License was amended on July 10, 1975, to permit the licensee, pursuant to the Act and 10 CFR 30, 50 and 70, to receive, process and use at anytime any byproduct, source and special

nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in "amounts as required." Apparently by oversight, TS 5.2 was not amended to remove the restriction in the number of grams of enriched fissionable material allowed on site in neutron flux detectors.

### 3. Evaluation

The proposed change to TS 4.13 will clarify the intent of the TS and clarify the surveillance requirements for fission detectors. The surveillance requirements specified for sealed sources in use is to identify leakage that may have resulted from handling of the sources. Fission detectors, like startup sources, are not routinely handled. Therefore, they were not intended to be leak tested every six months. The proposed change is consistent with Standard Technical Specification 4.7.10 which requires surveillance (leak test) for startup sources and fission detectors prior to use and following repair or maintenance.

The proposed change to TS 5.2 would delete specification 6 which limits the quantity of enriched fissionable material in neutron flux detectors to 10 grams. This limit is inconsistent with Section 2.C of the Operating License which authorizes the use of special nuclear material in sealed neutron sources and fission detectors in "amounts as required." The intent of this section was to allow the use of identified materials in amounts as required for reactor operation. This change does not impact on safeguards control (e.g., Material Control and Accountability or Physical Security) because any increase in the amount of the material would be small. The licensee has programs in place to control and account for special nuclear material (SNM) and existing physical security systems. These safeguards programs will continue to operate effectively with the small increase in SNM quantity. Deletion of specification 6 in TS 5.2 will make Technical Specification 5.2 consistent with Operating License Section 2.C.

### 4. Environmental Consideration

These amendments involve changes in the installation or use of the facilities components located within the restricted areas as defined in 10 CFR 20. The staff has determined that these 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 these amendments involve no significant hazards consideration and there has been no public comment on such finding. 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.

5. 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: May 9, 1985

Principal Contributor:

R. Albright