

March 30, 1987

DMB 0/16

Docket No. 50-335

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Mr. C. O. Woody
Vice President
Nuclear Energy Department
Florida Power & Light Company
P. O. Box 14000
Juno Beach, Florida 33408

Dear Mr. Woody:

The Commission has issued the enclosed Amendment No. 78 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 September 10, 1984, as supplemented and revised by letter dated November 3, 1986.

This amendment adds test flowrates to be used when the spray additive system is tested at least once every 5 years.

A copy of the related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's next bi-weekly Federal Register notice.

Sincerely,

Original signed by

E. G. Tourigny, Project Manager
PWR Project Directorate #8
Division of PWR Licensing-B

Enclosures:

1. Amendment No. 78 to DPR-67
2. Safety Evaluation

cc w/enclosures:
See next page

PBD#8
PMKreutzer
2/18/87

3/26

PBD#8
ETourigny;cf
3/16/87

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MJG
23/10/87

PBD#8
ATHadani
3/20/87

Handwritten note: All 4 submitted revisions to SE

Handwritten initials: AT

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PDR ADOCK 05000335
PDR PDR

Mr. C. O. Woody
Florida Power & Light Company

St. Lucie Plant

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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. 78
License No. DPR-67

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Florida Power & Light Company, (the licensee) dated September 10, 1984, as supplemented November 3, 1986, 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.

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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. 78 , 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



Ashok C. Thadani, Director
PWR Project Directorate #8
Division of PWR Licensing-B

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 30, 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 78

TO FACILITY OPERATING LICENSE NO. DPR-67

DOCKET NO. 50-335

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

Remove Page

3/4 6-16b

Insert Page

3/4 6-16b

CONTAINMENT SYSTEMS

SPRAY ADDITIVE SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.2 The spray additive system shall be OPERABLE with:

- a. A spray additive tank containing a volume of between 4010 and 5000 gallons of between 30 and 32% by weight NaOH solution, and
- b. Two spray additive eductors each capable of adding NaOH solution from the chemical additive tank to a containment spray system pump flow.

APPLICABILITY: MODES 1, 2 and 3.*

ACTION:

With the spray additive system inoperable, restore the system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the spray additive system to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.2 The spray additive system shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.
- b. At least once per 6 months by:
 1. Verifying the contained solution volume in the tank, and
 2. Verifying the concentration of the NaOH solution by chemical analysis.
- c. At least once per 18 months, during shutdown, by verifying that each automatic valve in the flow path actuates to its correct position on a CSAS test signal.

*Applicable when pressurizer pressure is \geq 1750 psia.

CONTAINMENT SYSTEMS

SPRAY ADDITIVE SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

- d. At least once per 5 years by verifying a minimum sodium hydroxide (NaOH) flow rate of 10.5 gpm from the spray additive tank to a drain connection immediately downstream of the tank outlet valve, and a demineralized water flow rate of $18 + 1.5$ gpm from that same drain connection to each containment spray pump.

CONTAINMENT SYSTEMS

SPRAY ADDITIVE SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

- d. At least once per 5 years by verifying a minimum sodium hydroxide (NaOH) flow rate of 10.5 gpm from the spray additive tank to a drain connection immediately downstream of the tank outlet valve, and a demineralized water flow rate of 18 ± 1.5 gpm from that same drain connection to each containment spray pump.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 78

TO FACILITY OPERATING LICENSE NO. DPR-67

FLORIDA POWER & LIGHT COMPANY

ST. LUCIE PLANT, UNIT NO. 1

DOCKET NO. 50-335

INTRODUCTION

By letter dated September 10, 1984, Florida Power and Light Company (FPL), submitted a proposed administrative change to Technical Specification (TS) 4.6.2.2.d. This TS surveillance requirement was to verify a minimum sodium hydroxide (NaOH) flow rate from the spray additive tank (SAT). The TS purpose was to ensure that sufficient NaOH was injected into the containment spray system (CSS) to remove radio-iodines released into the reactor containment following a postulated design basis loss of coolant accident (LOCA). Also, for clarification, it should be noted that the SAT has been synonymously referred to in the Final Safety Analysis Report (FSAR) and drawings as the NaOH storage tank and as the chemical additive tank. Additional and clarifying information was submitted by letter dated November 3, 1986. This latter submittal did not affect the substance of the proposed changes noticed in the Federal Register or alter the staff's proposed no significant hazards consideration determination. The staff's evaluation of the test flow rates follows.

EVALUATION

The staff determined that the lift check valves, V-07256 and V-07258, which were being tested by TS 4.6.2.2.d, did not satisfy the guidance for testing normally closed check valves. The installed SAT 3600# lift check valves, V-07256 and V-07258, could not be demonstrated to pass the full flow rate value of 47 gpm per check valve that was taken credit for in FSAR, Section 6.2.6.2.2, with the test connection used. Based on this observation, the licensee reanalyzed the FSAR maximum NaOH flow rate. The conclusion of this reanalysis was provided in the licensee's letter of November 3, 1986, which stated:

"FPL obtained updated information on pH for various combinations of boric acid solutions and NaOH concentrations and recalculated worst case minimum and maximum post-LOCA pH values for both the sump fluid and the CS nozzles. Based on these calculations, the required NaOH flowrate ([sic]) (18 ± 1.5 gpm) is lower than the earlier FSAR value (47 gpm). As a result, the IRS [iodine removal system] was modified during the

last refueling outage [that commenced on 10-20-85 and ended on 12-25-85 by adding flow restricting orifice plates immediately upstream of the suction of each caustic eductor. These orifice plates reduce the caustic flow to each eductor to 18 ± 1.5 gpm when either one or both CS [containment spray] pumps are operating."

Also, the originally proposed amendment of September 10, 1984, was modified to remove the specific test parameters from the TS that would properly be kept in the surveillance procedure. For example, the demineralized water supply and SAT pressures of 19 ± 2 psig would only be achieved using special test connections, since no operating flow path existed between the SAT and tap FI-07-2 to supply demineralized water, as per drawing 8770-G-0088, Revision 9, "Flow Diagram Containment Spray and Refueling Water Systems." The SAT typical operating pressure was approximately 4 psig, as referenced in FSAR, Section 6.2.6.1.1.b.

Another discrepancy noted by the staff was the omission to test the eductor header check valves, V-07269 and V-07270. The Safety Evaluation (SE), dated January 23, 1985, granted relief to test valves V-07269 and V-07270 in accordance with TS 4.6.2.2.d. This TS does not test these check valves. Based on this finding, the licensee modified the inservice test program to include V-07269 and V-07270; and documented in their letter of November 3, 1986, that these check valves are in the inservice test program.

Based on the reanalysis for the maximum flow rate for check valves, V-07256 and V-07258, the final proposed TS change, as clarified by the licensee's November 3, 1986 letter, does provide a full flow demonstration to adequately verify the flow path from the SAT to each containment spray pump through the normally closed check valves.

Based upon the above, the staff finds the proposed TS change is acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or a change in surveillance requirements. 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.

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.

Date: March 30, 1987

Principal Contributor:
G. Nejfelt