

August 31, 1

Docket No. 50-400

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Mr. William S. Orser
Executive Vice President
Nuclear Generation
Carolina Power & Light Company
Post Office Box 1551
Raleigh, North Carolina 27602

Dear Mr. Orser:

SUBJECT: ISSUANCE OF AMENDMENT NO. 39 TO FACILITY OPERATING LICENSE NO. NPF-63 REGARDING SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 (TAC NO. M86763)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 39 to Facility Operating License No. NPF-63 for the Shearon Harris Nuclear Power Plant, Unit 1. This amendment changes the Technical Specifications in response to your request dated June 11, 1993.

The amendment (1) adds an "and" to the end Surveillance Requirement 4.1.1.1.1.c, (2) deletes a reference to Surveillance Requirement 4.1.1.1.1.e, currently contained in Surveillance Requirement 4.1.1.1.2, and (3) changes the reference in TS 4.1.1.1.2, Surveillance Requirement from 4.1.1.1.1.e to 4.1.1.1.1.d.

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

Sincerely,

Original signed by:

Ngoc B. Le, Project Manager
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 39 to NPF-63
2. Safety Evaluation

cc w/enclosures:
See next page

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OFC	LA: PD21:DRPE	PM: PD21:DRPE	OGC	AD: PD21:DRPE
NAME	PDAnderson	NBLe:tmw <i>TL</i>	<i>EB</i> EHOLLER	SSBajwa <i>18/12</i>
DATE	08/13/93	08/13/93	08/23/93	08/31/93

Document Name: HAR86763.AMD

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DFOI

Mr. W. S. Orser
Carolina Power & Light Company

Shearon Harris Nuclear Power Plant,
Unit 1

cc:

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Manager - Legal Department
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AMENDMENT NO. 39 TO FACILITY OPERATING LICENSE NO. NPF-63 - HARRIS, UNIT 1

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cc: Harris Service List



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

CAROLINA POWER & LIGHT COMPANY, et al.

DOCKET NO. 50-400

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 39
License No. NPF-63

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Carolina Power & Light Company, (the licensee), dated June 11, 1993, 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. NPF-63 is hereby amended to read as follows:

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(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 39, are hereby incorporated into this license. Carolina Power & Light Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



S. Singh Bajwa, Acting Director
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 31, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 39

FACILITY OPERATING LICENSE NO. NPF-63

DOCKET NO. 50-400

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Remove Pages

Insert Pages

3/4 1-1

3/4 1-1

3/4 1-2

3/4 1-2

3/4.1 REACTIVITY CONTROL SYSTEMS

3/4.1.1 BORATION CONTROL

SHUTDOWN MARGIN - MODES 1 AND 2

LIMITING CONDITION FOR OPERATION

3.1.1.1 The SHUTDOWN MARGIN shall be greater than or equal to 1770 pcm for 3-loop operation.

APPLICABILITY: MODES 1 and 2*.

ACTION:

With the SHUTDOWN MARGIN less than 1770 pcm, immediately initiate and continue boration at greater than or equal to 30 gpm of a solution containing greater than or equal to 7000 ppm boron or equivalent until the required SHUTDOWN MARGIN is restored.

SURVEILLANCE REQUIREMENTS

4.1.1.1.1 The SHUTDOWN MARGIN shall be determined to be greater than or equal to 1770 pcm:

- a. Within 1 hour after detection of an inoperable control rod(s) and at least once per 12 hours thereafter while the rod(s) is inoperable. If the inoperable control rod is immovable or untrippable, the above required SHUTDOWN MARGIN shall be verified acceptable with an increased allowance for the withdrawn worth of the immovable or untrippable control rod(s);
- b. When in MODE 1 or MODE 2 with K_{eff} greater than or equal to 1 at least once per 12 hours by verifying that control bank withdrawal is within the limits of Specification 3.1.3.6;
- c. Within 4 hours prior to achieving reactor criticality by verifying that the predicted critical control rod position is within the limits of Specification 3.1.3.6; and
- d. Prior to initial operation above 5% RATED THERMAL POWER after each fuel loading, by consideration of the factors below, with the control banks at the maximum insertion limit of Specification 3.1.3.6:

*See Special Test Exceptions Specification 3.10.1.

REACTIVITY CONTROL SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- 1) Reactor Coolant System boron concentration,
- 2) Control rod position,
- 3) Reactor Coolant System average temperature,
- 4) Fuel burnup based on gross thermal energy generation,
- 5) Xenon concentration, and
- 6) Samarium concentration.

4.1.1.1.2 The overall core reactivity balance shall be compared to predicted values to demonstrate agreement within ± 1000 pcm at least once per 31 Effective Full Power Days (EFPD). This comparison shall consider at least those factors stated in Specification 4.1.1.1.d., above. The predicted reactivity values shall be adjusted (normalized) to correspond to the actual core conditions prior to exceeding a fuel burnup of 60 EFPD after each fuel loading. If later experience shows adjustment is desirable at approximately 60 EFPD, the adjustment is permissible.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 39 TO FACILITY OPERATING LICENSE NO. NPF-63
CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1
DOCKET NO. 50-400

1.0 INTRODUCTION

By letter dated June 11, 1993, the Carolina Power & Light Company (CP&L or the licensee) submitted a request for changes to the Shearon Harris Nuclear Power Plant, Unit 1 (SHNPP) Technical Specifications (TS).

On February 28, 1988, CP&L submitted proposed changes to permit the use of a higher enrichment fuel during cycle 2 operation. The requested changes included the deletion of TS Requirement 4.1.1.1.1.e. On August 16, 1988, the NRC issued amendment No. 7 and approved the changes. However, during a recent review of the SHNPP TS, the licensee determined that a reference to TS 4.1.1.1.1.e. contained in TS 4.1.1.1.2 that should have been requested to be deleted in February 28, 1988, had not been included in that request.

2.0 DISCUSSION AND EVALUATION

On February 28, 1988, CP&L submitted proposed changes to permit the use of a higher enrichment fuel during cycle 2 operation. The requested changes included the deletion of TS Requirement 4.1.1.1.1.e. On August 16, 1988, the NRC issued amendment No. 7 and approved the changes. However, during a recent review of the SHNPP TS, the licensee determined that a reference to TS 4.1.1.1.1.e. contained in TS 4.1.1.1.2 that should have been requested to be deleted in February 28, 1988, had not been included in that request.

The June 11, 1993, letter proposed changes to Technical Specification Surveillance Requirement 4.1.1.1.1 pertaining to the determination of shutdown margin by adding an "and" at the end of 4.1.1.1.1.d, and changes the reference to 4.1.1.1.1.e in Surveillance Requirement 4.1.1.1.2 to read 4.1.1.1.d.

3.0 EVALUATION

The staff has reviewed the basis for the licensee requested changes and has determined that the proposed changes are administrative in nature. The changes include the deletion of a reference that is no longer applicable and other minor format revisions that do not involve any modifications to plant equipment. The licensee stated in the June 11, 1993, submittal that for the requested change, no new procedures are being created, no existing procedures are being modified, and plant procedures that implement TS requirements for

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shutdown margin determination are unaffected. The licensee also stated that the proposed changes do not affect other equipment that could initiate an accident, and that the amendment request should have no bearing on any final safety analysis report (FSAR) Chapter 15 initiators.

The staff concurs with the licensee analysis that the proposed changes do not increase the probability or consequence of an accident previously evaluated; create the possibility of a new or different kind of accident from any accident previously evaluated; or involve a significant reduction in a margin of safety. Accordingly, the proposed changes would not result in a reduction in the margin of safety as defined in the TS.

Based on the above review, the staff finds the proposed changes to be acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of North Carolina official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC 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 issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (58 FR 39048). 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.

6.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: N. Le

Date: August 31, 1993