

July 12, 1994

Docket No. 50-400

Mr. W. R. Robinson, Vice President  
Shearon Harris Nuclear Power Plant  
Carolina Power & Light Company  
Post Office Box 165, Mail Code: Zone 1  
New Hill, North Carolina 27562-0165

Dear Mr. Robinson:

SUBJECT: ISSUANCE OF AMENDMENT NO. 48 TO FACILITY OPERATING LICENSE NO. NPF-63 REGARDING MOTOR OPERATED VALVE THERMAL OVERLOAD PROTECTION - SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 (TAC NO. M89148)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 48 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 March 25, 1994.

The amendment revises TS 3/4.8.4.2, by eliminating the term "motor starter" and replacing it with a more accurate description of the MOV bypass configuration.

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. 48 to NPF-63
- 2. Safety Evaluation

\*See previous concurrence

OFC	LA:PDII-1	PM:PDII-1	BC:HICB*	D:PDII-1 <i>DM</i>	OGC*
NAME	PAnderson	NLe <i>th</i>	JWermiel	DMatthews	RBachmann
DATE	7/11/94	7/11/94	06/30/94	7/12/94	07/06/94

cc w/enclosures:  
See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Shearon Harris Nuclear Power Plant  
Carolina Power & Light Company  
Post Office Box 165, Mail Code: Zone 1  
New Hill, North Carolina 27562-0165

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SUBJECT: ISSUANCE OF AMENDMENT NO. 48 TO FACILITY OPERATING LICENSE NO.  
NPF-63 REGARDING MOTOR-OPERATED VALVE THERMAL OVERLOAD PROTECTION  
- SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 (TAC NO. M89148)

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

Enclosures:

1. Amendment No. 48 to NPF-63
2. Safety Evaluation

cc w/enclosures:  
See next page

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Carolina Power & Light Company

Shearon Harris Nuclear Power Plant  
Unit 1

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AMENDMENT NO. 48 TO FACILITY OPERATING LICENSE NO. NPF-63 - HARRIS, UNIT 1

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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. 48  
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 March 25, 1994, 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:

(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. 48, 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



David B. Matthews, 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: July 12, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 48

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 8-39

3/4 8-39

## ELECTRICAL POWER SYSTEMS

### ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

#### MOTOR-OPERATED VALVES THERMAL OVERLOAD PROTECTION

##### LIMITING CONDITION FOR OPERATION

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3.8.4.2 The thermal overload protection of each valve, specified in the Technical Specification Equipment List Program, plant procedure PLP-106, requiring bypass protection, shall be bypassed only under accident conditions by an OPERABLE bypass device.

APPLICABILITY: Whenever the motor-operated valve is required to be OPERABLE.

##### ACTION:

With the thermal overload protection for one or more of the above required valves not capable of being bypassed under conditions for which it is designed to be bypassed, restore the inoperable device or provide a means to bypass the thermal overload within 8 hours, or declare the affected valve(s) inoperable and apply the appropriate ACTION Statement(s) of the affected system(s).

##### SURVEILLANCE REQUIREMENTS

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4.8.4.2 The thermal overload protection for the above required valves shall be verified to be bypassed only under accident conditions by an OPERABLE integral bypass device by the performance of a TRIP ACTUATION DEVICE OPERATIONAL TEST of the bypass circuitry:

- a. At least once per 18 months for those thermal overloads which are normally in force during plant operation and are bypassed only under accident conditions; and
- b. Following maintenance on the thermal overload bypass relays and circuitry.





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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 48 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 March 25, 1994, 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). The proposed amendment revises TS 3/4.8.4.2 by eliminating the term "motor starter" and replacing it with a more accurate description of the motor-operated valve (MOV) bypass configuration. Section 3/4.8.4.2 of the TS provides operability and surveillance requirements for MOV thermal overload protection. In this TS, the term "motor starter" was inappropriately used to describe the thermal overload protection function for safety-related MOVs. The staff's evaluation of the licensee's proposed changes follows.

2.0 EVALUATION

In their March 25, 1994, letter, the licensee stated that the terminology used in TS 3/4.8.4.2 is not consistent with the MOV electrical supply configuration utilized at SHNPP and creates the potential for confusion related to the operability of the valve's bypass configuration during post-maintenance testing of the MOVs. Specifically, the licensee proposes to revise TS 3/4.8.4.2 by (1) eliminating the term "integral with the motor starter," and (2) eliminating the term "motor starter" and replacing it with "thermal overload bypass relays and circuitry."

The licensee stated that the need for the proposed changes was revealed during resolution of a CP&L event report recently generated at SHNPP. The licensee reviewed the applicable control wiring diagrams during their effort to resolve the event report and found that for each of the MOV supply safety-related busses, a separate motor control center cubicle (completed with associated control relays and circuitry) had been installed to bypass the MOV's thermal overload protection devices under certain plant operational conditions. The control relays and its related circuitry are completely separate from the MOV motor starters. Under the requirements of TS 3/4.8.4.2, these bypass relays and their circuitry must have their operability demonstrated because of their safety-related function.

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The staff reviewed Section 8.3.1.1.2.11, Electrical Circuit Protection Systems, in the Final Safety Analysis Report (FSAR) and found that for all safety-related motor-operated valves its thermal overload devices were designed to be bypassed to prevent the MOV's control circuit from opening when an engineered safety feature actuation signal is present. This feature is designed to give sufficient time for the motor, if overloaded but not stalled, to complete its valve closure (or opening) cycle. Based on this review, the staff finds that the licensee's proposed changes to be consistent with the FSAR, and considers the changes to TS 3/4.8.4.2 to be administrative in nature. Therefore the proposed changes are acceptable.

### 3.0 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.

### 4.0 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 and changes the Surveillance Requirements. 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 (59 FR 22002). 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

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: July 12, 1994