



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

March 11, 1996

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

SUBJECT: ISSUANCE OF AMENDMENT NO. 63 TO FACILITY OPERATING LICENSE  
NO. NPF-63 REGARDING A ONE-TIME EXTENSION FOR THE PERFORMANCE OF THE  
SAFETY INJECTION MANUAL INITIATION OPERATIONAL TEST - SHEARON HARRIS  
NUCLEAR POWER PLANT, UNIT 1 (TAC NO. M94775)

Dear Mr. Robinson:

The Nuclear Regulatory Commission has issued Amendment No. 63 to Facility Operating License No. NPF-63 for the Shearon Harris Nuclear Power Plant, Unit 1. This amendment changes the Technical Specifications (TS) in response to your request dated February 16, 1996.

The amendment allows a one-time extension for the performance of the trip actuating device operational test for one of the safety injection manual switches. Specifically, TS Table 4.3-2, Item 1.a (Safety Injection-Manual Initiation) is annotated with an asterisk. A corresponding note is added to that TS page to specify that the solid state protection system Train B input from the main control board panel C safety injection switch will be tested before reactor startup from Refueling Outage No. 7, or when the plant is in Mode 5 for at least 72 hours, whichever occurs first.

Your February 16, 1996, letter requested that this amendment be processed on an exigent basis. The exigency exists in that you discovered on February 12, 1996, during a systematic review of TS surveillance procedures for the Reactor Protection System, that one of the four safety injection manual initiation switch contacts would not be tested in the required 18-month period. This switch cannot be tested at power because of the risk of causing plant transients and a plant shutdown to Mode 5 would be required in order to comply with the TS surveillance requirements. The 18-month surveillance interval for that switch will expire on March 16, 1996. Therefore, the exigent situation occurred without prior indication and could not have been avoided.

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Mr. W. R. Robinson

- 2 - March 11, 1996

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

Docket No. 50-400

Enclosures:

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

cc w/enclosures:

See next page

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DATE	03/4/96	03/4/96	03/5/96	03/11/96
COPY	<u>Yes/No</u>	<u>Yes/No</u>	Yes/No	<u>Yes/No</u>

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AMENDMENT NO. 63 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. 63  
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 February 16, 1996, 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:

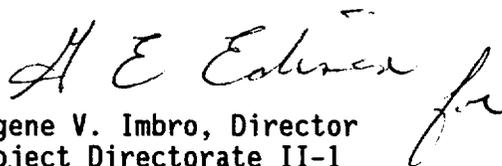
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(2) Technical Specifications and Environmental Protection Plan

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. 63, 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



Eugene V. Imbro, 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: March 11, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 63

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

3/4 3-41

3/4 3-42

Insert Pages

3/4 3-41

3/4 3-42\*

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\* overleaf page - no changes

TABLE 4.3-2

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>CHANNEL FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>ANALOG CHANNEL OPERATIONAL TEST</u>	<u>TRIP ACTUATING DEVICE OPERATIONAL TEST</u>	<u>ACTUATION LOGIC TEST</u>	<u>MASTER RELAY TEST</u>	<u>SLAVE RELAY TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
1. Safety Injection (Reactor Trip, Feedwater Isolation, Control Room Isolation, Start Diesel Generators, Containment Ventilation Isolation, Phase A Containment Isolation, Start Auxiliary Feedwater System Motor-Driven Pumps, Start Containment Fan Coolers, Start Emergency Service Water Pumps, Start Emergency Service Water Booster Pumps)								
a. Manual Initiation	N.A.	N.A.	N.A.	*R	N.A.	N.A.	N.A.	1, 2, 3, 4
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q(3)	1, 2, 3, 4
c. Containment Pressure--High-1	S	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3, 4
d. Pressurizer Pressure--Low	S	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3
e. Steam Line Pressure--Low	S	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3

Note: \*R = The B SSPS input from the Main Control Board Panel C Manual Safety Injection Switch is to be tested before reactor startup from Refueling Outage No. 7, or when the plant is in Mode 5 for at least 72 hours, whichever occurs first.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>CHANNEL FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>ANALOG CHANNEL OPERATIONAL TEST</u>	<u>TRIP ACTUATING DEVICE OPERATIONAL TEST</u>	<u>ACTUATION LOGIC TEST</u>	<u>MASTER RELAY TEST</u>	<u>SLAVE RELAY TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
<b>2. Containment Spray</b>								
a. Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
c. Containment Pressure-- High-3	S	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3
<b>3. Containment Isolation</b>								
<b>a. Phase "A" Isolation</b>								
1) Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q(3)	1, 2, 3, 4
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
<b>b. Phase "B" Isolation</b>								
1) Manual Containment Spray Initiation	See Item 2.a. above for Manual Containment Spray Surveillance Requirements.							
2) Automatic Actuation Logic Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 63 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 February 16, 1996, the Carolina Power & Light Company (the licensee) submitted a request for a change to the Shearon Harris Nuclear Power Plant (SHNPP), Unit 1, Technical Specifications (TS). The requested change would allow a one-time extension for the performance of the trip actuating device operational test for the solid state protection system (SSPS) Train B input from the main control board (MCB) panel C safety injection (SI) manual initiation switch. During a systematic review of testing procedures, on February 12, 1996, the licensee discovered that one of the four switch contacts had not been tested in accordance with TS 4.3.2. This switch is required by TS Table 4.3-2 to be tested at least every 18 months.

2.0 EVALUATION

The redundant SSPS trains at SHNPP are designed to automatically initiate SI on receipt of various input parameter signals. SI can also be initiated manually by the plant operator using one of two switches on the MCB. Either switch on MCB panel A and C can initiate both SI trains A and B. Two switch contacts are assigned to each train. On February 12, 1996, the licensee discovered that the switch contact on MCB panel C initiating SSPS train B had not been tested in 18 months as required by TS Table 4.3-2. This switch contact was last operationally tested on March 2, 1994, and the 18-month surveillance (including the 25% grace period) will expire on March 16, 1996. The licensee has stated that testing of the SI switch would require blocking the manual SI input to both trains from this switch which during power operation has the potential for causing a plant transient. Therefore, the licensee has requested a one-time extension of this surveillance to perform the test before reactor startup from Refueling Outage No. 7 (March 1997), or when the plant is in Mode 5 for at least 72 hours, whichever occurs first.

The SI switch on MCB panel A has received the proper TS surveillance and has been determined to be operable. It can actuate both SSPS train A and train B. The SI switch on MCB panel C has also been determined to be operable for train A and there is a high probability that despite the previously missed TS surveillance, train B would also function if required. Operational and test history demonstrates that these switch contacts have a low probability of failure.

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In order to establish an understanding of the reliability of the SI switch, both the staff and licensee conducted reviews of available operational data. The staff reviewed the NRC Nuclear Documents System (NUDOCS) for control switch failures at the SHNPP and did not identify any 10 CFR 50.73 reports for control switch failures. The licensee stated that the subject switch is manufactured by Electroswitch (Model 38050m-12, Module MYOSPF-Q). The licensee's search of the Nuclear Plant Reliability Data System (NPRDS) revealed nine Electroswitch control switch failures in the nuclear industry. Three of these failures occurred at SHNPP. The staff discussed each of the nine control switch failures with the licensee and agreed with the licensee that these control switches have a low probability of failure given the large number of tests to which they were subjected.

The licensee will submit a 10 CFR 50.73 report regarding the inadequate test procedures that caused the SI control switch contact not to be tested while the plant was shutdown prior to March 16, 1996, and will make the necessary corrections to prevent a future missed surveillance.

Based on the staff review of the licensee's request for a one-time extension of the TS surveillance of the train B SI switch contact on MCB panel C as specified in TS Table 4.3-2, the staff concludes that sufficient redundancy is provided in the corresponding train A SI switch, and the switch demonstrates a level of reliability such that it is unlikely to fail despite the missed surveillance. Therefore, the staff finds the proposed TS change acceptable.

### 3.0 EXIGENT CIRCUMSTANCES

The Commission's regulations, 10 CFR 50.91, contain provisions for issuance of amendments when the usual 30-day public notice period cannot be met. One type of special exception is an exigency. An exigency is a case where the staff and licensee need to act promptly, but failure to act promptly does not involve a plant shutdown, derating, or delay in startup. The exigency case usually represents an amendment involving a safety enhancement to the plant.

Under such circumstances, the Commission notifies the public in one of two ways: by issuing a Federal Register notice providing an opportunity for hearing and allowing at least two weeks for prior public comments, or by issuing a press release discussing the proposed changes, using local media. In this case, the Commission used the first approach.

The licensee submitted the request for amendment on February 16, 1996. It was noticed in the Federal Register on February 26, 1996 (61 FR 7125), at which time the staff proposed a no significant hazards consideration determination. The licensee requested that the amendment be issued prior to March 16, 1996, when the surveillance for the manual SI switch expires. Therefore, the staff is issuing the amendment under exigent circumstances. The licensee did not request emergency treatment of the application and the staff does not believe that an emergency situation exists. However, the staff does believe that the amendment should be issued promptly.

There were no public comments in response to either notice published in the Federal Register.

#### 4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92(c) state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility in accordance with the amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

Operation of the facility in accordance with the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed surveillance interval extension does not affect the automatic ESFAS initiation, it only affects one of the two redundant switches. If one switch fails to function, operators can use the other switch. This change only requests an extension for the surveillance interval for one of the two contacts from the manual SI switch on MCB panel C. A redundant switch is available with two operable contacts on MCB panel A. Thus, the staff concludes that a one-time extension will not involve a significant increase in the probability or consequences of an accident previously evaluated.

Operation of the facility in accordance with the proposed amendment will not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed surveillance interval extension does not involve new equipment or modifications to existing equipment. Further, the surveillance extension does not affect the manner in which any safety related systems perform their functions and does not affect or create any new accident scenarios. Thus, there is no new or different kind of accident created as a result of this amendment.

Operation of the facility in accordance with the amendment will not involve a significant reduction in a margin of safety. The automatic ESFAS is not affected by this one-time TS change. The change does not alter any setpoints for any plant parameters that initiate SI, nor does it alter any coincidental logic. Thus, there is no significant reduction in the margin of safety.

Based upon the above considerations, the staff concludes that the amendment meets the three criteria of 10 CFR 50.92. Therefore, the staff has made a final determination that the proposed amendment does not involve a significant hazards consideration.

#### 5.0 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.

## 6.0 ENVIRONMENTAL CONSIDERATION

The amendment changes 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 made a final no significant hazards consideration determination with respect to this amendment. 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.

## 7.0 CONCLUSION

The staff 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: F. Paulitz

Date: March 11, 1996