

Mr. Lynn W. Eury  
Executive Vice President  
Power Supply  
Carolina Power & Light Company  
Post Office Box 1551  
Raleigh, North Carolina 27602

Dear Mr. Eury:

SUBJECT: ISSUANCE OF AMENDMENT NO. 21 TO FACILITY OPERATING LICENSE  
NO. NPF-63 - SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1,  
REGARDING AREA TEMPERATURE MONITORING (TAC NO. 75515)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 21 to Facility Operating License No. NPF-63 for the Shearon Harris Nuclear Power Plant, Unit 1. This amendment consists of changes to the Technical Specifications in response to your request dated December 18, 1989, as supplemented January 12, 1990.

The amendment revises Table 3.7-6, Item 19, Maximum Temperature for the Tank Area from 122°F to 104°F and deletes Item 17, Maximum Temperature for the Fuel Pool Cooling Pump and Heat Exchanger Area.

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:

Richard A. Becker, Project Manager  
Project Directorate II-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 21 to NPF-63
2. Safety Evaluation

cc w/enclosures:  
See next page

OFC	: LA: PD21: DRPR: PM: PD21: DRPR: D: PD21: DRPR :	:	:	:
NAME	: PAnderson: : RB Becker: sw : EAdensam :	:	:	:
DATE	: 7/6/90 : 7/9/90 : 9/6/90 :	:	:	:

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*C/Becker*

Mr. L. W. Eury  
Carolina Power & Light Company

Shearon Harris

cc:

Mr. R. E. Jones, General Counsel  
Carolina Power & Light Company  
P. O. Box 1551  
Raleigh, North Carolina 27602

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Special Deputy Attorney General  
State of North Carolina  
P. O. Box 629  
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AMENDMENT NO. 21 TO FACILITY OPERATING LICENSE NO. NPF-63 - HARRIS, UNIT 1

**Docket File**

NRC PDR

Local PDR

PDII-1 Reading

S. Varga (14E4)

G. Lainas

E. Adensam

P. Anderson

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G. Hill (4) (P1-137)

Wanda Jones (P-130A)

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ACRS (10)

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OC/LFMB

cc: Harris Service List



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

CAROLINA POWER & LIGHT COMPANY, et al.

DOCKET NO. 50-400

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 21  
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 December 18, 1989, as supplemented January 12, 1990, 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. 21, 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.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:

Elinor G. Adensam, 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: September 6, 1990

OFC	: LA: PD21: DRPR: PM: PD21: DRPR: SPLB	: OGC	: D: PD21: DRPR	:	:
NAME	: PAnderson	: RBecker	: C McCracken	: EAdensam	:
DATE	: 7/6/90	: 7/9/90	: 8/17/90	: 8/28/90	: 9/6/90

ATTACHMENT TO LICENSE AMENDMENT NO. 21

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 7-29

Insert Pages

3/4 7-29

TABLE 3.7-6

AREA TEMPERATURE MONITORING

<u>AREA</u>	<u>MAXIMUM TEMPERATURE LIMIT (°F)</u>
<b>REACTOR AUXILIARY BUILDING</b>	
1. Control Room Envelope (El 305')	85
2. Process I&C, Room (El 305')	85
3. Rod Control Cabinets Area (El 305')	104
4. A&B Battery Rooms (El 286')	85
5. A&B Switchgear Rooms (El 286')	90
6. Main Steam, Feedwater Pipe Tunnel (El 286' & 261')	116
7. SA&SB Electrical Penetration Areas (El 261' & 286')	104
8. Area with MCC 1A35SA and 1B35SB (El 261')	104
9. HVAC Chillers, Auxiliary FW Piping & Valve Area (El 261')	104
10. CCW Pumps, CCW Hx, Auxiliary FW Pumps Area (El 236')	104
11. 1A-SA, 1B-SB, and 1C-SAB Charging Pump Rooms (El 236')	104
12. Service Water Booster Pump 1B-SB (El 236')	104
13. Mechanical and Electrical Penetration Areas (El 236')	104
14. Containment Spray Additive Tank, and H&V Equipment Area (El 216')	104
15. Trains A&B Containment Spray Pump, RHR Pump, H&V Equipment Areas (El 190')	104
<b>FUEL HANDLING BUILDING</b>	
16. Trains A&B Emergency Exhaust System Areas (El 261')	104
17. Deleted	
<b>WASTE PROCESSING BUILDING</b>	
18. H&V Equipment Room (El 236')	104
<b>MISCELLANEOUS</b>	
19. Tank Area (El 236')	104
20. Diesel Fuel Oil Storage Building (El 242')	122
21. Emergency Service Water Electrical Equipment Room	104
22. Emergency Service Water Pump Room	122
23. DELETED	
24. 1A-SA & 1B-SB H&V Equipment Rooms (El 292')	122
25. 1A-SA & 1B-SB H&V Equipment Rooms (El 280')	118
26. 1A-SA & 1B-SB Electrical Rooms (El 261')	116
27. 1A-SA & 1B-SB Diesel Generator Rooms (El 261')	120



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 21 TO FACILITY OPERATING LICENSE NO. NPF-63

CAROLINA POWER & LIGHT COMPANY, et al.

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-400

1.0 INTRODUCTION

By letter dated December 18, 1989, as supplemented January 22, 1990, the Carolina Power & Light Company (CP&L) submitted a request for changes to the Shearon Harris Nuclear Power Plant, Unit 1, Technical Specifications (TS). The requested changes would revise Table 3.7-6, Item 19, Maximum Temperature for the Tank Area, from 122°F to 104°F and delete Item 17, Maximum Temperature for the Fuel Pool Cooling Pump and Heat Exchanger Area. The January 22, 1990, letter provided clarifying information that did not change the proposed determination of no significant hazards consideration as published in the Federal Register (55 FR 14503) dated April 18, 1990.

2.0 EVALUATION

A discrepancy between Table 3.7-6, Item 19, Maximum Temperature for the Tank Area, in the TS and the Final Safety Analysis Report (FSAR), Figure 3.11B-15, was identified. Currently, the maximum temperature limit for the tank area is listed as 122°F. FSAR Figure 3.11B15, however, shows the normal maximum temperature in this area to be 104°F. Further, a review of the heating, ventilation and air conditioning design calculations indicated the normal maximum temperature in the tank area should be 104°F and the safety related equipment in this area is environmentally qualified for a maximum normal temperature of 104°F. Therefore, the current value in TS Table 3.7-6, Item 19, is in error and changing 122°F to the correct and more conservative value of 104°F is acceptable.

The Bases for TS 3/4.7.12 states that operation of equipment at excessive ambient temperatures may be detrimental to the long-term operability of the equipment. Therefore, the area temperature limitations of TS 3/4.7.12 ensure that when safety related equipment is required to operate that it will not be subjected to temperatures in excess of the equipment's environmental qualification. Further, the Limiting Condition for Operation applicability statement states that the limits imposed by TS 3/4.7.12 are only applicable when the equipment in each area is required to be operable as defined by other system specific TS. However, unlike the other areas,

there is no equipment within the fuel pool cooling pump and heat exchanger area required operable by TS. As a result, the 104°F temperature limitation provided in Item 17 is never implemented.

In addition, the fuel pool cooling system in the fuel pool cooling pump and heat exchanger area is environmentally qualified for a maximum normal temperature of 120°F, but the maximum normal and post-accident peak temperature will be maintained to no more than 104°F by a safety related ventilation system with redundant trains. As a result, the fuel pool cooling system equipment will not be subjected to temperatures in excess of the equipment qualifications or the long-term operability of the system and will not be impaired. Therefore, deletion of the redundant and unimplemented temperature limit for the fuel pool cooling pump and heat exchanger area is acceptable.

### 3.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted areas as defined in 10 CFR Part 20. 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 issued a proposed finding that this amendment involves no significant hazards consideration, and there has been no public comment on such finding. Accordingly, this 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 this amendment.

### 4.0 CONCLUSION

The Commission made a proposed determination that this amendment involves no significant hazards consideration which was published in the Federal Register (55 FR 14503) on April 18, 1990, and consulted with the State of North Carolina. No public comments or requests for hearing were received, and the State of North Carolina did not have any comments.

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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: September 6, 1990

Principal Contributor: R. Becker