

JUN 14 1974

Docket No. 50-261

Carolina Power & Light Company  
ATTN: Mr. E. E. Utley, Vice President  
Bulk Power Supply Department  
336 Fayetteville Street  
Raleigh, North Carolina 27602

Gentlemen:

The Commission has issued the enclosed Amendment No. 8 to Facility Operating License No. DPR-23 for the Unit No. 2 of H. B. Robinson Steam Electric Plant. This amendment includes Change No. 33 to the Technical Specifications, Appendix A, and is in response to your request dated April 29, 1974.

The amendment authorizes a temporary reduction of the minimum allowable concentration (10 ppm) of phosphate ions in the secondary coolant during heatup to above 350°F following the refueling outage of May 1974.

A copy of the Federal Register Notice and the Safety Evaluation relating to this action are also enclosed for your information.

Sincerely,

Original Signed by  
Karl Goller

Karl R. Goller, Assistant Director  
for Operating Reactors  
Directorate of Licensing

Enclosures:

1. Amendment No. 8
2. Safety Evaluation
3. Federal Register Notice

cc: See next page

JUN 14 1974

cc: George F. Trowbridge, Esquire  
 Shaw, Pittman, Potts & Trowbridge  
 910 - 17th Street, N. W.  
 Washington, D. C. 20006

Hartsville Memorial Library  
 Home & Fifth Avenues  
 Hartsville, South Carolina 29550

Mr. Dave Hopkins (2 cys)  
 U. S. Environmental Protection Agency  
 Region IV Office  
 1421 Peachtree Street, N.E.  
 Atlanta, Georgia 30309

Mr. Randolph Hendricks  
 State Clearinghouse and  
 Information Center  
 116 West Jones Street  
 Raleigh, North Carolina 27603'

Mr. McCuen Morrell, Chairman  
 Darlington County Board of  
 Supervisors  
 County Courthouse  
 Darlington, South Carolina 29532

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- PCollins
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- MJinks (4)
- BScharf (15)
- SATeets
- SVarga
- SKari
- R.Schemel

*This action was reviewed by A. Jamburro on 6/14/74.  
 He determined that the amendment should be signed  
 on 6/14/74 in view of the plant being ready to  
 resume operation on 6/15/74, even though OGC  
 concurrence could not be obtained in time. He  
 concluded that the safety issues related to the  
 action have been properly evaluated.*  
  
 6/14/74

OFFICE →	L:ORB #1	L:ORB #1	L:OR	OGC	L: MTEB	
SURNAME →	DScott:1b	RAPurple	KRGoller		S.S. Pawilski	Ng
DATE →	6/6/74	6/10/74	6/14/74	6/ 174	6/10/74	

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 59-261

H. B. ROBINSON STEAM GENERATING PLANT UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 8  
License No. DPR-23

1. The Atomic Energy Commission ("the Commission") has found that:
  - A. The application for amendment by Carolina Power & Light Company ("the licensee") dated April 29, 1974, 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 license, 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. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.
2. Accordingly, Paragraph 3.B of Facility License No. DPR-23 is hereby amended to read as follows:

"(B) Technical Specifications

The Technical Specifications contained in Appendix A, attached to Facility Operating License No. DPR-23 are revised as indicated in the attachment to this license amendment. The Technical Specifications, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised."

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3. This license amendment is effective as of the date of its issuance.

FOR THE ATOMIC ENERGY COMMISSION

Original Signed By

Karl Goller

Karl R. Goller, Assistant Director  
for Operating Reactors  
Directorate of Licensing

Attachment:

Change No. 33 to Appendix A  
Technical Specifications

Date of Issuance: June 14, 1974

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ATTACHMENT TO LICENSE AMENDMENT NO. 8

CHANGE NO. 33 TO APPENDIX A TECHNICAL SPECIFICATIONS

FACILITY OPERATING LICENSE NO. DPR-23

Delete item (f) of Technical Specification 3.4.1 and replace with the following:

- "f. The concentration of phosphate ions in the secondary coolant shall be greater than 10 ppm and less than 80 ppm. The concentration may be below 10 ppm for a maximum of 7 days during the blowdown operation planned for the heatup following the May 1974 refueling outage."

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UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

SAFETY EVALUATION BY THE DIRECTORATE OF LICENSING

SUPPORTING AMENDMENT NO. 8 TO LICENSE NO. DPR-23

(CHANGE NO. 33 TO APPENDIX A TECHNICAL SPECIFICATIONS)

CAROLINA POWER & LIGHT COMPANY

H. B. ROBINSON UNIT NO. 2

DOCKET NO. 50-261

INTRODUCTION

By a letter dated April 29, 1974, Carolina Power & Light Company submitted an application for a change to the Technical Specifications appended to License No. DPR-23, as amended, for Unit No. 2 at the H. B. Robinson Steam Electric Plant. The proposed change would authorize the temporary reduction of the minimum allowable concentration (10 ppm) of phosphate ions in the secondary coolant during heatup to above 350°F following refueling for Fuel Cycle No. 3.

DISCUSSION

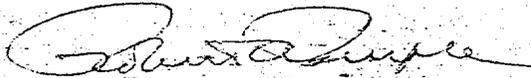
This change was requested to permit the use of a procedure prepared and recommended by Westinghouse Electric Corporation which is intended to remove the low molar ratio phosphate sludge accumulated in the steam generator during previous operation. The procedure requires that, after the sludge is broken up by a high pressure water spray and during the heatup to operating temperature, a continuous blowdown with no phosphate addition would be used to remove the low molar ratio phosphate species from the steam generator. Westinghouse believes that by removing the sludge the potential for general tube wastage would be reduced and further that by maintaining a Na/PO<sub>4</sub> ratio range in the steam generator of 2.3-2.6, further buildup of the low molar ratio phosphate sludge would be eliminated. The lower concentration limit of 10 ppm phosphate ions in the secondary coolant while the coolant is heated above 350°F is based on the need to prevent the formation of free caustic in the secondary coolant. During the operation of Robinson 2 with fuel Cycle No. 1, it was shown that free caustic caused intergranular stress corrosion-cracking of some of the inconel tubing in the area of the sludge deposits. This was considered to be a relatively slow acting effect and therefore, operation with less than 10 ppm phosphate for a seven-day period during the heatup operation should not lead to the production of sufficient free caustic to cause damage to the steam generator tubing. In addition, the continuous blowdown should further limit the buildup of free caustic. The lower limit of 10 ppm will remain as a technical specification requirement after the seven-day period.

CONCLUSION

The temporary reduction of the minimum allowable concentration (10 ppm) phosphate ions in the secondary coolant during heatup to above 350°F following refueling for Cycle No. 3 does not compromise the safe operation of the facility since the steam generator tubes will not be degraded by this operation. For this reason, the staff concludes that: (1) the change does not involve a significant hazards consideration since it does not involve a substantial increase in the probability or consequences of accidents previously considered and does not involve a substantial decrease in the margin of safety; and (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner.



Dunlap Scott  
Operating Reactors Branch #1  
Directorate of Licensing



Robert A. Purple, Chief  
Operating Reactors Branch #1  
Directorate of Licensing

Date: June 14, 1974

UNITED STATES ATOMIC ENERGY COMMISSION

DOCKET NO. 50-261

CAROLINA POWER & LIGHT COMPANY

NOTICE OF ISSUANCE OF FACILITY LICENSE AMENDMENT

Notice is hereby given that the U. S. Atomic Energy Commission ("the Commission") has issued Amendment No. 8 to Facility Operating License No. DPR-23 issued to Carolina Power & Light Company which revised Technical Specifications for operation of the H. B. Robinson Steam Generating Plant Unit No. 2, located in Darlington County, Hartsville, South Carolina. The amendment is effective as of its date of issuance.

The amendment permits a change to the Technical Specifications to authorize a temporary reduction of the minimum concentration of phosphate ions in secondary coolant during heatup after refueling for Cycle 3.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act, as amended ("the Act"), and the Commission's rules and regulations and the Commission has made appropriate findings as required by the Act, and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

For further details with respect to this action, see (1) the application for amendment dated April 29, 1974, (2) Amendment No. 8 to License No. DPR-23, and Change No. 33, and (3) the Commission's related Safety Evaluation. All of these are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Hartsville Memorial Library, Home & Fifth Avenues, Hartsville, South Carolina 29550.

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A copy of items (2) and (3) may be obtained upon request addressed to the United States Atomic Energy Commission, Washington, D. C. 20545, Attention: Deputy Director for Reactor Projects, Directorate of Licensing - Regulation.

Dated at Bethesda, Maryland, this **JUN 14 1974**

FOR THE ATOMIC ENERGY COMMISSION

Original signed by:  
Robert A. Purple  
Robert A. Purple, Chief  
Operating Reactors Branch #1  
Directorate of Licensing

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