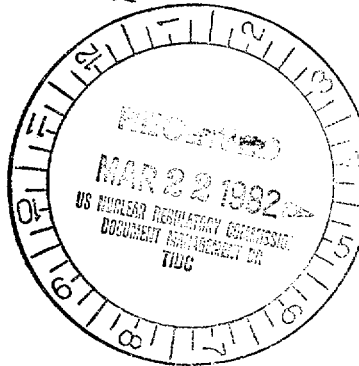


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MAR 17 1982

Docket No. 50-261



Mr. J. A. Jones  
 Vice Chairman  
 Carolina Power and Light Company  
 336 Fayetteville Street  
 Raleigh, North Carolina 27602

Dear Mr. Jones:

The Commission has issued the enclosed Amendment No. 66 to Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant, Unit No. 2. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated January 28, 1982.

The amendment revises the Technical Specifications to permit dilution of liquid radioactive wastes using Unit No. 1 circulating pumps when Unit No. 2 circulating pumps are not available.

Copies of the Safety Evaluation, Environmental Impact Appraisal and the Notice of Issuance and Negative Declaration are also enclosed.

Sincerely,

ORIGINAL SIGNED

William J. Ross, Project Manager  
 Operating Reactors Branch #1  
 Division of Licensing

Enclosures:

1. Amendment No. 66 to DPR-23
2. Safety Evaluation
3. Environmental Impact Appraisal
4. Notice of Issuance and Negative Declaration

cc w/enclosures:  
 See next page

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*F.R. NOTICE  
 &  
 AMENDMENT*

OFFICE	ORB#1:DL	ORB#1:DL	ORB#1:DL	AD/ORB:DL	OELD		
SURNAME	CParrish	WRoss	Svarga	TNovak	M. HARMAN		
DATE	03/8/82	03/9/82	03/10/82	03/11/82	03/12/82		

Mr. J. A. Jones  
Carolina Power and Light Company

cc: G. F. Trowbridge, Esquire  
Shaw, Pittman, Potts and Trowbridge  
1800 M Street, N.W.  
Washington, D. C. 20036

James P. O'Reilly  
Regional Administrator - Region II  
101 Marietta Street Suite 3100  
Atlanta, Georgia 30303

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

Mr. McCuen Morrell, Chairman  
Darlington County Board of Supervisors  
County Courthouse  
Darlington, South Carolina 29535

State Clearinghouse  
Division of Policy Development  
116 West Jones Street  
Raleigh, North Carolina 27603

Attorney General  
Department of Justice  
Justice Building  
Raleigh, North Carolina 27602

U. S. Nuclear Regulatory Commission  
Resident Inspector's Office  
H. B. Robinson Steam Electric Plant  
Route 5, Box 266-1A  
Hartsville, South Carolina 29550

Alan S. Rosenthal, Chairman  
Atomic Safety and Licensing  
Appeal Board Panel  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Richard S. Salzman  
Atomic Safety and Licensing  
Appeal Board Panel  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dr. W. Reed Johnson  
Atomic Safety and Licensing  
Appeal Board Panel  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Regional Radiation Representatives  
EPA Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30308



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

CAROLINA POWER AND LIGHT COMPANY

DOCKET NO. 50-261

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 66  
License No. DPR-23

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Carolina Power and Light Company (the licensee) dated January 28, 1982, 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.

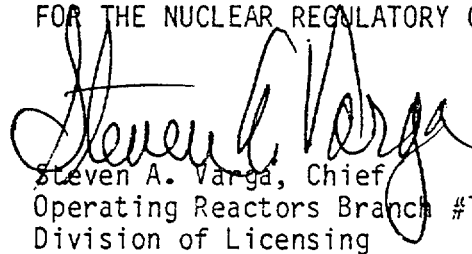
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-23 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 66, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

  
Steven A. Varga, Chief  
Operating Reactors Branch #1  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 17, 1982

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 66 TO FACILITY OPERATING LICENSE NO. DPR-23

DOCKET NO. 50-261

Revise Appendix A as follows:

Remove Pages

3.9-2

3.9-3

Insert Pages

3.9-2

3.9-3

b. Measuring the activities of specific radionuclides in the discharge and adding to the equilibrium activity in Lake Robinson.

3.9.1.2 The concentration of radioactive liquid effluents when averaged over a period of 8 hours shall not exceed 10 times the value permitted by 3.9.1.1 above.

3.9.1.3 Prior to release of liquid waste, a sample shall be taken, and analyzed for beta-gamma activity and tritium activity to demonstrate compliance with 3.9.1.1 and 3.9.1.2 above.

3.9.1.4 During release of liquid radioactive wastes, the following conditions shall be met:

a. At least one condenser circulating water pump shall be in operation. The Unit #2 circulating pumps shall be used when available. When the Unit #2 circulating water system is out-of-service, the Unit #1 circulating pumps shall be employed.

b. The gross activity monitor in the discharge in the discharge shall be operable.

### 3.9.2 Gaseous Wastes

3.9.2 The annual average release rates of gaseous wastes shall be limited as follows:

$$\sum \frac{Q_i}{(\text{MPC})_i} \leq 5.0 \times 10^4 \text{ (m}^3\text{/sec)}$$

where  $Q_i$  is the annual release rate (Ci/sec) of any radioisotope,  $i$ , and  $(\text{MPC})_i$  in units of  $\mu\text{Ci/cc}$  are defined in Column 1, Table II of Appendix B to 10 CFR 20, except that for isotopes of iodine and particulates with half lives greater than 8 days, the values of  $(\text{MPC})_i$  shall be reduced by a factor of 1/700.

3.9.2.2 The maximum averaged release rate over 15 minutes shall not exceed ten times the yearly average limit of 3.9.2.1.

- 3.9.2.3 Prior to release of gaseous wastes, the contents of the gas holdup tank shall be sampled and analyzed for radioactivity to determine compliance with 3.9.2.1 and 3.9.2.2 above.
- 3.9.2.4 During release of gaseous wastes to the plant vent, the following conditions shall be met:
- a. At least one auxiliary building exhaust fan shall be in operation.
  - b. The plant vent activity monitor shall be operable during discharges, or the containment and plant vent monitor shall be sampling from the stack.
- 3.9.2.5 During power operation, whenever the air ejector discharge monitor is inoperable, gas discharge from the air ejector will be routed to the plant vent for monitoring.

#### Basis

Liquid wastes from the Radioactive Waste Disposal System are diluted in the Circulating Water System discharge, and then released to the lake via the discharge canal.<sup>(1)</sup> With the three Unit #2 circulating pumps operating, the rated capacity of the Circulating Water System is 482,000 gpm. With both Unit #1 circulating pumps operating, their flow to the discharge canal will be 87,000 gpm. The actual circulating water flow under various operating conditions will be calculated from the head differential across the pumps and the manufacturer's head capacity curves. Because of the low radio-activity levels in the circulating water discharge, the concentration of liquid radioactive effluents at this point cannot be measured directly. The concentrations in the circulating water discharge will be calculated from the measured concentration in the Waste Condensate Tank, the flow rate of the Waste Condensate Tank, the flow rate of the Waste Condensate Pumps, and the flow in the Circulating Water System. To this released concentration it is necessary to add the concentration of radionuclides in the Circulating Water. This concentration is significant because the circulating water flow is usually greater than the flow through Lake Robinson. The method of calculating the equilibrium concentration of radionuclides in Lake Robinson will be as detailed in the FSAR.<sup>(2)</sup>



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 66 TO FACILITY OPERATING LICENSE NO. DPR-23

CAROLINA POWER AND LIGHT COMPANY

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

DOCKET NO. 50-261

INTRODUCTION

Carolina Power and Light Company (the licensee) requested in their letter dated January 28, 1982, that Limiting Condition for Operation (LCO) 3.9.1.4 and its basis in Appendix A to Operating License No. DPR-23, be amended to allow the use of the H. B. Robinson, Unit No. 1, (a fossil plant) circulating water pump discharge flow as a back-up source for dilution in calculating the release rate of radioactive liquid effluent from Unit No. 2 during periods when the Unit No. 2 circulating water pumps are out of service. The main condenser circulating water intakes for Unit Nos. 1 and 2 are located on Lake Robinson, just east of the plant, and discharged via the discharge canal at a point about four miles north of the plant. Discharge flow rates are 482,000 gpm with three Unit No. 2 circulating water pumps operating and 87,000 gpm with two Unit No. 1 circulating water pumps operating. Both units share the same discharge canal. The radioactive liquid effluent from Unit No. 2 enters the Unit No. 2 circulating water discharge pipe before it reaches the discharge canal. Circulating water from both Unit Nos. 1 and 2



is discharged into the canal through separate circulating water pipe at a close proximity to one another. The canal is approximately four miles long. The amendment requested will allow the licensee to discharge the radioactive liquid effluent from Unit No. 2 with Unit No. 1 circulating water flow for the required dilution while Unit No. 2 circulating pumps are out of service. In any given situation regarding a liquid waste release, the ratio of release rate to dilution flow will remain the same.

#### EVALUATION

The staff has conducted an independent review of the potential radiological impact associated with the proposed amendment to Appendix A to the license and found that the amending of LCO 3.9.1.4 and its basis, as proposed, will not result in (1) any increase of radioactivity concentration in the discharge canal or in the lake, and (2) any additional releases of radioactive liquid effluent. The change only allows a reduced radioactive liquid effluent discharge rate by maintaining the same ratio of discharge rate to dilution water flow rate available. The use of Unit No. 1 circulating water pump discharge (providing less dilution flow) will proportionally reduce the allowable radioactive liquid discharge rate from Unit No. 2. The annual average release rate limits of unidentified radionuclides (26 mCi/day), exclusive of tritium, and the annual average release rate of tritium (10.5 Ci/day) specified in LCO 3.9.1.1 remain the same. The licensee will revise the plant operating procedures governing radioactive liquid releases and the liquid waste release permit forms when this amendment is approved and issued.

SUMMARY

Based upon the above evaluation, the staff concludes that the health and safety of the public will not be endangered by amending LCO 3.9.1.4 and its basis. In addition, the amending of this LCO will not increase the probability or consequences of accidents and does not involve a decrease in safety margin nor involve a significant hazards consideration.

CONCLUSION

On the basis of the foregoing analysis, it is concluded that there will be no significant environmental impact attributable to the proposed action. Having made this conclusion, the Commission has further concluded that no environmental impact statement for the proposed action need be prepared and that a negative declaration to this effect is appropriate.

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: March 17, 1982

ENVIRONMENTAL IMPACT APPRAISAL FOR  
AMENDING APPENDIX A OF OPERATING LICENSE NO. DPR-23  
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261

Carolina Power and Light Company is presently licensed to operate H. B. Robinson Steam Electric Plant, Unit No. 2, in Darlington County, South Carolina. There is one pressurized water reactor at the site capable of generating 2200 Mwt of power. The proposed amending of Limit Condition for Operation (LCO) 3.9.1.4 and its basis of the unit's Appendix A technical specifications will not affect the reactor power level nor the fuel burnup and, therefore, not affect the benefits of the electrical power production considered in the Commission's Final Environmental Statement, Docket No. 50-261.

A. Radiological Impact

As evaluated in the associated Safety Evaluation, the proposed requests, do not affect the conclusions of the SER which were that the radioactivity release rates specified in LCO 3.9.1 would result in concentrations in the circulating water and in the lake that are well below the concentration limits of 10 CFR 20, Appendix B, Table II, Column 2.

B. Conclusion

On the basis of the foregoing evaluation, it is concluded that there would be no significant environmental impact attributable to the amending of LCO 3.9.1.4 and its basis. As a result of this conclusion, the Commission has further concluded that no environmental impact statement for the proposed action need be prepared and that a negative declaration to this effect is appropriate.

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-261CAROLINA POWER AND LIGHT COMPANYNOTICE OF ISSUANCE OF AMENDMENT AND NEGATIVE  
DECLARATION TO FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 66 to Facility Operating License No. DPR-23 issued to Carolina Power and Light Company (the licensee), which revised Technical Specifications for operation of the H. B. Robinson Steam Electric Plant, Unit No. 2, (the facility) located in Darlington County, South Carolina. The amendment is effective as of the date of issuance.

The amendment revises the Technical Specifications to permit dilution of liquid radioactive wastes using Unit No. 1 circulating pumps when Unit No. 2 circulating pumps are not available.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. 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. Prior public notice of this amendment was not required since this amendment does not involve a significant hazards consideration.

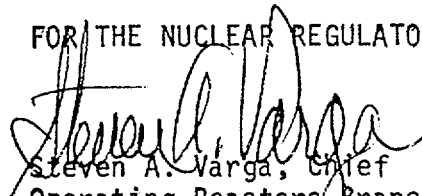
The Commission has prepared an environmental impact appraisal for the revised Technical Specifications and has concluded that an environmental impact statement for this particular action is not warranted because there will be no environmental impact attributable to the action other than that which has already been predicted and described in the Commission's Final Environmental Statement for the facility dated April 1975.

- 2 -

For further details with respect to this action, see (1) the application for amendment dated January 28, 1982; (2) Amendment No. 66 to License No. DPR-23, (3) The Commission's related Safety Evaluation and (4) the Commission's Environmental Impact Appraisal. All of these items 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 and Fifth Avenues, Hartsville, South Carolina 29550. A copy of items (2), (3) and (4) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 17th day of March, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Steven A. Varga, Chief  
Operating Reactors Branch #1  
Division of Licensing