

April 19, 2004

Mr. J. W. Moyer, Vice President
Carolina Power & Light Company
H. B. Robinson Steam Electric Plant Unit No. 2
3581 West Entrance Road
Hartsville, SC 29550

SUBJECT: ISSUANCE OF RENEWED FACILITY OPERATING LICENSE NO. DPR-23 FOR
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

Dear Mr. Moyer:

The U.S. Nuclear Regulatory Commission (NRC) has issued Renewed Facility Operating License No. DPR-23 (Enclosure 1), for H. B. Robinson Steam Electric Plant, Unit No. 2 (H. B. Robinson, Unit No. 2). The renewed facility operating license has been issued on the basis of our review of your application dated June 14, 2002. The Technical Specifications for H. B. Robinson, Unit No. 2, were not amended as a result of our review.

Enclosure 1 contains Renewed Facility Operating License No. DPR-23 with two attachments: (1) Appendix A, "Technical Specifications," and (2) Appendix B, "Additional Conditions."

Renewed Facility Operating License No. DPR-23 (the renewed license for H. B. Robinson, Unit No. 2) expires at midnight, July 31, 2030.

The technical basis for issuing the renewed license is set forth in NUREG-1785, "Safety Evaluation Report Related to the License Renewal of H. B. Robinson, Unit 2," dated March 2004. The results of the environmental reviews related to the issuance of the renewed license are contained in NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 13, Regarding H. B. Robinson, Unit No. 2," dated December 2003.

Enclosure 2 is a copy of the related *Federal Register* notice of issuance of the renewed license. The original has been sent to the Office of the Federal Register for publication.

Sincerely,

/RA/

Rajender Auluck, Sr. Project Manager
License Renewal Section A
License Renewal and Environmental Impacts Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket No.: 50-261

Enclosures: 1. Renewed Facility Operating License No. DPR-23
2. *Federal Register* Notice

cc w/encls (w/o Attachments to Renewed Facility Operating License): See next page

Enclosure 2 is a copy of the related *Federal Register* notice of issuance of the renewed license. The original has been sent to the Office of the *Federal Register* for publication.

Sincerely,
/RA/

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Docket No.: 50-261

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DISTRIBUTION:

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ACCESSION NO.: Package No: ML041000034

Accession No: ML041000036 Enclosure 1 - Ltr. to J. W. Moyer w/Operating License DPR-23

Accession No: ML040990713 Appendix A and Appendix B:

Accession No: ML041040188 Enclosure 2 - Federal Register Notice

*See Previous Concurrence

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Enclosure 1

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-261

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

RENEWED FACILITY OPERATING LICENSE NO. DPR-23

The U.S. Nuclear Regulatory Commission (the Commission) having previously made the findings set forth in License No. DPR-23 issued July 31, 1970, has now found that:

- a. The application to renew License No. DPR-23 filed by Carolina Power & Light Company (the licensee) 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 Title 10 *Code of Federal Regulations* (10 CFR) Chapter I, and all required notifications to other agencies or bodies have been duly made;
- b. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this renewed license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for H. B. Robinson Steam Electric Plant, Unit No. 2, and that any changes made to the plant's current licensing basis in order to comply with 10 CFR 54.29(a) are in accord with the Act and the Commission's regulations;
- c. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
- d. There is reasonable assurance (i)(a) that initial fuel loading can be conducted in accordance with this license without endangering the health and safety of the public, (i)(b) that upon completion of the Hot Laboratory and installation and testing of the secondary system as described in the applicant's letter dated July 16, 1970, and as noted in subparagraph 3.A., the facility can be operated at steady state power levels up to 5 megawatts thermal in accordance with this license without endangering the health and safety of the public, and (i)(c) that, upon satisfactory completion of the seismic analysis of Class I piping and equipment and upon satisfactory completion of all the items described in the applicant's letter dated July 16, 1970, except the auxiliary safety device on the crane for handling a spent fuel cask which will be installed prior to handling irradiated fuel with the cask, the facility can be operated at steady state power levels up to 2339 megawatts thermal in accordance with this renewed license without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the regulations of the Commission;

Renewed Facility Operating License No. DPR-23

- e. The applicant is technically and financially qualified to engage in the activities authorized by this renewed license in accordance with the rules and regulations of the Commission;
- f. The applicant has furnished proof of financial protection to satisfy the requirements of 10 CFR Part 140;
- g. The issuance of this renewed license will not be inimical to the common defense and security or to the health and safety of the public; and
- h. After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs and considering available alternatives, the Commission concludes that the issuance of Renewed Operating License No. DPR-23 is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

On the basis of the forgoing findings regarding this facility, Facility Operating License No. DPR-23, issued July 31, 1970, is superseded by Renewed Facility Operating License No. DPR-23, which is hereby issued to the Carolina Power & Light Company (CP&L), to read as follows:

- 1. This renewed license applies to the H. B. Robinson Steam Electric Plant, Unit No. 2 nuclear facility, a closed cycle, pressurized, light water moderated and cooled reactor, and associated steam generators and electric generating equipment (the facility). The facility is located on the applicant's H. B. Robinson site, Darlington County, about 4.5 miles west northwest of Hartsville, South Carolina, and is described in the "Final Facility Description and Safety Analysis Report," as amended (Amendment Nos. 8 through 21), and in the reports filed with the applicant's letters dated June 5, 1970 and July 1, 1970.
- 2. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses (CP&L):
 - A. Pursuant to Section 104b of the Atomic Energy Act of 1954, as amended (the Act), and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility as a utilization at the designated location on the H. B. Robinson site in Darlington County, South Carolina in accordance with the procedures and limitations set forth in this renewed license;
 - B. Pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel in accordance with the limitations for storage and amounts required for reactor operation, as described in the Updated Final Safety Analysis Report as supplemented and amended;
 - C. Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed

Renewed Facility Operating License No. DPR-23

neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

- D. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components;
 - E. Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by operation of the facility.
3. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Section 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- A. Maximum Power Level

The licensee is authorized to operate the facility at a steady state reactor core power level not in excess of 2339 megawatts thermal.
 - B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 200 are hereby incorporated in the license.

The licensee shall operate the facility in accordance with the Technical Specifications.
 - (1) For Surveillance Requirements (SRs) that are new in Amendment 176 to Final Operating License DPR-23, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 176. For SRs that existed prior to Amendment 176, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 176.

C. Reports

Carolina Power & Light Company shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

Carolina Power & Light Company shall keep facility operating records in accordance with the requirements of the Technical Specifications.

E. Fire Protection Program

Carolina Power & Company shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Updated Final Safety Analysis Report for the facility and as approved in the Fire Protection Safety Evaluation Report dated February 28, 1978, and supplements thereto. Carolina Power & Light Company may make changes to the approved Fire Protection Program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

F. Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "H. B. Robinson Steam Electric Plant Industrial Security Plan," with revisions submitted through October 21, 1987; "H. B. Robinson Steam Electric Plant Security Personnel Training and Qualification Plan," with revisions submitted through January 16, 1987; and "H. B. Robinson Steam Electric Plant Safeguards Contingency Plan," with revisions submitted through March 27, 1986. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

G. The following programs shall be implemented and maintained by the licensee:

- (1) A secondary water chemistry monitoring program to inhibit steam generator tube degradation. This program shall include: the identification of critical parameters, their sampling frequency, sampling points and control band limits; requirements for the documentation and review of sample results; the identification of the authority responsible for the interpretation of sample results; the procedures used to measure the critical parameters; and the

procedures which identify the administrative events and corrective actions required to return the secondary chemistry to its normal control band following an out of control band condition.

- (2) A program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. This program shall include: provisions for preventive maintenance and periodic visual inspection requirements, and integrated leak test requirements for each system at a frequency not to exceed refueling cycle intervals.
- (3) A program to determine the airborne iodine concentration in vital areas under accident conditions. This program shall include: training of personnel, procedures for monitoring, and provisions for maintenance of sampling and analysis equipment.
- (4) DELETED

H. DELETED

I. DELETED

J. DELETED

K. Updated Final Safety Analysis Report

The Carolina Power & Light Company Updated Final Safety Analysis Report supplement, submitted pursuant to 10 CFR 54.21(d), describes certain future activities to be completed prior to the period of extended operation. The Carolina Power & Light Company shall complete these activities no later than July 31, 2010, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

The Updated Final Safety Analysis Report supplement, as revised, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4) following issuance of this renewed license. Until that update is complete, the Carolina Power & Light Company may make changes to the programs and activities described in the supplement without prior Commission approval, provided that the Carolina Power & Light Company evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

L. Reactor Vessel Surveillance

All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of ASTM E 185-82 to the extent practicable for the configuration of the specimens in the capsule. Any changes to the capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the NRC.

4. Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 200, are hereby incorporated into this license. Carolina Power & Light Company shall operate the facility in accordance with the additional conditions.

5. This renewed license is effective as of the date of issuance and shall expire at midnight on July 31, 2030.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

J. E. Dyer, Director
Office of Nuclear Reactor Regulation

Attachments: 1. Appendix A - Technical Specifications
2. Appendix B - Additional Conditions

Date of Issuance: April 19, 2004

Mr. J. W. Moyer
Carolina Power & Light Company

H. B. Robinson Steam Electric
Plant, Unit No. 2

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