

November 4, 1994

Mr. C. S. Hinnant, Vice President  
Carolina Power & Light Company  
H. B. Robinson Steam Electric Plant,  
Unit No. 2  
Post Office Box 790  
Hartsville, South Carolina 29551-0790

Dear Mr. Hinnant:

SUBJECT: ISSUANCE OF AMENDMENT NO. 152 TO FACILITY OPERATING LICENSE NO.  
DPR-23 REGARDING ALARMING DOSIMETERS - H. B. ROBINSON STEAM  
ELECTRIC PLANT, UNIT NO. 2 (TAC NO. M88240)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 152 to Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant, Unit No. 2. This amendment changes the Technical Specifications in response to your request dated November 4, 1993, as supplemented April 27, 1994, and October 10, 1994.

The amendment changes Technical Specification 6.13, High Radiation Areas, to: (1) provide for the use of alarming dosimeters on personnel allowed access to high radiation areas, (2) exempt health physics technicians (HPTs) and personnel escorted by HPTs from certain RWP requirements, and (3) update the Technical Specification to reflect the terminology and requirements of the current 10 CFR Part 20, as revised January 1, 1994.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY:

Brenda L. Mozafari, Project Manager  
Project Directorate II-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-261

Enclosures:

1. Amendment No. 152 to DPR-23
2. Safety Evaluation

cc w/enclosures:  
See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

November 4, 1994

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H. B. Robinson Steam Electric Plant,  
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Sincerely,

A handwritten signature in cursive script that reads "Brenda Mozafari".

Brenda L. Mozafari, Project Manager  
Project Directorate II-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-261

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1. Amendment No. 152 to DPR-23
2. Safety Evaluation

cc w/enclosures:  
See next page

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Carolina Power & Light Company

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

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AMENDMENT NO. 152 TO FACILITY OPERATING LICENSE NO. DPR-23 - H. B. ROBINSON  
STEAM ELECTRIC PLANT, UNIT NO. 2

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

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-261

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

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 152  
License No. DPR-23

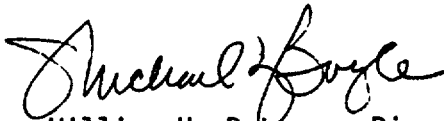
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Carolina Power & Light Company (the licensee), dated November 4, 1993, as supplemented April 27 and October 10, 1994, complies with the standards and requirements of the Atomic Energy Act of 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. 152, are hereby incorporated in the license. Carolina Power & Light Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

  
for William H. Bateman, 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: November 4, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 152

FACILITY OPERATING LICENSE NO. DPR-23

DOCKET NO. 50-261

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised areas are indicated by marginal lines.

Remove Pages

6.13-1

Insert Pages

6.13-1

6.13 HIGH RADIATION AREA

6.13.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.1601(a) of 10 CFR 20, each High Radiation Area in which the intensity of radiation is 1000 mRem/hr or less shall be barricaded and conspicuously posted as a High Radiation Area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit (RWP).<sup>\*</sup> Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.
- b. A radiation monitoring device provided for each individual which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and personnel have been made knowledgeable of them.
- c. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the Radiation Control Supervisor in the Radiation Work Permit.

6.13.2 The requirements of 6.13.1 above shall also apply to each high radiation area in which the intensity of radiation is greater than 1000 mRem/hr at 30 centimeters (12 inches) from the radiation source or from any surface penetrated by the radiation, but less than 500 rads/hour at 1 meter from the radiation source or from any surface penetrated by the radiation. In addition, locked doors shall be provided to prevent unauthorized entry into such areas and the keys shall be maintained under the administrative control of the Operations Shift Supervisor on duty and/or the Radiation Control Supervisor. Entrance there to shall also be controlled by requiring issuance of a Radiation Work Permit. The footnote for Section 6.13.1 is not applicable to each high radiation area in which the intensity of radiation is greater than 1000 mRem/hr.

<sup>\*</sup> Health Physics personnel or personnel escorted by Health Physics personnel shall be exempt from the RWP issuance requirement during the performance of their assigned duties within the RCA, provided they comply with approved radiation protection procedures for entry into high radiation areas.





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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 152 TO FACILITY OPERATING LICENSE NO. DPR-23  
CAROLINA POWER & LIGHT COMPANY  
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261

1.0 INTRODUCTION

By letter dated November 4, 1993, as supplemented April 27 and October 10, 1994, the Carolina Power & Light Company (licensee) submitted a request for changes to the H. B. Robinson Steam Electric Plant, Unit No. 2, Technical Specifications (TS). The requested changes would allow individuals entering a High Radiation Area to be provided with an electronic alarming dosimeter in lieu of a survey meter as currently required by TS. The letters dated April 27 and October 10, 1994, provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

2.0 EVALUATION

Section 1601 of 10 CFR Part 20 requires strict controls for access to areas where an individual could receive greater than 0.001 Sv (100 mrem) in one hour (high radiation areas) and, thus, provides reasonable assurance that individuals at licensed facilities are not exposed to radiation levels in excess of the regulatory limits. A list of optional controls for high radiation areas is provided in 10 CFR Part 20, sections 1601 (a) and (b). For large complex facilities, such as a nuclear power plant, the most practical of these options is to maintain the entrances to high radiation areas locked except during periods of authorized personnel access. However, the number of high radiation areas and the need to frequently access them at nuclear power plants results in a cumbersome restriction on plant operations. In cases where the controls provided in 10 CFR 20.1601 (a) and (b) unnecessarily restrict plant operations 10 CFR 20.1601(c) provides that the licensee may apply to the Commission for approval of alternative controls for the access of their high radiation areas.

Regulatory Position 2.4 (Part C Section 2.4) in Regulatory Guide 8.38 describes an acceptable alternative to maintaining all high radiation areas locked. Under this alternate control scheme, areas where individuals could receive doses greater than 0.001 Sv (100 mrem), but less than or equal to 0.01 Sv (1000 mrem) in one hour, are barricaded and conspicuously posted in lieu of being maintained locked. Areas where doses in excess of 0.01 Sv (1000 mrem), but less than 5 grays (500 rad) could be received in one hour, are maintained locked (for special cases where individual areas cannot reasonably be enclosed, a barricade with a flashing-light warning device is provided). As

compensatory measures, access to a high radiation area is controlled by the issuance of a radiation work permit (or its equivalent) to insure that individuals are apprised of the known radiological conditions and protective actions required for accessing the area. To provide for possible unanticipated exposure situations, additional radiation monitoring is also required for individuals entering a high radiation area.

This proposed amendment to the existing High Radiation Access TS would provide additional operational flexibility at H. B. Robinson in that it will allow the use of electronic digital alarming dosimeters in lieu of hand-held radiation monitors to warn of unanticipated exposure situations. The proposed TS are consistent with the NRC's position on acceptable alternative methods for access control to high radiation areas as described in section 2.4 of Regulatory Guide 8.38, and the proposed revised standard TS published for comment on December 23, 1993, as a draft Generic Letter (58 FR 68170). Therefore, the proposed TS are acceptable to the staff.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of South Carolina official was notified of the proposed issuance of the amendment. The State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

This amendment changes recordkeeping, reporting, or administrative procedures or requirements. Accordingly, this action meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in conjunction with the issuance of this amendment.

### 5.0 CONCLUSION

The Commission 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: Roger Pedersen

Date: November 4, 1994