

Mr. C. S. Hinnant, V President  
 Carolina Power & Light Company  
 H. B. Robinson Steam Electric Plant  
 Unit No. 2  
 3581 West Entrance Road  
 Hartsville, South Carolina 29551-0790

May 30 1995

SUBJECT: ISSUANCE OF AMENDMENT NO. 165 TO FACILITY OPERATING LICENSE NO. DPR-23 REGARDING - H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (TAC NO. M91654)

Dear Mr. Hinnant:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 165 to Facility Operating License No. DPR-23 for the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBR). This amendment changes the Technical Specifications in response to your request dated February 24, 1995.

The amendment removes Section 4.3 from the HBR Technical Specifications (TS) because the primary system testing following opening is already performed in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, as implemented in the licensee's inservice inspection program as required by TS 4.0.1.

A copy of the related Safety Evaluation is enclosed. 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. 165 to DPR-23
2. Safety Evaluation

cc w/enclosures:  
 See next page

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DATE	5/26/95	5/26/95	5/30/95	5/30/95	
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

May 30, 1995

Mr. C. S. Hinnant, Vice President  
Carolina Power & Light Company  
H. B. Robinson Steam Electric Plant  
Unit No. 2  
3581 West Entrance Road  
Hartsville, South Carolina 29551-0790

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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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See next page

Mr. C. S. Hinnant  
Carolina Power & Light Company

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

cc:

Mr. R. E. Jones  
General Counsel - Legal Department  
Carolina Power & Light Company  
Post Office Box 1551  
Raleigh, North Carolina 27602

Mr. Dayne H. Brown, Director  
Department of Environmental,  
Health and Natural Resources  
Division of Radiation Protection  
Post Office Box 27687  
Raleigh, North Carolina 27611-7687

Karen E. Long  
Assistant Attorney General  
State of North Carolina  
Post Office Box 629  
Raleigh, North Carolina 27602

Mr. Robert P. Gruber  
Executive Director  
Public Staff - NCUC  
Post Office Box 29520  
Raleigh, North Carolina 27626-0520

U.S. Nuclear Regulatory Commission  
Resident Inspector's Office  
H. B. Robinson Steam Electric Plant  
2112 Old Camden Road  
Hartsville, South Carolina 29550

Mr. Max Batavia, Chief  
South Carolina Department of Health  
Bureau of Radiological Health  
and Environmental Control  
2600 Bull Street  
Columbia, South Carolina 29201

Regional Administrator, Region II  
U.S. Nuclear Regulatory Commission  
101 Marietta St., N.W., Ste. 2900  
Atlanta, Georgia 30323

Mr. H. W. Habermeyer, Jr.  
Vice President  
Nuclear Services Department  
Carolina Power & Light Company  
Post Office Box 1551  
Raleigh, North Carolina 27602

Mr. Dale E. Young  
Plant General Manager  
Carolina Power & Light Company  
H. B. Robinson Steam Electric Plant  
3581 West Entrance Road  
Hartsville, South Carolina 29550

Public Service Commission  
State of South Carolina  
Post Office Drawer 11649  
Columbia, South Carolina 29211

Mr. R. M. Krich  
Manager - Regulatory Affairs  
Carolina Power & Light Company  
H. B. Robinson Steam Electric Plant,  
Unit No. 2  
3581 West Entrance Road  
Hartsville, South Carolina 29550



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. 165  
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 February 24, 1995, 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:

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**B. Technical Specifications**

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 165, 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



David B. Matthews, 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: May 30, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 165

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

Insert Pages

4.3-1

4.3-1

4.3-2

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DELETED



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 165 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 February 24, 1995, Carolina Power & Light Company (licensee) submitted a request for changes to the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBR), Technical Specifications (TS). The requested changes would remove Section 4.3 from the TS because the primary system testing following opening is already performed in accordance with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code), as implemented in the licensee's inservice inspection program as required by TS 4.0.1. TS Section 4.3 specifies testing requirements to ensure primary system structural and leakage integrity following normal opening, modification, or repair.

TS 4.0.1, surveillance requirements for inservice inspection (ISI) and inservice testing (IST) of Code Class 1, 2 and 3 components, specifies that ASME Code components shall be inspected and tested in accordance with Section XI of the ASME Boiler and Pressure Vessel Code as required by Part 50.55a(g) of Title 10 of the Code of Federal Regulations. In addition, the licensee's in-service inspection program also requires an inspection of the primary system in accordance with the requirements of the 1986 edition of Section XI of the ASME Code. The requirements for primary system testing in TS 4.3 are currently not consistent with the guidance in the ASME Code and the licensee's ISI program. Thus, the deletion of TS 4.3 allows for consistency between the plant TS, the HBR ISI program, and Section XI of the ASME Code.

2.0 EVALUATION

TS Section 4.3 consists of both inspection and testing requirements for the primary system and its components following normal opening, modification or repair. TS 4.3.1 specifies the leak testing pressure requirements to be completed following opening and closing of the primary system. Once the primary system is closed, the system must be leak tested at a pressure of 2335 psig to ensure that the system does not leak during normal operation. In addition, pressurization to 2335 psig also provides assurance that the strength of the system is unchanged from prior to opening. Primary system components that have been modified or repaired must also be leak tested in accordance with TS 4.3.1.

TS 4.3.2 and 4.3.3 specify the nondestructive inspection requirements following primary system modifications and repairs involving new strength welds. Components over two inches in diameter must receive both a volumetric and surface examination. Components smaller than two inches require only a surface examination. The basis for the inspection requirements of TS 4.3.2 and 4.3.3 indicate that the examination will provide a high degree of confidence in the structural integrity of the new weld.

The NRC has endorsed the editions of Section XI of the ASME Code through the 1989 edition in 10 CFR Part 50.55a(b)(2). Both the 1986 and 1989 editions of the ASME Code specify the requirements for the inspection and testing of Code Class components. The subsections of ASME Code in the 1986 and 1989 editions related to the licensee's proposed TS amendment are equivalent. The Robinson primary system, as defined in the plant TS, consists of Code Class 1 components. Subsection IWA-5212 of Section XI of the ASME Code requires leak testing of Class 1, 2 and 3 components to a pressure corresponding to the nominal pressure at 100 percent of rated reactor power. The leakage test pressure corresponding to 100 percent power for Robinson 2 is 2235 psig.

Section XI of the ASME Code specifies nondestructive inspection requirements for repair and replacement welds on Class 1 pressure retaining components. Subsection IWB-2500 for Class 1 components specifies a volumetric examination for NPS 4 or larger. Components smaller than NPS 4 require only a surface examination to satisfy the Code.

HBR TS Section 4.3 was developed prior to the development of the 1986 edition of the ASME Code. Consequently, TS 4.3 and Section XI of the ASME Code both have separate criteria for leak testing and nondestructive inspection of primary system components, but both are intended to provide assurance of leakage and structural integrity. Robinson TS Section 4.0.1 and the licensee's ISI and IST Programs require inspection and testing in accordance with the 1986 edition of the ASME Code. Differences exist between the 1986 edition of the ASME Code and the TS requirements in Section 4.3 for primary system testing and inspection. As such, the licensee currently tests in accordance to both the ASME Code and TS 4.3.

The NRC staff has reviewed both the applicable sections of the ASME Code and the Robinson TS. Minor differences exist between the guidance in the Code and that required by the plant TS for pressure testing of primary system components. Subsection IWA-5212 requires testing of Code Class 1 pressure retaining components at the nominal pressure corresponding to that at 100 percent rated reactor power. The nominal operating pressure for Robinson Unit 2 primary system is 2235 psig. TS 4.3.1 requires leak testing at a pressure of 2335 psig. Although the pressure specified in the ASME Code is less than that required by the plant TS, it provides a similar level of assurance for the detection of system leakage and assessment of structural integrity as the test pressure required by TS 4.3.1.

Several differences also exist between the inspection requirements in TS Section 4.3 and those in the ASME Code. Subsection IWB-1220 exempts components of the reactor coolant system pressure boundary from a volumetric and surface examination if their size and shape are such that, if ruptured,

the resulting coolant loss would be lower than the capacity of the makeup system. According to TS 4.3.2, components less than or equal to 2 inches in diameter require only a surface examination following a modification or repair involving new strength welds. Components greater than 2 inches require both a volumetric and surface examination. The ASME Code similarly defines a nominal pipe size (NPS) below which components only require a surface examination. Components less than NPS 4 (4 inches in diameter) require a surface examination while those greater than NPS 4 require both a volumetric and surface examination. The inspection criteria in Section XI of the ASME Code provides a comparable level of assurance that structurally significant flaws will be detected through nondestructive evaluation.

TS 4.3.2 specifies that components in excess of 2 inches in diameter should receive a 100 percent volumetric examination. The ASME Code and the Robinson ISI program define a volumetric examination as an inspection of the inner one-third of the wall volume for a pressure retaining component. The inspection of less than 100 percent of the wall thickness as specified in the ASME Code and the licensee's ISI program is sufficient for the detection of structurally significant flaws.

The NRC staff has reviewed the TS change related to the deletion of TS Section 4.3 proposed by the licensee in their submittal dated February 24, 1995. Testing as defined in TS Section 4.3 was established to assure leakage and structural integrity following normal opening, modification or repair of primary system components. TS Section 4.0.1 and the Robinson ISI program require primary system testing and inspection in accordance with Section XI of the ASME Code. The levels of assurance of structural and leakage integrity provide by the ASME Code and TS Section 4.3 are similar. Therefore, the NRC staff finds that the licensee's proposed changes are acceptable.

### 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

The amendment changes the Surveillance Requirements. The NRC 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 the amendment involves no significant hazards consideration, and there has been no public comment on such finding (60 FR 16183). Accordingly, the 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 the 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: P. Rush

Date: May 30, 1995

AMENDMENT NO. 165 TO FACILITY OPERATING LICENSE NO. DPR-23 - H. B. ROBINSON  
STEAM ELECTRIC PLANT, UNIT NO. 2

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E. Merschoff, RII

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