

December 24, 1986

Dockets Nos. 50-325/324

Mr. E. E. Utley  
Senior Executive Vice President  
Power Supply and Engineering & Construction  
Carolina Power & Light Company  
Post Office Box 1551  
Raleigh, North Carolina 27602

Dear Mr. Utley:

The Commission has issued the enclosed Amendments Nos. 102 and 132 to Facility Operating Licenses Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications in response to your submittal of April 23, 1986.

The amendments change the Technical Specifications (TS) Table 3.3.4-1 by clarifying the conditions under which the control rod withdrawal block is initiated relative to intermediate range monitor detector position.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

Original signed by

8701020219 861224  
PDR ADDCK 05000324  
P PDR

Ernest D. Sylvester, Project Manager  
BWR Project Directorate #2  
Division of BWR Licensing

Enclosures:

1. Amendment No. 102 to License No. DPR-71
2. Amendment No. 132 to License No. DPR-62
3. Safety Evaluation

cc w/enclosures:  
See next page

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Mr. E. E. Utley  
Carolina Power & Light Company

Brunswick Steam Electric Plant  
Units 1 and 2

cc:

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

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-325

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 102  
License No. DPR-71

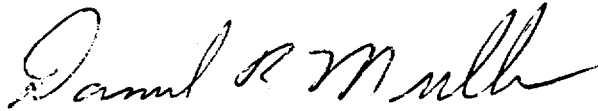
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Carolina Power & Light Company (the licensee) dated April 23, 1986 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules 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 2.C.(2) of Facility Operating License No. DPR-71 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 102, 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 and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, appearing to read "Daniel R. Muller".

Daniel R. Muller, Director  
BWR Project Directorate #2  
Division of BWR Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: December 24, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 102

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

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

Pages

3/4 3-40

3/4 3-41

TABLE 3.3.4-1

CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION

<u>TRIP FUNCTION AND INSTRUMENT NUMBER</u>	<u>MINIMUM NUMBER OF OPERABLE CHANNELS PER TRIP SYSTEM(a)</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>
1. <u>APRM</u> (C51-APRM-CH.A,B,C,D,E,F)		
a. Upscale (Flow Biased)	2	1
b. Inoperative	2	1, 2, 5
c. Downscale	2	1
d. Upscale (Fixed)	2	2, 5
2. <u>ROD BLOCK MONITOR</u> (C51-RBM-CH.A,B)		
a. Upscale	1	1(f)
b. Inoperative	1	1(f)
c. Downscale	1	1(f)
3. <u>SOURCE RANGE MONITORS</u> (C51-SRM-K600A,B,C,D)		
a. Detector not full in (b)	1	2, 5
b. Upscale <sup>(c)</sup>	1	2, 5
c. Inoperative <sup>(c)</sup>	1	2, 5
d. Downscale <sup>(b)</sup>	1	2, 5
4. <u>INTERMEDIATE RANGE MONITORS</u> <sup>(d)</sup> (C51-IRM-K601A,B,C,D,E,F,G,H)		
a. Detector not full in	2	2, 5
b. Upscale	2	2, 5
c. Inoperable	2	2, 5
d. Downscale <sup>(e)</sup>	2	2, 5
5. <u>SCRAM DISCHARGE VOLUME</u> (C11-LSH-N013E)		
a. Water Level - High	1(h)	1, 2, 5(g)

TABLE 3.3.4-1 (Continued)CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATIONNOTE

- (a) The minimum number of OPERABLE CHANNELS may be reduced by one for up to 2 hours in one of the trip systems for maintenance and/or testing except for Rod Block Monitor function.
- (b) This function is bypassed if detector is reading >100 cps or the IRM channels are on range 3 or higher.
- (c) This function is bypassed when the associated IRM channels are on range 8 or higher.
- (d) A total of 6 IRM instruments must be OPERABLE.
- (e) This function is bypassed when the IRM channels are on range 1.
- (f) When THERMAL POWER exceeds the preset power level of the RWM and RSCS.
- (g) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- (h) This signal is contained in the Channel A logic only.



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

CAROLINA POWER & LIGHT COMPANY  
DOCKET NO. 50-324  
BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2  
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 132  
License No. DPR-62

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Carolina Power & Light Company (the licensee) dated April 23, 1986 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 2.C.(2) of Facility Operating License No. DPR-62 is hereby amended to read as follows:

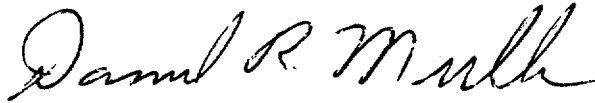


(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 132, 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 shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, reading "Daniel R. Muller".

Daniel R. Muller, Director  
BWR Project Directorate #2  
Division of BWR Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: December 24, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 132

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

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

Pages

3/4 3-40

3/4 3-41

TABLE 3.3.4-1

CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION

<u>TRIP FUNCTION AND INSTRUMENT NUMBER</u>	<u>MINIMUM NUMBER OF OPERABLE CHANNELS PER TRIP SYSTEM<sup>(a)</sup></u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>
1. <u>APRM</u> (C51-APRM-CH.A,B,C,D,E,F)		
a. Upscale (Flow Biased)	2	1
b. Inoperative	2	1, 2, 5
c. Downscale	2	1
d. Upscale (Fixed)	2	2, 5
2. <u>ROD BLOCK MONITOR</u> (C51-RBM-CH.A,B)		
a. Upscale	1	1(f)
b. Inoperative	1	1(f)
c. Downscale	1	1(f)
3. <u>SOURCE RANGE MONITORS</u> (C51-SRM-K600A,B,C,D)		
a. Detector not full in <sup>(b)</sup>	1	2, 5
b. Upscale <sup>(c)</sup>	1	2, 5
c. Inoperative <sup>(c)</sup>	1	2, 5
d. Downscale <sup>(b)</sup>	1	2, 5
4. <u>INTERMEDIATE RANGE MONITORS</u> <sup>(d)</sup> (C51-IRM-K601A,B,C,D,E,F,G,H)		
a. Detector not full in	2	2, 5
b. Upscale	2	2, 5
c. Inoperable	2	2, 5
d. Downscale <sup>(e)</sup>	2	2, 5
5. <u>SCRAM DISCHARGE VOLUME</u> (C12-LSH-NO13E)		
a. Water Level - High	1 <sup>(h)</sup>	1, 2, 5 <sup>(g)</sup>

TABLE 3.3.4-1 (Continued)CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATIONNOTE

- (a) The minimum number of OPERABLE CHANNELS may be reduced by one for up to 2 hours in one of the trip systems for maintenance and/or testing except for Rod Block Monitor function.
- (b) This function is bypassed if detector is reading >100 cps or the IRM channels are on range 3 or higher.
- (c) This function is bypassed when the associated IRM channels are on range 8 or higher.
- (d) A total of 6 IRM instruments must be OPERABLE.
- (e) This function is bypassed when the IRM channels are on range 1.
- (f) When THERMAL POWER exceeds the preset power level of the RWM and RSCS.
- (g) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- (h) This signal is contained in the Channel A logic only.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 102 TO FACILITY OPERATING LICENSE NO. DPR-71  
AND AMENDMENT NO. 132 TO FACILITY OPERATING LICENSE NO. DPR-62  
CAROLINA POWER & LIGHT COMPANY  
BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2  
DOCKETS NOS. 50-325 AND 50-324

1.0 INTRODUCTION

By letter dated April 23, 1986, the Carolina Power & Light Company (the licensee) requested, in accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, a revision to the Technical Specifications (TS) Table 3.3.4-1 for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2. It involves deletion of footnote (e) from Item 4.a of Table 3.3.4-1 (on page 3/4 3-40) and changes of symbolic footnote notation to alphabetic (i.e., \* to f, \*\* to g, and # to h on page 3/4 3-41). The footnote (e) states "This function is bypassed when the intermediate range monitors (IRM) channels are on range 1."

2.0 EVALUATION

Currently, TS Table 3.3.4-1 indicates that control rod withdrawal block is not initiated on "detector not full in" for the IRM when the IRM channel indicators are in range position 1. However, this is contrary to actual plant configuration and operation; control rod withdrawal block is initiated when the IRM detectors are not full in regardless of which range position the indicators are set to.

The proposed amendment does not impact the control rod withdrawal block function as accomplished under conditions currently described in the TS. In addition, control rod withdrawal block will also be accomplished for the IRM detector not full in feature when the IRM channel indicators are in range position 1. This additional restriction on operation assures that no control rod is withdrawn during low neutron flux level operation if IRM is not inserted. The footnote notation change is only an administrative change for consistency with the existing note.

The staff has reviewed the licensee's supporting information with respect to requirements of GDC 20 and has found that the proposed amendment to delete footnote (e) from Item 4.a of Table 3.3.4-1 is acceptable.

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PDR ADOCK 05000324  
P PDR

### 3.0 EVALUATION SUMMARY

Based on the review discussed in Section 2.0 of the SE, the staff concludes that the request for a revision to the Table 3.3.4-1 for the Brunswick Units 1 and 2 involving the deletion of footnote (e) from Item 4.a of Table 3.3.4-1 and changes of symbolic footnote notation to alphabetic is acceptable; the deletion of footnote (e) bypass function from Item 4.a provides more restrictive operation of the plant and the footnote notation change provides consistency with the existing note.

### 4.0 ENVIRONMENTAL CONSIDERATIONS

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendments meet 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 amendments.

### 5.0 CONCLUSION

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: T. Haung

Dated: December 24, 1986