January 21, 1987

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. 103 and 133 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 March 17, 1986, as supplemented October 13, 1986.

The amendments change the Technical Specifications (TS) by deleting nonsafety-related instruments from the surveillance requirements related to reactor coolant system leakage and leakage detection systems. The nonsafety-related instrument tag numbers are deleted from TS Sections 4.4.3.1.b and 4.4.3.2.a.

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,

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P PDR

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

Enclosures:
1. Amendment No. 103 to License No. DPR-71
2. Amendment No. 133 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. 103
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 March 17, 1986, as supplemented October 13, 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:

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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 103 , 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

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 21, 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 103

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 4-5
3/4 4-6

REACTOR COOLANT SYSTEM

3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE

LEAKAGE DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.3.1 The following reactor coolant system leakage detection systems shall be OPERABLE:

a. The primary containment atmosphere particulate radioactivity monitoring system,*

b. The primary containment sump flow integrating system, and

c. The primary containment gaseous radioactivity monitoring system.*

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

With only two of the above required leakage detection systems OPERABLE, operation may continue for up to 31 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours when the required gaseous and/or particulate radioactive monitoring system is inoperable; otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.1 The reactor coolant system leakage detection systems shall be demonstrated OPERABLE by:

a. Primary containment atmosphere particulate and gaseous radioactivity monitoring systems-performance of a CHANNEL CHECK at least once per 12 hours, a CHANNEL FUNCTIONAL TEST at least once per 31 days, and a CHANNEL CALIBRATION at least once per 18 months. (CAC-AQH-1260-1,2,3; CAC-AQH-1262-1,2,3; CAC-AQH-1261-1,2,3)

b. Containment sump flow integrating systems-performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and of a CHANNEL CALIBRATION at least once per 18 months. (G16-FQ-K603; G16-FYQ-K603; G16-FQ-K601; G16-FYQ-K601; G16-FT-N013; G16-FT-N003)

*The system is OPERABLE if one channel is OPERABLE.

REACTOR COOLANT SYSTEM

OPERATIONAL LEAKAGE

LIMITING CONDITION FOR OPERATION

3.4.3.2 Reactor coolant system leakage shall be limited to:

a. No PRESSURE BOUNDARY LEAKAGE.

b. 5 gpm UNIDENTIFIED LEAKAGE averaged over any 24-hour period.

c. 25 gpm total leakage averaged over any 24-hour period.

d. 2 gpm increase in UNIDENTIFIED LEAKAGE within any 24-hour period except for the first 24 hours of reactor startup commencing with entry into OPERATIONAL CONDITION 2.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

a. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

b. With any reactor coolant system leakage greater than any one of the above limits, excluding PRESSURE BOUNDARY LEAKAGE, reduce the leakage rate to within the limits within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.2 The reactor coolant system leakage shall be demonstrated to be within each of the above limits by:

a. Monitoring the drywell and equipment drain sump flow rates at least once per 24 hours, and (G16-FQ-K603; G16-FYQ-K603; G16-FQ-K601; G16-FYQ-K601; G16-FT-N013; G16-FT-N003).

b. Monitoring the primary containment atmosphere particulate and gaseous radioactivity at least once per 24 hours. (CAC-AQH-1260-1,2,3; CAC-AQH-1262-1,2,3 and CAC-AQH-1261-1,2,3).

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. 133
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 March 17, 1986, as supplemented October 13, 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. 133 , 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

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 21, 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 133

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 4-5
3/4 4-6

REACTOR COOLANT SYSTEM

3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE

LEAKAGE DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.3.1 The following reactor coolant system leakage detection systems shall be OPERABLE:

a. The primary containment atmosphere particulate radioactivity monitoring system,*

b. The primary containment sump flow integrating system, and

c. The primary containment gaseous radioactivity monitoring system.*

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

With only two of the above required leakage detection systems OPERABLE, operation may continue for up to 31 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours when the required gaseous and/or particulate radioactive monitoring system is inoperable; otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.1 The reactor coolant system leakage detection systems shall be demonstrated OPERABLE by:

a. Primary containment atmosphere particulate and gaseous radioactivity monitoring systems-performance of a CHANNEL CHECK at least once per 12 hours, a CHANNEL FUNCTIONAL TEST at least once per 31 days, and a CHANNEL CALIBRATION at least once per 18 months. (CAC-AQH-1260-1,2,3; CAC-AQH-1262-1,2,3; CAC-AQH-1261-1,2,3)

b. Containment sump flow integrating systems-performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and of a CHANNEL CALIBRATION at least once per 18 months. (G16-FQ-K603; G16-FYQ-K603; G16-FQ-K601; G16-FYQ-K601; G16-FT-NO13; G16-FT-NOO3)

*The system is OPERABLE if one channel is OPERABLE.

REACTOR COOLANT SYSTEM

OPERATIONAL LEAKAGE

LIMITING CONDITION FOR OPERATION

3.4.3.2 Reactor coolant system leakage shall be limited to:

a. No PRESSURE BOUNDARY LEAKAGE.

b. 5 gpm UNIDENTIFIED LEAKAGE averaged over any 24-hour period.

c. 25 gpm total leakage averaged over any 24-hour period.

d. 2 gpm increase in UNIDENTIFIED LEAKAGE within any 24-hour period except for the first 24 hours of reactor startup commencing with entry into OPERATIONAL CONDITION 2.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

a. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

b. With any reactor coolant system leakage greater than any one of the above limits, excluding PRESSURE BOUNDARY LEAKAGE, reduce the leakage rate to within the limits within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.2 The reactor coolant system leakage shall be demonstrated to be within each of the above limits by:

a. Monitoring the drywell and equipment drain sump flow rates at least once per 24 hours, and (G16-FQ-K603; G16-FYQ-K603; G16-FQ-K601; G16-FYQ-K601; G16-FT-N013; G16-FT-N003).

b. Monitoring the primary containment atmosphere particulate and gaseous radioactivity at least once per 24 hours. (CAC-AQH-1260-1,2,3; CAC-AQH-1262-1,2,3 and CAC-AQH-1261-1,2,3).

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 103 TO FACILITY OPERATING LICENSE NO. DPR-71

AND AMENDMENT NO. 133 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

The Reactor Coolant Pressure Boundary (RCPB) leakage detection system for each unit includes a safety-related portion for monitoring the containment sump flow rate using safety related instrumentation to record the integrated flow rate over time, and a nonsafety-related portion to provide an instantaneous flow rate indication in the control room. The licensee requested in their submittal dated March 17, 1986, deletion of two square-root converters associated with the nonsafety-related portion of the RCPB leakage detection system from the Technical Specifications. Additional information was provided in a subsequent submittal dated October 13, 1986. This evaluation deals with the acceptability of the proposed deletions from the plant Technical Specifications.

2.0 EVALUATION

The licensee proposed, in a March 17, 1986 submittal, some revisions to the Brunswick Unit 1 and 2 Technical Specifications. In the submittal, the licensee proposed to delete the two nonsafety-related square-root converters identified by Tag Numbers G16-FY-K600 and G16-FY-K602. These square-root converters provide inputs to a flow recorder in the control room for each unit. The inputs indicate the instantaneous flow rate from the primary containment sump and the drywell and equipment drain sump.

Since this recorder indicates flow out of the sumps, there is an indication only when the pumps are running. The recorder is nonsafety-related and does not provide the RCPB leakage detection system monitoring information required by the plant Technical Specifications that are used to implement the guidelines of Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems". The flow recorder is not identified in the Technical Specifications.

As stated in the October 13, 1986 submittal, the operator relies on the digital counter, which indicates the total integrated flow, to determine the average flow rate and thereby assess the leakage from the RCPB. The digital counters do not get a signal from or rely on

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the square-root converters. Since the square-root converters are not associated with the safety-related portion of the RCPB leakage detection system and are associated with a nonsafety-related recorder, the licensee has requested deletion of these square-root converters from Technical Specifications 4.4.3.1.b and 4.4.3.2.a. These two specifications deal with the primary containment sump flow integrating system and the drywell and equipment sump flow system, respectively.

3.0 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 any effluents that may be released offsite; and that there should be no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously published 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.

4.0 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: J. Ridgely

Dated: January 21, 1987