March 13, 1984

Docket Nos. 50-325/324

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

Dear Mr. Utley:

The Commission has issued the enclosed Amendment Nos. 67 and 93 to Facility Operating License 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 July 7, 1981.

The amendments revise the Technical Specifications to add Limiting Conditions for Operation including a requirement that all ASME Class 1 and 2 piping conform to the guidelines stated in NUREG-0313 Revision 1 and an additional restriction on leakage from the reactor coolant system.

A copy of the related Safety Evaluation is also enclosed.

Sincerely,

Original signed by/

Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Enclosures:
1. Amendment No. 67 to License No. DPR-71
2. Amendment No. 93 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. 67
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 July 7, 1981 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. 67 , 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.

FOR THE NUCLEAR REGULATORY COMMISSION

Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the
Technical Specifications

Date of Issuance: March 13, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 67

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Remove the following pages and replace with identically numbered pages.

3/4 0 - 3 and 3/4 4 - 6

SURVEILLANCE REQUIREMENTS (Continued)

b. Surveillance intervals specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda for the inservice inspection and testing activities required by the ASME Boiler and Pressure Vessel Code and applicable Addenda shall be applicable as follows in these Technical Specifications:

ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice inspection and testing activities	Required frequencies for performing inservice inspection and testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Yearly or annually	At least once per 366 days

c. The provisions of Specification 4.0.2 are applicable to the above required frequencies for performing inservice inspection and testing activities.

d. Performance of the above inservice inspection and testing activities shall be in addition to other specified Surveillance Requirements.

e. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

4.0.6 All ASME Code Class 1 and 2 coolant pressure boundary lines shall conform to the guidelines for materials or augmented in-service inspection of NUREG-0313, Revision 1, "Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping," July 1980.

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: 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-FQ-K601; G16-FY-K602; G16-FY-K601; G16-FT-N013 and G16-FT-N003).

b. Monitoring the primary containment atmospheric 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. 93
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 July 7, 1981 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. 93 , 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.

FOR THE NUCLEAR REGULATORY COMMISSION

Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the
Technical Specifications

Date of Issuance: March 13, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 93

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Remove the following pages and replace with identically numbered pages.

3/4 0 - 3 and 3/4 4 - 6

SURVEILLANCE REQUIREMENTS (Continued)

b. Surveillance intervals specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda for the inservice inspection and testing activities required by the ASME Boiler and Pressure Vessel Code and applicable Addenda shall be applicable as follows in these Technical Specifications:

ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice inspection and testing activities	Required frequencies for performing inservice inspection and testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Yearly or annually	At least once per 366 days

c. The provisions of Specification 4.0.2 are applicable to the above required frequencies for performing inservice inspection and testing activities.

d. Performance of the above inservice inspection and testing activities shall be in addition to other specified Surveillance Requirements.

e. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

4.0.6 All ASME Code Class 1 and 2 coolant pressure boundary lines shall conform to the guidelines for materials or augmented in-service inspection of NUREG-0313, Revision 1, "Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping," July 1980.

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: 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-FQ-K601; G16-FY-K602; G16-FY-K601; G16-FT-N013 and G16-FT-N003)

b. Monitoring the primary containment atmospheric 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. 67 TO FACILITY LICENSE NO. DPR-71 AND

AMENDMENT NO. 93 TO FACILITY LICENSE NO. DPR-62

CAROLINA POWER & LIGHT COMPANY

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2

DOCKET NOS. 50-325 AND 50-324

1.0 Introduction

On July 7, 1981, Carolina Power & Light Company (CP&L/licensee) proposed changes to the Technical Specifications in response to NRC's February 26, 1981 letter from Mr. D. G. Eisenhut which transmitted NUREG-0313, Revision 1 "Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping" (Generic Activity A-42). For the Brunswick Steam Electric Plant (BSEP) Units 1 and 2, CP&L was asked to identify non-conforming piping and provide a schedule for the replacement of "service sensitive" nonconforming piping. CP&L was also requested to propose appropriate Technical Specification changes for surveillance of operational leakage.

The changes proposed by the licensee would add a requirement that all ASME Class 1 and 2 piping conform to the guidelines stated in NUREG-0313 Revision 1 and impose an additional restriction on leakage from the reactor coolant system. Both of these changes would be additional limiting conditions for operation that are not presently included in the Technical Specifications.

2.0 Evaluation

The changes proposed by the licensee are as follows:

(1) Add a new section (4.0.6) on page 3/4 0 - 3 that states:

4.0.6 All ASME Code Class 1 and 2 coolant pressure boundary lines shall conform to the guidelines for materials or augmented in-service inspection of NUREG-0313, Revision 1, "Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping," July 1980.

(2) Add a new item (d) to the limits on reactor coolant system leakage in Section 3.4.3.2 that states:

d. 2 gpm increase in UNIDENTIFIED LEAKAGE within any 24-hour period.

We have reviewed these proposed additions to the Technical Specifications on the basis of the guidance provided in NUREG-0313 Revision 1, which is the latest revision to this report. The proposed additional Section 4.0.6 represents the licensee's commitment to adhere to the guidelines of NUREG-0313 for all ASME Code Class 1 and Class 2 reactor coolant pressure boundary lines and therefore, we find this acceptable.

With regard to increases in reactor coolant system leakage, NUREG-0313 states in part: "Plant shutdown should be initiated for inspection and corrective action when any leakage detection system indicates, within a period of 24 hours or less, an increase in rate of unidentified leakage in excess of 2 gallons per minute or its equivalent, or when the total unidentified leakage attains a rate of 5 gallons per minute or its equivalent, which occurs first. For sump level monitoring systems with fixed-measurement interval method, the level should be monitored at 4-hour intervals or less." The 2 gpm limit proposed by the licensee conforms to the guidance given in NUREG-0313 and is acceptable. The 5 gpm limit presented in NUREG-0313 was previously incorporated into the Technical Specifications. The sump level monitoring recommended in NUREG-0313 was not proposed by the licensee; however, it will be the subject of a future licensing action.

In discussions with the licensee, it was pointed out to the staff that during startup of the reactor, while the reactor coolant system is being pressurized, the rate of coolant leakage might increase from zero to some value greater that 2 gpm but less than 5 gpm within a few hours. This increase in leakage would be the result of increasing the reactor pressure and would not necessarily be indicative of degradation of the reactor coolant pressure boundary. In consideration of this operational attribute and with the assurance that the 5 gpm leakage limit is in effect at all times, the staff has concluded that it is permissible to exceed the 2 gpm increase in leakage during the first 24 hours of reactor startup. The staff had considered this matter previously in issuing the Order Confirming Licensee Commitments on Pipe Crack Related Issues for Brunswick Unit 1 dated July 22, 1983. That Order applies the 2 gpm limit following the first 24 hours of reactor startup.

The staff issued its notice of consideration of issuance of this amendment in the Federal Register on August 23, 1983 and proposed a determination of no significant hazards considerations. The bases for that proposed determination was that the change requested by the licensee was an additional limitation not presently in the Technical Specifications. Although the specification proposed by the licensee was subsequently modified to provide relief during the first 24 hours of startup, this amendment still constitutes an additional limitation not presently in the Technical Specifications. Therefore the staff's previously proposed determination of no significant hazards considerations remains valid.

Therefore, in consideration of the licensee's request, the staff's evaluation, the previously issued Order and the guidance provided in NUREG-0313, we have concluded that Technical Specification 3.4.3.2.d should read as follows:

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.

3.0 Environmental Considerations

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR 51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

4.0 Conclusions

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 Contributors: S. MacKay

Dated: March 13, 1984