

Mr. J. S. Keenan
Vice President
Brunswick Steam Electric Plant
Carolina Power & Light Company
Post Office Box 10429
Southport, North Carolina 28461

June 3, 2002

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2 - ISSUANCE OF AMENDMENT REGARDING TECHNICAL SPECIFICATION SURVEILLANCE FREQUENCY AND ACTION REQUIREMENTS FOR SUPPRESSION CHAMBER-TO-DRYWELL VACUUM BREAKERS (TAC NOS. MB2110 AND MB2111)

Dear Mr. Keenan:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 223 to Facility Operating License No. DPR-71 and Amendment No. 248 to Facility Operating License No. DPR-62 for Brunswick Steam Electric Plant, Units 1 and 2. The amendments are in response to your application dated June 4, 2001, as supplemented by letter dated July 20, 2001.

The amendments change the Technical Specifications Surveillance Frequency and Action Requirements for the suppression chamber-to-drywell vacuum breakers at the Brunswick Steam Electric Plant, Units 1 and 2.

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

Sincerely,

/RA/

Brenda L. Mozafari, Sr. Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-325
and 50-324

Enclosures:

1. Amendment No. 223 to
License No. DPR-71
2. Amendment No. 248 to
License No. DPR-62
3. Safety Evaluation

cc w/enclosures: See next page

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*See previous concurrence

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AMENDMENT NO. 223 TO FACILITY OPERATING LICENSE NO. DPR-71 - BRUNSWICK,
UNIT 1

AMENDMENT NO. 248 TO FACILITY OPERATING LICENSE NO. DPR-62 - BRUNSWICK,
UNIT 2

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CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-325

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.223
License No. DPR-71

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by Carolina Power & Light Company (the licensee), dated June 4, 2001, as supplemented July 20, 2001, 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. 223, 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 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Kahtan N. Jabbour, Acting Chief, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 3, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 223

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

3.6-18

3.6-19

Insert Pages

3.6-18

3.6-19

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.248
License No. DPR-62

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by Carolina Power & Light Company (the licensee), dated June 4, 2001, as supplemented July 20, 2001, 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. 248, 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 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Kahtan N. Jabbour, Acting Chief, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 3, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 248

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

3.6-18

3.6-19

Insert Pages

3.6-18

3.6-19

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 223 TO FACILITY OPERATING LICENSE NO. DPR-71
AND AMENDMENT NO. 248 TO FACILITY OPERATING 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

By letter dated June 4, 2001, as supplemented by letter dated July 20, 2001, Carolina Power & Light (CP&L) Company, the licensee for the Brunswick Steam Electric Plant, Units 1 and 2, requested a change to the Technical Specifications (TS) Surveillance Frequency and Action Requirements for the suppression chamber-to-drywell vacuum breakers. The request would change, from 2 hours to 6 hours, the time period in Surveillance Requirement (SR) 3.6.1.6.1 for verifying each suppression chamber-to-drywell vacuum breaker is closed after any discharge of steam into the suppression chamber from any source. In conjunction with this change, the licensee requests that the Completion Time associated with Required Action 3.6.1.6.B, for closing an open vacuum breaker, be revised from 8 hours to 4 hours.

The July 20, 2001, supplemental letter contained clarifying information only, and did not change the initial no significant hazards consideration determination or expand the scope of the initial application.

2.0 BACKGROUND

Each Brunswick unit is equipped with 10 suppression chamber-to-drywell vacuum breakers located on the vent header between the drywell and the suppression chamber. The vacuum breakers have two safety functions: 1) to relieve a vacuum in the drywell during a loss-of-coolant accident (LOCA), for which they must open; and 2) to otherwise remain closed to prevent steam from a LOCA from leaking through from the drywell to the suppression chamber air space, thereby bypassing the suppression pool and not being condensed, which could overpressurize the suppression chamber.

Because of their second function, the breakers must remain closed, except when they are actually performing their first function. If any steam is discharged into the suppression chamber during normal operations (such as by testing or operation of the Reactor Core Isolation Cooling or High Pressure Coolant Injection systems), it could cause a breaker to open, which then

Enclosure

might not reclose properly. To prevent this, SR 3.6.1.6.1 requires, in part, verification that each breaker is closed within 2 hours after any discharge of steam into the suppression chamber.

The breakers are inside the inerted containment and so are inaccessible while the reactor is operating. If there is a steam discharge into the suppression chamber, the operators use the breakers' position indicators in the control room to verify that they are closed. If a position indicator should become inoperable, the operators may verify that the affected breaker is closed by pressurizing the drywell to 1.0 psig and waiting an hour to see if the pressure holds. Due to the complexity of performing the pressure test, it cannot routinely be completed within 2 hours. Therefore, the operators generally assume that the breaker is open. This puts the plant into TS Action 3.6.1.6.B, which gives the operators 8 hours to close the breaker or begin shutting down the reactor. Thus, there is a total of 10 hours available between the time of a steam discharge into the suppression chamber and the time when shutdown must begin.

Historically, the Brunswick suppression chamber-to-drywell vacuum breakers have been reliable. However, there have been problems with vacuum breaker position indication. The position indication switches for the vacuum breakers are located inside the inerted suppression chamber and are inaccessible during power operation for troubleshooting, adjustment, or replacement.

The licensee proposes to change the 2-hour time of SR 3.6.1.6.1 to 6 hours, and change the 8-hour time of Action 3.6.1.6.B to 4 hours. Therefore, a total of 10 hours is maintained to verify that the breakers are closed, but should keep the plant from entering the requirements of Action 3.6.1.6.B.

3.0 EVALUATION

The licensee, and the staff, consider routine entry into Action requirements to be undesirable. The proposed changes to the TS will not actually change the licensee's response after a steam discharge into the suppression chamber, when breaker position indicators are inoperable. If initial testing indicates a vacuum breaker open, the licensee would enter TS 3.6.1.6 and still work to show that the breakers are all closed during the available 10-hour period, and, if they fail to do so, they will then begin shutting down the reactor. This change would allow the use of an alternate method of breaker position verification for vacuum breakers that had been previously identified during earlier TS surveillance activities as having the position indicators inoperable. Therefore, this change would most significantly affect the administrative tasks required by entry into an Action requirement, and the potential application of TS Limiting Condition for Operation (LCO) 3.0.4, discussed below.

TS LCO 3.0.4 states, in part:

When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall not be made except when the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time. This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

The proposed TS changes would increase, from 2 hours to 6 hours, the time period in which the licensee would be able to enter higher modes of reactor operation (e.g., go from MODE 2 to MODE 1) with an open breaker. However, the staff finds that this would have an insignificant effect on safety because 1) the time period increase is small, 2) the likelihood that the licensee would want to make a MODE increase during this period is small, and 3) a failed position indicator does not necessarily mean that the associated breaker is actually open; that is, the licensee usually verifies that the breaker is, in fact, closed. Therefore, the staff finds that the proposed changes to the TS will have an insignificant effect on safety.

Based on the staff's finding that the proposed changes to the TS will have an insignificant effect on safety, the staff concludes that the proposed changes to TS 3.6.1.6 are acceptable.

3.0 STATE CONSULTATION

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

4.0 ENVIRONMENTAL CONSIDERATION

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 and changes the Surveillance Requirements. The NRC 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 is no 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 (66 FR 34280). 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

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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: James Pulsipher, NRR

Date: June 3, 2002

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Brunswick Steam Electric Plant
Units 1 and 2

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