

March 19, 2002

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

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2 - ISSUANCE OF
AMENDMENTS REGARDING SCRAM TIME TESTING AND TECHNICAL
SPECIFICATION BASES CONTROL PROGRAM (TAC NOS. MB3347 AND
MB3348)

Dear Mr. Keenan:

The Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 219 to Facility Operating License No. DPR-71 and Amendment No. 245 to Facility Operating License No. DPR-62 for Brunswick Steam Electric Plant (BSEP), Units 1 and 2. The amendments change the Technical Specifications (TS) in response to your submittal dated November 7, 2001.

The amendments change the BSEP, Units 1 and 2 TS per guidance in NRC Technical Specification Task Force (TSTF) Item 222, Revision 1, "Control Rod Scram Time Testing," and TSTF Item 364, Revision 0, "Revision to TS Bases Control Program to Incorporate Changes to 10 CFR 50.59."

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 by J.Goshen Acting for/

Allen G. Hansen, 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. 219 to License No. DPR-71
2. Amendment No. 245 to License No. DPR-62
3. Safety Evaluation

cc w/enclosures: See next page

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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. 219
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 November 7, 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. 219, 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 of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Richard P. Correia, 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: March 19, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 219

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

3.1-12
3.1-13
5.0-14

Insert Pages

3.1-12
3.1-13
5.0-14

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 245
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 November 7, 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. 245, 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 of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Richard P. Correia, 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: March 19, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 245

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

3.1-12
3.1-13
5.0-14

Insert Pages

3.1-12
3.1-13
5.0-14

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO LICENSE AMENDMENT NO. 219 TO FACILITY OPERATING LICENSE NO.
DPR-62 AND AMENDMENT NO. 245 TO FACILITY OPERATING LICENSE NO. DPR-71
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 November 7, 2001, the Carolina Power & Light Company (CP&L, the licensee) submitted a request for changes to the Brunswick Steam Electric Plant (BSEP), Units 1 and 2, Technical Specifications (TS). The requested changes would revise TS 3.1.4, "Control Rod Scram Times," to delineate more specific requirements for testing control rod scram times following refueling outages. TS 5.1 would be revised to reference Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.59. The amendments incorporate the Nuclear Regulatory Commission (NRC)-approved Technical Specification Task Force (TSTF) Item 222, Revision 1, "Control Rod Scram Testing," and TSTF Item 364, Revision 0, "Revision to TS Bases Control Program to Incorporate Changes to 10 CFR 50.59."

2.0 BACKGROUND

2.1 TSTF-222

TSTF-222, Revision 1, revises the Surveillance Requirements (SRs) associated with TS 3.1.4, "Control Rod Scram Times," to better state the desired requirements for testing control rod scram times. The current wording of SR 3.1.4.1 requires that each control rod be tested when any fuel movement occurs within the reactor pressure vessel, including only when one fuel bundle is moved, such as removing a leaking fuel bundle during a mid-cycle outage. As reflected in the staff review and approval of TSTF-222, Revision 1, for the generic improvement of the standard technical specifications (STS), the SRs should be revised to make it clear that only the control rods affected by the fuel movement should be scram tested. The wording should be similar to other SRs (SR 3.1.4.3 and 3.1.4.4) that require only the affected rods be scram tested.

TSTF-222, Revision 1, has been approved in license amendments 239, 266, and 226 for the Tennessee Valley Authority's Browns Ferry Nuclear Plant, Units 1, 2, and 3, respectively, by a letter dated November 21, 2000.

2.2 TSTF-364

TSTF-364, Revision 0, revises TS 5.5.10, "Technical Specification (TS) Bases Control Program," to provide consistency with the changes to 10 CFR 50.59. The Commission's

regulations, in 10 CFR 50.59, establish the conditions that are described in the Updated Final Safety Analysis Report (UFSAR) for the licensee to implement changes to its facility or procedures a license amendment. These regulations further establish conditions for the licensee to conduct tests or experiments that are not described in the UFSAR without NRC approval.

The revisions in 10 CFR 50.59, which were published in the *Federal Register*, clarified the specific type of change, test, or experiment that may be implemented without a license amendment. The revisions in 10 CFR 50.59 also clarified the specific types of change, test, and experiment that require evaluation by the licensee. The revisions to 10 CFR 50.59 further added definitions for terms that have been subject to differing interpretations and reorganized in 10 CFR 50.59 for clarity.

The Bases Control Program required by the current TS allows licensees to implement changes to the Bases without a license amendment provided the changes do not involve a change to the UFSAR or Bases that involve an “unreviewed safety question.” The definition of “unreviewed safety question” was previously defined in 10 CFR 50.59. The revisions to 10 CFR 50.59 necessitated the replacement of the expression “unreviewed safety question” with the term “requires NRC approval pursuant to 10 CFR 50.59.” By submitting this amendment, CP&L is requesting NRC authorization to revise the BSEP TS for the Bases Control Program to be consistent with the revision to 10 CFR 50.59.

Previously, TSTF-364, Revision 0, has been approved in license amendments for numerous licensees, e.g., the Tennessee Valley Authority’s Browns Ferry Nuclear Plant, Units 1, 2, and 3, respectively, by a letter dated November 21, 2000.

3.0 EVALUATION

TSTF-222

The current TS wording requires each control rod to be scram time tested if any fuel movement occurs in the reactor pressure vessel. With only a limited number of control rods affected by minor fuel movements, unnecessary scram time testing will result. In order to correct this condition consistent with TSTF-222, Revision 1, CP&L proposes to move the first frequency of SR 3.1.4.1 to SR 3.1.4.4, and to modify the relocated SR frequency to state “affected core cell” in place of “reactor pressure vessel.” This revision serves to ensure that necessary testing of the control rods will be conducted and no unnecessary burden will be imposed on BSEP.

SR 3.1.4.1 currently requires a scram time test of each control rod at the following times:

1. “Prior to exceeding 40% RTP [rated thermal power] after fuel movement within the reactor pressure vessel and”
2. “Prior to exceeding 40% RTP after each reactor shutdown greater than or equal to 120 days.”

SR 3.1.4.1 is being revised to require a scram time test for control rods at only the following times:

“Prior to exceeding 40% RTP after each reactor shutdown greater than or equal to 120 days.”

This removes the requirement that is not consistent with the intent of testing only the control rods in cells in which fuel has been moved. The intended more specific requirement to test rods affected by fuel movement is added to SR 3.1.4.4.

SR 3.1.4.4 currently requires a scram time test of each control rod affected by a refueling outage or work activities for the following condition:

“Prior to exceeding 40% RTP after work on the control rod or CRD [Control Rod Drive] System that could affect scram time.”

SR 3.1.4.4 is being revised to require a scram test of each control rod affected by a refueling outage or work activities for the following conditions:

1. “Prior to exceeding 40% RTP after fuel movement within the affected core cell and”
2. “Prior to exceeding 40% RTP after work on the control rod or CRD System that could affect scram time.”

The TS requirements for testing of the control rods are now consistent between the SRs and the likelihood of misinterpretation is reduced. The staff has reviewed the licensee’s proposed amendments to incorporate TSTF-222, Revision 1, into the TS and finds them acceptable.

TSTF-364

The NRC’s final rule of October 4, 1999, which revised 10 CFR 50.59, affects the wording of the TS Bases Control Program. In the revision to 10 CFR 50.59, the NRC replaced the term “involves an unreviewed safety question” with “requires NRC approval” in the regulation. With this revision, 10 CFR 50.59 provides the means to determine whether NRC approval is needed before a change, test, or experiment may be implemented.

The amendments replace the term “involves an unreviewed safety question” with the term “requires NRC approval” while retaining the reference to 10 CFR 50.59 in the TS. The amended Bases Control Program TS would continue to incorporate the criteria of 10 CFR 50.59 by reference, and these criteria provide appropriate and adequate control of changes to the TS Bases.

Section 5.5, “Technical Specifications (TS) Bases Control Program,” of the current BSEP TS presently requires a program for processing changes to the Bases of the TS. This TS currently states the following:

"Licensees may make changes to Bases without prior NRC approval provided the changes do not involve either of the following:

1. a change in the TS incorporated in the license; or
2. a change to the Updated Final Safety Analysis Report (UFSAR) or Bases that involves an unreviewed safety question as defined in 10 CFR 50.59."

The Bases Control Program TS is revised to state the following:

"Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:

1. a change in the TS incorporated in the license; or
2. a change to the updated FSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59."

The proposed change to adopt TSTF-364, Revision 0, is an administrative change initiated in order to provide consistency between the TS requirements for the TS Bases Control Program and the regulatory requirements 10 CFR 50.59, as revised October 4, 1999. The staff has reviewed the licensee's proposed amendments to incorporate TSTF-364, Revision 0, into the TS and finds them 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 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 and change 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 59502). 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.

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Date: March 19, 2002

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