

May 31, 2005

Mr. C. J. Gannon
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 AMENDMENT ON TECHNICAL SPECIFICATION IMPROVEMENT TO REVISE CONTROL ROD SCRAM TIME TESTING FREQUENCY, CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS (TAC NOS. MC5865 AND MC5866)

Dear Mr. Gannon:

The Commission has issued the enclosed Amendment No. 236 to Facility Operating License No. DPR-71 and Amendment No. 264 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 January 27, 2005.

The amendments revise the Technical Specification (TS) testing frequency for the surveillance requirement (SR) in TS 3.1.4, "Control Rod Scram Times." The change revises the test frequency of SR 3.1.4.2, control rod scram time testing, from "120 days cumulative operation in MODE 1" to "200 days cumulative operation in MODE 1."

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, Senior 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. 236 to
License No. DPR-71
2. Amendment No. 264 to
License No. DPR-62
3. Safety Evaluation

cc w/enclosures:
See next page

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cc w/enclosures: See next page (Brunswick Service List)

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TS 2: ML051540314

NRR-058

OFFICE	CLII\PM	PM:PDII/S2	LA:PDII/S2	OGC	SC:PDII/S2
NAME	BVaidya	BMozafari	Dunnington	MYoung	MMarshall
DATE	3/11/05	3/11/05	3/9/05	5/9/05	5/31/05
COPY	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

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SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2 - ISSUANCE OF AMENDMENT ON TECHNICAL SPECIFICATION IMPROVEMENT TO REVISE CONTROL ROD SCRAM TIME TESTING FREQUENCY, CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS (TAC NOS. MC5865 AND MC5866)

Date: May 31, 2005

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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. 236

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 January 27, 2005, 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. _____, 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 its date of issuance and shall be implemented within 60 days from the date of issuance. The licensee shall incorporate the changes described in its application dated January 27, 2005, into the TS Bases Section during the next periodic update.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Michael L. Marshall, Jr., 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: May 31, 2005

ATTACHMENT TO LICENSE AMENDMENT NO. 236

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Remove Page

3.1-13

Insert Page

3.1-13

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 264

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 January 27, 2005, 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. , 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 its date of issuance and shall be implemented within 60 days from the date of issuance. The licensee shall incorporate the changes described in its application dated January 27, 2005, into the TS Bases Section during the next periodic update.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Michael L. Marshall, Jr., 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: May 31, 2005

ATTACHMENT TO LICENSE AMENDMENT NO. 264

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Remove Page

3.1-13

Insert Page

3.1-13

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 236 TO FACILITY OPERATING LICENSE NO. DPR-71
AND AMENDMENT NO. 264 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 application dated January 27, 2005, the Carolina Power & Light Company (the licensee) requested changes to the Technical Specifications (TS) for Brunswick Steam Electric Plant (BSEP), Units 1 and 2. The proposed changes would revise the TS testing frequency for the surveillance requirement (SR) in TS 3.1.4, "Control Rod Scram Times."

These changes are based on TS Task Force (TSTF) change traveler TSTF-460 (Revision 0) that has been approved generically for the boiling-water reactor (BWR) Standard TS, NUREG-1433 (BWR/4) and NUREG-1434 (BWR/6) by revising the frequency of SR 3.1.4.2, control rod scram time testing, from "120 days cumulative operation in MODE 1" to "200 days cumulative operation in MODE 1." A notice announcing the availability of this proposed TS change using the consolidated line item improvement process was published in the *Federal Register* on August 23, 2004 (69 FR 51864).

2.0 REGULATORY EVALUATION

The TS governing the control rod scram time surveillance is intended to assure proper function of control rod insertion. Following each refueling outage, all control rod scram times are verified. In addition, periodically during power operation, a representative sample of control rods is selected to be inserted to verify the insertion speed. A representative sample is defined as a sample containing at least 10 percent of the total number of control rods. The current TS stipulates that no more than 20 percent of the control rods in this representative sample can be "slow" during the post outage testing. With more than 20 percent of the sample declared to be "slow" per the criteria in Table 3.1.4-1, additional control rods are tested until this 20 percent criterion (e.g., 20 percent of the entire sample size) is satisfied, or until the total number of "slow" control rods (throughout the core, from all surveillances) exceeds the Limiting Condition for Operation limit. For planned testing, the control rods selected for the sample should be different for each test. The acceptance criterion for at-power surveillance testing has been redefined from 20 percent to 7.5 percent and will be incorporated into the TS Bases in accordance with the Bases Control Program. This tightened acceptance criterion for at-power surveillance aligns with the TS 3.1.4 requirement for the total control rods allowed to have scram times exceeding the specified limit.

The proposed change does not affect any current operability requirements and the test frequency being revised is not specified in regulations. As a result, no regulatory requirements or criteria are affected.

3.0 TECHNICAL EVALUATION

3.1 Statement of Proposed Changes

BSEP TS SR 3.1.4.2 states, "Verify, for a representative sample, each tested control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure \$ 800 psig." NUREG-1434, SR 3.1.4.2 states, "Verify, for a representative sample, each tested control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure \$950 psig." Both SRs have a frequency of "120 days cumulative operation in MODE 1." The proposed change revises the frequency to "200 days cumulative operation in MODE 1." The TS Bases will be revised to reference the new frequency and to reduce the percentage of the tested rods that can be "slow" from 20 percent to 7.5 percent.

3.2 Evaluation of Proposed Change

The control rod insertion time test results at BSEP have shown the control rod scram rates to be highly reliable. The licensee stated that for BSEP Unit 1, during the most recent 6-1/2 years of operation, out of 2083 control rod insertion tests, no "slow rods" were identified and, for BSEP Unit 2, during the most recent 6-1/2 years of operation, out of 1683 scram time tests, two "slow rods" were identified. The extensive historical database substantiates the claim of high reliability of the BSEP control rod drive systems. For BSEP Units 1 and 2, the current TS SR 3.1.4.2 requires that a representative sample of control rods be tested every 120 cumulative days of operation in MODE 1. Bases for SR 3.1.4.2 state that a representative sample contains at least 10 percent of the control rods. The current TS Bases also indicate that the acceptance criteria showing that the sample remains representative is met if 20 percent or fewer of the control rods in the sample tested are found to be slow per criterion in TS Table 3.1.4-1. The acceptance criterion has been re-defined for at-power surveillance testing from 20 percent to 7.5 percent when the surveillance period is extended to 200 cumulative days of operation in MODE 1. This tightened acceptance criterion for at-power surveillance aligns with the TS 3.1.4 requirement for the total control rods allowed to have scram times exceeding the specified limit. The licensee will incorporate the revised acceptance criterion value of 7.5 percent into the TS Bases in accordance with their Bases Control Program and as a condition of this license amendment.

The NRC staff considers the extended surveillance interval to be justified by the demonstrated reliability of the control rod insertion system, based on historical control rod scram time test data, and by the more restrictive acceptance criterion for the number of slow rods allowed during at-power surveillance testing. The NRC staff finds the proposed TS change acceptable.

4.0 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.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a Surveillance Requirement. 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 (70 FR 12745). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22©)(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.

6.0 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: Bhalchandra K. Vaidya

Date: May 31, 2005

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Units 1 and 2

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