CP&L
A Progress Energy Company

John S. Keenan
Vice President
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U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS – INCORPORATION OF GENERIC TECHNICAL SPECIFICATION CHANGES

Ladies and Gentlemen:

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, Carolina Power & Light (CP&L) Company is requesting revisions to the Technical Specifications for the Brunswick Steam Electric Plant (BSEP), Units 1 and 2. This license amendment application includes the NRC-approved 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."

TSTF-222, Revision 1, clarifies Technical Specification 3.1.4, "Control Rod Scram Times," to better delineate the requirements for testing control rod scram times following a refueling outage and for control rod scram time testing following work activities. TSTF-364, Revision 0, revises Technical Specification 5.5.10, "Technical Specification (TS) Bases Control Program," to reference 10 CFR 50.59 rather than "unreviewed safety question." Both TSTF items have been approved by the Boiling Water Reactor Owners' Group Technical Specification Issues Coordination Committee, which reviews and endorses proposed generic changes to the BWR/4 Standard Technical Specifications, NUREG-1433, "Standard Technical Specifications, General Electric Plants, BWR/4." Both TSTF items have been approved by the NRC and incorporated into NUREG-1433, Revision 2. As such, adoption of both TSTF items into the BSEP Unit 1 and 2 Technical Specifications is an administrative change. Similar administrative Technical Specification changes have been previously approved as License Amendments 239, 266, and 226 for the Tennessee Valley Authority's Browns Ferry Nuclear Plant, Units 1, 2, and 3, respectively, by letter dated November 21, 2000 (ADAMS Accession Number ML003773700).

CP&L requests approval of the requested Technical Specification revisions by April 1, 2002. In order to allow time for procedure revision and orderly incorporation into copies of

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A001

the Technical Specifications, CP&L requests that the NRC allow 60 days for implementation of the license amendment.

In accordance with 10 CFR 50.91(b), CP&L is providing a copy of this license amendment application to Mr. Mel Fry of the State of North Carolina.

Please refer any questions regarding this submittal to Mr. David C. DiCello, Manager - Regulatory Affairs, at (910) 457-2235.

Sincerely,

John S. Keenan

John S. Keenan

WRM/wrm

Enclosures:

1. Basis for Change Request
2. 10 CFR 50.92 Evaluation
3. Environmental Considerations
4. Page Change Instructions
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9. Revised Technical Specification Bases Pages - Unit 1

John S. Keenan, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, and agents of Carolina Power & Light Company.

Dean S. Mason

Notary (Seal)

My commission expires: Aug. 29, 2004

cc (with enclosures):

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ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS – INCORPORATION OF GENERIC TECHNICAL SPECIFICATION CHANGES

Basis For Change Request

Introduction

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, Carolina Power & Light (CP&L) Company is requesting revisions to the Technical Specifications for the Brunswick Steam Electric Plant (BSEP), Units 1 and 2. This license amendment application includes the NRC-approved 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 Change to 10 CFR 50.59." TSTF-222, Revision 1, clarifies Technical Specification 3.1.4, "Control Rod Scram Times," to better delineate the requirements for testing control rod scram times following a refueling outage and for control rod scram time testing following work activities. TSTF-364, Revision 0, revises Technical Specification 5.5.10, "Technical Specifications (TS) Bases Control Program," to reference 10 CFR 50.59 rather than "unreviewed safety question."

Background

As part of a continuing effort to maintain and improve use of the Improved Technical Specifications (ITS), generic changes to the Technical Specifications are initiated by the reactor owners. The proposed changes to the Boiling Water Reactor Standard Technical Specifications are submitted to the Boiling Water Reactor Owners' Group (BWROG) Technical Specifications Issues Coordination Committee (TSICC), which reviews and endorses proposed generic changes to the Standard Technical Specifications (STS), NUREG-1433, Revision 1, for BWR/4s and NUREG-1434, STS for BWR/6s. Following approval by the owners' group Technical Specification committees, the proposed changes to the STS are issued as TSTF items and are submitted to the NRC for comment, review, and approval. Following approval by the NRC, individual licensees have the option to incorporate these generic changes into their Technical Specifications.

Basis For Proposed Change Incorporating TSTF-222

TSTF-222, Revision 1, clarifies the Surveillance Requirements (SRs) associated with Technical Specification 3.1.4, "Control Rod Scram Times," to better delineate the requirements for testing control rod scram times following a refueling outage and for control rod scram time testing following work activities. TSTF-222, Revision 1, was approved by the NRC in a letter to

Mr. James Davis of the Nuclear Energy Institute (NEI) dated May 12, 1999. TSTF-222, Revision 1, is being adopted with no variances to implement the necessary revisions to the BSEP, Unit 1 and 2 Technical Specifications.

Surveillance Requirement 3.1.4.1 currently states:

	SURVEILLANCE	FREQUENCY
SR 3.1.4.1	Verify each control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	Prior to exceeding 40% RTP after fuel movement within the reactor pressure vessel AND Prior to exceeding 40% RTP after each reactor shutdown ≥ 120 days

Surveillance Requirement 3.1.4.4 currently states:

	SURVEILLANCE	FREQUENCY
SR 3.1.4.4	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	Prior to exceeding 40% RTP after work on control rod or CRD System that could affect scram time

Surveillance Requirement 3.1.4.1 is being revised as follows:

	SURVEILLANCE	FREQUENCY
SR 3.1.4.1	Verify each control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	Prior to exceeding 40% RTP after each reactor shutdown ≥ 120 days

Surveillance Requirement 3.1.4.4 is being revised as follows:

	SURVEILLANCE	FREQUENCY
SR 3.1.4.4	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure $\geq$ 800 psig.	Prior to exceeding 40% RTP after fuel movement within the affected core cell <u>AND</u> Prior to exceeding 40% RTP after work on control rod or CRD System that could affect scram time

The current wording of Surveillance Requirement 3.1.4.1 requires each control rod to be tested if any fuel movement occurs in the reactor pressure vessel. This could be interpreted to mean that even if only one fuel bundle is moved, such as removing a leaking fuel bundle during a mid-cycle outage, then all control rods would be required to be scram time tested. The current Technical Specification Bases words do not preclude misinterpretation of this requirement. In addition, there are other Surveillance Requirements (i.e., Surveillance Requirement 3.1.4.3 and 3.1.4.4) that require only the affected control rods to be tested, which adds further confusion. Therefore, consistent with TSTF-222, Revision 1, CP&L proposes to move the first Frequency of Surveillance Requirement 3.1.4.1 to Surveillance Requirement 3.1.4.4, and to modify the relocated Surveillance Requirement to read "affected core cell" in lieu of "reactor pressure vessel." The Bases of Surveillance Requirement 3.1.4.4 will state that it is expected that during a routine refueling outage, all control rods will be affected. This will serve to ensure required Technical Specification testing is clearly delineated. The Technical Specification requirement for testing control rods remains unchanged. Therefore, this change is considered administrative and simply serves to ensure the existing Technical Specifications are not misinterpreted. Previously, TSTF-222, Revision 1 has been approved as License Amendments 239, 266, and 226 for the Tennessee Valley Authority's Browns Ferry Nuclear Plant, Units 1, 2, and 3, respectively, by letter dated November 21, 2000 (ADAMS Accession Number ML003773700).

Marked-up BSEP, Unit 1 Bases pages associated with the proposed changes to Technical Specification 3.1.4 are included in Enclosure 9. These Bases pages are provided for information only and do not require issuance by the NRC.

<u>Basis For Proposed Change Incorporating TSTF-364</u>

TSTF-364, Revision 0, revises Technical Specification 5.5.10, "Technical Specification (TS) Bases Control Program," to provide consistency with the changes to 10 CFR 50.59 as published in the *Federal Register* on October 4, 1999. TSTF-364, Revision 0, was approved by the NRC in a letter to Mr. James W. Davis of NEI dated June 16, 2000. The BSEP, Unit 1 and 2 Technical Specifications are being revised in accordance with TSTF-364, Revision 0, as amended by the Westinghouse Owners Group (WOG) editorial change WOG-ED-24. The WOG editorial change substitutes the word "require" for "involve" in Technical Specification 5.5.10.b to maintain consistency in word usage in the revised regulation.

Surveillance Requirement 5.5.10 currently states:

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

    1. A change to the TS incorporated in the license; or

    2. A change to the UFSAR or Bases that involves an unreviewed safety question as defined in 10 CFR 50.59.

Technical Specification 5.5.10 is being revised as follows:

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

    1. A change to 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 Bases Control Program required by Technical Specification 5.5.10 allows CP&L to make changes to the Technical Specification Bases without NRC approval provided the changes do not involve either a change in the Technical Specifications incorporated in the license or a change to the Updated Final Safety Analysis Report or Technical Specification Bases that involves an unreviewed safety question as defined in 10 CFR 50.59. 10 CFR 50.59 is the regulation controlling changes, tests and experiments performed by nuclear plant licensees.

On October 4, 1999, the NRC published, in the *Federal Register*, revisions to 10 CFR 50.59. The regulation changes were prompted by the need to resolve differences in interpretation of the regulation's requirements by the industry and the NRC. With the revisions to 10 CFR 50.59, the term "unreviewed safety question" was replaced with "requires NRC approval pursuant to 10 CFR 50.59."

<u>Precedents</u>

A license amendment has been approved for the Tennessee Valley Authority's Browns Ferry Nuclear Plant, Units 1, 2, and 3 by letter dated November 21, 2000 (ADAMS Accession Number ML003773700) which issues revisions incorporating both TSTF-222, Revision 1, and TSTF-364, Revision 0.

License amendments approving incorporation of TSTF-364, Revision 0, have been issued for Rochester Gas and Electric Corporation's R. E. Ginna Nuclear Power Plant (ADAMS Accession Number ML010990370), Tennessee Valley Authority's Watts Bar Nuclear Plant (ADAMS Accession Number ML011630323), and Nuclear Management Company's Duane Arnold Energy Center (ADAMS Accession Number ML012330518).

ENCLOSURE 2

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS – INCORPORATION OF GENERIC TECHNICAL SPECIFICATION CHANGES

10 CFR 50.92 Evaluation

Carolina Power & Light (CP&L) Company is requesting revisions to the Technical Specifications for the Brunswick Steam Electric Plant (BSEP), Units 1 and 2. This license amendment application incorporates the NRC-approved 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."

TSTF-222, Revision 1, clarifies Technical Specification 3.1.4, "Control Rod Scram Times," to better delineate the requirements for testing control rod scram times following a refueling outage and for control rod scram time testing following work activities. TSTF-364, Revision 0, revises Technical Specification 5.5.10, "Technical Specification (TS) Bases Control Program," to reference 10 CFR 50.59 rather than "unreviewed safety question." Both TSTF items have been approved by the Boiling Water Reactor Owners' Group Technical Specification Issues Coordination Committee, which reviews and endorses proposed generic changes to the BWR/4 Standard Technical Specifications, NUREG-1433, "Standard Technical Specifications, General Electric Plants, BWR/4." Both TSTF items have also been approved by the NRC and incorporated into NUREG-1433, Revision 2. CP&L has concluded that the proposed changes do not involve a Significant Hazards Consideration. In support of this determination, an evaluation of each of the three (3) standards set forth in 10 CFR 50.92 is provided below.

1. The proposed license amendments do not involve a significant increase in the probability or consequences of an accident previously evaluated.

   The proposed change to adopt TSTF-222, Revision 1, is an administrative clarification of existing Technical Specification requirements regarding scram time testing requirements for control rods. The current wording of Surveillance Requirement 3.1.4.1 requires each control rod to be tested if any fuel movement occurs in the reactor pressure vessel. Surveillance Requirements 3.1.4.3 and 3.1.4.4 require only the affected control rods to be tested. The NRC-approved TSTF-222, Revision 1, clarifies that post-refueling scram time testing of control rods only applies to control rods affected by work activities. The requirement to test all control rods following routine refueling outages remains unchanged. As such, there is no effect on initiators of analyzed events or assumed mitigation of accidents or transients. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change to adopt TSTF-364, Revision 0, is an administrative change to provide consistency between the Technical Specification requirements for the Technical Specification Bases Control Program and the regulatory requirements of Title 10, Section 50.59 of the Code of Federal Regulations, as revised by the NRC on October 4, 1999. The change will have no affect on the initiators of analyzed events or assumed mitigation of accidents or transients. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed license amendments will not create the possibility of a new or different kind of accident from any accident previously evaluated.

   The proposed changes to adopt TSTF-222, Revision 1 and TSTF-364, Revision 0, do not involve a physical alteration of the plant, add any new equipment, or require any existing equipment to be operated in a manner different from the present design. Therefore, the proposed changes do not create a new or different kind of accident from any accident previously evaluated.

3. The proposed license amendments do not involve a significant reduction in a margin of safety.

   The proposed change to adopt TSTF-222, Revision 1, will not reduce a margin of safety because it has no effect on any safety analysis assumptions. The proposed license amendment implements an administrative clarification to better delineate the requirements for scram time testing control rods following refueling outages and for control rods requiring testing due to work activities. The requirement to test all control rods following a routine refueling outage remains unchanged. As such, the proposed change does not involve a significant reduction in the margin of safety.

   The proposed change to adopt TSTF-364, Revision 0, is an administrative change to provide consistency between the Technical Specification requirements for the Technical Specification Bases Control Program and the regulatory requirements of Title 10, Section 50.59 of the Code of Federal Regulations, as revised by the NRC on October 4, 1999. The change will not reduce the margin of safety because the change has no effect on any safety analyses assumptions. Therefore, the proposed change does not involve a significant reduction in the margin of safety.

ENCLOSURE 3

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS – INCORPORATION OF GENERIC TECHNICAL SPECIFICATION CHANGES

Environmental Considerations

Carolina Power & Light (CP&L) Company is requesting a license amendment for the Brunswick Steam Electric Plant (BSEP), Units 1 and 2. This license amendment application includes the NRC-approved 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." TSTF-222, Revision 1, clarifies Technical Specification 3.1.4, "Control Rod Scram Times," to better delineate the requirements for testing control rod scram times following a refueling outage and for control rod scram time testing following work activities. TSTF-364, Revision 0, revises Technical Specification 5.5.10, "Technical Specification (TS) Bases Control Program," to reference 10 CFR 50.59 rather than "unreviewed safety question." CP&L has concluded that the proposed changes to the BSEP, Unit 1 and 2 Technical Specifications are eligible for categorical exclusion from performing an environmental assessment. In support of this determination, an evaluation of each of the three (3) criteria set forth in 10 CFR 51.22(c)(9) is provided below.

1. The proposed license amendments do not involve a significant hazards consideration, as shown in Enclosure 2.

2. The proposed license amendments do not result in a significant change in the types or a significant increase in the amounts of any effluent that may be released offsite. The proposed license amendments do not introduce any new equipment nor require the control rod drive system or current mitigating systems to perform a different type of function than they are presently designed to perform. The proposed license amendments do not alter the function of the equipment relied upon for the mitigation of any previously evaluated accident and thus, the consequences of previously evaluated accidents do not increase. Therefore, CP&L has concluded that there will not be a significant increase in the types or amounts of any effluent that may be released offsite and, as such, the proposed changes do not involve irreversible environmental consequences beyond those already associated with normal operation.

3. The proposed license amendments do not result in an increase in individual or cumulative occupational radiation exposure. The proposed change is being requested to clarify Technical Specification requirements for control rod scram time testing and revise the Technical Specification Bases Control Program consistent with NRC issued changes to

10 CFR 50.59. Therefore, the proposed license amendments will not result in an increase in individual or cumulative occupational radiation exposure.

ENCLOSURE 4

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS – INCORPORATION OF GENERIC TECHNICAL SPECIFICATION CHANGES

Page Change Instructions

UNIT 1	
Removed page	Inserted page
3.1-12	3.1-12
3.1-13	3.1-13
5.0-14	5.0-14

UNIT 2	
Removed page	Inserted page
3.1-12	3.1-12
3.1-13	3.1-13
5.0-14	5.0-14

ENCLOSURE 5

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS – INCORPORATION OF GENERIC TECHNICAL SPECIFICATION CHANGES

Typed Technical Specification Pages - Unit 1

3.1 REACTIVITY CONTROL SYSTEMS

3.1.4 Control Rod Scram Times

LCO 3.1.4

a. No more than 10 OPERABLE control rods shall be "slow," in accordance with Table 3.1.4-1; and

b. No more than 2 OPERABLE control rods that are "slow" shall occupy adjacent locations.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Requirements of the LCO not met.	A.1 Be in MODE 3.	12 hours

SURVEILLANCE REQUIREMENTS

------------------------------------NOTE------------------------------------
During single control rod scram time Surveillances, the control rod drive (CRD) pumps shall be isolated from the associated scram accumulator.

SURVEILLANCE	FREQUENCY
SR 3.1.4.1 Verify each control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	Prior to exceeding 40% RTP after each reactor shutdown ≥ 120 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.1.4.2	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.	120 days cumulative operation in MODE 1
SR 3.1.4.3	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with any reactor steam dome pressure.	Prior to declaring control rod OPERABLE after work on control rod or CRD System that could affect scram time
SR 3.1.4.4	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	Prior to exceeding 40% RTP after fuel movement within the affected core cell <u>AND</u> Prior to exceeding 40% RTP after work on control rod or CRD System that could affect scram time

5.5 Programs and Manuals

5.5.10 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.

b. 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.

c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the UFSAR.

d. Proposed changes that meet the criteria of Specification 5.5.10.b.1 or 5.5.10.b.2 above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

5.5.11 Safety Function Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate limitations and remedial or compensatory actions may be identified to be taken as a result of the support system inoperability and corresponding exception to entering supported system Condition and Required Actions. This program implements the requirements of LCO 3.0.6.

a. The SFDP shall contain the following:

1. Provisions for cross division checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected;

(continued)

ENCLOSURE 6

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
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REQUEST FOR LICENSE AMENDMENTS – INCORPORATION OF GENERIC TECHNICAL SPECIFICATION CHANGES

Typed Technical Specification Pages - Unit 2

3.1 REACTIVITY CONTROL SYSTEMS

3.1.4 Control Rod Scram Times

LCO 3.1.4

a. No more than 10 OPERABLE control rods shall be "slow," in accordance with Table 3.1.4-1; and

b. No more than 2 OPERABLE control rods that are "slow" shall occupy adjacent locations.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Requirements of the LCO not met.	A.1 Be in MODE 3.	12 hours

SURVEILLANCE REQUIREMENTS

-----------------------------------NOTE-----------------------------------
During single control rod scram time Surveillances, the control rod drive (CRD) pumps shall be isolated from the associated scram accumulator.

SURVEILLANCE		FREQUENCY
SR 3.1.4.1	Verify each control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure $\geq$ 800 psig.	Prior to exceeding 40% RTP after each reactor shutdown $\geq$ 120 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.1.4.2	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.	120 days cumulative operation in MODE 1
SR 3.1.4.3	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with any reactor steam dome pressure.	Prior to declaring control rod OPERABLE after work on control rod or CRD System that could affect scram time
SR 3.1.4.4	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	Prior to exceeding 40% RTP after fuel movement within the affected core cell <u>AND</u> Prior to exceeding 40% RTP after work on control rod or CRD System that could affect scram time

5.5 Programs and Manuals

5.5.10 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.

b. 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.

c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the UFSAR.

d. Proposed changes that meet the criteria of Specification 5.5.10.b.1 or 5.5.10.b.2 above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

5.5.11 Safety Function Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate limitations and remedial or compensatory actions may be identified to be taken as a result of the support system inoperability and corresponding exception to entering supported system Condition and Required Actions. This program implements the requirements of LCO 3.0.6.

a. The SFDP shall contain the following:

   1. Provisions for cross division checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected;

(continued)

ENCLOSURE 7

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
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REQUEST FOR LICENSE AMENDMENTS – INCORPORATION OF GENERIC TECHNICAL SPECIFICATION CHANGES

Marked-Up Technical Specification Pages - Unit 1

3.1 REACTIVITY CONTROL SYSTEMS

3.1.4 Control Rod Scram Times

LCO 3.1.4

a. No more than 10 OPERABLE control rods shall be "slow," in accordance with Table 3.1.4-1; and

b. No more than 2 OPERABLE control rods that are "slow" shall occupy adjacent locations.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Requirements of the LCO not met.	A.1 Be in MODE 3.	12 hours

SURVEILLANCE REQUIREMENTS

-----------------------------------NOTE-----------------------------------
During single control rod scram time Surveillances, the control rod drive (CRD) pumps shall be isolated from the associated scram accumulator.

SURVEILLANCE	FREQUENCY
SR 3.1.4.1 Verify each control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	~~Prior to exceeding 40% RTP after fuel movement within the reactor pressure vessel~~ ~~AND~~ (continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.4.1	(continued)	Prior to exceeding 40% RTP after each reactor shutdown ≥ 120 days
SR 3.1.4.2	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.	120 days cumulative operation in MODE 1
SR 3.1.4.3	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with any reactor steam dome pressure.	Prior to declaring control rod OPERABLE after work on control rod or CRD System that could affect scram time
SR 3.1.4.4	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	Prior to exceeding 40% RTP after work on control rod or CRD System that could affect scram time

Prior to exceeding 40% RTP after fuel movement within the affected core cell

AND

5.5 Programs and Manuals

5.5.10 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.

require

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

updated FSAR

1. A change in the TS incorporated in the license; or

2. A change to the ~~UFSAR~~ or Bases ~~that involves an unreviewed safety question as defined in 10 CFR 50.59~~.

that requires NRC approval pursuant to 10 CFR 50.59.

c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the UFSAR.

d. Proposed changes that meet the criteria of Specification 5.5.10.b.1 or 5.5.10.b.2 above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

5.5.11 Safety Function Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate limitations and remedial or compensatory actions may be identified to be taken as a result of the support system inoperability and corresponding exception to entering supported system Condition and Required Actions. This program implements the requirements of LCO 3.0.6.

a. The SFDP shall contain the following:

1. Provisions for cross division checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected;

(continued)

ENCLOSURE 8

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS – INCORPORATION OF GENERIC
TECHNICAL SPECIFICATION CHANGES

Marked-Up Technical Specification Pages - Unit 2

3.1 REACTIVITY CONTROL SYSTEMS

3.1.4 Control Rod Scram Times

LCO 3.1.4

a. No more than 10 OPERABLE control rods shall be "slow," in accordance with Table 3.1.4-1; and

b. No more than 2 OPERABLE control rods that are "slow" shall occupy adjacent locations.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Requirements of the LCO not met.	A.1 Be in MODE 3.	12 hours

SURVEILLANCE REQUIREMENTS

-----NOTE-----
During single control rod scram time Surveillances, the control rod drive (CRD) pumps shall be isolated from the associated scram accumulator.

SURVEILLANCE	FREQUENCY
SR 3.1.4.1 Verify each control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	~~Prior to exceeding 40% RTP after fuel movement within the reactor pressure vessel~~ ~~AND~~ (continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.4.1	(continued)	Prior to exceeding 40% RTP after each reactor shutdown ≥ 120 days
SR 3.1.4.2	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.	120 days cumulative operation in MODE 1
SR 3.1.4.3	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with any reactor steam dome pressure.	Prior to declaring control rod OPERABLE after work on control rod or CRD System that could affect scram time
SR 3.1.4.4	Verify each affected control rod scram time is within the limits of Table 3.1.4-1 with reactor steam dome pressure ≥ 800 psig.	Prior to exceeding 40% RTP after work on control rod or CRD System that could affect scram time

Prior to exceeding 40% RTP after fuel movement within the affected core cell

<u>AND</u>

5.5 Programs and Manuals

5.5.10 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.

require

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

updated FSAR

1. A change in the TS incorporated in the license; or

2. A change to the ~~UFSAR~~ or Bases ~~that involves an unreviewed safety question as defined in 10 CFR 50.59.~~

that requires NRC approval pursuant to 10 CFR 50.59.

c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the UFSAR.

d. Proposed changes that meet the criteria of Specification 5.5.10.b.1 or 5.5.10.b.2 above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

5.5.11 Safety Function Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate limitations and remedial or compensatory actions may be identified to be taken as a result of the support system inoperability and corresponding exception to entering supported system Condition and Required Actions. This program implements the requirements of LCO 3.0.6.

a. The SFDP shall contain the following:

1. Provisions for cross division checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected;

(continued)

ENCLOSURE 9

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
REQUEST FOR LICENSE AMENDMENTS – INCORPORATION OF GENERIC
TECHNICAL SPECIFICATION CHANGES

Revised Technical Specification Bases Pages - Unit 1

BASES (continued)

SURVEILLANCE REQUIREMENTS

The four SRs of this LCO are modified by a Note stating that during a single control rod scram time surveillance, the CRD pumps shall be isolated from the associated scram accumulator. With the CRD pump isolated, (i.e., charging valve closed) the influence of the CRD pump head does not affect the single control rod scram times. During a full core scram, the CRD pump head would be seen by all control rods and would have a negligible effect on the scram insertion times.

SR 3.1.4.1

The scram reactivity used in DBA and transient analyses is based on an assumed control rod scram time. Measurement of the scram times with reactor steam dome pressure ≥ 800 psig demonstrates acceptable scram times for the transients analyzed in Reference 4.

Maximum scram insertion times occur at a reactor steam dome pressure of approximately 800 psig because of the competing effects of reactor steam dome pressure and stored accumulator energy. Therefore, demonstration of adequate scram times at reactor steam dome pressure ≥ 800 psig ensures that the measured scram times will be within the specified limits at higher pressures. This test is performed for each control rod from its fully withdrawn position. Limits are specified as a function of reactor pressure to account for the sensitivity of the scram insertion times with pressure and to allow a range of pressures over which scram time testing can be performed. To ensure that scram time testing is performed within a reasonable time following ~~fuel movement within the reactor pressure vessel or following~~ a shutdown ≥ 120 days, all control rods are required to be tested before exceeding 40% RTP following the shutdown. The specified Frequencies are acceptable considering the additional surveillances performed for control rod OPERABILITY, the frequent verification of adequate accumulator pressure, and the required testing of control rods affected by work on control rods or the CRD System.

(continued)

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fuel movement within the associated core cell and by

BASES

SURVEILLANCE REQUIREMENTS

SR 3.1.4.3 (continued)

scram time sequence is verified. The limits for reactor pressures < 800 psig are established based on a high probability of meeting the acceptance criteria at reactor pressures ≥ 800 psig. Limits for ≥ 800 psig are found in Table 3.1.4-1 and do not apply for testing performed at < 800 psig. If testing demonstrates the affected control rod does not meet these limits, but is within the 7-second limit of Note 2 to Table 3.1.4-1, the control rod can be considered OPERABLE and "slow."

Specific examples of work that could affect the scram times are (but are not limited to) the following: removal of any CRD for maintenance or modification; replacement of a control rod; and maintenance or modification of a scram solenoid pilot valve, scram valve, accumulator, isolation valve or check valve in the piping required for scram.

The Frequency of once prior to declaring the affected control rod OPERABLE is acceptable because of the capability to test the control rod over a range of operating conditions and the more frequent surveillances on other aspects of control rod OPERABILITY.

SR 3.1.4.4

When work that could affect the scram insertion time is performed on a control rod or CRD System, or when fuel movement within the reactor pressure vessel occurs, testing must be performed to demonstrate each affected control rod is still within the scram time limits of Table 3.1.4-1 with the reactor steam dome pressure ≥ 800 psig. Where work has been performed at high reactor pressure, the requirements of SR 3.1.4.3 and SR 3.1.4.4 can be satisfied with one test. For a control rod affected by work performed while shut down, however, a zero pressure and high pressure test may be required. This testing ensures that, prior to withdrawing the control rod for continued operation, the control rod scram performance is acceptable for operating reactor pressure conditions. This test is performed for each affected control rod from its fully withdrawn position. Alternatively, a control rod scram test during hydrostatic pressure testing could also satisfy both criteria. When fuel movement within the reactor pressure vessel occurs, only those control rods associated with the control cells affected by the fuel movement are required to be scram time tested. During a routine refueling outage, it is expected that all control rods will be affected.

(continued)